PART III: EXHIBITS

State Timber Sale Contract No. 341-16-03 Bonney Burgett 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) S	state Brand Inform	nation (complete):	$\langle \cdot \rangle$	
(1)	Contract No.: <u>341-16-03</u>					
(2)	Sale Name: Bonney Burgett Combo				~	~
(3)	Contract Expiration Date: December 31, 201	7 P	roject Completion	n Dates:		
` ,	•		Toject Completion	1 Dates		_
(4)	Purchaser:					_
(6)	Purchaser Representatives:			Call/Othor		
	Projects:	Pho	ne:	Cell/Other Phone:	Но	me:
				Cell/Other		
	Projects:	Phoi	ne:	Phone:	Ho	me:
	Projects:	Pho	ne:	Cell/Other Phone:	Нο	me:
	1 10/6613.	1 1101		Cell/Other		
	Projects:	Pho	ne:	Phone:	Но	me:
		5.		Cell/Other		
	Logging:	Phoi	ne:	Phone: Cell/Other	_ Ho	me:
	Logging:	Pho	ne:	Phone:	Но	me:
				Cell/Other		
	Logging:	Pho	ne:	Phone:	Ho	me:
	Logging:	Pho	ne:	Cell/Other Phone:	Но	me:
(7)	State Representatives:					
(7)	State Representatives.			Cell/Other		
	Projects:	Pho	ne:	Phone:	Но	me:
				Cell/Other		
	Logging:	Pho	ne:	Phone:	Ho	me:
(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:
 - 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.

1	Cable Landing, with numbers for sequence.
A	Tractor Landing with alphabetical sequence.
	Approximate setting boundary.
	Spur truck roads.
~~	Tractor yarding roads.
Χ	Temporary stream crossings.

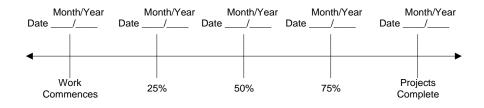
EXHIBIT B

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

Operations Plan.doc/Jaz B (TS)

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EXHIBIT C - SAWMILL AND PULP GRADE

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

REVISION N CANCELLAT (2) TO: (3) FROM: We (Sta Address 245: (4) PURCHASE Mailing Addr	EEGISTRATION IUMBER FION (Third Party Scaling St Oregon (01) Phase Forestry District) B3 Alsea Highway, Philo R: ess: per:	Date Date Date Date Granization one (541)9.	29-3266 370-9112	- - - - -	(9) SALE NAME: Bonney Burgett Combo COUNTY: Benton (10) STATE CONTRACT NUMBER: 341-16-03 (11) STATE BRAND REGISTRATION NUMBER: (12) STATE BRAND INFORMATION (COMPLETE):
SPECIES Conifers Hardwoods Pulp Apply minimum volur (6) WESTSIDE	By weight By wei	I NET VOLUM nt – 8 tons/mbi nt – 8 tons/mbi nt – 8 tons/mbi	E f		(13) PAINT REQUIRED: YES \(\overline{\text{Z}}\) COLOR: Orange (14) SPECIAL REQUESTS (Check applicable) PEELABLE CULL (all species)
(8) APPROVI LOCATIO (as shown on the ODF App		Species	Yard	Weight	(15) REMARKS Loads shall be weight scaled in lieu of scaling. Tons shall be short tons or 2,000 lbs. Loads shall have a pint 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 MBI using a conversion factor of 8 tons per MBF and designate a camp run. "Mule Train" loads require a load ticket for each se of bunks. Operator's Name (Optional inclusion by District): (16) SIGNATURES: Purchaser or Authorized 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.

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

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

Northwest Log Scalers, Inc

5526 NE 122nd Ave, Portland, OR 97230

Phone: (503) 254-0600 Fax: (503) 408-0919

Email: info@nwlogscalers.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

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

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 <u>and</u> print name on the 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 90+30	Ditch
14 feet		A1 to A2	0+00 to 13+20	No Ditch
14 Feet	12 Feet	B to B1	0+00 to 4+20	Ditch
14 feet	12 Feet	B to B1	4+20 to 36+20	No Ditch
14 feet	12 Feet	B2 to B3	0+00 to 3+20	No Ditch
14 feet	12 Feet	C to C1	0+00 to 42+60	No Ditch
14 feet		C2 to C3	0+00 to 8+30	No Ditch
14 feet		C4 to C5	0+00 to 9+20	No Ditch

<u>CLEARING</u>. 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 - from the top of the cutslope to the toe of the fill.

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

<u>CLEARING AND GRUBBING DISPOSAL</u>. 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.

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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-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.

<u>Curve Widening</u>. 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

<u>Subgrade</u>. 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.

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

<u>TURNOUTS</u>. 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.

<u>SLOPES</u>	Back Slopes	Fill Slopes
Solid Rock	Vertical to ½:1	
Fractured Rock	1/2 :1	
Soil - side slopes 50% and over	³ ⁄ ₄ :1	1½:1
Soil - side slopes less than 50%	1 :1	1½:1

Top of cutslope shall be rounded.

<u>LANDINGS</u>. 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.

<u>SEASONAL WINTERIZATION</u>. 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.

FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

Project No. 1

- (1) <u>Timber Removal</u>. Remove all trees within posted right-of-way boundary as specified in Section 2210, "Designated Timber."
- (2) <u>Excavated Materials</u>. 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.

 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

Segment	<u>Station</u>	Work Description:
B2 to B3	0+00 to 2+70 2+70 to 3+20 0+00 to 3+20 0+00 to 3+20 0+00 to 2+70 2+70 to 3+20	Construct new outsloped dirt road with dozer. Right-of-way is posted. Construct Landing at Point B3. Shape outsloped subgrade with road grader. Compact subgrade with vibratory roller. Apply and process an 8" lift of 3-0" crushed rock. Apply jaw-run rock to Landing at Point B3.
C2 to C3		This road segment is within 100 meters of occupied habitat of a Marbled Murrelet Management Area, work shall not be allowed from April 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. Care shall be taken to avoid ANY damage to platform or cover trees within a MMMA.
	0+00 to 7+80 0+00 to 2+40 7+80 to 8+30 0+00 to 8+30	Complete work on this segment prior to work on C to C1. Construct new outsloped dirt road with dozer. Right-of-way is posted. Compact subgrade fill with vibratory roller. Construct Landing at Point C3. Shape outsloped subgrade with road grader.
C4 to C5	0+00 to 8+70 8+70 to 9+20 0+00 to 9+20	Complete work on this segment prior to work on C to C1. Construct new outsloped dirt road with dozer. Right-of-way is posted. Construct Landing at Point C5. Shape outsloped subgrade with road grader.

FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

Project No. 2

- (1) <u>Timber Removal</u>. Remove all trees individually marked with a fluorescent green "C", as specified in Section 2210, Designated Timber.
- (2) Roadside Brushing. Conduct roadside brushing as specified in Exhibit D in Forest Road Specifications.
- (3) <u>Excavated Materials</u>. 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.
- (4) <u>Bank Slough Removal</u>. Dig out all bank slough. Bank slough material 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.
- (5) <u>Drainage Ditches</u>. Restore ditchlines, including ditchouts, as directed by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. Re-establish 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.
- (6) 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.
 - (e) Upon completion of above required work, apply, process, and compact surfacing rock in accordance to this Exhibit.

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Project No. 2

<u>Segment</u>	Station	Work Description:
A to A1	0+00 to 90+30	Shape crowned surface with road grader and re-establish ditches where
	0+00 to Pt. B	needed. Apply spot rock in conjunction with grading. Clear woody debris and downed wood within clearing limits (5 feet from
	0+00 to 90+30	edge of subgrade). Clean inlet and outlet of culverts (12).
A1 to A2	0+00 to 12+70 12+70 to 13+20	Re-open existing outsloped dirt road with dozer. Re-open/enlarge Landing at Point A2. Right-of-way is posted.
B to B1	0+00 to Pt. B2 Pt. B2 to 35+70 35+70 to 36+20 0+00 to 4+20 4+20 to 35+70	Apply and process a 4" lift of 1 ½-0" crushed rock. Apply and process a 4" lift of 3-0" crushed rock. Apply jaw-run rock to landing at Point B1. Shape crowned surface with road grader and re-establish ditches where needed. Shape outsloped surface with road grader.
	35+70 to 36+20 4+20 to Pt. B2	Re-open Landing with road grader at Point B1. Clear woody debris and fell trees marked with fluorescent green paint within clearing limits (5 feet from edge of subgrade).
C to C1	19+30 to Pt. C2	This road segment is within 100 meters of occupied habitat of a Marbled Murrelet Management Area, work shall not be allowed from April 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. Care shall be taken to avoid ANY damage to platform or cover trees within a MMMA.
		Complete work on C2 to C3 and C4 to C5 prior to starting work on this segment.
	2+40 to 5+40	Remove approximately 60 CY of slough material, endhaul to Waste Area at 19+30, scatter organic debris in stable locations along road.
	23+30 to Pt. C4	Remove approximately 170 CY of scattered slough material, endhaul and incorporate 100 CY into subgrade between Points C2 to C3, endhaul 70 CY to Waste Area at 19+30, scatter organic debris in stable locations along road.
	0+00 to 42+60 0+00 to 19+30 Pt. C2 to Pt. C1 19+30 to Pt. C2 19+30 to Pt. C2	Shape outsloped surface with road grader. Apply spot rock in conjunction with grading. Apply spot rock in conjunction with grading. Compact subgrade with vibratory roller. Apply and process a 4" lift of 1 ½-0" crushed rock. Process Waste Area.
	0+00 to Pt. C1 0+00 to 19+30	Clear woody debris and downed wood within clearing limits. Clean inlet and outlet of culvert.

FOREST ROAD SPECIFICATIONS

SPECIFIC POST HARVEST INSTRUCTIONS:

Project No. 3. Post-Harvest

Work Description:
Construct tank trap at Point A1.
Apply Landing patch rock at 5 landings.
Apply Turnaround rock at Point B1.
Construct tank trap at Point C2.
Construct tank trap at Point C4.

EXHIBIT D FULL BENCH AND END-HAUL REQUIREMENTS

POINT TO POINT	STA. TO STA.	CONTAINMENT - SIDECAST	WASTE AREA LOCATION	WASTE AREA TREATMENT	
C to C1	2+40 to 5+40 23+40 to Pt. C4	1	1 (19+30) 2 (C2 to C3)	1 and 2	

Full Bench and End-Haul Areas General Requirements

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. Material shall not be sidecast unless specified above.

Clearing and grubbing debris shall be end-hauled.

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

Containment/Sidecast

Normal/Incidental: The amount of excavated material lost over the outside edge of the road shall not exceed 1 foot in depth.

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

- (1) As shown on Exhibit A and as marked in the field.
- (2) Excavated material is to be used in the road prism and compacted according to the specifications in Exhibit D.

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 D ROAD SURFACING

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.			
		Rock Size and Type Location Depth of Rock (inches)		A to A1		0+00 to 90+30		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application				Volume (CY) per		Number of			
Spot rock	1 1/2-0"	0+00 to 90+30	N/A	100 mile		1.7	miles	162	219

ROAD SEGMENT					POINT TO POINT		. to Sta.		
				B to B1		0+00 to 36+20		TOTAL	TOTAL
Application	Rock Size and Type	Location Depth of Rock (inches)		Volume (CY) per		Number of		VOLUME (CY)	VOLUME (TONS)
Surface rock	1 1/2-0"	0+00 to B2	4	22	station	29. 6	stations	657	887
Surface rock	3-0"	B2 to 35+70	4	22	station	6.1	stations	135	182
Landing rock	jaw-run	B1	N/A	36	landing	1	Landing	36	49
Post Harvest									
Turnaround rock	3-0"	B1	NA	27	Landing	1	Landing	27	36
Landing patch rock	3-0"	30+00 to 35+00	NA	9	Landing	5	Landing	45	61

ROAD SEGMENT				POIN	T TO POINT	Sta	ı. to Sta.		
				Е	32 to B3	0+0	0 to 3+20	TOTAL	TOTAL
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volu	ume (CY) per	Ni	umber of	VOLUME (CY)	VOLUME (TONS)
Surface rock	3-0"	0+00 to 2+70	8	44	station	3.2	station	117	158
Landing rock	jaw-run	В3	N/A	36	landing	1	Landing	36	49

ROAD SURFACING

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.			
					C to C1		to 42+60	TOTAL	TOTAL
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		VOLUME (CY)	VOLUME (TONS)
Surface rock	1 1/2-0"	19+30 to C2	4	22	station	7.9	stations	171	231
Spot rock	1 1/2-0"	0+00 to 19+30	N/A	100	mile	0.4	miles	36	49
Spot rock	1 1/2-0"	C2 to 42+60	N/A	100	mile	0.2	miles	27	36

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		72				-	

		TOTAL ROCK VOLUMES					
Rock Size	3/4 - 0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run	other
Rock Totals CY		1080	72		72		
Rock Totals							
TONS		1458	97		97		

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.

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.

<u>Depth Measurement</u>. 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.

<u>Load Records</u>. 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.

CRUSHED ROCK SPECIFICATIONS

Source. Crushed rock shall be obtained from a STATE approved commercial rock source.

<u>Materials</u>. 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:

<u>Quality and Grading Requirements</u>. 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 Maximum.

DURABLE CRUSHED ROCK SPECIFICATIONS

Grading Requirements

For 1½"-0"	Passing Passing Passing Passing Passing Passing Passing	2" sieve 1½" sieve 3/4" sieve 1/4" sieve No. 10 sieve No. 40 sieve	100% 90-100% 60-90% 30-50% 15-30% 7-15%
For 3"-0"	Passing Passing Passing Passing Passing Passing Passing	4" sieve 3" sieve 1½" sieve 3/4" sieve 1/4" sieve No. 10 sieve	100% 90-100% 60-90% 40-60% 20-40% 5-20%
For Jaw-Run	Passing Passing	6" sieve 3" sieve	100% 45-65%

Control of gradation shall be by visual inspection by STATE.

COMPACTION AND PROCESSING REQUIREMENTS

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

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

<u>Fills</u>. 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. At least 3 passes shall be made over the entire width and length of each layer.

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
C to C1 (19+30 to C2) C2 to C3 (0+00 to 2+40)	1

<u>Subgrade</u>. 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
B2 to B3	1

<u>Crushed Rock</u>. 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.

COMPACTION AND PROCESSING REQUIREMENTS

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.

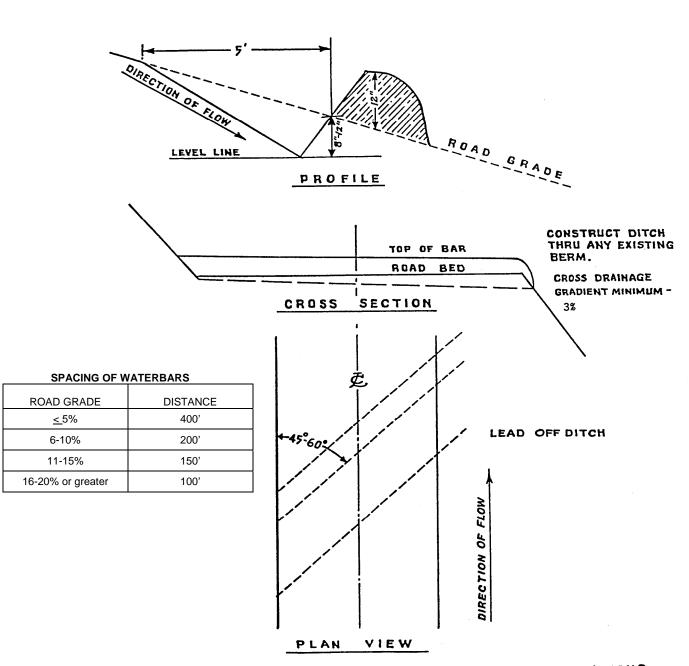
ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
B to B1, B2 to B3 & C to C1 (19+30 to Pt. C2)	1
Spot, Maintenance, Landing patch, and turnaround rock	2

COMPACTION EQUIPMENT OPTIONS

- (1) <u>Vibratory Rollers</u>. 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) <u>Loaded Dump Trucks</u>. 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.

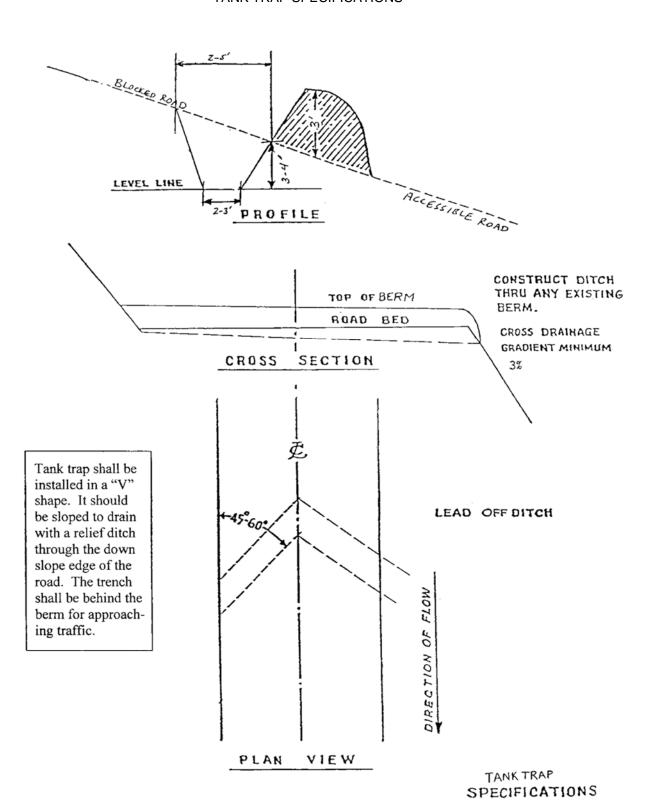
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EXHIBIT D
WATERBAR SPECIFICATIONS



WATERBAR SPECIFICATIONS FOR CROSS DITCHING #298

EXHIBIT D
TANK TRAP SPECIFICATIONS



PART IV: OTHER INFORMATION

State Timber Sale Contract No. 341-16-03 Bonney Burgett Combo

FPA Written Plan for Timber Harvest

Bonney Burgett Combo Timber Sale Area 2

Portions of Sections 25, T10S, R07W, W.M., Benton County, Oregon.

Protected Resources: Tributary to Bonner Creek, a Medium, Type F stream.

<u>Situation</u> Approximately 170 feet of a small Type F stream is within the timber sale boundary.

Thinning operations will occur within 100 feet of the streams. In addition, yarding operations may need to tailhold and/or yard across some portions of the streams.

Resource Protection Measures:

STATE REPRESENTATIVE

- 1. A minimum 25-foot horizontal distance "Timber Sale Boundary" has been established along all portions of the stream.
- 2. A residual basal area of 150 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 streams will be spaced a minimum of 100 feet apart.

DATE

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	_			

FPA Written Plan for Timber Harvest

Bonney Burgett Combo Timber Sale (Area 3)

Portions of Section 36, T10S, R07W, W.M., Benton County, Oregon.

Protected Resource: Endangered species nesting site.

<u>Situation</u>: The northern portion of Area 3 is within the non-habitat buffer of the Bonner Creek Marbled Murrelet Management Area (MMMA). Thinning and road construction and improvement operations will occur within the non-habitat buffer of the MMMA.

Resource Protection Measures:

- 1. All portions of the sale area within the non-habitat buffer 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 100 meters 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 MMMAs, 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 or associated cover trees will be felled or used as tailhold/guyline anchors.
- 8. Prior approval is required of all line placements in occupied habitat of MMMAs 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 or associated cover trees 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.
- 15. During road and landing construction, when feasible, avoid removing the largest trees in the area and any minor tree species not commonly found in the stand.

i, the undersigned, submit this written plan in compliance with the requirements of the rolest reduces Act, regard	mig
operations conducted within 300 feet of an endangered species nesting site.	

I the undersigned submit this written plan in compliance with the requirements of the Forest Practices Act, regarding

PURCHASER REPRESENTATIVE	DATE

STATE REPRESENTATIVE	DATE

State Timber Sale Contract No. 341-16-03 Bonney Burgett Combo

FPA Written Plan for Timber Harvest

Bonney Burgett Combo Timber Sale Area 3

Portions of Section 36, T10S, R07W, W.M., Benton County, Oregon.

Protected Resources: Tributary to Burgett Creek, a Medium, Type F stream.

Situation: Approximately 270 feet of an unknown stream which will be treated as an assumed small Type F stream is within the timber sale boundary.

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

Resource Protection Measures:

STATE REPRESENTATIVE

- 1. A minimum 25-foot horizontal distance "Timber Sale Boundary" has been established along all portions of the stream.
- 2. A residual basal area of 120 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 streams will be spaced a minimum of 100 feet apart.

DATE

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			