

PART III: EXHIBITS

State Timber Sale Contract
No. 341-16-25
Lake Ridge Combo

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.: 341-16-25

(2) Sale Name: Lake Ridge Combo

(3) Contract Expiration Date: September 30, 2017 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.

Explanation of 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.



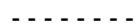
Cable Landing, with numbers for sequence.



Tractor Landing with alphabetical sequence.



Approximate setting boundary.



Spur truck roads.



Tractor yarding roads.



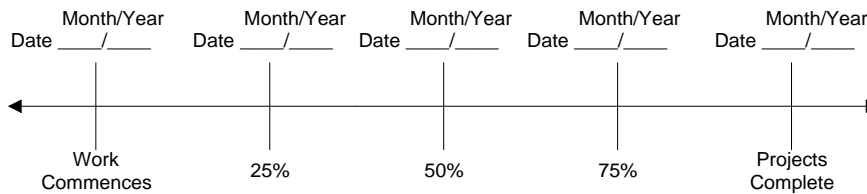
Temporary stream crossings.

EXHIBIT B
OPERATIONS PLAN

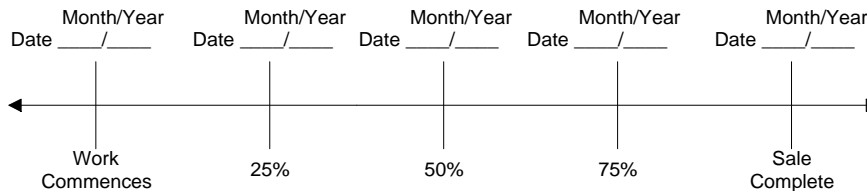
Completion Timeline

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: _____

STATE OF OREGON - DEPARTMENT OF FORESTRY

PURCHASER

Title

Title

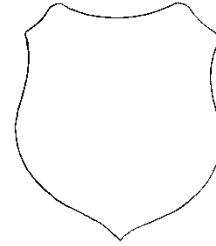
Original: Salem
cc: District File
Purchaser

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 24533 Alsea Highway, Philomath, OR 97370-9112
- (4) PURCHASER: _____
 Mailing Address: _____
 Phone Number: _____

- (9) SALE NAME: Lake Ridge Combo
COUNTY: Lincoln
- (10) STATE CONTRACT NUMBER: 341-16-25
- (11) STATE BRAND REGISTRATION NUMBER:

- (12) STATE BRAND INFORMATION (COMPLETE):



- (13) PAINT REQUIRED: YES ☒
COLOR: Orange

(5) MINIMUM SCALING SPECIFICATIONS	
SPECIES	MINIMUM NET VOLUME
Conifers	By weight – 8 tons/mbf
Hardwoods	By weight – 8 tons/mbf
Pulp	By weight – 8 tons/mbf

Apply minimum volume test to whole logs over 40' Westside

- | | | | |
|-----|---|--------------------------|-------------------------------------|
| | | YES | NO |
| (6) | WESTSIDE SCALE:
Use Region 6 actual taper rule. Logs over 40". | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (7) | Weight Scale Sample | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

(14) SPECIAL REQUESTS (Check applicable)	
PEELABLE CULL (all species)	<input type="checkbox"/>
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE	<input checked="" type="checkbox"/>
ADD-BACK VOLUME - Deductions due to delay	<input checked="" type="checkbox"/>
OTHER:	

[illegible]

- (15) **REMARKS** Loads shall be weight scaled in lieu of scaling. Tons shall be short tons or 2,000 lbs. Loads shall have a pink Scaler receipt and Load Receipt attached. Weigher shall attach a machine-printed weight ticket, with the ODF weight load number on it, to the ODF Scale Receipt and mail them weekly to the approved Third-Party Scaling Organization for processing. TPSO shall convert loads in tons to loads in MBF using a conversion factor of 8 tons per MBF and designate as camp run. "Mule Train" loads require a load ticket for each set of bunks.

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

- (16) SIGNATURES:

Purchaser or Authorized Representative	Date
--	------

State Forester Representative _____ Date _____

State Forester Representative PRINT NAME

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 (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – SAWMILL AND PULP GRADE
INSTRUCTIONS FOR FORM 343-307a (rev. 11/11)

- (1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers, date and sign where indicated, write diagonally across page "CANCEL", and send to TPSO.
- (2) Designate Third Party Scaling Organization (TPSO).

Columbia River Log Scaling & Grading Bureau
P.O. Box 7002, Eugene, OR 97401
Phone: (541) 342-6007 Fax: (541) 342-2631
Email: services@crls.com

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Mountain Western Log Scaling & Grading Bureau
P.O. Box 580, Roseburg, OR 97470
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@mwlsgb.com

Yamhill Log Scaling & Grading Bureau
P.O. Box 709, Forest Grove, OR 97116
Phone: (503) 359-4474 Fax: (503) 359-4476
Email: yamhill@attglobal.net

Northwest Log Scalars, Inc.
5526 NE 122nd Ave, Portland, OR 97230
Phone: (503) 254-0600 Fax: (503) 408-0919
Email: info@nwlogscalars.com

Pacific Log Scaling & Grading Bureau, Inc.
P.O. Box 23939, Portland, OR 97281
Phone: (503) 684-5599 Fax: (503) 639-4880
Email: PacLogScale@aol.com

- (3) State District office, address and phone.
- (4) Enter Purchaser's business name, address, and phone number as it appears on the Contract.
- (5) Minimum Scaling Specifications.
- (6) Westside – Region 6 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) Weight Scale Sample – Check box if sale is to be a Weight Scale Sample. All specifics for handling, scaling and processing will be attached or explained in the Remarks section Item (15).
- (8) Show scaling locations only applicable to TPSO. Location name should appear as it does on the ODF Approved Scaling Location web site: http://www.odf.state.or.us/DIVISIONS/management/asset_management/ScalingLocation.asp Locations with scaling and processing directions specific to their location should be on a separate form. Species should be identified if not capable of receiving "all" species. Check appropriate box for either: yard, truck scale, or weight. Refer to the web site listed above for the locations approval status.
- (9) Enter sale name and county.
- (10) Enter sale Contract number.
- (11) Enter Oregon's State Brand Registry Number **(REQUIRED)**.
- (12) Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (15).
- (13) Check yes for Paint Required and designate "Orange" for color. Non required removal volumes may sometimes require blue paint.
- (14) Special Requests. These are requests that will be applied to ODF timber sales. All boxes applicable to the timber sales designated in the Exhibit C form must be "marked". If "Other" is indicated, it must contain a description and any necessary comments.
- (15) Use this space to designate any weight conversion factors, per load volumes, weight scale sample instructions or any other explanations to clarify scaling, processing and/or mailing requirements. If additional scaling locations are approved, revise original or current form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.
- (16) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form.

Salem Distribution Instructions: Original will be mailed to Salem after it is electronically scanned and placed in the Salem transfer drive <\\WPODFFILL01\Transfer\ScalingInstructions> or e-mailed directly to scaling@oregon.gov. Scaling instructions for each brand should be scanned separately, for each approved TPSO.

Distribution (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

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 311+40	Ditch
14 feet	----	A2 to A3	0+00 to 1+40	No Ditch
14 feet	12 feet	B to B1	0+00 to 21+00	No Ditch
14 feet	----	B1 to B2	0+00 to 4+10	No Ditch
14 feet	12 feet	B3 to B4	0+00 to 7+60	No Ditch
14 feet	----	B5 to B6	0+00 to 18+10	No Ditch
14 feet	12 feet	C to C1	0+00 to 1+90	No Ditch
14 feet	12 feet	C2 to C3	0+00 to 1+10	No Ditch
14 feet	12 feet	C4 to C5	0+00 to 23+30	No Ditch
14 feet	12 feet	C6 to C7	0+00 to 1+80	No Ditch
14 feet	12 feet	C8 to C9	0+00 to 1+70	No Ditch
14 feet	12 feet	C10 to C11	0+00 to 1+20	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.

Where clearing limits have not been marked, the clearing limits shall extend 5 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 CLASSIFICATION.

New construction – 5 feet back from the top of the cutslope and 5 feet out from 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.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

CLEARING AND GRUBBING DISPOSAL. Scatter in stable locations through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required. In areas where end-haul is required, clearing and grubbing debris shall be fully contained and hauled to a designated waste area. Clearing and grubbing debris shall be left in a stable location, and not left lodged against standing trees.

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-specified lines, grades, dimensions, and plans when provided.

Unless road 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.

Suitable excavated material shall be used 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.

Sidecast includes any road generated excess excavation material which is not essential as part of the road prism, is not compacted, and is below the roadway. Sidecast shall not be placed where it will enter a stream course. Leaving sidecast below the road is only permissible if specifically allowed in "Full Bench and End Haul Requirements" in this Exhibit.

All fills shall be machine compacted according to the "Compaction and Processing Requirements" in this Exhibit.

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 specified in the plans or as follows: 400 divided by the radius of the curve equals the amount of extra width.

DRAINAGE

Subgrade. Subgrade shall be crowned at 4 to 6 percent or outsloped at 3 to 4 percent as shown on the "Forest Road Specifications" table in this Exhibit.

Ditch. Construct "V" shaped ditch 3 feet wide and to a depth of 1 foot below subgrade.

Ditchouts. Construct ditchouts to drain away from subgrade at locations marked in the field or as directed by STATE.

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

Location: Intervisible but not greater than 750 feet apart or as marked in the field.

SLOPES

Solid Rock

Fractured Rock

Soil - side slopes 50% and over

Soil - side slopes less than 50%

Back Slopes

Vertical to $\frac{1}{4}$:1

$\frac{1}{2}$:1

$\frac{3}{4}$:1

1 :1

Fill Slopes

1½:1

1½:1

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed as posted in the field, no less than 50 feet wide and no more than 70 feet wide unless otherwise approved by STATE. Surface is to be outsloped or crowned for drainage with general grade no more than 3 percent. Surface as shown in the "Road Surfacing" table in this Exhibit.

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

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SEASONAL WINTERIZATION. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit D, and blocked from vehicular traffic prior to October 1, annually and as directed by STATE.

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

Project No. 1

- (1) Timber Removal. Remove all trees within posted right-of-way boundary as specified in Section 2210, "Designated Timber."
- (2) Excavated Materials. Excavated materials shall be utilized for road construction and hauled in where necessary. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Surplus excavated materials and waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with this Exhibit.
- (3) Subgrade Preparation and Application of Surfacing Rock.
 - (a) Complete culvert installations, drainage ditches, ditchouts, fill construction, and other specified work prior to the application of surfacing rock.
 - (b) Subgrade shall be crowned at 4 to 6 percent or outsloped at 3 to 4 percent.
 - (c) Upon completion of above required work, apply, process, and compact surfacing rock in accordance with specifications in the "Compaction and Processing Requirements" in this Exhibit. Final road surface shall be crowned at 4 to 6 percent or outsloped at 3 to 4 percent as per Forest Road Specification Table.

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

Project No. 1

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
B1 to B2	0+00 to 3+60	Construct new outsloped unsurfaced road with dozer. Right-of-way is posted.
	3+60 to 4+10	Construct Landing at Point B2.
	0+00 to 4+10	Shape subgrade with road grader.
C to C1	This road segment is within a seasonally restricted buffer, work shall not be allowed from October 1 through August 5 or from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.	
	0+00 to 1+40	Construct new outsloped surfaced road with dozer. Right-of-way is posted.
	1+40 to 1+90	Construct Landing at Point C1.
	0+00 to 1+90	Shape subgrade with road grader.
	0+00 to 1+90	Compact subgrade with vibratory roller.
	0+00 to 1+40	Apply and process an 8" lift of 3-0" crushed rock.
	1+40 to 1+90	Apply jaw-run rock to Landing at Point C1.
	0+00	Apply 1 ½-0" junction patch rock at Point C after road construction and rocking are complete.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
C2 to C3	0+00 to 0+60	Construct new outsloped surfaced road with dozer. Right-of-way is posted.
	0+60 to 1+10	Construct Landing at Point C3.
	0+00 to 1+10	Shape subgrade with road grader.
	0+00 to 1+10	Compact subgrade with vibratory roller.
	0+00 to 0+60	Apply and process an 8" lift of 3-0" crushed rock.
	0+60 to 1+10	Apply jaw-run rock to Landing at Point C3.
	0+00	Apply 1 ½-0" junction patch rock at Point C2 after road construction and rocking are complete.
C6 to C7	0+00 to 1+30	Construct new outsloped surfaced road with dozer. Right-of-way is posted.
	1+30 to 1+80	Construct Landing at Point C7.
	0+00 to 1+80	Shape subgrade with road grader.
	0+00 to 1+80	Compact subgrade with vibratory roller.
	0+00 to 1+30	Apply and process an 8" lift of 3-0" crushed rock.
	1+30 to 1+80	Apply jaw-run rock to Landing at Point C7.
	0+00	Apply 1 ½-0" junction patch rock at Point C6 after road construction and rocking are complete.
C10 to C11	0+00 to 0+70	Construct new outsloped surfaced road with dozer. Right-of-way is posted.
	0+70 to 1+20	Construct Landing at Point C11.
	0+00 to 1+20	Shape subgrade with road grader.
	0+00 to 1+20	Compact subgrade with vibratory roller.
	0+00 to 0+70	Apply and process an 8" lift of 3-0" crushed rock.
	0+70 to 1+20	Apply jaw-run rock to Landing at Point C11.
	0+00	Apply 1 ½-0" junction patch rock at Point C10 after road construction and rocking are complete.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

Project No. 2

- (1) Timber Removal. Remove all trees within posted Right-of-Way Boundary as specified in Section 2210, Designated Timber.
- (2) Excavated Materials. Excavated materials shall be utilized for road and fill construction and hauled in where necessary. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with Exhibit D.
- (3) Drainage Ditches. Restore or construct ditchlines, including ditchouts, as directed by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. Re-establish or construct culvert sediment basins. Waste materials 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 off the culvert end to allow for free passage of water at peak flow levels. Install a culvert marker at each newly installed culvert and at each existing culvert that is missing a marker that could be reached by a grader blade.
- (4) Subgrade Preparation and Application of Surfacing Rock.
 - (a) Complete culvert installations, drainage ditches, fill reconstruction, ditchouts, and other specified work prior to the application of new surfacing rock.
 - (b) Cut out all potholes and/or washboard sections from the existing surfacing.
 - (c) Apply required patching and leveling rock, as directed by STATE.
 - (d) Process (grade and mix) the existing surface and added base rock. Provide for a crown of 4 to 6 percent or outslope of 3 to 4 percent, and compact in accordance to the "Compaction and Processing Requirements" in this Exhibit.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Project No. 2

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
A to A1	0+00 to 311+40	Shape crowned surface with road grader and re-establish ditches where necessary. Apply spot rock in conjunction with grading.
	0+00 to 311+40	Cleanout culverts (31).
A2 to A3	0+00 to 0+90	Re-open outsloped unsurfaced road with dozer.
	0+90 to 1+40	Re-open Landing at Point A3.
B to B1	0+00 to 21+00	Shape outsloped surface with road grader. Apply spot rock in conjunction with grading.
B3 to B4	0+00 to 7+60	Shape outsloped surface with road grader. Apply spot rock in conjunction with grading.
B5 to B6	0+00 to 17+60	Re-open existing outsloped unsurfaced road with dozer.
	17+60 to 18+10	Re-open landing at Point B6.
	0+00 to 18+10	Shape subgrade with road grader.
C4 to C5	22+80 to 23+30	Re-open and enlarge Landing with dozer at Point C5. Right-of-way is posted.
	0+00 to 23+30	Shape outsloped surface with road grader. Apply spot rock in conjunction with grading.
	22+80 to 23+30	Apply jaw-run rock to Landing at Point C5.
C8 to C9	1+20 to 1+70	Re-open Landing with dozer at Point C9.
	0+00 to 1+70	Shape outsloped surface with road grader.
	0+00 to 1+20	Apply and process a 4" lift of 3-0" crushed rock.
	1+20 to 1+70	Apply jaw-run rock to Landing rock at Point C9.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC POST HARVEST INSTRUCTIONS

Project No. 3 Post Harvest

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
A to A1	Landings	Apply 1 ½-0" Landing patch rock for 4 Landings between Stations 95+00 to 104+00 and Stations 286+40 to 311+40.
A2 to A3	0+00	Construct tank trap at Point A2.
B1 to B2	0+00	Construct tank trap at Point B1.
B3 to B4	Landings	Apply 1 ½-0" Landing patch rock for 3 Landings between Stations 2+00 to 6+50.
B5 to B6	0+00	Construct tank trap at Point B5.
C4 to C5	Landings	Apply 1 ½-0" Landing patch rock for 2 Landings between Stations 5+00 to 22+80.

EXHIBIT D
ROAD SURFACING

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	A to A1		0+00 to 311+40				
				Volume (CY) per		Number of				
Spot rock	1 1/2-0"	0+00 to 311+40	n/a	100	mile	5.9	miles	594	802	S1
Post Harvest										
Landing patch rock	1 1/2-0"	0+00 to 311+40	n/a	9	Landing	4	Landings	36	49	S1

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	B to B1		0+00 to 21+00				
				Volume (CY) per		Number of				
Spot rock	1 1/2-0"	0+00 to 21+00	n/a	100	mile	0.4	mile	45	61	S1

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	B3 to B4		0+00 to 7+60				
				Volume (CY) per		Number of				
Spot rock	1 1/2-0"	0+00 to 7+60	n/a	100	mile	0.1	mile	18	24	S1
Post Harvest										
Landing patch rock	1 1/2-0"	2+00 to 6+50	n/a	9	Landing	3	Landings	27	36	S1

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	C to C1		0+00 to 1+90				
				Volume (CY) per		Number of				
Surface rock	3-0"	0+00 to 1+40	8"	44	station	1.4	stations	63	85	--
Landing rock	jaw-run	Pt. C1	n/a	36	Landing	1	Landing	36	49	--
Junction patch rock	1 1/2-0"	Pt. C	n/a	9	junction	1	junction	9	12	S1

EXHIBIT D
ROAD SURFACING

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	TOTAL COST
Application	Rock Size and Type	Location	Depth of Rock (inches)	C2 to C3		0+00 to 1+10				
				Volume (CY) per		Number of				
Surface rock	3-0"	0+00 to 0+60	8"	44	station	0.6	stations	27	36	--
Landing rock	jaw-run	Pt. C3	n/a	36	Landing	1	Landing	36	49	--
Junction patch rock	1 1/2-0"	Pt. C2	n/a	9	junction	1	junction	9	12	S1

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	TOTAL COST
Application	Rock Size and Type	Location	Depth of Rock (inches)	C4 to C5		0+00 to 23+30				
				Volume (CY) per		Number of				
Spot rock	1 1/2-0"	0+00 to 23+30	n/a	100	mile	0.4	mile	45	61	S1
Landing rock	jaw-run	Pt. C5	n/a	36	Landing	1	Landing	36	49	--
Post Harvest										
Landing patch rock	1 1/2-0"	5+00 to 22+80	n/a	9	Landing	2	Landing	18	24	S1

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	C6 to C7		0+00 to 1+80				
				Volume (CY) per		Number of				
Surface rock	3-0"	0+00 to 1+30	8"	44	station	1.3	stations	54	73	--
Landing rock	jaw-run	Pt. C7	n/a	36	Landing	1	Landing	36	49	--
Junction patch rock	1 1/2-0"	Pt. C6	n/a	9	junction	1	junction	9	12	S1

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	C8 to C9		0+00 to 1+70				
				Volume (CY) per		Number of				
Surface rock	3-0"	0+00 to 1+20	4"	22	station	1.2	stations	27	36	--
Landing rock	jaw-run	Pt. C9	n/a	36	Landing	1	Landing	36	49	--

EXHIBIT D
ROAD SURFACING

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	Stockpile
Application	Rock Size and Type	Location	Depth of Rock (inches)	C10 to C11		0+00 to 1+20				
				Volume (CY) per		Number of				
Surface rock	3-0"	0+00 to 0+70	8"	44	station	0.7	stations	27	36	--
Landing rock	jaw-run	Pt. C11	n/a	36	Landing	1	Landing	36	49	--
Junction patch rock	1 1/2-0"	Pt. C10	n/a	9	junction	1	junction	9	12	S1

ROCK CONVERSION FACTORS

Size	3/4-0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run
Tons/CY	1.35	1.35	1.35	1.35	1.35	1.35

(Conversion factors from Hardrock Quarry)

	Maintenance Rock Volumes in CY						
Rock Size	3/4 - 0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run	other
Rock Totals	0	81	0	0	0	0	0

	TOTAL ROCK VOLUMES						
Rock Size	3/4 - 0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run	other
Rock Totals CY	0	900	198	0	216	0	0
Rock Totals TONS	0	1215	267	0	292	0	0

Roads shall be uniformly graded, shaped and approved by STATE prior to rocking.
Cubic yard volumes have been rounded to the nearest 9 CY truck load.

EXHIBIT D

ROCK ACCOUNTABILITY

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 sediment will not enter streams. Additional surfacing needed because of construction season or construction practice is not included in the preceding ROAD SURFACING table, and shall be furnished at PURCHASER expense.

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 D. 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. The depth of compacted aggregates shall not vary more than 1 inch from the depth specified in the "Road Surfacing" table in Exhibit D. The average depth for each road segment shall be the specified depth or greater. If additional rock is required because of insufficient depth, the locations and volumes to be added shall be determined by STATE.

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 D

CRUSHED ROCK SPECIFICATIONS

Source. Crushed rock shall be obtained from a STATE approved commercial rock source and rock stock piles as shown on Exhibit A.

Materials. The material shall be fragments of rock crushed to the required size. The material shall be free from vegetation and lumps of clay. STATE may require screening and/or rejecting of materials utilized for production of crushed rock for the purpose of removing excess fine material. Excess fines are present, when greater than 5 percent of a total rock sample weight, passes a #200 sieve.

Quality and Grading Requirements. The base material shall be rock. River gravel shall not be used. Crushed rock shall meet the grading requirements that follow:

Rock strength: for rock not produced from STATE quarries, the material from which base material is produced or manufactured shall meet the following test requirement for Aggregate Hardness - Test Method AASHTO T 96 30 percent Maximum.

DURABLE CRUSHED ROCK SPECIFICATIONS

Grading Requirements

<u>For 1½"-0"</u>	Passing	2" sieve	100%
	Passing	1½" sieve	90-100%
	Passing	¾" sieve	60-90%
	Passing	¼" sieve	30-50%
	Passing	No. 10 sieve	15-30%
	Passing	No. 40 sieve	7-15%
<u>For 3"-0"</u>	Passing	4" sieve	100%
	Passing	3" sieve	90-100%
	Passing	1½" sieve	60-90%
	Passing	¾" sieve	40-60%
	Passing	¼" sieve	20-40%
	Passing	No. 10 sieve	5-20%
<u>For Jaw-Run</u>	Passing	6" sieve	100%
	Passing	3" sieve	45-65%

Control of gradation shall be by visual inspection by STATE.

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

Moisture Content: Compaction must take place when moisture content of the materials being compacted is favorable for effective compaction as determined by STATE.

Compaction Pass: A pass is defined as traveling a road section forward and then backward over that same section.

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 the surface is smooth and hard and visible deformation ceases. At least 3 passes shall be made over the entire width and length of the road. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Subgrade shall be crowned at 4 to 6 percent or outsloped at 3 to 4 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
C to C1, C2 to C3, C6 to C7, and C10 to C11	1

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 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 until the surface is smooth and hard and visible deformation ceases. 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 or outsloped at 3 to 4 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

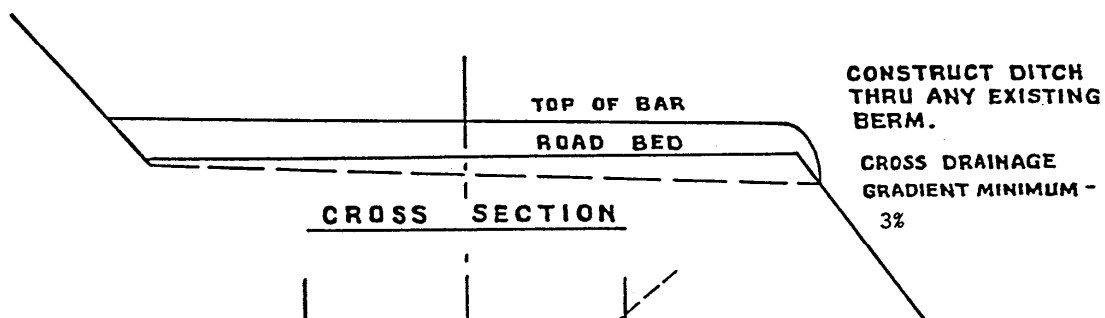
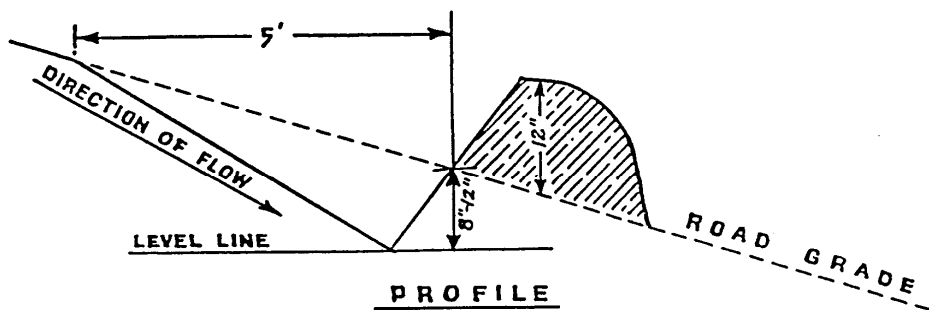
ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
C to C1, C2 to C3, C6 to C7, C8 to C9, and C10 to C11	1
Spot, maintenance, Landing patch, and junction patch rock.	2

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. 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) Loaded Dump Trucks. Dump trucks shall be routed over the entire cross section of the road surface. Loaded trucks shall cover all of the subgrade with a minimum of three passes.

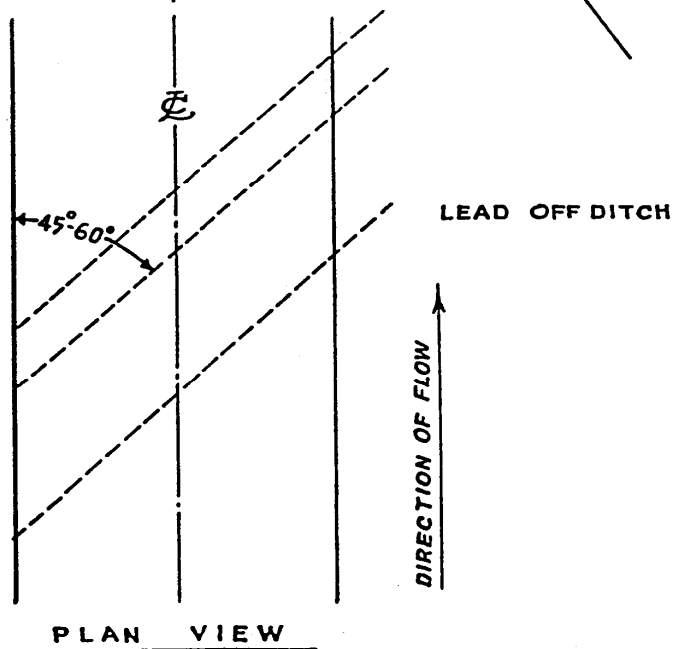
EXHIBIT D

WATERBAR SPECIFICATIONS



SPACING OF WATERBARS

ROAD GRADE	DISTANCE
$\leq 5\%$	400'
6-10%	200'
11-15%	150'
16-20% or greater	100'



WATERBAR SPECIFICATIONS
FOR CROSS DITCHING #298

EXHIBIT D

TANK TRAP SPECIFICATIONS

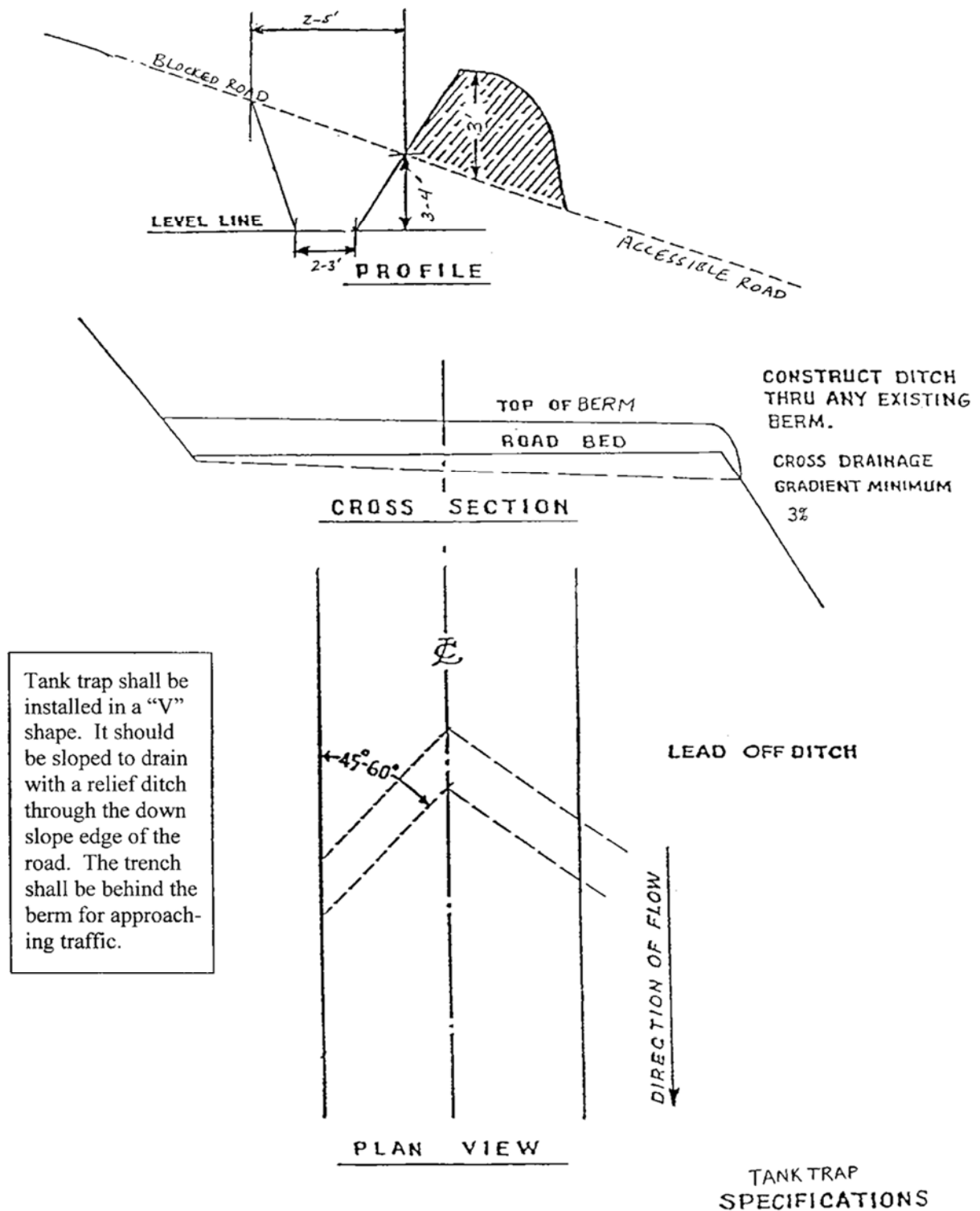


EXHIBIT E

SPECIFICATIONS FOR BRUSH AND SLASH SHOVEL PILING Description of Work to be Done

Operational Areas: There are approximately 22 acres located on Area 1. Areas designated for work under the contract shall be treated according to the specifications given below:

Clearing - Brush, logging Slash, and other debris shall be cleared from planting sites and piled, so that 80 percent or more of the soil organic layer is exposed. Pile 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. Stack in compact, dirt-free piles. All woody vegetation other than trees is defined as brush in this exhibit.

Piles - Piles shall be located inside the project area designated for piling and shall be located at least 25 feet apart; at least 50 feet from any standing timber, snags or wildlife trees; and at least 50 feet from any property line. Piles shall be built to a height of 6 to 8 feet tall with steep sides and shall cover the smallest amount of ground possible at their base.

Logs and chunks which are suitable for firewood shall be piled separately from Slash, near roads and Landings and alongside the road in locations designated by STATE.

Conifer Trees - shall be saved, unless otherwise directed by STATE.

Skid Trails - shall be ripped to a depth of 12 inches.

Residual Logs – An average of 600 cubic feet of hard conifer logs per acre. Log shall contain a minimum of 10 cubic feet of volume and be no shorter than 6 feet in length. Two logs per acre shall be at least 24 inches in diameter, on the large end, where available. Hard conifer logs must be in decay class one or two as indicated by intact bark and original wood color. Trees or logs shall be left well distributed across the unit.

Protective Measures - shall comply with Oregon Forest Practice Rules issued per ORS 527.610 to 527.992. Examples of protective measures are: (1) waterbarring tractor trails where necessary to prevent runoff toward streams; (2) not windrowing in streams or streamways; and (3) leaving Stream Buffers along designated streams.

Work specifications may be modified or waived only upon written notice from STATE.

EXHIBIT E

SPECIFICATIONS FOR BRUSH AND SLASH SHOVEL PILING

Equipment Type, Equipment Operation, and Conduct of Work

The specifications given below are requirements for equipment type, equipment operation, and conduct of work under the contract.

Shovel - shall be a track-mounted machine with a ground-pressure rating of not more than 6.8 PSI and a net horsepower of 85 or more. The machine shall be capable of a minimum horizontal reach of 26 feet and a minimum vertical reach of 16 feet.

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 14 inches long, unless otherwise approved in writing by STATE.

Operator - must be experienced in operating similar equipment on land clearing operations, be able to operate the equipment proficiently, and pile the debris on the area 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 contract terms.

Work Scheduling - work shall be accomplished only during dry weather conditions, and started within 14 calendar days after completion of yarding activities on Area 1.

PURCHASER 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. Piling operation shall not be allowed when operations might damage sites or affect stream flows. Any exception to these instructions must be authorized in writing by STATE.

STATE Representative - shall provide directions for the conduct of work and will inspect work to determine when contract specifications have been satisfied. **No piling work shall begin until STATE has met with PURCHASER and operator to discuss work to be done.** Piling equipment shall not be removed from operation areas until after STATE has approved completion.

FPA Written Plan for Timber Harvest

Lake Ridge Combo Timber Sale (Area 3)

Portions of Section 32, T11S, R8W, W.M., Lincoln County, Oregon.

Protected Resources: Tributary to Lake Creek, small, Type F stream.

Situation: An unknown small stream that will be treated as an assumed Type F is within 100 feet of Area 3 of the timber sale. This stream is within the sale boundary.

Thinning operations will occur within 100 feet of the stream. In addition, yarding operations may need to tailhold across some portions of the stream.

Resource Protection Measures:

1. A 25 foot horizontal distance no-harvest Stream Buffer has been established along all portions of the stream.
2. A residual basal area of 130 ft²/acre will be left within 100 feet of the stream.
3. Trees adjacent to the stream buffers shall be fell so that they do not fall into the buffer.
4. Skyline cables will not be lowered into streamside vegetation during the yarding cycle.
5. Skyline corridors passing over the stream will be spaced a minimum of 100 feet apart.
6. Where the logging system requires the skyline to pass over the stream, cables will be pulled out of the streamside vegetation prior to rigging the next yarding road.

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

PURCHASER REPRESENTATIVE

DATE

STATE REPRESENTATIVE

DATE

FPA Written Plan for Timber Harvest

Lake Ridge Combo Timber Sale (Area 3)

**Portions of Section 32, T11S, R8W,
W.M., Lincoln County, Oregon.**

Protected Resource: Endangered species nesting site.

Situation: The northeast portion of Area 3 is within 300 feet of the Occupied Habitat of the Long Spout Marbled Murrelet Management Area (MMMA).

Road construction and improvement operations will occur within 300 feet of the Occupied Habitat of the MMMA. Thinning operations will occur within 300 feet of the Occupied Habitat of the MMMA.

Resource Protection Measures:

1. All portions of sale areas within 300 feet of the Occupied Habitat of the MMMA will be designated as seasonally restricted.
2. Felling Operations within seasonally restricted buffers shall not be allowed from April 1 through August 5 and from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.
3. **Lead time of at least two weeks for all reviews or meetings with ODF representatives is required for Operations within a seasonally restricted buffer (within 300 feet of Occupied Habitat of a MMMA) during the seasonally restricted period or within Occupied Habitat of a MMMA at any time.**
4. Cable Yarding Operations within seasonally restricted buffers shall not be allowed from April 1 through August 5 and from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.
5. The Operator stringing cables, or otherwise responsible for cable placement and raising or lowering of lines within MMMA's, shall meet with the ODF Area Biologist or authorized representative in the field prior to rigging. Discussion with the Operator will include descriptors of nesting platforms (trees with limbs or platforms 4 inches in diameter or greater).

6. Cables will be located so that raising, lowering, or use of the line will not damage trees considered to have suitable nesting platforms or associated cover trees.
7. No trees considered to have nesting platforms will be felled or used as tailhold/guyline anchors.
8. Prior approval is required of all line placements in MMMA's and seasonally restricted buffers shown on Exhibit A. Inspection by ODF will include tailhold/guyline anchors, as well as corridors.
9. Lines that may damage, in the opinion of the ODF Area Biologist or authorized representative, potential or existing nesting platforms must be removed and relocated.
10. Ground-Based Operations within seasonally restricted buffers shall not be allowed from October 1 through August 5 and from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.
11. The use of mechanized equipment, including chainsaws, within seasonally restricted buffers shall not be allowed from April 1 through August 5 and from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.
12. Non-Project Road and Landing Operations within seasonally restricted buffers shall not be allowed from October 1 through August 5 and from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.
13. Activities associated with Project Nos. 1 and 2 (Road Construction and Improvement) within seasonally restricted buffers shall not be allowed from October 1 through August 5 and from August 6 through September 15 between two hours before sunset and two hours after sunrise, unless otherwise approved in writing by STATE.
14. Human food trash will be policed and removed from all project areas, landings, and roadways on a daily basis. Food items and food waste will be stored inside appropriate containers or vehicles.

I, the undersigned, submit this written plan in compliance with the requirements of the Forest Practices Act, regarding operations conducted within 300 feet of an endangered species nesting site.

PURCHASER REPRESENTATIVE

DATE

STATE REPRESENTATIVE

DATE