



Oregon Department of Forestry

2600 State St Salem OR 97310

PART III: EXHIBITS

EXHIBIT B

TIMBER SALE OPERATIONS PLAN

(See page 2 for instructions)

Date Received by State: _____

(5) State Brand Information (Complete)

(1) Contract Number: WL-341-2021-W00782-02

(2) Sale Name: East Greenleaf

(3) Contract Expiration Date: 05/31/2023

(4) Purchaser Name: _____

(6) State Representatives:

<u>Name</u>	<u>Circle One</u>	<u>Phone No.</u>	<u>Cell No.</u>	<u>Alt Phone</u>
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			

(7) Purchaser Representatives:

<u>Name</u>	<u>Circle One</u>	<u>Phone No.</u>	<u>Cell No.</u>	<u>Alt Phone</u>
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			

(8) Name of Subcontractors and Start Dates:

<u>Project No.</u>	<u>Subcontractor Name.</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Cell No.</u>	<u>Alt Phone</u>

Subcontractor Name.

Start Date

Cell No.

Alt 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.



Oregon Department of Forestry

2600 State St Salem OR 97310

PART III: EXHIBITS

EXHIBIT B

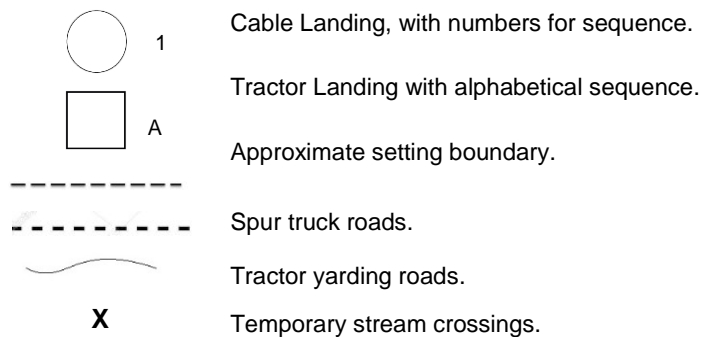
INSTRUCTION SHEET FOR OPERATIONS PLAN

SUBMIT ONE COPY OF PLAN 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.
- (9) 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 required by the timber sale contract. Provide spur road specifications
 3. Locations of proposed tractor yarding roads. Show if and how marked on the ground.
 4. Locations of temporary stream crossings.
 5. List the sequence of performing project work.
 6. Location of rock sources - attach pit development plans.




Oregon Department of Forestry

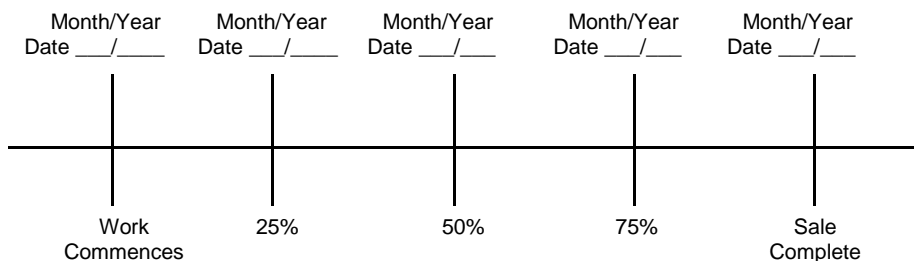
2600 State St Salem OR 97310

PART III: EXHIBITS

**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, PURCHASER's 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 _____



Oregon Department of Forestry
EXHIBIT C - SAWMILL GRADE (WESTSIDE SCALE)
SCALING INSTRUCTIONS - LOCATION APPROVAL - BRAND INFORMATION
Western Lane - SOA

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER 000 ☐ Date _____
CANCELLATION ☐ Date _____

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

(3) FROM: Western Lane Phone (541) 935-2283
(State Forestry District)
Address: 87950 TERRITORIAL HWY
VENETA, OR 97487-0157

(4) PURCHASER: _____
Mailing Address: _____
Phone Number: _____

(5) MINIMUM SCALING SPECIFICATIONS	
SPECIES	MINIMUM NET VOLUME
Conifers	10
Hardwoods	10

*Apply minimum volume test to whole logs over 40' Westside

(6) WESTSIDE SCALE:
Use Region 6 actual taper rule. Logs over 40'.

(7) Weight Scale Sample ☐ YES ☒ NO

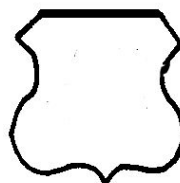
(8) APPROVED SCALING LOCATIONS (as shown on the ODF Approved Locations web-site)	Species	Yard	Truck	Weight

(9) SALE NAME: East Greenleaf
COUNTY: Lane

(10) STATE CONTRACT NUMBER:
WL-341-2021-W00782-02

(11) STATE BRAND REGISTRATION NUMBER:

(12) STATE BRAND INFORMATION:



(13) PAINT REQUIRED: YES ☒
COLOR: Orange

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

(15) REMARKS

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

(16)

Purchaser or Authorized Representative Date

State Forester Representative Date

State Forester Representative PRINT NAME



Oregon Department of Forestry
EXHIBIT C - SAWMILL GRADE
INSTRUCTIONS FOR FORM 343-307a (rev. 11/11)
Western Lane - SOA

- (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)

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@southernoregonlogscaling.com

Northwest Log Scalpers Inc.
6137 NE 63rd St, Vancouver, WA, 98661
Phone: (360) 553-7212 ext. 4 Fax: (360) 553-7213
Email: info@nwlogscalpers.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: yamhilllog@frontier.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@odf.state.or.us. Scaling Instructions for each brand should be scanned separately, for each approved TPSO.

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.

General Distribution: TPSO, Approved Scaling Locations(s), Purchaser, Specific distribution instructions are outlined on the last page of this report: Instructions for Form



Oregon Department of Forestry
EXHIBIT C - PULP SORT
PROCESSING INSTRUCTIONS - LOCATION APPROVAL
BRAND INFORMATION

Western Lane, SOA

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER 000 ☐ Date _____
CANCELLATION _____

(9) SALE NAME: East Greenleaf
COUNTY: Lane
STATE CONTRACT NUMBER:
WL-341-2021-W00782-02

(2) _____
(Approved Pulp Processing Facility)
(3) FROM: Western Lane Phone (541) 935-2283
(State Forestry District)
Address: 87950 TERRITORIAL HWY
VENETA, OR 97487-0157

(11) STATE BRAND REGISTRATION NUMBER: _____
(12) STATE BRAND INFORMATION: _____



(4) PURCHASER: _____
(5) Scaling Bureau (TPSO) Processing Weight receipts:

Mailing Address: _____
Phone Number: _____

(13) REMARKS: _____

(6) STATE Definition of Approved Pulp Sort:
• Top portion of the tree (tops).
• All logs with a diameter (Big End) greater than 8 inches marked with blue paint.

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

(7) PULP FACILITY PROCESSING INSTRUCTIONS:
• Pulp loads shall be weighed in lieu of scaling.
• One Ton = 2000 lbs(Short Ton).
• Pulp loads shall have a yellow Log Load Receipt attached.
• Gross weight and truck tare weight for each load shall be machine printed on the weight receipt.
• Weigher shall sign the weight receipt.
• Weigher shall record the Log Load Receipt number on the weight receipt.
• Weigher shall attach the Weight receipt to the Log Load Receipt and mail them weekly to the TPSO processing the Weight receipt.

Purchaser or Authorized Representative _____ Date _____
State Forester Representative _____ Date _____
State Forester Representative PRINT NAME _____

(8) TPSO PROCESSING INSTRUCTIONS
• Submit data files daily (or each day of activity).
• Mail or deliver scale tickets weekly to ODF Headquarters in Salem.

Notify the District within one hour when branding is inadequate for quick identification, the logs are marked with orange paint, the receipts are missing, not correctly or completely filled out, and/or logs do not meet the specifications of the STATE definition of Approved Pulp Sort.

Distribution: ORIGINAL: Salem/ COPIES: TPSO, Approved Pulp Processing Location, Purchaser, District, Mgmt. Unit



Oregon Department of Forestry
EXHIBIT C - PULP SORT
Instructions for Form 343-307b

Western Lane, SOA

- (1) **Must Complete.** Check appropriate box. REVISION NUMBER requires comments in the Remarks Section(13). 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) **Must Complete.** Approved Pulp Processing Facility. Write in as written in the Approved Log Delivery Location http://www.odf.state.or.us/DIVISIONS/management/asset_management/ScalingLocation.asp
- (3) **Must Complete.** State Forestry District and District Phone Number.
- (4) **Must Complete.** Purchaser's business name as it appears on the Contract.
- (5) **Must Complete.** Third Party Scaling Organization that will be processing the weight tickets, mailing address, and phone number.

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@southernoregonlogscaling.com

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

Northwest Log Scalers Inc.
6137 NE 63rd St, Vancouver, WA, 98661
Phone: (360) 553-7212 ext. 4 Fax: (360) 553-7213
Email: info@nwlogscalers.com

Must Complete. Big end log not to exceed _____ inches. Big end of log is not to exceed 2 inches greater than the minimum removal specifications in the contract. Example: Minimum removal specifications 6 inches and 20 board feet, then the Big end of log not to exceed 8 inches. When conifer and hardwood removal specifications are different, use the smaller removal diameter to determine this specification.

- (7) **Must Complete.** Enter sale name and county. If more than one county write in all the counties that the sale is located in.
- (8) **Must Complete.** Enter sale Contract number.
- (9) **Must Complete.** Enter Oregon's State Brand Registry Number **(REQUIRED)**.
- (10) **Must Complete.** 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(13).
- (11) Use this section to list any special instructions or the reason for any revisions in section item(1).
- (12) **Must Complete.** Purchaser required 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 \\WPODFILL01\Transfer\ScalingInstructions or e-mailed directly to scaling@odf.state.or.us. 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 Pulp Processing Location, Purchaser, District, Mgmt. Unit

EXHIBIT D
FOREST ROAD SPECIFICATIONS

Road	Subgrade Width	Surfaced Width	STATION TO STATION	POINT TO POINT	Drainage
16-8-1	16'	12'		A to C	Crowned
Spur 1	16'	12'		C to F, I to J	Crowned
Spur 1a	16'	12'	0+00 to 14+52		Crowned
Spur 1b	16'	12'		F to G	Crowned

Surface width shall be increased to accommodate off-tracking on horizontal curves.

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 10 feet back of the top of the cut slope and 10 feet out from the toe of the fill slope, or as directed by STATE. The "Road Brushing Specifications" in Exhibit I shall apply. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing debris shall not be left lodged against standing trees.

All danger trees, leaners, and Snags outside the clearing limits which could fall and hit the road shall be felled.

GRUBBING. This work shall consist of the removal or digging out of stumps and protruding objects.

All stumps shall be completely removed within the limits of required grubbing. Stumps overhanging cut slopes 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 cut slope to the toe of the fill.

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

CLEARING AND GRUBBING DISPOSAL. Scatter 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.



State Timber Sale Contract
No. WL-341-2021-W00782-02
East Greenleaf

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.

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, insloped, or outsloped at 4 to 6 percent as shown on the "Forest Road Specifications" table in this Exhibit or as specified by STATE.

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 and 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

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

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

1:1

Fill Slopes

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

Top of cut slope shall be rounded were specified by STATE.



EXHIBIT D
FOREST ROAD SPECIFICATIONS

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.

SEASONAL WINTERIZATION. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit I, and blocked from vehicular traffic prior to October 31, annually and as directed by STATE.

GENERAL ROAD CONSTRUCTION/RECONSTRUCT INSTRUCTIONS:

- (1) Roadside Brushing. Conduct roadside brushing as specified in Exhibit I.
- (2) Timber Removal. Remove all trees within posted right-of-way, as specified in Section 2210, "Designated Timber."
- (3) Bank Slough Removal. 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.
- (4) Drainage Ditches. Restore or construct ditch lines, including ditchouts, as directed by STATE. Clean out any plugged culvert inlets and outlets. 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.
- (5) 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.
- (6) Stream crossings and Cross Drains. Culverts shall be installed as directed by STATE and in accordance to Exhibit G. The Location of the culverts shall be marked by STATE. A STATE representative will mark the location after the completion of the subgrade. Rocking shall not occur until all culverts have been installed unless otherwise approved in writing by STATE. Each culvert shall be backfilled with some crushed rock, or provided extra surfacing rock allocated over the culvert on the running surface, or compact the soil with a tamping device. Operator shall provide adequate support around the culvert.
- (7) 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, insloped, or outsloped at 4 to 6 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 or outsloped at 4 to 6 percent.

The subgrade shall be approved by STATE prior to the application of rock.



EXHIBIT D
END-HAUL REQUIREMENTS

Road	STA. to STA.	Approx. Waste (yds ³)	Containment Sidecast	Waste Area Location	Waste Area Treatment
Spur 1b	TA to G	3326	2	1	1
	Total	3326			

Landing fills shall not be allowed on slopes over 55%

Excavated material from these areas shall be deposited in waste areas approved by STATE.

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.

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

- (1) Full: No excavated material remains below the road.
- (2) Normal/Incidental: The amount of excavated material lost over the outside edge of the road shall not exceed 1 foot in depth.
- (3) Sidecast: Material shall be spread evenly below the road so that it does not build up behind trees, snags or other debris, and shall not exceed 3 feet 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) Setback from slope break shall be a minimum of 20 feet horizontal measurement.
- (3) As directed by STATE.

Waste Area Treatment

- (1) Deposit at waste area, spread evenly, compact with Dozer, and provide adequate drainage.
- (2) Pile woody debris separate from other waste material.
- (3) Mulch and seed all waste areas in accordance with Exhibit K



EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

16-8-1 as shown on Exhibit A:

- Point: A to C Grade and shape running surface and establish drainage. The operator shall maintain or re-establish drainage for the entire road based on road current grade and shape. Clearing ditches of debris, re-establishment of ditches where needed, cleaning out catch basins and unplugging or cleaning culverts along the road. Purchaser is required to maintain during the entirety of sale.
- Point A to C Conduct roadside brushing according to Exhibit I.
- Point B Replace culvert with an 18"x40" ACSP pipe in accordance to Exhibit G.
- Point K Before turning down 16-8-1 from the Swamp Creek haul route, there is a large intersection. Improve drainage at this intersection at the low spot in the NE corner as marked in the field.

Rocking Instructions:

- Point A to C Apply a compacted depth of 2" of 1 ½"-0" surface rock. The running surface shall be crowned at 4 to 6 percent.
- Point B Use allocated rock to backfill the culvert after it is replaced. 10 cubic yards provided.
- Point K Use allocated rock to improve drainage at this intersection as directed by STATE. 40 cubic yards provided.

Spur 1 as shown on Exhibit A:

- Point C to F
And I to J Conduct roadside brushing according to Exhibit I for portions shown in Exhibit A.

Conduct standard maintenance along same portions being brushed. Grade and shape running surface and establish drainage. Spur 1 is crowned and the operator shall maintain or re-establish drainage for the entire road. Clearing ditches of debris, cleaning out catch basins and unplugging or cleaning culverts along the road.
- Point D Replace culvert with an 18"x40" ACSP pipe in accordance to Exhibit G. Excavate subgrade to determine the cause of slumps in the road, then refill and compact to road specifications in accordance with Exhibits D and F.
- Point H to F Construct waterbars every 50ft to divert water off the road in accordance with Exhibit H. Intent for this is not to allow for vehicle traffic once waterbars are completed. Do not clear vegetation from ditches as it will be used for additional water filtration.

Rocking Instructions:

- Point C to F
And I to J Apply a compacted depth of 3" of 1 ½"-0" surface rock. The running surface shall be crowned at 4 to 6 percent
- Apply roadside landing rock as needed. There is enough for four landings. 160 cubic yards provided.



State Timber Sale Contract
No. WL-341-2021-W00782-02
East Greenleaf

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Spur 1 as shown on Exhibit A: continued

- Point D Use allocated rock to backfill the culvert after it is replaced. 10 cubic yards provided. Apply another 10 cubic yards of rock as directed by STATE.
- Point E Apply 10 cubic yards of rock as directed by STATE.
- Point F Apply 10 cubic yards of rock as directed by STATE.

Spur 1a as shown on Exhibit A:

0+00 to 14+52 Conduct roadside brushing according to Exhibit I.

Conduct standard maintenance. Grade and shape running surface and establish drainage. Spur 1a is crowned and the operator shall maintain or re-establish drainage for the entire road. Clearing ditches of debris, cleaning out catch basins and unplugging or cleaning culverts along the road.

6+95 Construct roadside landing in accordance to Exhibit I. Landing should be outsloped 4 to 6 percent.

Rocking Instructions:

0+00 to 6+95 Apply a compacted depth of 6" of 3"-0" base rock. The running surface shall be crowned at 4 to 6 percent.

Apply a compacted depth of 2" of 1 ½"-0" surface rock. The running surface shall be crowned at 4 to 6 percent.

6+95 Apply allocated landing rock.

Spur 1b as shown on Exhibit A:

F to G Conduct roadside brushing according to Exhibit I.

Conduct standard maintenance. Grade and shape running surface and establish drainage. The operator shall maintain or re-establish drainage for the entire road. Clearing ditches of debris, cleaning out catch basins and unplugging or cleaning culverts along the road.

This spur will serve as an access road for the culvert and fill removal project. After operations have completed, this road will need to be blocked between F and the TA with material removed from the fill as approved by STATE.

TA Construct an empty truck turnaround in accordance with this exhibit.

Begin cut for ramp down construction as marked in the field. Ramp down not to exceed 18%. Material excavated during construction will be end hauled to WA1, WA2, and WA3 designated in Exhibit A.



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EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Spur 1b as shown on Exhibit A: continued

- G Begin crossing fill removal. There are stakes marked in the field with cut depths for the center of fill. There are also stakes for the outer cut edges of the fill. Cut slopes should be excavated to 1 ½ : 1. There will be a total of approximately 3326 cubic yards of material removed from the ramp down construction and the crossing fill. All material excavated during construction will be end hauled to the waste area designated in Exhibit A. Waste material will be placed above road and woody debris will be placed below road in waste area 1 (WA1). Toe of fill will be a minimum of 10 feet away from clearing limits.

Any waste material that does not fit in WA1 should be placed in WA2 or WA3.

Rocking Instructions:

F to G None.



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EXHIBIT E

ROAD	ROCK TYPE	ROCK SIZE	COMPACTED DEPTH	YDS ³ /STA	TOTAL STATIONS	STA. TO STA. POINT TO POINT		APPROX TOATAL YDS ³
Spur 1	CAP	1 1/2"-0"	3"	17	103.56	C, I	F, J	1760
Spur 1a	BASE	3"-0"	6"	33	6.95	0+00	6+95	230
Spur 1a	CAP	1 1/2"-0"	2"	11	6.95	0+00	6+95	80
16-8-1	CAP	1 1/2"-0"	2"	11	99.04	A	C	1090
Logger Option 1	BASE	3"-0"	8"	44	6.28	0+00	6+28	280
Logger Option 2	BASE	3"-0"	8"	44	5.71	0+00	5+71	250
Logger Option 3	BASE	3"-0"	8"	44	5.79	0+00	5+79	250
Logger Option 4	BASE	3"-0"	8"	44	6.37	0+00	6+37	280
LANDINGS								
ROAD		ROCK SIZE	COMPACTED DEPTH	YDS ³ /STA	STATIONS	STATION		APPROX TOATAL YDS ³
Spur 1		Jaw Run	6"	40	4.00	Determined by STATE		160
Spur 1a		Jaw Run	6"	40	1.00	6+95		40
Logger Option 1		Jaw Run	6"	40	1.00	6+28		40
Logger Option 2		Jaw Run	6"	40	1.00	5+71		40
Logger Option 3		Jaw Run	6"	40	1.00	5+79		40
Logger Option 4		Jaw Run	6"	40	1.00	6+37		40
CURVE WIDENING/SPOT ROCK								
Road		ROCK SIZE	COMPACTED DEPTH	Yds ³ /Point	# POINTS	STATION		APPROX TOATAL YDS ³
Spur 1		1 1/2"-0"		3	10	Determined by STATE		30
16-8-1		3"-0"		40	1	K		40
Energy Disipator								
Road		ROCK SIZE	COMPACTED DEPTH	Yds ³ /Point	# POINTS	STATION		APPROX TOATAL YDS ³
Spur 1		1 1/2"-0"		10	1	D		10
16-8-1		1 1/2"-0"		10	1	B		10

Rock Totals	Pit Run	3"-0"	1 1/2"-0"	3/4" -0"	Jaw Run
LOOSE TRUCK Cu. Yds		270	2980		200

Total Approximate Yds³ 1 1/2"-0" = **2980**
 Total Approximate Yds³ 3"-0" = **270**
 Total Approximate Yds³ Jaw Run = **200**

Logger Optional

Total Approximate Yds³ 1 1/2"-0" = **0**
 Total Approximate Yds³ 3"-0" = **1060**
 Total Approximate Yds³ Jaw Run = **160**

Road shall be compacted, graded, shaped, and approved by STATE prior to rocking.
 Approximate yards assumes construction during ideal weather conditions.



"Stewardship in Forestry"

Only clean, uncontaminated crushed rock counts towards rock depth measurement.

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EXHIBIT E
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 weekly. However, depth measurement shall be used to determine contract compliance.



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EXHIBIT E
DURABLE CRUSHED ROCK SPECIFICATIONS

Grading Requirements

<u>For 3/4"-0"</u>	Passing	1" sieve	100%
	Passing	3/4" sieve	90-100%
	Passing	3/8" sieve	55-75%
	Passing	1/4" sieve	40-60%
	Passing	No. 10 sieve	20-40%
	Passing	No. 40 sieve	8-16%

<u>For 1½"-0"</u>	Passing	2" sieve	100%
	Passing	1½" sieve	90-100%
	Passing	3/4" sieve	60-90%
	Passing	1/4" 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	3/4" sieve	40-60%
	Passing	1/4" sieve	20-40%
	Passing	No. 10 sieve	5-20%

JAW-RUN, PIT-RUN, and RIPRAP ROCK SPECIFICATIONS

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

Control of gradation shall be by visual inspection by STATE.



EXHIBIT F
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.

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, outsloped, or insloped at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D and as directed by STATE.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring crushed rock.	(1) Vibratory Roller

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.



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EXHIBIT G
CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract.

Culverts shall be constructed of corrugated aluminized (Type 2) steel.

Polyethylene culverts shall be double-walled and meet the requirements of AASHTO M-294-06, Type S, **or** ASTM F2648 Culvert.

Aluminized (Type 2) steel culverts shall meet the requirements of AASHTO M-36-03¹.

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 specified in special instructions.

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

Cross drain culverts on road grades in excess of 3 percent shall be skewed at least 30 degrees from perpendicular to the road centerline, except that cross drain culverts at the low point of dips in roads shall not be skewed.

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3 percent or greater than 10 percent.

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 culvert. The culvert trench shall be excavated 3 culvert diameters wide to permit compaction and working on each side of the culvert. Tamping shall be done in 6-inch lifts, 1 culvert diameter each side of the culvert. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

Backfill shall consist of, crushed rock, or approved job-excavated soil free of stumps, limbs, rocks, or other objects which would damage the culvert. Additional surfacing rock shall be placed over the culvert to account for shrinkage and compaction during hauling.

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

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". 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.



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EXHIBIT G
CULVERT SPECIFICATIONS

The intake ends of culverts in fills less than 3 feet to the top of the culvert shall be marked by driving steel posts within 6 inches of the downgrade side. Posts shall be painted with a rust-resistant paint and be a minimum of 5 feet long, with the spade driven 2 feet into the ground.

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

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

<u>Steel Culvert</u>		<u>Thickness</u>		<u>Band Widths (")</u>		
<u>Dia.</u>	<u>Gauge</u>	<u>Uncoated</u>	<u>Coated</u>	<u>Band Gauges</u>	<u>Annular</u>	<u>Helical</u>
18-24	16	(0.0598")	(0.064")	16	12	12

DIAMETER / PIPE ARCH	LENGTH		MATERIAL	ROAD	STATION
(Inches)	(Feet)	Gauge			
18	40	16	Aluminized Steel	16-8-1	Point B
18	40	16	Aluminized Steel	Spur 1	Point D

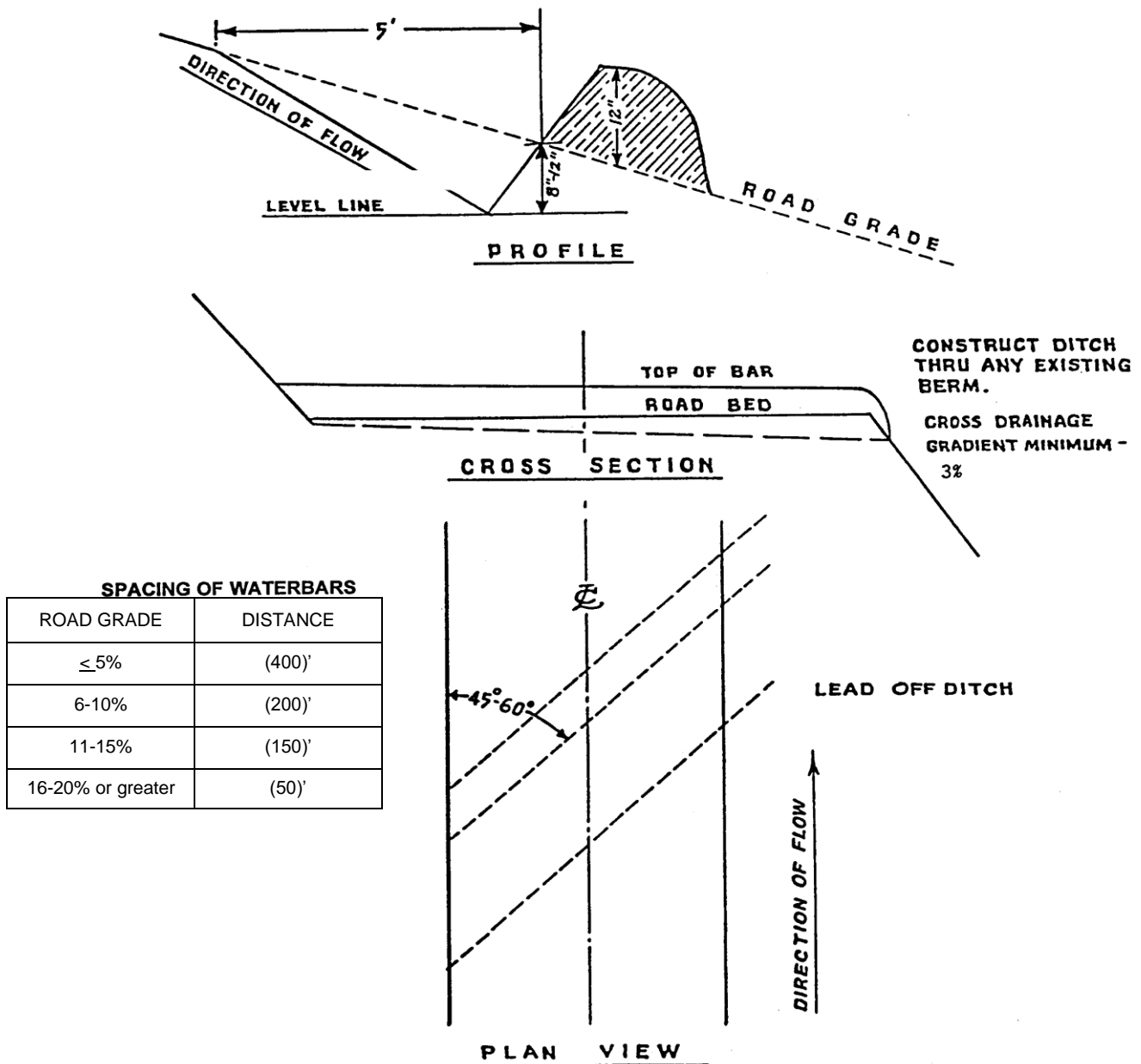
Ditchouts will be utilized to provide ditch relief or as approved or directed by the STATE.

ACSP = Aluminized, CPP = Polyethylene, GCSP = Galvanized

Culvert Length shown are not the exact lengths. The length may be less or greater based on site conditions. Operator shall install the appropriate length of culvert to meet the requirements in this Exhibit as stated above and as directed by STATE.



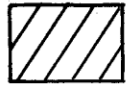
EXHIBIT H
WATERBAR SPECIFICATIONS



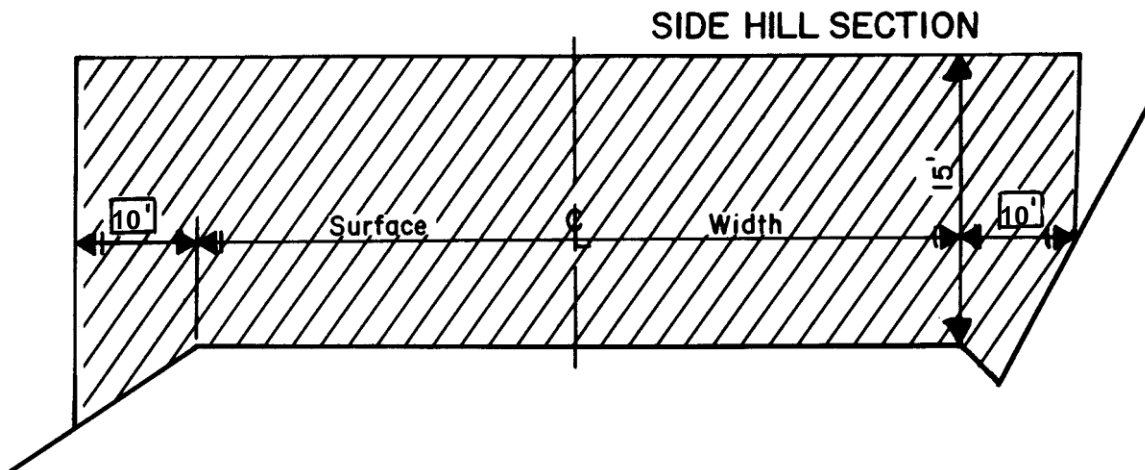
WATERBAR SPECIFICATIONS
FOR CROSS DITCHING #298



EXHIBIT I
ROAD BRUSHING SPECIFICATIONS



Clearing Limits





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EXHIBIT I
ROAD BRUSHING SPECIFICATIONS

REQUIREMENTS

The minimum height of clearing shall be 15 feet from the road surface, and the minimum width of clearing on the cut slope side of the road shall be 10 feet horizontal distance from the shoulder of the road and 10 feet horizontal on the down slope side from the road shoulder.

Brush and trees shall be cut to a maximum height of 6 inches above the ground surface or obstructions such as rocks or existing stumps.

Debris resulting from the brushing operation shall be removed from the roadway, cut slope, ditches, water courses, culvert inlets and outlets and sediment catching basins. Debris shall be mulched or scattered downslope from the road or placed in other stable locations. Large debris, 6 inches or larger in diameter, shall be mulched or cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.

Trees larger than 6 inches in diameter at stump height, located within clearing limits but outside of the ditch line or shoulder, shall not be cut down, but shall be limbed for road visibility. Planted or established conifers, located within brushing limits but outside of the ditch line or shoulder, shall not be cut down, but shall be limbed for road visibility unless otherwise directed by STATE.

Existing debris on the roadway, cut slope, ditch line, or catch basin shall be removed and treated. Debris shall be mulched or scattered downslope from the road or placed in other stable locations. Large non-merchantable debris, 6 inches or larger in diameter, shall be mulched or cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.

Merchantable blown down trees encountered shall be bucked in lengths as directed by STATE, and placed in locations acceptable to STATE, or pushed out of the road prism.

When spur roads to be brushed end with a Landing, the Landing is to be brushed as directed by STATE.

CULVERT DAMAGES. Culverts damaged, or any portion of a marker damaged from PURCHASER activities shall be assessed a damage fee.



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EXHIBIT J
CULVERT REMOVAL SPECIFICATIONS

Work shall be conducted only during the in-water working period which varies by watershed. In general it is during low water flows and typically between July and September, annually unless otherwise approved in writing by STATE. STATE shall be notified a minimum of 48 hours prior to beginning work. STATE has prepared the required FPA "Written Plan" for this work.

PURCHASER shall vacate the existing culverts at Point: G. Specific objectives for this project include:

- (a) Fill removal and stream channel development.
- (b) Culvert removal.
- (c) Minimize disturbance of existing vegetation.

SPECIFIC INSTRUCTIONS

- (1) Tree Removal. Cut or remove all trees necessary to access the project area and to facilitate vacating operations, as directed by STATE. Timber shall NOT be removed as Designated Timber, unless located within posted timber sale boundaries or right-of-way boundaries.
- (3) In Stream Work. The uphill side of the stream will need to be dammed and the water pumped to the downhill side of the stream prior to beginning operations.
- (2) Fill Removal and Stream Channel Development. Remove fill to the natural stream course level, as directed by STATE. Stream channel shall be excavated/developed to specified widths staked in the field. Developed stream banks shall be sloped at natural contours or no steeper than 1½:1, as directed by STATE.
- (3) Culvert Removal. Remove drainage structures and culverts. Removed culverts shall be hauled to an approved refuse site off of STATE land.
- (4) Use of Excavated Materials.
 - (A) Fill Excavation. Excavated materials shall be hauled to a designated waste area, as directed by STATE.
 - (B) Woody Debris will be hauled to a designated waste site or incorporated in the channel development as directed by STATE.
 - (C) Block Roads. Use excavated material from fill removals to block roads from vehicle access, as directed by STATE.
- (5) Erosion Control. Apply seed and straw mulch to excavated material and bare soils, in accordance with the specifications in Exhibit K. Applied mulch shall be a minimum of 2 inches deep and provide a uniform cover.



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EXHIBIT J
CULVERT REMOVAL SPECIFICATIONS

- (6) Equipment. A minimum 1½ cubic-yard, track mounted excavator shall be used for all excavation, culvert removal, streambed preparation, and road blocking, unless otherwise approved in writing by STATE.
- (7) Dry Conditions. All work shall be performed during dry conditions acceptable to STATE.
- (8) Support, including transport, other equipment, replacements, supplies, maintenance, and repairs, shall be furnished as required to complete the project and shall be furnished without cost to STATE, other than as agreed under the contract terms.

SPECIFIC INSTRUCTIONS/SPECIFICATIONS:

<u>Segment</u>	<u>Point</u>	<u>Work Description</u>
TA to G		Begin ramp down construction and Fill Removal
	G	Remove remaining fill, culverts, and big woody debris, if any.



EXHIBIT K
SEEDING AND MULCHING

This work shall consist of preparing seedbeds and furnishing and placing required seed, fertilizer, and straw mulch. Straw mulch shall consist of straw that is free of noxious weeds. Apply seed, fertilizer, and straw mulch to all waste areas, and bare soils resulting from Project No. 2 and 3.

Seeding Seasons. Seeding shall be performed only from March 1 through June 15 and August 15 through October 31. Seeding materials shall not be applied during windy weather or when the ground is excessively wet or frozen. Areas of disturbed soil shall be seeded by the end of the project period in which work was started.

APPLICATION METHODS FOR SEED AND FERTILIZER

Dry Method. Mechanical seeders, seed drills, landscape seeders, cultipacker seeders, fertilizer spreaders, or other approved mechanical seeding equipment shall be used to apply the seed and fertilizer in the amounts and mixtures specified. Hand-operated seeding devices may be used when seed and fertilizer are applied in dry form.

APPLICATION RATES FOR SEED AND FERTILIZER

The seed mixture listed below shall be applied at 100 lbs. per acre. The seed mixture shall be comprised of the following:

SPECIES	MIXTURE	PURE LIVE SEED	GERMINATION
Annual Rye	33%	95%	>90%
Orchard Grass	33%	95%	>90%
Perennial Rye	34%	95%	>90%

Fertilizer: Chemical analysis shall be 16-20-0 and shall be applied at the rate of 200 pounds per acre. Fertilizer shall not be applied within 100 feet of streams.

Mulching Period. Straw mulch shall be applied within 24 hours of spreading grass seed and fertilizer.

Place straw mulch to a reasonably uniform thickness of 1½ to 2½ inches. This rate requires between 2 and 3 tons of dry mulch per acre.

Application Locations:

Road Segment	Location
Spur 1	Waste Areas
Spur 1b	G

OREGON DEPARTMENT OF FORESTRY
Western Lane District

Written Plan

Written Plan
East Green Leaf Timber Sale
341-2021-W00782-02

Portions of Section 14, T16S, R08W, W.M. Lane County

Protected Waters: Small Type F (un-named tributaries) to Greenleaf Creek.

Activity: Pulling culvert and seeding bare soil.

Project Measures:

- Pulling of old culvert and buried logs from stream crossing.
- Activities will only take place during In-Stream-Work period
 - July 1st to September 15th
- All waste material will be transported from stream crossing to nearby waste area.
- All bare soil from pulling of culver near stream will be seeded to prevent erosion and runoff.

Prepared By: Ross Huffman
Natural Resources Specialist

Date: October 19, 2020