

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Tillamook Field Office
4610 Third Street
Tillamook, Oregon 97141

Snaggletooth Timber Sale
ORN04-TS-2018.0401
Date: June 01, 2018

PROSPECTUS
SBA SET-ASIDE

THIS IS A PROSPECTUS ONLY. ATTACHMENTS MAY NOT INCLUDE ALL EXHIBITS REFERRED TO IN THE CONTRACT. THE COMPLETE CONTRACT, INCLUDING ALL EXHIBITS, IS AVAILABLE FOR INSPECTION AT THE TILLAMOOK FIELD OFFICE.

NOTICE IS HEREBY GIVEN that the Bureau of Land Management will offer for sale timber as described herein for oral auction, pursuant to Instructions to Bidders, as stated on Form No. 5440-9, attached. Written and oral bids will be received by the District Manager, or his representative, in the timber sale room at the District Office, 1717 Fabry Road, S.E., Salem, Oregon. Written bids and deposits will be accepted beginning at 8:30 a.m. and the timber sale oral auction will commence at 9:00 a.m., on Wednesday, June 27, 2018.

THIS TIMBER SALE NOTICE does not constitute the decision document for purposes of protest and appeal of a forest management decision. Consistent with 43 CFR Subpart 5003-Administrative Remedies, the notice of a timber sale, when published as a legal ad in a newspaper of general circulation shall constitute the decision document for purposes of protest and appeal. Protests may be filed with the Contracting Officer within 15 days of the publication of the aforementioned decision document in the newspaper. It is anticipated that the decision document will be published in the South County Spotlight on or about June 01, 2018. BLM does not warrant publication on this exact date. All parties considering protest of the timber sale decision document are encouraged to review the aforementioned newspaper to ensure accurate knowledge of the exact publication date.

AN ENVIRONMENTAL ASSESSMENT was prepared for each timber sale tract, and a Finding of No Significant Impact has been documented. These documents are available for inspection as background for each timber sale tract at the Tillamook Field Office.

FOR SBA SET-ASIDE TRACTS, the bidder must not have been determined by the Small Business Administration to be ineligible for preferential award for set-aside sales and must accompany his deposit with a self-certification statement that he is qualified as a small business concern as defined by the Small Business Administration in its regulations, Title 13, Chapter I, Part 121 (Revision 7) as amended, of the Code of Federal Regulations. The Form 5430-1 Self Certification Statement is attached hereto. The successful bidder will be required to sign SBA Form 723 "Small Business Certification Required on All Preferential Sales of Set-Aside Timber" at the time he signs the timber sale contract. Section 2(a) of Form 723 requires that successful bidders of SBA set-aside tracts must comply with delivery requirements pertaining to sawtimber volume. No more than 30 percent of the timber volume from a set-aside sale may be delivered for manufacturing to a business that is not a small business, as defined by the SBA (13 CFR 121.507 (a)). A copy of SBA form 723 is attached.

A WRITTEN BID on Form 5440-9 at not less than the advertised appraised price on a unit basis per species and the required minimum bid deposit shall be required to participate in oral bidding.

THE SUCCESSFUL BIDDER, as a condition of award, will be required to sign Form 5430-11, a certification that the bid was arrived at by the bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. Also, Form 5450-17, Export Determination must be completed by the successful bidder. To expedite procedure, this form should be completed and submitted with the written bid.

THE VOLUMES LISTED herein are estimates only. The sale volumes listed are based on 16-foot taper breaks which must be taken into consideration if comparisons are made with volume predictions based on other standards. The volumes based on 32-foot taper breaks are shown for comparison purposes. No sale shall be made for less than the advertised appraised price. The Purchaser shall be liable for the total purchase price, without regard to the amount bid per unit, even though the quantity of timber actually cut or removed or designated for taking is more or less than the estimated volume or quantity so listed.

THIS TIMBER SALE has been cruised based upon Eastside Scribner board foot measure. The minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$0.10 per MBF.

A PERFORMANCE BOND in an amount not less than 20 percent of the total purchase price will be required for all contracts of \$2,500 or more. A minimum performance bond of not less than \$500 will be required for all installment contracts less than \$2,500.

QUALIFIED SMALL BUSINESS concerns may apply to SBA for a loan to provide financing for access road construction required under the terms of qualifying timber sale contracts, and necessary contract changes will be made. Approval of loan applications rests with SBA and may be contingent on availability of funds. Applicants for such loans shall notify BLM of their intention to apply for a loan.

PRE-AWARD QUALIFICATIONS. The high bidder may be required to furnish information to determine the ability to perform the obligations of the contract. If the high bidder is determined not qualified, responsible or refuses to respond within fifteen (15) days of a request for information pertaining to qualifications, the contract may be offered and awarded for the amount of the high bid to the highest of the bidders who is qualified, responsible, and willing to accept the contract.

LOG EXPORT AND SUBSTITUTION: All timber sales, including timber from Federal rights-of-ways, shall be subject to the restrictions relating to the export and substitution of unprocessed timber from the United States in accordance with P.L. 94-165 and 43 CFR 5400 and 5420, as amended. The BLM has revised the log export restrictions special provision to reduce the log branding and painting requirements.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS: Excepting Port-Orford-cedar, all timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and is prohibited from being used as a substitute for exported private timber. The BLM has revised the log export restrictions special provision to reduce the log branding and painting requirements. The new requirements include branding of one end of all logs with a scaling diameter of over 10 inches. All loads of 11 logs or more, regardless of the diameter of the logs, will have a minimum of 10 logs branded on one end. All logs will be branded on loads of 10 logs or less. One end of all branded logs will be marked with yellow paint. At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. The Purchaser shall bear any increased costs for log branding and painting.

CONTRACT MODIFICATION, SUSPENSION OR TERMINATION: A revised Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and/or to modify or terminate the contract when necessary to: (1) Comply with the Endangered Species Act or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), or; (2) Comply with a court order, or; (3) Protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines or management direction established in the ROD and RMP.

ADDITIONAL INFORMATION concerning this timber sale tract is available at the above Tillamook Field Office. A copy of the timber sale contract is also available for inspection at the District Office. The prospectus for this/these sale(s) is also available online at: <https://www.blm.gov/or/resources/forests/index.php>. The prospectus includes maps and tables that cannot be made Section 508 compliant. For help with its data or information, please contact the Tillamook Field Office at 503-815-1100.

Attachments:

Form 5450-17

Form 5430-11

Form 5440-9

Form 5430-1

SBA Form 723

TIMBER SALE NOTICE
SBA SET-ASIDE SALE

THIS IS A SMALL BUSINESS SET-ASIDE SALE FOR PREFERENTIAL BIDDING BY SMALL BUSINESS CONCERNS AS DEFINED BY THE SMALL BUSINESS ADMINISTRATION.

NORTHWEST OREGON DISTRICT
TILLAMOOK FIELD OFFICE
COLUMBIA MASTER UNIT

Sale Date: June 27, 2018

CONTRACT NO.: ORN04-TS-2018.0401, Snaggletooth Timber Sale, Lump Sum
COLUMBIA COUNTY, OREGON: O&C: **ORAL AUCTION**
BID DEPOSIT REQUIRED: **\$243,100.00**

All timber designated for cutting on: E $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 17; NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 21, T. 4 N., R. 3 W., W.M., Oregon

THIS TIMBER SALE HAS BEEN CRUISED BASED UPON EASTSIDE SCRIBNER MEASURE. Minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$0.10 per MBF.

Approx. No. Merchantable Trees					
11,606	5,024	Douglas-fir	6,190	\$388.10	\$2,402,339.00
1,791	25	Red Alder	33	\$284.30	\$9,381.90
141	15	Western Redcedar	22	\$656.60	\$14,445.20
152	0.7	Bigleaf Maple	1	\$54.80	\$54.80

Product				
Clean Chips	Green Tons	808	\$5.00	\$4,040.00

Total Appraised Value:

LOG EXPORT AND SUBSTITUTION RESTRICTIONS: All timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and also prohibited from substitution of exported private timber.

CRUISE INFORMATION: The timber volumes for all units were based on a variable plot cruise for estimating the board foot volume of trees. Plots were measured using a twenty (20) basal area factor (BAF) for partial cut units and a forty (40) BAF for regeneration units and rights-of-way. None of the total sale volume is salvage material. For merchantable Douglas-fir trees the average DBHOB is 19.8 inches; the average gross merchantable log contains 102 bf; the total gross volume is approximately 6,506 MBF; and 95% recovery is expected.

CUTTING AREA: Four (4) units totaling approximately two hundred nine (209) acres, of which, one hundred seven (107) acres shall be partial cut and ninety-seven (97) acres shall be regeneration harvest. In addition, approximately five (5) acres of right-of-way shall be cut. Acres shown on Exhibit A have been computed using a Trimble Pro XH Global Positioning System receiver. Acreage was calculated based on Global Positioning System traverse procedures including differential correction.

DURATION OF CONTRACT: Contract length will be thirty-six (36) months for cutting and removal of timber.

SAFETY: This contract includes an additional special provision to ensure the Purchaser understands he/she is required to conduct all operations in compliance with Contract Section 12 (Purchaser's Contractual Responsibilities for Liability) and Contract Section 29 (Safety and Health) and the Special Provisions included in Section 42 of this Contract.

LOCATION: The contract area is located approximately 5 air miles southeast of Vernonia, Oregon. From Vernonia, follow Highway 47 east and north for approximately 5 miles. Turn right and follow Scappoose-Vernonia Highway east and south for approximately 6.5 miles. Turn right onto the 4N-3-17 Road and consult a project map.

ACCESS AND ROAD MAINTENANCE: Access is provided by Bureau of Land Management (BLM), Scappoose Western Forests, LLC, Rayonier Washington Timber Company, and Weyerhaeuser Company controlled roads. All roads used in conjunction with this sale will be maintained by the Purchaser. Purchaser will be required to pay a rock wear obligation of three thousand eight hundred seventy-eight and 59/100 dollars (\$3,878.59) to the Government and spread 320 CY Crushed spot rock on BLM roads for maintenance.

In use of Rayonier Washington Timber Company controlled roads, under Agreement S-522F (OR066364) and as shown on Exhibit E, the Purchaser will be required to enter into a license agreement which requires: (a) Purchaser maintenance of all Rayonier Washington Timber Company controlled roads, (b) Purchaser pay a rockwear fee of five and 27/100 dollars (\$5.27), (c) No payment of road use obligation to Rayonier Washington Timber Company, (d) Purchaser agrees to purchase 6.1 MBF Douglas-Fir @ \$405.13/MBF which equals two thousand four hundred seventy-one and 29/100 dollars (\$2,471.29) for the removal of merchantable timber off of road right-of-ways used, and (d) Purchaser provide proof of insurance with limits of \$1,000,000/ \$1,000,000/ \$1,000,000 and a performance bond of \$1,000. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a copy of the executed license agreement.

In use of Weyerhaeuser Company controlled roads, under Agreement S-522A (OR065603) and as shown on Exhibit E, the Purchaser will be required to enter into a license agreement which requires: (a) Purchaser maintenance of all Weyerhaeuser Company controlled roads, (b) Purchaser pay a rockwear fee of nine hundred two and 56/100 dollars (\$902.56), (c) No payment of road use obligation to Rayonier Washington Timber Company, and (d) Purchaser provide proof of insurance with limits of \$1,000,000/ \$1,000,000/ \$1,000,000 and a performance bond of \$1,000. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a copy of the executed license agreement.

In use of Scappoose Western Forests, LLC controlled roads, under Agreement S-522G (OR066365) and as shown on Exhibit E, the Purchaser will be required to enter into a license agreement which requires: (a) Purchaser maintenance of all Scappoose Western Forests, LLC controlled roads, (b) Purchaser pay a rockwear fee of one thousand eight hundred forty and 35/100 dollars (\$1,840.35), (c) No payment of road use obligation to Rayonier Washington Timber Company, and (d) Purchaser provide proof of insurance with limits of \$1,000,000/ \$1,000,000/ \$1,000,000 and a performance bond of \$1,000. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a copy of the executed license agreement.

Rockwear fees have been calculated using estimated timber volumes. Additional fees for rockwear will be calculated at the agreed upon rates (in the license agreement) for additional timber volume and be charged to Purchaser.

Purchaser maintenance shall include frequent blading and shaping of road surface; ditch, culvert, and catch basin cleaning; removal or minor slides and other debris. Roads shall be left in a condition to withstand adverse weather at the end of the seasonal operations. It shall also include the spreading of 220 CY crushed rock on non-BLM roads as needed and instructed by Authorized Officer.

When operating on or near the Bonneville Power Administration (BPA) right-of-way and using roads 4N-3-21.4 A3, 4N-3-21.7, Spur A and Spur B, the Purchaser shall follow the BPA's guidelines for all activities which includes: (a) Purchaser maintenance of all Bonneville Power Administration controlled easements, and (b) Purchaser provide a Certificate of Insurance or Bond in the amount of \$1,000,000.00. The complete BPA Guidelines document is available upon request.

Alternate access is available but will require a contract modification. Contact engineers at the Tillamook Field Office for more detailed information.

ROAD CONSTRUCTION AND RENOVATION: The Purchaser will be required to do all work set forth below. The Purchaser shall supply all materials unless otherwise indicated.

1. **New Road Construction:**

Road Spur A- 235 feet, 14-foot subgrade, Natural surfacing, Construct Landing.

Road Spur B- 313 feet, 14-foot subgrade, Natural surfacing, Construct Landing.

Road Spur C- 1,277 feet, 14-foot subgrade, Natural surfacing, Culvert Installations, Construct Landing & Turnaround.

Road Spur D- 790 feet, 14-foot subgrade, Natural surfacing, Construct Turnaround & Landing.

4N-3-17.3 (Sta. 8+82 – 13+05)- 423 feet, 14-foot subgrade, 12 feet Rocked Surfacing, yellow painted trees in R-O-W are to be cut and remain outside of road prism.

4N-3-17.4 (0+00 – 2+05)- 205 feet, 14-foot subgrade, Natural surfacing.

4N-3-28.2- 1,485 feet, 14-foot subgrade, Natural surfacing, Culvert Installation, Construct Turnaround and Landing.

2. **Renovation:**

SV/Gunner's Loop- 196 feet, 16-feet ditched subgrade/14 feet surfaced. Blade, Brush, Ditchline Re-establishment by bunching and hauling to waste area, Install culvert as marked in field, Spread Spot Rock and 4" Lift Crushed as marked in field and directed in rock sheets.

4N-3-14.1- 0.531 miles, 16-feet ditched subgrade/14 feet surfaced. Blade, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Two roadside landing construction locations marked in field.

4N-3-15.0- 1.287 miles, 16-feet ditched subgrade/14 feet surfaced. Blade, Brush, Install Culvert as marked in field, Install inlet markers on all culverts, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Turnout construction, and Spread Spot Rock as directed in rock sheets.

4N-3-17.0- 0.631 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Brush, Install/Replace Culverts, Install inlet markers on culverts as directed, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Three log fill removals, Construct Sediment Catch Basins w/ straw bales as marked in field, Construct Turnouts as marked in field, Spread a 6" lift of Crushed as marked in field, Place RipRap Stabilization wall with Pit-Run backfill as marked and directed, and Spread/Place Other Rock types and quantities as directed in rock sheets.

4N-3-17.3 (0+00 – 8+82 & 13+05 – 20+10)- 1,587 feet, 14-feet outsloped subgrade rocked surface. Blade, Install Culverts, Install inlet markers on culverts as directed, Clearing and Grubbing, Ditchline Re-establishment (in through-cuts) by pulling into subgrade and using as fill material, Two log fill removals, Excavation and hauling (material used in fills and landing construction) for widening required in three locations marked in field, Remove existing barrier and waterbars, Construct Turnarounds and Landing as marked, Spread a 8" Lift of Crushed as marked in field, Place RipRap Stabilization wall as marked and directed, and Spread/Place Other Rock types and quantities as directed in rock sheets.

4N-3-17.4 (2+05 – 10+05)- 800 feet, 14-feet outsloped subgrade/rocked surface. Blade, Clearing and Grubbing, and Construct Landing as marked in field.

- 4N-3-21.3- 0.266 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Brush, Install inlet markers on culverts as directed, Construct Turnaround, and Spread Spot/Turnaround Rock as directed in rock sheets.
- 4N-3-21.4a1- 0.144 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Remove existing waterbars, and Spread/Place Rock types and quantities as directed in rock sheets.
- 4N-3-21.4a2- 0.188 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Remove/use boulders in ditchline as directed, and Spread/Place Rock types and quantities as directed in rock sheets.
- 4N-3-21.4a3- 0.074 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Loaded Truck Turnaround Construction w/ end-haul as directed and marked in field. Install Culverts, Install inlet markers on culverts as directed, Place RipRap Stabilization wall/dissipater as marked and directed and Spread/Place Rock types and quantities as directed in rock sheets.
- 4N-3-21.5- 0.235 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Brush, Install Culverts, Install inlet markers on culverts as directed, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Construct Sediment Catch Basins w/ straw bales as marked in field, One log fill removal, Construct Turnaround as marked, Place RipRap Stabilization walls as marked and directed, Construct a free draining fill as marked and directed, and Spread/Place Other Rock types and quantities as directed in rock sheets.
- 4N-3-21.7- 477 feet, 14-feet outsloped subgrade/rocked surface. Blade, Brush, Some Clearing and Grubbing, Construct Turnaround as marked in field, Place Concrete barricades along road and turnaround for BPA tower protection as directed, and Spread Spot/Turnaround Rock as directed in rock sheets.
- 4N-3-22.1- 0.812 miles, 14-feet ditched subgrade/12 feet surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Construct turnouts, Construct Sediment Catch Basins w/ straw bales as marked in field, and Spread/Place Rock types and quantities as directed in rock sheets.

3. Estimated Quantities:

a. Clearing, Grubbing, and Brushing:

9.6 acres of Clearing and Grubbing (new construction and renovation)

4.383 miles brushing

b. Culverts:

682 feet of 18 inch Corrugated Plastic Pipe (CPP) – Type S

190 feet of 24 inch Corrugated Plastic Pipe (CPP) – Type S

208 feet of 36 inch Corrugated Plastic Pipe (CPP) – Type S

30 feet of 18 inch Corrugated Plastic Pipe for Downspout (CPP) – Type C

60 feet of 24 inch 16 gage Aluminized Steel Perforated Pipe (CMP)

34 metal “T-Post” Inlet Markers

c. Aggregate Material:

<u>Quantity</u>	<u>Description</u>
2,101 cubic yards	1-1/2" minus crushed rock – construction rock
735 cubic yards	Pit-Run –construction rock
913 cubic yards	3" minus crushed rock – construction rock
100 cubic yards	1-1/2"- 3/4" Drain Rock – construction rock
470 cubic yards	1-1/2" minus crushed rock -- Culvert bedding material
520 cubic yards	1-1/2" minus crushed rock – Maintenance rock
20 cubic yards	3" minus crushed rock – Maintenance rock
75 cubic yards	RipRap – (Class 3)
90 cubic yards	Riprap – (Class 5)

Rock Source: Commercial; (Oak Ranch Pit); some Class 3 RipRap Local (4N-3-21.4a2 ditchline).

d. Geotextiles:

300 SY Mirafi 160N non-woven geosynthetic drain fabric.

e. Barriers:

5 Concrete Barricade Blocks

OTHER:

Compaction of all final subgrades will be required.

Right of way debris will be disposed of by scattering adjacent to all roads, outside of clearing limits.

All natural surfaced roads will be water barred and blocked at the end of seasonal operations.

Roads Spur A, Spur B, Spur C, Spur D, 4N-3-17.4 (Sta. 0+00 – 2+05), and 4N-3-28.2 will be subsoiled to a depth of 18 inches, culverts removed, slash spread over road prism, water barred & blocked upon completion of logging. Clearing debris shall be placed on and around the barriers so as to prevent further use of the road by vehicles. Roads 4N-3-17.3 and 4N-3-17.4 (Sta. 2+05 – 10+05) shall be decommissioned as described above (but without the subsoiling, culvert removal, or spreading of slash). The 4N-3-21.4 A1 and 4N-3-21.5 will be stabilized by installing drivable waterbars/waterdips.

Grass seeding will be required on all newly disturbed areas. Grass seed will be furnished by the Government.

Straw mulch will be required on all disturbed/seeded soils that are wet and/or within 50 feet each side of "live stream" locations and all disposal sites. Grass Straw will be furnished by the Government.

All waste from re-establishing ditchlines on rock surfaced roads shall be bunched and end-hauled to designated waste areas.

All slide removal material shall be end-hauled to designated waste areas.

All culverts removed upon road decommissioning shall be salvaged and delivered to the BLM Maintenance Facility at the SW¼ of Section 5, T. 3 S., R. 6 W., W.M.

SPECIAL ATTENTION ITEMS:

42.g. Flaggers for Traffic Control

42.m. Safety

42.n. - 42.q. Seasonal Restrictions

DESIGNATION AND SALE OF ADDITIONAL TIMBER (Sec. 42.1.):

This contract contains provisions for the sale and removal of additional timber necessary to facilitate safe and efficient purchaser operations. These provisions include:

- The designation and sale of additional timber, such as corridor and guyline trees, at contract price, as necessary to facilitate safe and efficient logging. Such trees may be felled and removed when they are painted with blue paint above and below stump height by the Authorized Officer;
- Government reservation of trees previously marked for cutting (replacement) when the Authorized Officer determines that it is necessary in order to maintain stand densities consistent with objectives set forth in management prescriptions;
- Revocation of the purchaser's right to cut additional timber if the Authorized Officer determines that trees have been cut and removed that were not previously marked and approved for cutting and removal by the Authorized Officer; and,
- The designation and sale of additional timber described in this section is not included in the advertised sale volume nor was it included in the timber sale appraisal.

SEASONAL RESTRICTION MATRIX:

Activity																				
									Season of Operation											
	Season of Operation - Provided excessive damage is not occurring.																			
									Season of Operation											

Dates are approximate – Restrictions would be dependent on actual weather conditions
Shaded Areas are restricted periods

TIMBER SALE CONTRACT SPECIAL PROVISIONS

Sec. 41. Timber and Area Reservation Provisions

RESERVED

- a. All timber in the reserve area(s) shown on Exhibit A, and all trees that are painted orange and posted, which mark the boundaries of the reserve areas.
- b. All trees marked with orange paint above and below stump height within the boundaries of the Sale Areas shown on Exhibit A.
- c. All existing down logs and snags in the Sale Areas shown on Exhibit A, which do not present a safety hazard as determined by the Authorized Officer. All snags felled shall be retained on site.
- d. All trees marked with yellow paint above and below stump height within the boundaries of the road right-of-way areas shown on Exhibit A. Yellow painted trees cut to facilitate road construction must be retained on site by placing them outside of the road prism.

Sec. 42. Special Provisions

MISCELLANEOUS

- a. The Purchaser agrees not to sell and/or exchange more than thirty (30) percent of the timber or log volume from this preferential sale to concerns that do not meet the Small Business Administration small business size standard (13 CFR 121).

The Purchaser understands that in addition to other penalties which may be imposed for violating the foregoing, the Purchaser may be declared ineligible to participate in future Federal timber sales that are set-aside for preferential bidding by small business qualified concerns for two semi-annual triggered periods succeeding the violation.

The Purchaser shall provide a current, interim Log Scale and Disposition of Timber Removed Report (Form 5460-15) upon request by the Authorized Officer at any time during the contract period for cutting and removal specified in Section 4 of this contract as amended.

LOGGING

b. Before beginning operations on the Contract Area for the first time or after a shutdown of seven (7) or more days, the Purchaser shall notify the Authorized Officer in writing of the date he plans to begin operations. This written notification must be received by the Authorized Officer no less than seven (7) days prior to the date the Purchaser plans to begin or resume operations. The Purchaser shall also notify the Authorized Officer in writing if he intends to cease operations for any period of seven (7) or more days.

c. Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. A pre-work conference between the Purchaser's authorized representative and the Authorized Officer must be held before the logging plan will be approved. All logging shall be done in accordance with the approved logging plan. The Purchaser shall provide a minimum of seven (7) days notice when requesting the scheduling of a pre-work conference.

d. Excessive damage to reserve timber, as determined by the authorized officer, will result in suspension of yarding operations until corrective measures to prevent further damages have been approved by the Authorized Officer.

e. All hardwoods eight (8) inches or larger DBH, which are not reserved, shall be felled in the Regeneration Cut Areas shown on Exhibit A.

f. No falling, yarding, or loading is permitted in or through the reserve area, shown on Exhibit A, unless otherwise approved by the Authorized Officer.

g. The Purchaser shall provide two (2) flaggers to control traffic on Scappoose Vernonia Hwy, where it passes near the sale area, whenever felling within two (2) tree lengths of the road and yarding operations are in progress in that area.

h. No trees may be felled into the Bonneville Power Administration (BPA) transmission line right-of-way designated on Exhibit A. If necessary, lines or cable shall be attached to trees within one hundred fifty (150) feet of the power line corridor prior to felling, and such trees shall be pulled away from the power line corridor during felling.

i. At all landings in the sale areas shown on Exhibit A, all logs more than six (6) inches in diameter at the small end and exceeding six (6) feet in length, except logs sold and removed from the sale area, shall be decked at a location designated by the Authorized Officer.

j. In the Skyline Areas shown on Exhibit A, all yarding shall be done with a skyline or similar cable system equipped with a slackpulling carriage capable of transporting logs completely clear of the ground and capable of yarding two thousand (2,000) feet slope distance from the landing and at least seventy-five (75) feet laterally from the skyline with minimum damage to reserved trees. The carriage shall be capable of being held in position on the skyline during all lateral yarding and shall be able to pass intermediate support jacks as required.

Additionally, the following conditions apply to skyline yarding:

1. Skyline yarding roads shall be located perpendicular to the yarding slope unless otherwise approved by the Authorized officer.
2. The leading end of all logs shall be transported free of the ground during yarding. The rigging of tail or lift trees, intermediate supports and use of tail holds outside of the Sale Areas shall be required where necessary to meet this requirement.
3. Skyline corridors shall not exceed twelve (12) feet in width and would be located at least one hundred fifty (150) feet apart at one end of the yarding area.
4. If the skyline must pass through a riparian no-harvest buffer, the skyline would remain stationary after the initial elevation. If trees are cut within the no harvest buffer for operational purposes, they would remain on site.

k. In the Ground-Based Areas shown on Exhibit A, all yarding shall be done by equipment operated entirely on designated skid trails approved by the Authorized Officer. The area composed of skid trails and landings shall not exceed twelve (12) percent of the total ground-based yarding area. Skid trails shall not exceed fifteen (15) feet in width. Ground-based operations shall be limited to slopes of thirty-five (35) percent or less. Excavation on designated skid trails shall be limited to a maximum cut of one foot unless otherwise approved by the Authorized Officer. All trees that must be removed to facilitate construction of these skid trails shall be felled prior to falling operations in the remainder of this area. The Purchaser shall directionally fall trees into the lead with the skidding direction and winch or carry the logs to the skid trails. Temporary logging roads, skid trails, and harvester/forwarder trails designated by the Authorized Officer would be waterbarred and blocked after each operating season before the fall wet season begins.

Additionally, the following conditions apply to ground-based yarding:

1. A self-propelled mechanical harvester or other specialized equipment may be used if:
 - a. It is boom mounted with a minimum reach of twenty (20) feet using a single grip rotating harvester head.
 - b. It operates on existing disturbed trails to the extent possible, and where not possible, proceeds only on slash mats with a minimum number of passes necessary to process the timber.
 - c. Harvester trails shall be spaced at least fifty (50) feet apart.

2. A forwarder may be used if:
 - a. Forwarder trail locations are approved by the Authorized Officer prior to any operations, and shall not exceed fifteen (15) feet in width.
 - b. When leaving multi-pass trails to retrieve logs, the machine proceeds over a slash mat with a minimum number of passes necessary to process the timber.
3. Skidding:
 - a. Skidding shall be done so that the leading end of the log is lifted fully off the ground.
 - b. Ground-based skidding equipment would not be permitted to leave approved skid trails to retrieve logs, but must either pull a winch line to the logs or work in conjunction with specialized harvester equipment described above.

1. Before cutting and removing any trees necessary to facilitate logging in the timber sale areas, the Purchaser shall identify the location of skid trails, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference, and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding the following conditions must be met:

1. All skid trails and/or cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees.

2. The Purchaser may immediately cut and remove additional timber to clear skid trails and cable yarding roads; and provide tailhold, tieback, guyline, lift and intermediate support trees when the trees have been marked with blue or green paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. When trees are marked with yellow paint above and below stump height they may be cut, but must remain on site. The volume of the timber to be sold will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures. No timber may be cut or removed under terms of this provision unless sufficient installment payments have been made in accordance with Sec. 3.(b). of the contract or sufficient bonding has been provided in accordance with Sec. 3.(d). of the contract.

3. The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9 of the contract; or, the Authorized Officer determines that the tree species are not listed in Exhibit B of this contract and otherwise reserved in Section 41 of the contract or any tree that exceeds forty (40) inches diameter at breast height shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Sec. 8 of the contract.

4. This authorization for the Purchaser to cut and remove additional timber prior to the execution of a modification may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser has cut and removed any tree not previously marked and approved for cutting by the Authorized Officer, which under Section 10 of the contract constitutes a violation of the contract and under Section 13 of the contract may constitute a trespass rendering the Purchaser liable for damages under applicable law.

5. If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this special provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least one (1) working day prior to the need for cutting and removing any additional timber, and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Sec. 8 or Sec. 9 of the contract as determined by the Authorized Officer in accordance with this provision. The Contracting Officer may issue a written order to the Purchaser to suspend, delay, or interrupt any or all contract work for the period of time deemed necessary and appropriate for the Government to safely measure and mark additional timber.

SAFETY

m. Purchaser's operations shall facilitate BLM's safe and practical inspection of Purchaser's operations and BLM's conduct of other official duties on Contract Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser's employees, contractors and subcontractors.

In the event that the Authorized Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract may be modified. If the cost of such contract modification is of a substantial nature (\$2,000.00 or more), the Purchaser may request, in writing, an adjustment in the Total Purchase Price specified in Section 2 of the timber sale contract, as amended, to compensate for the changed conditions.

Unless otherwise specified in writing, when operations are in progress adjacent to or on roads and/or trails in the harvest unit area, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the road or trail user with adequate warning of and protection from hazardous or potentially hazardous conditions associated with its operations. Purchaser shall prepare a Traffic Control Plan, which the Purchaser has determined is compliant with state and local OSHA and Transportation standards no later than the pre-work meeting and prior to commencing operations. Traffic control devices shall be appropriate to current operating and/or weather conditions and shall be covered or removed when not needed. Flagmen and devices shall be as specified in state OSHA and Transportation standards for logging roads or the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) published by the U.S. Department of Transportation - Federal Highway Administration. Included in the Traffic Control Plan, Purchaser shall note traffic control device locations on a Purchaser produced copy of the contract Exhibit A Map.

SEASONAL RESTRICTIONS

- n. No mechanized falling or ground based yarding shall be conducted in the Sale Areas shown on Exhibit A outside of dry season (generally October 16 of one calendar year to May 31 of the following calendar year) as determined by the Authorized Officer.
- o. No cable yarding, haul or road maintenance except from roads 4N-3-14.1, 4N-3-15.0, 4N-3-17.0, and 4N-3-17.3 shown on Exhibit A, outside of dry season (generally October 16 of one calendar year to May 31 of the following calendar year) as determined by the authorized officer.
- p. No road construction, renovation, decommissioning, stabilization, or subsoiling shown on Exhibit C, Exhibit D, or Exhibit E shall be conducted outside of dry season (generally October 16 of one calendar year to May 31 of the following calendar year) as determined by the authorized officer.
- q. No work required in live streams shall be conducted between September 1 of one calendar year and June 30 of the following calendar year, both days inclusive.

ROAD CONSTRUCTION, IMPROVEMENT, RENOVATION, MAINTENANCE AND USE

- r. The Purchaser shall construct natural surfaced roads: Spur A, Spur B, Spur C, Spur D, 4N-3-17.4 (Sta. 0+00 – 2+05), and 4N-3-28.2. The Purchaser shall construct surfaced roads: 4N-3-17.3 (Sta. 8+82 – 13+05). The Purchaser shall renovate surfaced roads: SV/Gunner's Loop, 4N-3-14.1, 4N-3-15.0, 4N-3-17.0, 4N-3-17.3 (Sta. 0+00 – 8+82 & 13+05 – 20+10), 4N-3-17.4 (Sta. 2+05 – 10+05), 4N-3-21.3, 4N-3-21.4 A1, 4N-3-21.4 A2, 4N-3-21.4 A3, 4N-3-21.5, 4N-3-21.7, and 4N-3-22.1. Construction and renovation shall be done in strict accordance with the plans and specifications shown on Exhibit C, which is attached hereto and made a part hereof.
- s. Any required construction and renovation of roads shall be completed and accepted prior to the removal of any timber, except right-of-way timber, over that road.
- t. The Purchaser shall decommission Spur A, Spur B, Spur C, Spur D, 4N-3-17.4 (Sta. 0+00 – 2+05), and 4N-3-28.2, as shown on Exhibit C, by subsoiling, removing culverts, installing non-drivable waterbars, scattering slash, and blocking. Purchaser shall decommission roads 4N-3-17.3 and 4N-3-17.4 (Sta. 2+05 – 10+05), as shown on Exhibit C, by installing non-drivable waterbars and blocking at both ends (culverts would remain). Purchaser shall stabilize roads 4N-3-21.4 A1 and 4N-3-21.5, as shown on Exhibit C, by installing drivable waterbars/waterdips (culverts would remain). Subsoiling shall consist of loosening the soil to a depth of eighteen (18) inches utilizing excavator attachments, log loader tongs or other approved equipment acceptable to the Authorized Officer. No subsoiling shall be required where the road traverses rock outcroppings. All natural water courses shall be opened to prevent erosion of the road. Barriers shall be constructed and clearing debris shall be placed on and around the barriers so as to prevent further use of the road by vehicles as shown on Exhibit C. Decommissioning and stabilization shall be completed within thirty (30) days of completion of yarding and hauling operations on that road.

u. The Purchaser is authorized to use the roads listed below and shown on Exhibit E for the removal of Government timber sold under the terms of this contract, provided that the Purchaser pay the required rockwear fees described in Section 42.v. Any road shown on Exhibit E and requiring renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the renovation from the Contracting Officer. The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modification to the contract.

Road No. and Segment				
Spur A	0.045	BLM	Natural	Purchaser
Spur B	0.059	BLM	Natural	Purchaser
Spur C	0.242	BLM	Natural	Purchaser
Spur D	0.150	BLM	Natural	Purchaser
SV/Gunner's Loop	0.037	BLM	Rocked	Purchaser
4N-3-14.1 Seg. G & I	0.173	BLM	Rocked	Purchaser
4N-3-15.0 Seg. A	0.430	BLM	Rocked	Purchaser
4N-3-17.0	0.631	BLM	Rocked	Purchaser
4N-3-17.3	0.381	BLM	Rocked	Purchaser
4N-3-17.4 Seg. A1	0.039	BLM	Natural	Purchaser
4N-3-17.4 Seg. A2	0.152	BLM	Rocked	Purchaser
4N-3-21.3	0.266	BLM	Rocked	Purchaser
4N-3-21.4 A1	0.144	BLM	Rocked	Purchaser
4N-3-21.4 A2	0.188	BLM	Rocked	Purchaser
4N-3-21.4 A3	0.074	BLM	Rocked	Purchaser
4N-3-21.5	0.235	BLM	Rocked	Purchaser
4N-3-21.7	0.090	BLM	Rocked	Purchaser
4N-3-22.1	0.812	BLM	Rocked	Purchaser
*4N-3-28.2 Seg. A1	0.067	BLM	Natural	Purchaser
4N-3-28.2 Seg. A2	0.214	BLM	Natural	Purchaser

*-Merchantable timber removed off of this BLM controlled Road (but on Rayonier Washington Timber Company land) shall be Purchased from Rayonier Washington Timber Company prior to removal.

v. The Purchaser shall pay the Government a rockwear fee of three thousand eight hundred seventy-eight and 59/100 dollars (\$3,878.59) for the transportation of timber included in the contract area over said roads. The above rockwear fee is for the use of four (4) miles of road or less. If the total rockwear fee does not exceed five hundred and 00/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to use of such roads. If the total road rockwear fee exceeds five hundred and 00/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments of the rockwear obligations.

w. In the use of roads listed below and shown on Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. S-522A/OR065603, between the United States of America and Weyerhaeuser Company. The Purchaser will be required to enter into a license agreement prior to commencement of operations. The Purchaser shall furnish to the Authorized Officer a copy of the required executed license agreement. The license agreement conditions include: 1) No payment to Weyerhaeuser Company for road use obligation fees. 2) Payment to Weyerhaeuser Company a rockwear fee obligation of nine hundred two and 56/100 dollars (\$902.56). Rockwear fees have been calculated using estimated timber volumes. Additional fees for rockwear will be calculated at the agreed upon rates (in the license agreement) for additional timber volume and be charged to Purchaser. All payments shall be made to Licensor prior to contract termination. 3) The Purchaser shall perform any road repair and maintenance work on roads, under the terms of Exhibit D, "Road Maintenance Specifications", of this contract which is attached hereto and made a part hereof. Purchaser shall spread crushed rock on roads as directed by Authorized Officer as part of maintenance requirements. 4) Default by the Purchaser of said Right-of-Way and Road Use Agreement or any license agreement executed pursuant thereto, shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision. The purchaser will be required to carry liability insurance with the limits of \$1,000,000/ \$1,000,000/ \$1,000,000 and provide performance bond in the amount of \$1,000.

Road No. and Segment				
4N-3-15.0 (Seg. B)	0.296	Weyerhaeuser	Rocked	Purchaser

x. In the use of roads listed below and shown on Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. S-522F/OR066364, between the United States of America and Rayonier Washington Timber Company. The Purchaser will be required to enter into a license agreement prior to commencement of operations. The Purchaser shall furnish to the Authorized Officer a copy of the required executed license agreement. The license agreement conditions include: 1) No payment to Rayonier Washington Timber Company for road use obligation fees. 2) Payment to Rayonier Washington Timber Company a rockwear fee obligation of five and 27/100 dollars (\$5.27). Rockwear fees have been calculated using estimated timber volumes. Additional fees for rockwear will be calculated at the agreed upon rates (in the license agreement) for additional timber volume and be charged to Purchaser. All payments shall be made to Licensor prior to contract termination. 3) The Purchaser shall perform any road repair and maintenance work on roads, under the terms of Exhibit D, "Road Maintenance Specifications", of this contract which is attached hereto and made a part hereof. Purchaser shall spread crushed rock on roads as directed by Authorized Officer as part of maintenance requirements. 4) The Purchaser agrees to purchase 6.1 MBF Douglas-Fir @ \$570.33/MBF, which equals two thousand four hundred seventy-one and 29/100 dollars (\$3,479.00). 5) Default by the Purchaser of said Right-of-Way and Road Use Agreement or any license agreement executed pursuant thereto, shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision. The purchaser will be required to carry liability insurance with the limits of \$1,000,000/ \$1,000,000/ \$1,000,000 and provide performance bond in the amount of \$1,000.

Road No. and Segment				
4N-3-14.1 (Seg. J1)	0.021	Rayonier	Rocked	Purchaser

y. In the use of roads listed below and shown on Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. S-522G/OR066365, between the United States of America and Scappoose Western Forests, LLC. The Purchaser will be required to enter into a license agreement prior to commencement of operations. The Purchaser shall furnish to the Authorized Officer a copy of the required executed license agreement. The license agreement conditions include: 1) No payment to Scappoose Western Forests, LLC for road use obligation fees. 2) Payment to Scappoose Western Forests, LLC a rockwear fee obligation of one thousand eight hundred forty and 35/100 dollars (\$1,840.35). Rockwear fees have been calculated using estimated timber volumes. Additional fees for rockwear will be calculated at the agreed upon rates (in the license agreement) for additional timber volume and be charged to Purchaser. All payments shall be made to Licensor prior to contract termination. 3) The Purchaser shall perform any road repair and maintenance work on roads, under the terms of Exhibit D, "Road Maintenance Specifications", of this contract which is attached hereto and made a part hereof. Purchaser shall spread crushed rock on roads as directed by Authorized Officer as part of maintenance requirements. 4) Default by the Purchaser of said Right-of-Way and Road Use Agreement or any license agreement executed pursuant thereto, shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision. The purchaser will be required to carry liability insurance with the limits of \$1,000,000/ \$1,000,000/ \$1,000,000 and provide performance bond in the amount of \$1,000.

Road No. and Segment				
4N-3-14.1 (Seg. F & H)	0.337	Scappoose Western	Rocked	Purchaser
4N-3-15.0 (Seg. C & D)	0.561	Scappoose Western	Rocked	Purchaser

z. When operating on or near the Bonneville Power Administration (BPA) right-of-way and using roads 4N-3-21.4 A3, 4N-3-21.7, Spur A and Spur B, the Purchaser shall follow the BPA's guidelines for all activities which includes: (a) Purchaser maintenance of all Bonneville Power Administration controlled easements, and (b) Purchaser provide a Certificate of Insurance or Bond in the amount of \$1,000,000.00. The complete BPA Guidelines document is available upon request.

aa. The Purchaser shall perform any required road repair and maintenance work on roads used by them which are deemed as Purchaser Maintenance in Section 42.r., 42.s., 42.u., 42.v., and 42.w. of this contract, and under the terms of Exhibit D, Road Maintenance Specifications, which is attached hereto and made a part thereof. Purchaser shall spread three hundred twenty (320) cubic yards of spot rock on BLM roads and two hundred twenty (220) cubic yards of spot rock on Private timberlands roads used for this timber sale, as directed by Authorized Officer as part of maintenance requirements.

ENVIRONMENTAL PROTECTION

bb. In order to prevent the spread of noxious weeds, the Purchaser shall pressure wash all road construction and logging equipment that will be used off of existing roads, as well as loaders and mechanically propelled brush cutters, prior to entry onto BLM lands as directed by the Authorized Officer. Cleaning shall be defined as removal of all dirt, grease, plant parts and material that may carry noxious weed seeds.

cc. The Purchaser shall immediately discontinue specified construction or timber harvesting operations upon written notice from the Contracting Officer that:

1. threatened or endangered plants or animals protected under the Endangered Species Act of 1973, as amended, may be affected by the operation, and a determination is made that consultation or reinitiation of consultation is required concerning the species prior to continuing operation, or;
2. when, in order to comply with the Endangered Species Act or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), or to protect occupied marbled murrelet sites in accordance with the Standards and Guidelines or management direction of the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
3. federal proposed, federal candidate, Bureau sensitive or State listed species protected under BLM Manual 6840 - Special Status Species Management - have been identified, and a determination is made that continued operations would affect the species or its habitat, or;
4. other active raptor nests have been discovered, and a determination is made that continued operations under this contract would adversely affect the present use of the discovered nesting area by the raptor, or;
5. when, in order to comply with a court order which enjoins operations on the sale or otherwise requires the Bureau of Land Management to suspend operations, or;
6. when, in order to comply with a court order, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
7. species have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines, or management direction established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;

8. when, in order to protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines, or management direction established in the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

Those operations necessary for a safe removal of personnel and equipment from the contract area and those directed by the Contracting Officer which are required in order to leave the contract area in an acceptable condition will be permitted. Discontinued operations may be resumed upon receipt of written instructions and authorization by the Contracting Officer.

During any period of suspension, the Purchaser may withdraw performance and payment bond coverage aside from that deemed necessary by the Authorized Officer to secure cut and/or removed timber for which the Bureau of Land Management has not received payment, and/or unfulfilled contract requirements associated with harvest operations that have already occurred and associated post-harvest requirements.

In the event of a suspension period or a combination of suspension periods that exceed a total of thirty (30) days, the First Installment held on deposit may be temporarily reduced upon the written request of the Purchaser. For the period of suspension extending beyond thirty (30) days, the First Installment on deposit may be reduced to five (5) percent of the First Installment amount listed in Section 3(b) of the contract. Any First Installment amount temporarily reduced may be refunded or transferred to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, *et seq.*). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Section 3(b) of the contract within fifteen (15) days after the bill for collection is issued, subject to Section 3(h) of the contract. The Purchaser shall not resume contract operations until the First Installment amount is fully restored.

In the event of a suspension period or a combination of suspension periods that exceed a total of thirty (30) days, the unamortized Out-of-Pocket Expenses for road or other construction required pursuant to Exhibit C of the contract shall be refunded or transferred to another BLM contract at the request of the Purchaser. Upon written notice from the Contracting Officer lifting the suspension, the Purchaser shall reimburse the Government the amounts refunded or transferred. The Purchaser may choose to pay this reimbursement at once or in installments payable at the same time as payments are due for the timber under the contract and in amounts approximately equal to the expenses associated with the timber for which payment is due.

In the event that operating time is lost as a result of the incorporation of additional contract requirements, or delays due to Endangered Species Act consultation with the U.S. Fish and Wildlife Service or U.S. National Marine Fisheries Service, or court-ordered injunctions, the Purchaser agrees that an extension of time, without reappraisal, will constitute a full and complete remedy for any claim that delays due to the suspension hindered performance of the contract or resulted in damages of any kind to the Purchaser.

The Contracting Officer may determine that it is necessary to terminate the cutting and removal rights under the contract in order to comply with the Endangered Species Act, prevent incidental take of northern spotted owls in accordance with the ROD and RMP, protect occupied marbled murrelet sites in accordance with the ROD and RMP, protect species that have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, or comply with a court order. Following the issuance of a written notice that cutting and removal rights will be terminated, the Purchaser will be permitted to remove timber cut under the contract, if allowed by the Endangered Species Act, if able to proceed without causing incidental take of northern spotted owls in accordance with the ROD and RMP, consistent with marbled murrelet occupied site protection in accordance with the ROD and RMP, consistent with survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, or court order requirements necessitating the modification or termination.

In the event the contract is modified or cutting and removal rights are terminated under this subsection, the Purchaser agrees that the liability of the United States shall be limited to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area. This calculation of liability shall utilize actual Purchaser costs and Government estimates of timber volumes. At the Authorized Officer's request, the Purchaser agrees to provide documentation of the actual costs incurred in the performance of the contract. In addition, the Purchaser shall be released from the obligation to pay the contract price for any timber which is not authorized to be removed from the contract area.

The Purchaser specifically and expressly waives any right to claim damages, other than those described in the preceding paragraphs, based on an alleged breach of any duty to the Purchaser, whether express or implied, in regard to the manner in which the Government defended the litigation which resulted in the court order affecting the operation of the contract. This waiver also extends to any claims based on effects on the operation of the contract that arise from litigation against another agency. Furthermore, the Purchaser specifically acknowledges and agrees that a court ruling that the Government violated the Administrative Procedures Act cannot be interpreted, in itself, to mean that the Government had not acted reasonably in regard to its duties to the Purchaser under this contract.

FIRE PREVENTION

dd. Primarily for purposes of fire prevention and control, the Purchaser shall, prior to the operation of power driven equipment in construction or logging operations under this contract during the fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the Authorized Officer. Purchaser shall take such measures for prevention and suppression of fire on the contract area and other adjacent Government lands used or traversed by Purchaser in connection with operations as are required by applicable laws and regulations. However, when in the opinion of the Authorized Officer, weather and other conditions affecting fire incidence and control make special precautions necessary to protect the contract area and said Government lands, Purchaser shall take such additional or other fire prevention and control measures as may be required by the Authorized Officer. The Purchaser shall comply with Oregon Department of Forestry Industrial Fire Precaution Level (IFPL) I Fire Season requirements. At IFPL II and III, additional fire prevention and control provisions

may be added as determined by the Authorized Officer and specified in written instructions to the Purchaser to mitigate dry fuel and weather conditions.

LOGGING RESIDUE REDUCTION

ee. In addition to the requirements of Sec. 15 of this contract, and notwithstanding the Purchasers satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the States willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following hazard reduction measure(s) required by this contract: Perform logging residue reduction and site preparation work on approximately seventy nine (79) acres located in the sale area. The required work shall consist of any treatment or combination of treatments, as determined by the Authorized Officer and specified in writing by the Contracting Officer. The number of acres and specific location of each treatment shall be determined by the Authorized Officer. Approximately thirty-eight (38) acres will be machine pile construction, cover, and burn in the ground-based regeneration cut areas. Approximately seventeen (17) acres will be slashed and lopped. Approximately seventeen (17) acres will be hand piled, covered, and burned in the skyline harvest areas. There will be approximately seven (7) acres of landing pile covering and burning. Prior to commencement of any operation under this Section of the contract, a slash disposal and pre-work conference between the purchaser's representative and the Authorized Officer must be held at a location designated by the Authorized Officer. The number of acres of each treatment shall be determined by the Authorized Officer. All slash disposal shall be done in accordance with the plans developed at this pre-work conference. Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of purchasers operations under the terms of this contract.

1. Slashing shall be completed on approximately seventeen (17) acres post harvest in areas designated by the Authorized Officer in the skyline harvest areas shown on Exhibit A. Lopping shall be completed on approximately seventeen (17) acres in areas designated for hand piling in the skyline harvest areas shown on Exhibit A. All standing woody vegetation (brush), whips, and designated trees over one (1) foot in height and less than six (6) inches diameter shall be felled (slashed) and lopped into six (6) foot or smaller lengths. Designated trees to be slashed include red alder and big leaf maple.

a. All logging slash and slashed woody vegetation that is greater than six (6) feet in length and between one (1) inch and six (6) inches in diameter shall be lopped. Larger material which has a portion meeting this specification must be bucked at the six (6) inch diameter.

b. All woody vegetation, whips, and designated trees shall be completely severed from the stump(s). Stump height shall not exceed six (6) inches measured on the uphill side.

c. All conifer tree species shall be reserved and undamaged.

2. Excavator pile and burn slash within ground based portion of regeneration harvest units from skid trails and within twenty-five (25) feet of 4N-3-22.1, 4N-3-14.1, and 4N-3-21.3 roads in partial cut areas. Slash shall be piled by an excavator equipped with a hydraulic thumb. Finished piles shall be tight and free of dirt.

- a. Unmerchantable logs greater than six (6) inches on the small end shall be left in place, or positioned so that they will not be burned.
- b. Machine piles shall be located as far as possible from green trees, snags, or unit boundaries to minimize damage.
- c. Machine piles shall be kept free of dirt and other non-wood debris and constructed as compactly as possible. There should be an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels.
- d. A minimum 10-foot by 10-foot cover of four (4) millimeter polyethylene shall cap each machine pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Plastic shall be held in place with pieces of burnable material or tied with rope or twine. The plastic must be secured so that it is held in place during strong wind conditions. The Purchaser is required to furnish the covering materials. Covering shall be completed as directed by the Authorized Officer.
- e. Sale Areas shall be piled during the same season that they are logged.

3. All logging slash and slashed woody vegetation greater than two (2) feet long and between one (1) inch and six (6) inches in diameter at the large end should be hand piled and burned on approximately seventeen (17) acres as designated by the Authorized Officer in skyline harvest areas shown on Exhibit A. Larger material which has a portion meeting this specification must be bucked at the six (6) inch diameter and that portion piled and burned.

- a. All hand piles should have the slashed limbs, logs, and slashed woody vegetation placed parallel in the pile and should be constructed as compactly as possible with an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels. Piles shall be no larger than eight (8) feet in diameter, nor taller than six (6) feet unless otherwise directed by the Authorized Officer. Hand piles should be placed so that no pile is closer than fifteen (15) feet from the bole of retained green trees or snags. Hand piles should be placed on top of the bigleaf maple stumps when available.
- b. The total surface area of each pile shall be covered at least seventy-five percent (75%) with four (4) mil. thick black plastic. The plastic shall be oriented from the south and west sides to north and east sides. Placement of the plastic shall start one (1) foot above the ground at the south and west sides of each pile and extend over the top and go three-quarters (3/4) the distance to the ground on the opposite north and east sides. Pieces of burnable material shall then be placed on top of the plastic so that both sides and the middle are held in place during strong wind conditions. If wood placed on top of the plastic isn't sufficient to hold the plastic down, the corners of the plastic shall be required to be tied down.

c. The Purchaser shall provide all tools, materials, equipment, personnel and incidentals necessary to satisfactorily perform and complete the work at the Purchaser's expense.

4. Pile and burn landing slash within thirty (30) feet of the edge of each landing, all tops, broken pieces, limbs and debris more than one (1) inch in diameter at the large end and longer than three (3) feet in length shall be piled within fifteen (15) days of completion of hauling logs from that landing. Landing piles shall be kept free of dirt and located adjacent to roads at least twenty (20) feet from any Reserve Tree and/or as directed by the Authorized Officer. Upon completion of landing piling, the Purchaser shall prepare the landing piles for burning by securely covering each landing pile by securely covering each pile with four (4) mil. thick polyethylene plastic film at least twenty (20) feet wide. Landing piles shall be seventy-five (75) percent covered with the covering extending three-quarters of the way down all sides. The plastic shall be oriented southwest to northeast. Pieces of burnable material shall be placed on top of the plastic to secure it from moving and to prevent it from blowing off during strong wind episodes. The Purchaser is required to furnish the covering materials. The timing of this covering work shall be in accordance with instructions from the Authorized Officer. No landing debris shall be dozed off the landing and covered with dirt. Debris which has been buried and is determined to be the source of holdover fire shall be excavated by the Purchaser, at the Purchaser's expense, with a tractor and/or hydraulic excavator as directed by the Authorized Officer. If the structure of the landing piles will not permit adequate consumption of piled debris by burning, the Purchaser shall re-pile them at the direction of the Authorized Officer.

ff. Notwithstanding the provisions of Sec. 15 of this contract, the Government shall assume all obligations for disposal or reduction of fire hazards created by Purchaser's operations on Government lands, except for burning and mop-up assistance as required herein and measures required in Section 42.ee. The Purchaser shall, under supervision of the Authorized Officer or designated representative, assist in preparing units for burning, burning, mop-up, and patrol by furnishing, at the Purchaser's own expense, the services of personnel and equipment on each unit as shown below:

1. For Igniting, Burning, Mop-up of Piles on Units:

a. One work leader(s) Firefighter Type 1 (FFT1) qualified according to National Wildfire Coordinating Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1) to supervise crew and equipment operations, and to serve as Purchaser's representative.

b. Five-person crew Firefighter Type 2 (FFT2) qualified according to National Wildfire Coordination Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1, with sufficient fuel for burning, six (6) drip torches, one (1) power saw, one (1) backpack pump, and one (1) tool for each crew member.

c. The crew shall arrive on the project area with radios capable of inter-crew communications and communication with a BLM representative at a ratio of one (1) radio per every five (5) crew members.

d. All ignition and mop-up personnel will be directly supervised by a BLM representative.

Aircraft and pilots used for Logging Residue Reduction or the suppression of escaped fires from Logging Residue Reduction operations, shall be acquired from a list of aircraft and pilots approved (i.e., carded for these specific activities) by the Office of Aircraft Services or the U.S. Forest Service. This list is available from BLM District Offices upon request.

All listed personnel shall be physically fit, experienced and fully capable of functioning as required. In addition, all listed personnel shall be qualified according to the National Wildfire Coordinating Group (NWCG) Wildland Fire Qualification System Guide, PMS-310-1 and provide documentation of these qualifications. On the day of ignition all listed personnel shall be fluent in speaking and understanding English, clothing shall consist of long pants and long sleeved shirts, and be of approved aramid fabric (Nomex™ or equivalent), as well as being free of diesel fuel oil. All personnel shall wear lug sole boots with minimum eight (8) inch tall uppers that provide ankle support, approved hardhats and leather gloves. Personnel who do not meet these requirements or do not have proper clothing and personal protective equipment (PPE) will not be allowed to participate. All listed tools and equipment shall be in good usable condition. All power-driven equipment shall be fully fueled and available for immediate use. During periods of use under this subsection, the Purchaser shall provide fuel and maintenance for all such power-driven equipment.

Except as provided hereafter for fire escapement, the Purchaser shall continue the required assistance in mop up on each cutting unit shown on Exhibit A for seventy-two (72) hours, as directed by the Authorized Officer within a five (5) day period commencing at 8:00 a.m. the day following the completion of ignition in that unit, or until released from such service by the Government, whichever occurs first.

In event of a fire escapement, the Purchaser's personnel and equipment shall, under supervision of the Authorized Officer, take action to control and mop up the escaped fire until released from such service by the Government. If it becomes necessary to use furnished personnel and equipment for the suppression of a fire which escapes from the prescribed fire area for a period beyond the remainder of the day in which the fire escapes, then the Government shall, at its option: (1) reimburse the Purchaser for such additional use of personnel and equipment at wage rates shown in the current Administratively Determined Pay Rates for the Western Area and at equipment rates shown in the current Oregon-Washington Interagency Fire Fighting Equipment Rental Rates schedule until the Purchaser is released from such service by the Government; or (2) release the Purchaser from additional suppression work and assume responsibility for suppressing the escaped fire.

In situations where an escaped fire is controlled and contained by an adequate fire break (i.e., trail, road, stream, rock formation, etc.), the Government may permit the Purchaser to remove personnel for that day; provided that all mop up work on the escaped fire is included with mop up work on the prescribed fire area. In such an event, the Purchaser must sign a statement of agreement to complete mop up work on all escaped fire areas concurrently with mop up work on the prescribed fire area.

In case of injury to personnel or damage to equipment furnished as required by this subsection, liability shall be borne by the Purchaser, unless such injury or damage is caused by Government negligence.

Time is of the essence in complying with this provision. In the event the Purchaser fails to provide the personnel and equipment required herein, the Purchaser shall be responsible for all additional cost incurred by the Government in disposing of slash including but not limited to the wages and other costs of providing federal employees and others as substitute labor force, the cost of providing substitute equipment and appropriate additional overhead expenses. If the Purchaser's failure results in a deferral of burning and new conditions necessitate additional personnel and equipment to accomplish the planned burn, the Purchaser also shall be responsible for such additional costs.

LOG EXPORT RESTRICTION

gg. All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export from the United States in the form of unprocessed timber, and is prohibited from being used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs, except those of utility grade or below, such as sawlogs, peeler logs; and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards or specifications suitable for end-product uses; or (4) western red cedar lumber which does not meet lumber of American Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end-product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8-3/4) inches in thickness or less; or (6) shakes and shingles.

Substitution will be determined under the definition found in 43 CFR 5400.0-5.

The Purchaser is required to maintain and upon request to furnish the following information:

1. Date of last export sale.
2. Volume of timber contained in last export sale.
3. Volume of timber exported in the past twelve (12) months from the date of last export sale.
4. Volume of Federal timber purchased in the past twelve (12) months from the date of last export sale.
5. Volume of timber exported in succeeding twelve (12) months from date of last export sale.
6. Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a Form 5460-16 (Certificate as to Non-substitution and the Domestic Processing of Timber). The original of such certification shall be filed with the Authorized Officer. Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

In the event an affiliate of the Purchaser has exported private timber within twelve (12) months prior to purchasing or otherwise acquiring Federal timber sold under this contract, the Purchaser shall, upon request, obtain from the affiliate information in the form specified by the Authorized Officer and furnish the information to the Authorized Officer.

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report), which shall be executed by the Purchaser. The purchaser shall also provide a current, interim Log Scale and Disposition of Timber Removed Report (Form 5460-15) upon request by the Authorized Officer at any time during the contract period for cutting and removal specified in Section 4 of this contract as amended. In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

Unless otherwise authorized in writing by the Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs with a scaling diameter (small end inside bark) of over ten (10) inches, prior to the removal of timber from the contract area. All loads of eleven (11) logs or more will have a minimum of ten (10) logs clearly and legibly branded on one end regardless of the diameter of the logs. All logs will be branded on loads of ten (10) logs or less. One end of all branded logs to be processed domestically will be marked with a three (3) square inch spot of highway yellow paint. The Purchaser will stop trucks for accountability monitoring at mutually agreed upon locations when notified by the Authorized Officer.

If multiple trailers (mule trains) are used, each bunked load shall be considered an individual load, and these guidelines will apply to each bunked load. If a flatbed stake trailer is used, each bundle will be treated as a separate load.

At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. Any increased costs for log branding and painting shall be the responsibility of the Purchaser.

In the event of the Purchaser's noncompliance with this subsection of the contract, the Authorized Officer may take appropriate action as set forth in Section 10 of this contract. In addition, the Purchaser may be declared ineligible to receive future awards of Government timber for a period of one year.

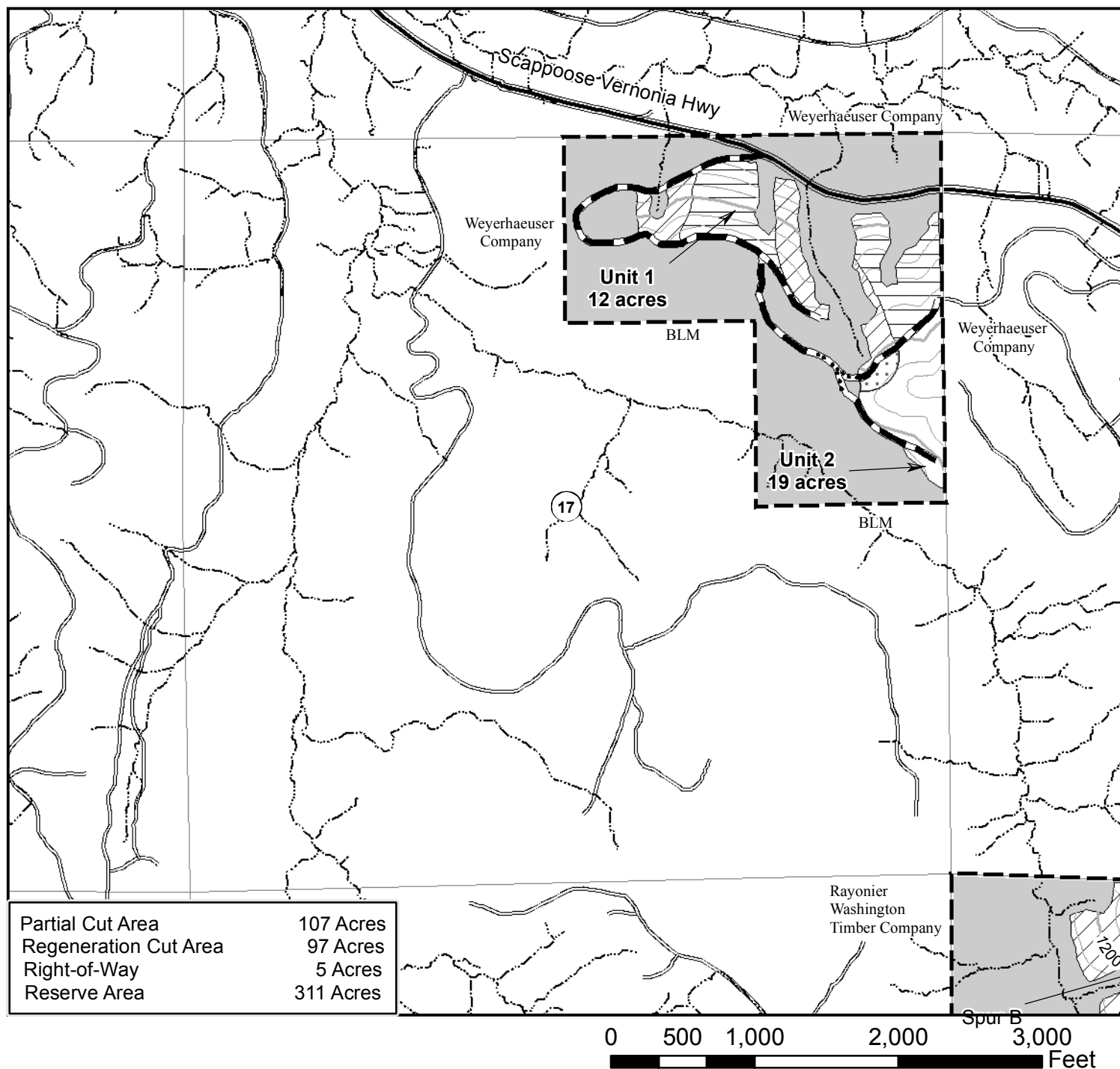


United States Department of the Interior
BUREAU OF LAND MANAGEMENT
TIMBER SALE CONTRACT MAP

Contract No. ORN04-TS-2018.0401
Snaggletooth Timber Sale
Exhibit A
Page 1 of 2

5/22/2018

T. 4N. R. 3W. Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



Contour Interval: 40 feet

- | | |
|------------------------------------|------------------------|
| Regeneration Cut Area-Ground-Based | Road to be constructed |
| Partial Cut Area-Ground-Based | Road to be renovated |
| Partial Cut Area-Skyline | Scappoose Vernonia Hwy |
| Regeneration Cut Area-Skyline | Other Roads |
| Contract Area | Streams |
| Reserve Area | |

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification. Note: Boundaries of harvest area and rights-of-ways (ROW) are painted orange and posted. Harvest area acres do not include existing roads or previously harvested patch cuts. Acres shown on Exhibit A for harvest area have been computed using a Trimble Geo 6000 GPS Unit.

Prepared By: csween

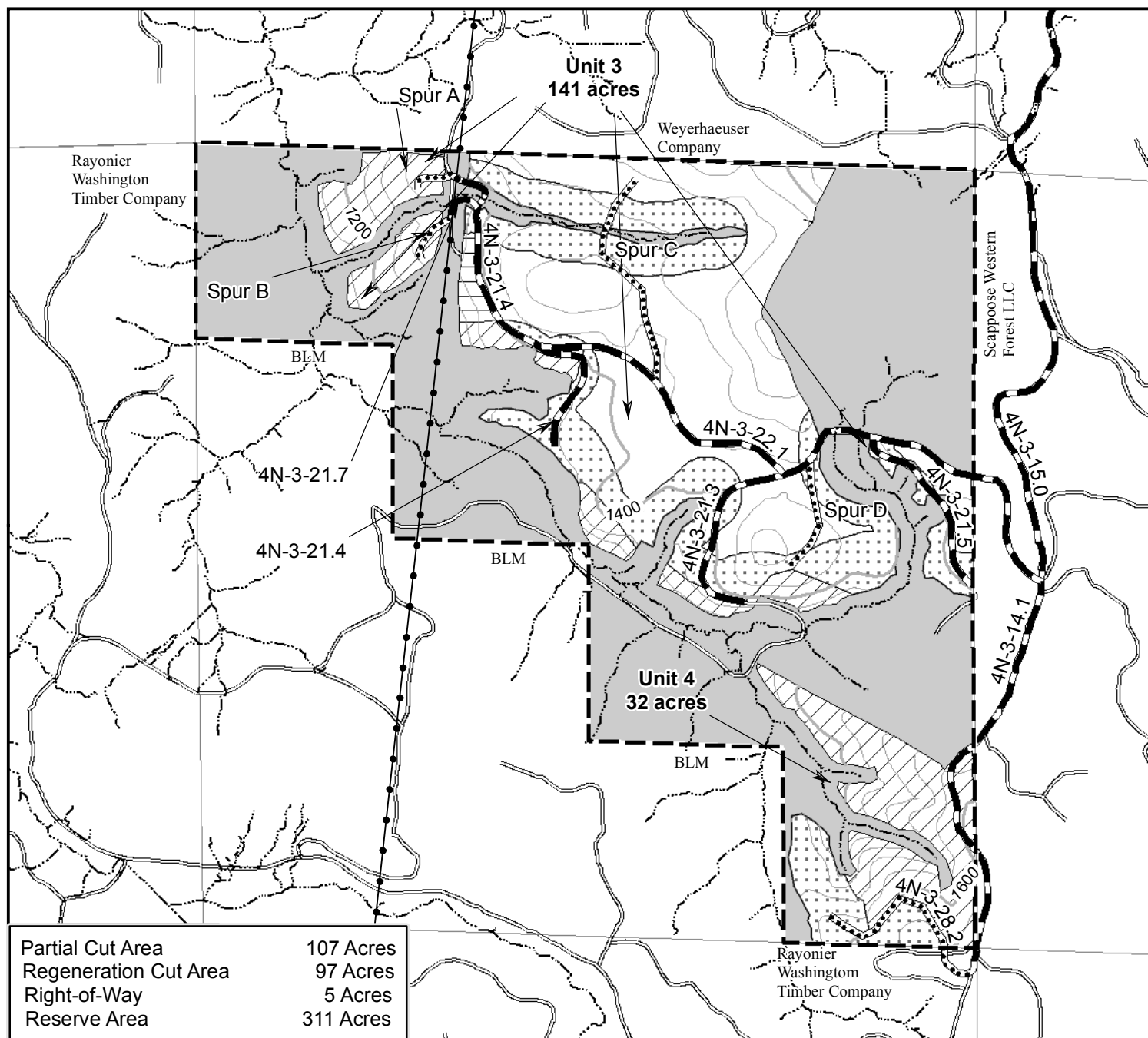


United States Department of the Interior
BUREAU OF LAND MANAGEMENT
TIMBER SALE CONTRACT MAP

Contract No. ORN04-TS-2018.0401
Snaggletooth Timber Sale
Exhibit A
Page 2 of 2

5/22/2018

T. 4N. R. 3W. Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 500 1,000 2,000 3,000
Feet

Contour Interval: 40 feet

- | | |
|------------------------------------|------------------------------------|
| Regeneration Cut Area-Ground-Based | Road to be constructed |
| Partial Cut Area-Ground-Based | Road to be renovated |
| Partial Cut Area-Skyline | Other Roads |
| Regeneration Cut Area-Skyline | Streams |
| Contract Area | BPA Transmission Line Right-of-Way |
| Reserve Area | |

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification. Note: Boundaries of harvest area and rights-of-ways (ROW) are painted orange and posted. Harvest area acres do not include existing roads or previously harvested patch cuts. Acres shown on Exhibit A for harvest area have been computed using a Trimble Geo 6000 GPS Unit.

Prepared By: csween

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-25

Contract No.

ORN04-TS-2018.0401

Snaggletooth

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

SPECIES	ESTIMATED VOLUME OR QUANTITY (Units Specified)		PRICE PER UNIT	ESTIMATED VOLUME OR QUANTITY X UNIT PRICE
Douglas Fir	6,190.0	MBF	\$388.10	\$2,402,339.00
Red Alder	33.0	MBF	\$284.30	\$9,381.90
Western Redcedar	22.0	MBF	\$656.60	\$14,445.20
Bigleaf Maple	1.0	MBF	\$54.80	\$54.80
Red Alder	808.0	GTON	\$5.00	\$4,040.00
TOTALS	6,246.0 MBF, 808.0 GTON			\$2,430,260.90

The apportionment of the total purchase price is as follows:

Unit 1 - Unit 1

Douglas Fir	390.0 MBF	X	\$388.10	=	\$151,359.00
Red Alder	2.0 MBF	X	\$284.30	=	\$568.60
Western Redcedar	1.0 MBF	X	\$656.60	=	\$656.60
Total	393.0 Mbf				\$152,584.20 ÷ 12.0 acres = \$12,715.35/Acre

Unit 2 - Unit 2

Douglas Fir	709.0 MBF	X	\$388.10	=	\$275,162.90
Red Alder	5.0 MBF	X	\$284.30	=	\$1,421.50
Western Redcedar	4.0 MBF	X	\$656.60	=	\$2,626.40
Total	718.0 Mbf				\$279,210.80 ÷ 19.0 acres = \$14,695.31/Acre

Unit 3 - Unit 3

Douglas Fir	4,165.0 MBF	X	\$388.10	=	\$1,616,436.50
Red Alder	23.0 MBF	X	\$284.30	=	\$6,538.90
Western Redcedar	16.0 MBF	X	\$656.60	=	\$10,505.60
Bigleaf Maple	1.0 MBF	X	\$54.80	=	\$54.80
Total	4205.0 Mbf				\$1,633,535.80 ÷ 141.0 acres = \$11,585.36/Acre

Unit 4 - Unit 4

Douglas Fir	712.0 MBF	X	\$388.10	=	\$276,327.20
Red Alder	1.0 MBF	X	\$284.30	=	\$284.30
Total	713.0 Mbf				\$276,611.50 ÷ 32.0 acres = \$8,644.11/Acre

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-25

Contract No.

ORN04-TS-2018.0401

Snaggletooth

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

Unit Chips - Clean Chips

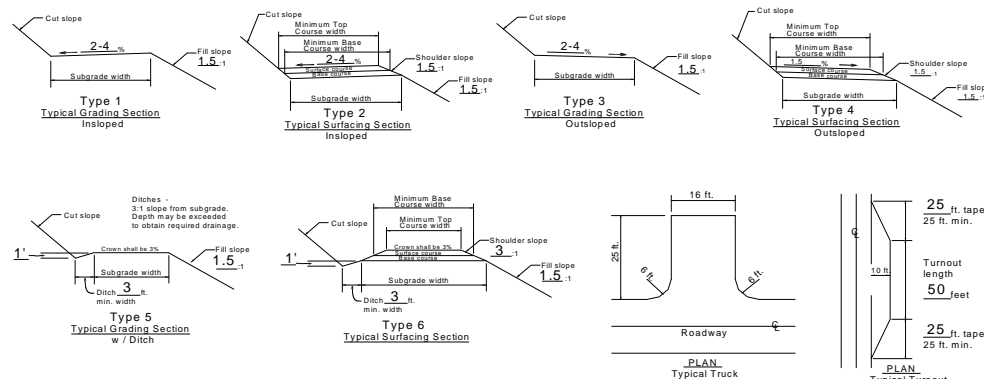
Red Alder	808.0 GTON	X	\$5.00	=	\$4,040.00
Total	808.0 Gton				\$4,040.00 ÷ 0.0 acres = \$4,040.00

Unit RW - Right-of-Way

Douglas Fir	214.0 MBF	X	\$388.10	=	\$83,053.40
Red Alder	2.0 MBF	X	\$284.30	=	\$568.60
Western Redcedar	1.0 MBF	X	\$656.60	=	\$656.60
Total	217.0 Mbf				\$84,278.60 ÷ 5.0 acres = \$16,855.72/Acre

150: ROAD PLAN AND DETAIL SHEET

Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIENT		SURFACING (*5)										Remarks	
						Subgrade	Ditch	Max. Favorable	Max. Adverse	BASE COURSE					SURFACE COURSE						
										Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts	Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts		
Spur A	0+00	2+35	2+35	3		14	0	15%	15%												New Construct. Construct Landing as marked (approx. 50 ft. diameter). Use material from Turnaround Construction on 4N-3-21.4a3 (MP 0.074) as fill material in trench between Sta. 0+77 - 1+10.
Spur B	0+00	3+13	3+13	3		14	0	15%	15%												New Construct. Construct Landing as marked. (approx. 50 ft. diameter).
Spur C	0+00	4+10	4+10	3		14	0	10%	10%				PRR	A				ASC	C		New Construct. Spread 10 CY crushed spot/cap rock as marked and needed. Place 10 CY Pit-Run Base rock as marked. Place 10 CY crushed as culvert bedding/backfill. Install 1 temporary culvert in existing Ditchline of 4N-3-22.1 as marked or directed.
	4+10	6+00	1+90	5		14	2	15%	15%				PRR	A				ASC	C		New Construct. Spread 10 CY crushed spot/cap rock as marked and needed. Place 10 CY Pit-Run Base rock as marked. Place 10 CY crushed as culvert bedding/backfill. Install 1 temporary culvert. Install metal inlet marker at inlet. Construct ditchouts as marked and directed.
	6+00	12+77	6+77	3		14	0	15%	15%				PRR	A				ASC	C		New Construct. Spread 10 CY crushed spot/cap rock as marked and needed. Place 20 CY Pit-Run Base rock as marked. Place 20 CY crushed as culvert bedding/backfill. Install 1 temporary culvert. Install metal inlet marker at inlet. Construct ditchouts, Turnaround, Waste Area, and Landing (approx. 40 ft. diameter) as marked or directed.
Spur D	0+00	7+90	7+90	3		14	0	10%	10%												New Construct. Use material from turnaround construction in subgrade between Stations 3+12 - 3+71 to slacken grade. Construct ditchouts, Turnaround and Landing (approx. 50 ft. diameter).
SV/Gunner's Loop	0+00	1+96	1+96	6		16	2						PRR	A		14'	4"	ASC	C	1	Renovation. Re-establish ditchlines and haul material to WA as directed. Construct ditchouts as marked and directed. Spread 40 CY crushed spot/junction rock as marked and needed. Place 30 CY Pit-Run Base rock over culvert installation. Spread 30 CY Pit-Run Spot Rock as marked. Place 30 CY crushed as culvert bedding/backfill. Install 1 culvert. Spread a 4" Lift of crushed as marked and directed.
4N-3-14.1	0.000	0.531	0.531	6		16	2						PRR	A				ASC	C		Renovation. Spread 60 CY crushed spot rock as marked and needed. Place 40 CY Pit-Run spot rock on constructed roadside landings as marked. Re-establish ditchlines and haul material to WA as directed. Construct waste areas, ditchouts, turnouts, and roadside landings as marked. Re-establish Barrier/Road Blockage when logging is completed from this landing.
4N-3-15.0	0.000	1.287	1.287	6		16	2						PRR	A				ASC	C		Renovation. Spread 150 CY crushed spot rock as marked and needed. Place 20 CY Pit-Run Base rock over culvert installation. Spread 20 CY crushed rock in turnouts as marked. Place 20 CY crushed as culvert bedding/backfill. Install 1 culvert. Install 4 culvert markers. Re-establish ditchlines and haul material to WA as directed. Construct waste areas, ditchouts, turnouts as marked.
4N-3-17.0	0.000	0.631	0.631	6		14	2						PRR	A		12'	6"	ASC	C	2	Renovation. Spread 20 CY Crushed Spot/Junction Rock as marked. Spread 50 CY Crushed Spot Rock in turnouts as marked. Spread 135 CY Pit-Run Base Rock. Spread 40 CY Pit-Run Rock on Landing as marked. Place 160 CY Crushed Culvert Bedding/Backfill as marked. Spread a 6" Lift Crushed as marked and directed. Place 50 CY Class 5 RipRap and 35 CY Class 3 RipRap as Fill Stabilization Wall/dissipater @ culvert outlets as marked. Re-use Pit-Run Rock salvaged from replacement of culvert as fill armor @ culvert outlet @ MP 0.127 as directed. Re-establish ditchline and haul material to WA. Construct 2 sediment catch basins w/ straw bales in ditchline as marked and directed. Construct ditchouts, turnouts, turnarounds, and landing (approx. 60 ft. diameter) as marked. Remove 3 log fills as marked. Install 2 culverts, replace 5 culverts, and install 1 downspout. Install 7 metal inlet markers as marked.



- *NOTES
- Extra subgrade widths.** Add to each shoulder: 1 ft. for fills of 1-6 ft. and 2 ft. for fills over 6 ft. Widen the inside shoulder of curves as follows:
(See Road Plan Map, Exhibit C)
 - Backslopes.**

Materials	Cut slopes	Fill slopes
Solid rock	1/4:1	Angle of repose
Soft rock and shale	1/2:1	
Common		
Slopes under 55%	1:1	1-1/2:1
Slopes over 55%	3/4:1	1-1/2:1
 - Surface type.**

Materials	Grading
PRR - Pit run rock	A - 3"
GRR - Grid rolled rock	B - 2"
SRN - Screened rock	C - 3" jaw run (base course)
JRR - Jaw run rock	
ABC - Aggr. base course	C - 1-1/2"
ASC - Aggr. surface course	D - 1"
WC - Wood chips	E - 3/4"
 - Turnouts.** Width - 10 ft. in addition to subgrade width, or as shown on the plans. Located approximately as shown on the plans. Intervisible and not more than 750 ft. apart.
 - Surfacing.** Turnouts, curve widening and road approach aprons shall be surfaced.
 - Clearing width.** See Section 200.
 - As posted and painted for Right-of-Way:**
 - Drainage.** See Culvert List
 - Compaction.** See Sections 300 and 400.

* Clearing Limits as posted on ground

Type 1
Typical Grading Section
Insloped

Type 2
Typical Surfacing Section
Insloped

Type 3
Typical Grading Section
Outloped

Type 4
Typical Surfacing Section
Outloped

Type 5
Typical Grading Section
w / Ditch

Type 6
Typical Surfacing Section

PLAN
Typical Truck

PLAN
Typical Turnout

***NOTES**

- Extra subgrade widths.**
Add to each shoulder: 1 ft. for fills of 1-6 ft. and 2 ft. for fills over 6 ft. Widen the inside shoulder of curves as follows:
(See Road Plan Map, Exhibit C)
- Backslopes.**
Materials Cut slopes Fill slopes
Solid rock 1/4:1 Angle of repose
Soft rock and shale 1/2:1
Common
Slopes over 55% 1:1 1-1/2:1
Slopes over 55% 3/4:1 1-1/2:1
- Surface type.**
PRR - P# run rock
GR - Grid rolled rock
SRN - Screened rock
JRR - Jaw run rock
ABC - Aggr. base course
ASC - Aggr. surface course
WC - Wood chips
- Turnouts.**
Width - 10 ft. in addition to subgrade width, or as shown on the plans.
Located approximately as shown on the plans.
Intervisible and not more than 750 ft. apart.
- Surfacing.**
Turnouts, curve widening and road approach aprons shall be surfaced.
- Clearing width.**
See Section 200.
- As posted and painted for Right-of-Way:
- Drainage.**
See Culvert List
- Compaction.**
See Sections 300 and 400.

* Clearing Limits as posted on ground

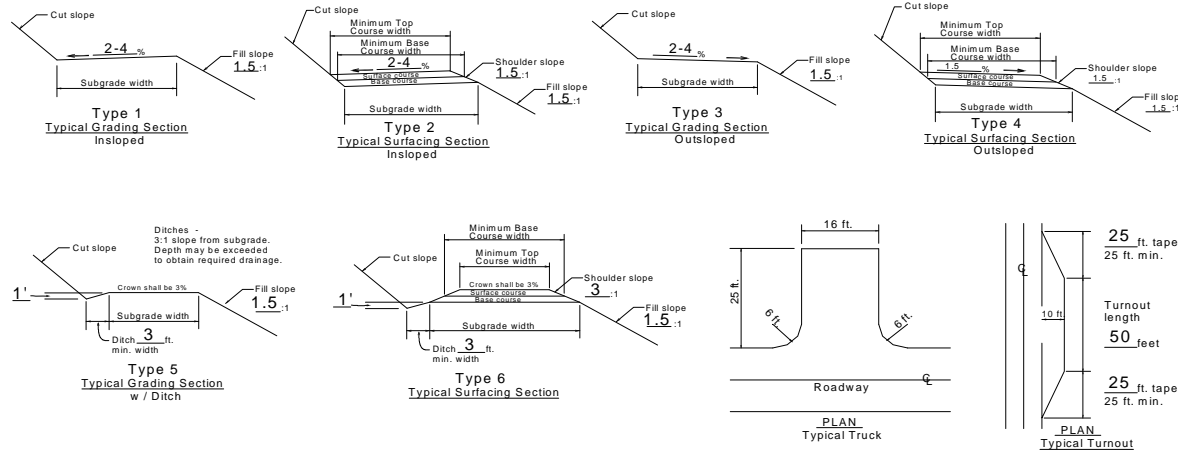
U.S. DEPT. OF THE INTERIOR
Bureau of Land Management
NORTHWEST OREGON DISTRICT OFFICE - OREGON

ORN04-TS-2018.0401
Snaggletooth Timber Sale
Exhibit C

150: ROAD PLAN AND DETAIL SHEET

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Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIANT		SURFACING (*5)										Remarks	
						Subgrade	Ditch	Max. Favorable	Max. Adverse	BASE COURSE					SURFACE COURSE						
										Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts	Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts		
4N-3-21.5	0.000	0.235	0.235	6		14	2						PRR	A				ASC	C		Renovation. Spread 70 CY crushed Spot Rock as marked and needed. Spread 55 CY Pit-Run Spot/Base Rock as marked. Spread 20 CY Pit-Run in turnaround as marked. Place 20 CY Crushed Bedding/Backfill Rock as marked. Place 100 CY drain rock for french drain @ MP 0.122 as directed. Place 40 CY Class 5 RipRap as stabilization wall/dissipater @ MP 0.070 & 0.122 as marked. Place 300 SY non-woven fabric for free drain @ MP 0.122 as directed. Re-establish ditchline and haul material to WA and construction of turnaround @ MP 0.201. Remove Log Fill @ MP 0.122 and construct Free Drain as directed. Construct Catch Basin w/ Bale @ MP 0.115 & 0.152 as marked. Construct ditchouts as marked and directed. Construct turnouts as needed. Install 1 culverts (perforated pipe for the free draining fill) and replace a culvert. Install 3 metal Inlet markers as directed.
4N-3-21.7	0+00	4+77	4+77	4		14	0						PRR	A				ASC	C		Renovation. Spread 30 CY Crushed Spot Rock as marked and needed. Spread 30 CY Pit-run in turnaround as marked. Establish ditchline in through-cuts, ditchouts, and lead-off ditches as marked and haul material to WA. Construct turnaround as marked. Place 5 concrete barriers (as per BPA Permit) to protect tower from run-away trucks (to be removed upon completion of sale).
4N-3-22.1	0.000	0.812	0.812	6		14	2						PRR	A				ASC	C		Renovation. Spread 200 CY crushed Spot Rock as marked and needed. Spread 20 CY Pit-Run Base Rock as marked. Place 20 CY Pit-Run in turnout @ MP 0.576 as marked. Place 30 CY Crushed Bedding/Backfill Rock as marked. Re-establish ditchline and haul material to WA. Construct catch basin w/ bale @ MP 0.325 & 0.370 as marked. Construct ditchouts and lead-off ditches as marked. Construct waste areas and turnouts as marked. Install 2 culverts. Install 6 Metal Inlet markers as marked.
4N-3-28.2	0+00	6+20	6+20	3		14	0											ASC	C		New Construct. Spread 10 CY Pit-Run Rock as Junction/Apron Rock. Use material excavated between Sta. 3+56 - 5+45 as fill material between Sta. 5+45 - 6+20 to slacken grade as directed.
	6+20	7+85	1+65	5		14	2						PRR	A				ASC	C		New Construct. Spread 10 CY crushed Spot/Cap Rock as marked. Spread 10 CY Pit-Run Base Rock as marked. Place 10 CY Crushed bedding/backfill rock as marked. Construct turnaround as marked. Install 1 culvert (to be removed when road is decommissioned) as marked. Install 1 metal inlet marker as marked.
	7+85	14+85	7+00	3		14	0														Renovation. Use material excavated between Sta. 7+85 - 8+50 as fill material between Sta. 8+50 - 11+00 to slacken grade as directed. Construct a turnaround and landing (approx. 60 ft. diameter) as marked.



*NOTES

- Extra subgrade widths.**
Add to each shoulder: 1 ft. for fills of 1-6 ft. and 2 ft. for fills over 6 ft. Widen the inside shoulder of curves as follows:
(See Road Plan Map, Exhibit C)
- Backslopes**

Materials	Cut slopes	Fill slopes
Solid rock	1/4:1	Angle of repose
Soft rock and shale	1/2:1	
Common	Slopes under 55% 1:1	1-1/2:1
	Slopes over 55% 3/4:1	1-1/2:1

Note:
Full bench construction is required on side slopes exceeding 60%.
- Surface type**

	Grading
PRR - Pit run rock	A - 3"
GRR - Grid rolled rock	B - 2"
SRN - Screened rock	C - 3" jaw run (base course)
JRR - Jaw run rock	
ABC - Aggr. base course	D - 1-1/2"
ASC - Aggr. surface course	E - 1"
WC - Wood chips	E - 3/4"
- Turnouts.**
Width - 10 ft. in addition to subgrade width, or as shown on the plans.
Located approximately as shown on the plans.
Intervisible and not more than 750 ft. apart.
- Surfacing**
Turnouts, curve widening and road approach aprons shall be surfaced.
- Clearing width** 200.
See Section
- As posted and painted for Right-of-Way:
- Drainage**
See Culvert List
- Compaction**
See Sections 300 and 400

* Clearing Limits as posted on ground

Culvert List

CULVERT LOCATIONS														ROCK			REMARKS *6
DESIGNED *2							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT			RIP RAP (GRADING)			
														(a)		(b)	
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3	SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	INLET	OUTLET	Structure inside pipe	
SV/Gunner's Loop	0+20	18"	-	70'	-	-	-	-	-	-	-	-	-	-	-	-	Install New Culvert as marked in field. Place 30 CY Crushed Bedding/Backfill. Spread 30 CY Pit-Run Base Rock over Pipe as Surfacing capped with lift of rock over road.
4N-3-15.0	0.527	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
	0.672	18"	--	50'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 20 CY Crushed Bedding/Backfill. Spread 20 CY Pit-Run Base Rock over Pipe as Surfacing capped with 15 CY Crushed Rock. Install metal inlet marker.
	0.740	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
	0.090	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
4N-3-17.0	0.017	36"	--	46'	--	--	--	--	--	--	--	--	--	--	--	--	Remove Log Fill (approx. 2 ft. fill @ CL). Install New Culvert as marked in field. Place 25 CY Crushed Bedding/Backfill. Spread 25 CY Pit-Run Base Rock over pipe as Surfacing capped with Lift of rock over whole road. Install metal inlet marker.
	0.079	18"	--	32'	--	--	--	--	--	--	--	--	--	--	5	--	Replace Existing Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with Lift of rock over whole road. Place 5 CY Class 3 RipRap @ outlet as dissipater. Install metal inlet marker.
	0.127	36"	--	90'	--	--	--	--	--	--	--	--	--	--	80	--	Remove Log Fill (approx. 23 ft. fill @ CL). Replace Existing Culvert as marked in field. Place 70 CY Crushed Bedding/Backfill. Spread 50 CY Pit-Run Base Rock over Pipe as Surfacing capped with Lift of rock over whole road. Place 50 CY Class 5 RipRap @ outlet as fill armor/stabilization wall. Place 30 CY Class 3 RipRap @ outlet as fill armor. Salvage Existing Rock on fill slope to use as fill armor on inlet and outlet. Install metal inlet marker.
	0.214	24"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Remove Log Fill (approx. 2 ft. fill @ CL). Install New Culvert as marked in field. Place 15 CY Crushed Bedding/Backfill. Spread 15 CY Pit-Run Base Rock over pipe as Surfacing capped with Lift of rock over whole road. Install metal inlet marker.

Gage Chart

Gage	Dec. Inches	
	Steel	Alum.
10	.138	.135
12	.109	.105
14	.079	.075
16	.064	.060

1. Designed culvert lengths and locations are approximate.

*2. all culverts have 2 2/3" x 1/2"

unless otherwise noted.

**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 36" and smaller. All larger culverts shall be aluminized steel. Culverts 20' in length or smaller shall be one piece (no joints). No Culvert piece shall be shorter than 6 foot. Minimization of banding is required.

***4. Downspout or Standpipe Types**

- 1) Full
- 2) Half
- 3) Flume

*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).

- *5. 1) Conventional or Fabricated**
2) Turner type
3) Slip joint

***6. Include special sections, structures, headwalls, footings & other data.**

CULVERT LOCATIONS							DOWNSPOUT(d) or STANDPIPE(s)				AS BUILT			ROCK			REMARKS
DESIGNED							*2				*4			*5			
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE	SIZE	TYPE	LENGTH	TYPE OF ELBOW	SIZE	GAGE	LENGTH	INLET	OUTLET	Structure inside pipe	
4N-3-17.0 (cont.)	0.247	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Replace Existing Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 15 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock.
	0.384	18"	--	40'	--	--	18"	1	10'	--	--	--	--	--	--	--	Replace Existing Culvert and downspout as marked in field. Place 15 CY Crushed Bedding/Backfill. Spread 15 CY Pit-Run Base Rock over Pipe as Surfacing capped with Lift of rock over whole road. Install metal inlet marker.
	0.470	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	Replace Existing Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with Lift of rock over whole road. Install metal inlet marker.
	0.581	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
4N-3-17.3	0+19	18"	--	50'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 20 CY Crushed Bedding/Backfill. Spread 15 CY 1-1/2"-0" Crushed over Lift of Rock Spread over whole road. Leave culvert when decommissioning road.
	13+05	24"	--	50'	--	--	--	--	--	--	--	--	--	--	--	--	Remove Log Fill (approx. 8ft fill @ CL). Install New Culvert as marked in field. Place 25 CY Crushed Bedding/Backfill. Spread 25 CY Pit-Run Base Rock over Pipe as Surfacing capped with Lift of rock over whole road. Spread 20 CY 1-1/2"-0" Crushed over Lift of Rock. Install metal inlet marker. Leave culvert when decommissioning.
	14+27	24"	--	60'	--	--	--	--	--	--	--	--	--	--	20	--	Remove Log Fill (approx. 12 ft. fill @ CL). Install New Culvert as marked in field. Place 30 CY Crushed Bedding/Backfill. Spread 30 CY Pit-Run Base Rock over Pipe as Surfacing capped with Lift of rock over whole road. Spread 25 CY 1-1/2"-0" Crushed over Lift of Rock. Place 20 CY Class 3 RipRap @ outlet as fill armor/stabilization wall. Install metal inlet marker. Leave culvert when decommissioning.
4N-3-21.3	0.075	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
	0.200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
4N-3-21.4a1	0.056	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Install metal inlet marker.
	0.120	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Install metal inlet marker.
4N-3-21.4a2	0.028	18"	--	30'	--	--	18"	1	10'	--	--	--	--	--	--	--	Install New Culvert and downspout as marked. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Install metal inlet marker.
	0.108	18"	--	30'	--	--	--	--	--	--	--	--	--	--	5	--	Install New Culvert as marked. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Place 5 CY Class 3 RipRap @ outlet as energy dissipater. Install metal inlet marker.
	0.186	18"	--	40'	--	--	18"	1	10'	--	--	--	--	--	--	--	Install New Culvert and downspout as marked. Place 15 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Install metal inlet marker.

Gage Chart

Gage	Dec. Inches	
	Steel	Alum.
10	.138	.135
12	.109	.105
14	.079	.075
16	.064	.060

1. Designed culvert lengths and locations are approximate.

2. all culverts have 2 2/3" x 1/2"

unless otherwise noted.

4. Downspout or Standpipe Types

1) Full	*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).
2) Half	
3) Flume	

**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 36" and smaller. All larger culverts shall be aluminized steel. Culverts 20' in length or smaller shall be one piece (no joints). No Culvert piece shall be shorter than 6 foot. Minimization of banding is required.

5. 1) Conventional or Fabricated
2) Turner type
3) Slip joint

6. Include special sections, structures, headwalls, footings & other data.

Culvert List

CULVERT LOCATIONS														ROCK			REMARKS *6
DESIGNED *2							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT			RIP RAP (GRADING)			
														(a)		(b)	
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3	SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	INLET	OUTLET	Structure inside pipe	
4N-3-21.4a3	0.021	36	--	32'	--	--	--	--	--	--	--	--	--	--	10	--	Replace existing culvert (approx. 4' fill @ CL). Place 20 CY Crushed Bedding/Backfill. Spread 20 CY Pit-Run Base Rock over pipe as Surfacing capped with 15 CY Crushed Rock. Place 10 CY Class 3 RipRap at culvert outlet as Fill Slope Stabilization/energy dissipater. Install metal inlet marker.
	0.047	18"		30'	--	--	--	--	--	--	--	--	--	--	5	--	Install New culvert. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over pipe as Surfacing capped with 10 CY Crushed Rock. Place 5 CY Class 3 RipRap at culvert outlet as Energy Dissipater. Install metal inlet marker.
4N-3-21.5	0.070	--	--	--	--	--	--	--	--	--	--	--	--	--	20	--	Place 20 CY Class 5 RipRap @ bottom of fill slope as fill slope armor/stabilization wall.
	0.122	24"	16	60'	--	--	--	--	--	--	--	--	--	--	20	--	Remove Log Fill (approx. 10 ft. fill @ CL). Install New Culvert as marked (perforated pipe for French Drain). Place 100 CY Crushed drain rock wrapped in 300 SY non-woven fabric. Spread 35 CY Pit-Run Base Rock over Pipe as Surfacing capped with 25 CY Crushed Rock. Place 20 CY Class 5 RipRap @ outlet as energy dissipater/stabilization wall. Install inlet marker.
4N-3-22.1	0.019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CMP.
	0.140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	0.460	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	
	0.536	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	
	0.700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	0.731	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4N-3-28.2	6+20	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	capped with 10 CY Crushed Rock. Install metal inlet marker. Remove and salvage pipe when decommissioning Road.

Gage Chart		
	Dec. Inches	
Gage	Steel	Alum.
10	.138	.135
12	.109	.105
14	.079	.075
16	.064	.060

1. Designed culvert lengths and locations are approximate.

*2. all culverts have 2 2/3" x 1/2" unless otherwise noted.

**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 36" and smaller. All larger culverts shall be aluminized steel. Culverts 20' in length or smaller shall be one

*4. Downspout or Standpipe Types

1) Full	*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).
2) Half	
3) Flume	

*5. 1) Conventional or Fabricated
2) Turner type

3) Slip joint

*6. Include special sections, structures, headwalls, footings & other data.

Culvert List

CULVERT LOCATIONS														ROCK			REMARKS *6
DESIGNED *2							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT			RIP RAP (GRADING)			
														(a)		(b)	
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3	SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	INLET	OUTLET	Structure inside pipe	
Spur C	0+14	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Remove and salvage pipe when decommissioning Road.
	4+10	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Remove and salvage pipe when decommissioning Road.
	12+77	36"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Install new culvert (approx. 5' fill @ CL). Place 20 CY Crushed Bedding/Backfill. Spread 20 CY Pit-Run Base Rock over pipe as Surfacing capped with 10 CY Crushed Rock. Install metal inlet marker. Remove and salvage pipe when decommissioning Road.

Gage Chart		
Gage	Dec. Inches	
	Steel	Alum.
10	.138	.135
12	.109	.105
14	.079	.075
16	.064	.060

1. Designed culvert lengths and locations are approximate.

*2. all culverts have 2 2/3" x 1/2"

unless otherwise noted.

**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 36" and smaller. All larger culverts shall be aluminized steel. Culverts 20' in length or smaller shall be one piece (no joints). No Culvert piece shall be shorter than 6 foot. Minimization of banding is required.

*4. Downspout or Standpipe Types

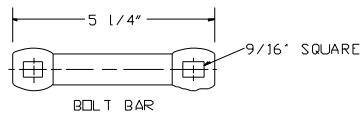
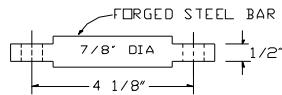
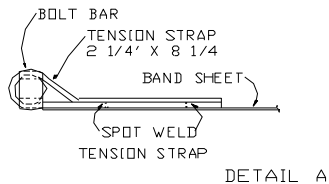
- | | |
|----------|---|
| 1) Full | *** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall). |
| 2) Half | |
| 3) Flume | |

- *5. 1) Conventional or Fabricated
2) Turner type
3) Slip joint

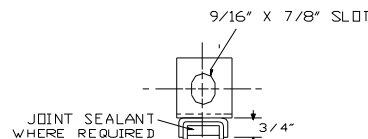
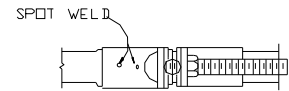
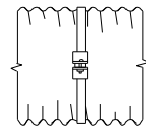
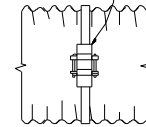
*6. Include special sections, structures, headwalls, footings & other data.

U.S. DEPT. OF THE INTERIOR
 Bureau of Land Management
 NORTHWEST OREGON DISTRICT OFFICE - OREGON
CULVERT BAND DETAILS

NOTE:
 DESIGN VARIATIONS IN FASTENERS,
 (STRAPS, BARS & WELDS) WHICH
 PROVIDE A TENSILE STRENGTH OF
 7500 LBS. ARE PERMISSIBLE.



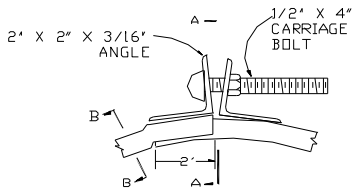
TENSION STRAP
 AND BOLT BAR.
 SEE DETAIL A



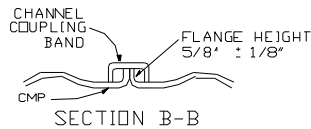
DIMENSIONS IN INCHES

T	A	PIPE WALL THICKNESS
.079	3/4	.109 OR LIGHTER
.109	1	.138 OR HEAVIER

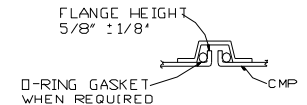
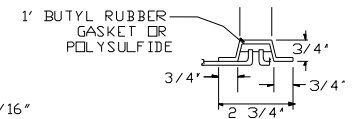
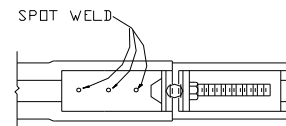
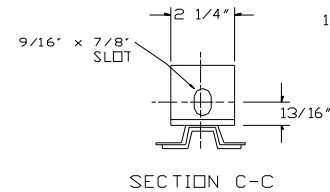
SECTION A-A



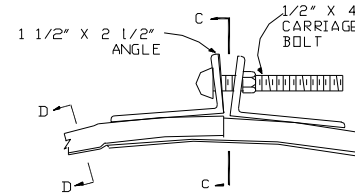
NOTE:
 AS AN ALTERNATE TO SWEDGE, AN
 OVERSIZE BRIDGE CLIP MAY BE USED.



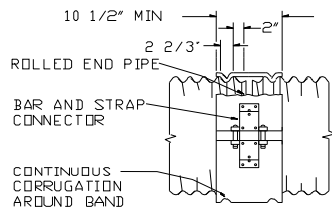
CHANNEL
 BAND
 COUPLER



SECTION D-D
 SHOWN WITH ALTERNATE TYPES
 OF JOINT SEALERS



FLANGED END COUPLER



STANDARD CONSTRUCTION IS 1 PIECE 12'
 THRU 48\"/>

THE HUGGER COUPLER BAND OR AN APPROVED EQUIVALENT
 COUPLER BAND SHALL BE MADE OF THE SAME MATERIAL AND
 FINISH AS THE PIPES JOINED. THE COUPLER BANDS SHALL
 HAVE A MINIMUM WIDTH OF 10 1/2 INCHES AND MAY BE TWO
 NUMERICAL THICKNESSES LIGHTER THAN THE GAGE OR
 THICKNESS DESIGNATED FOR THE CONDUIT JOINED. THE BAND
 SHALL BE DESIGNED TO BE DRAWN TOGETHER WITH TWO
 1/2 INCH BOLTS THROUGH USE OF A BAR AND STRAP SUITABLY
 WELDED TO THE BAND. THE BAND SHALL ENGAGE AND MESH
 WITH THE SECOND ANNULAR CORRUGATION INWARD FROM
 THE END OF EACH OF THE CONDUIT SECTIONS JOINED.

GASKETS AND "HUGGER" TYPE BANDS, OR AN APPROVED
 EQUIVALENT COUPLER, SHALL BE INSTALLED
 INSTALLED ON ALL 48\"/>

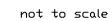
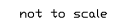
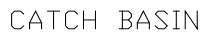
"HUGGER" COUPLER BANDS

STANDARD COUPLER BANDS								
CORRUGATED								
CULVERT SIZE INCHES	STD. ANNULAR		HELICAL		3" x 1"		6" x 1"	
	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS
UNDER 18	7	2	7	2				
18 TO 54	12	3	12	3	14	3	18	3
OVER 54	24	5	24	5	24	5	24	4

DATA IN THIS BLOCK DOES NOT APPLY TO PERFORATED PIPE UNDERDRAIN.
 FOR BANDS WITH "PUNCH-OUT" TYPE CONNECTIONS, 2 BOLTS ARE
 PERMISSIBLE FOR EACH LAP. BANDS SHALL LAP 1/2 WIDTH ONTO EACH
 SECTION OF PIPE AND MUST FULLY ENIRCLE THE JOINT FORMING A
 NEARLY WATERTIGHT CONNECTION.

- Ⓐ BANDS WITH ANGLES
- Ⓑ BANDS WITH TENSION TYPE CONNECTIONS

CULVERT INSTALLATION DETAILS

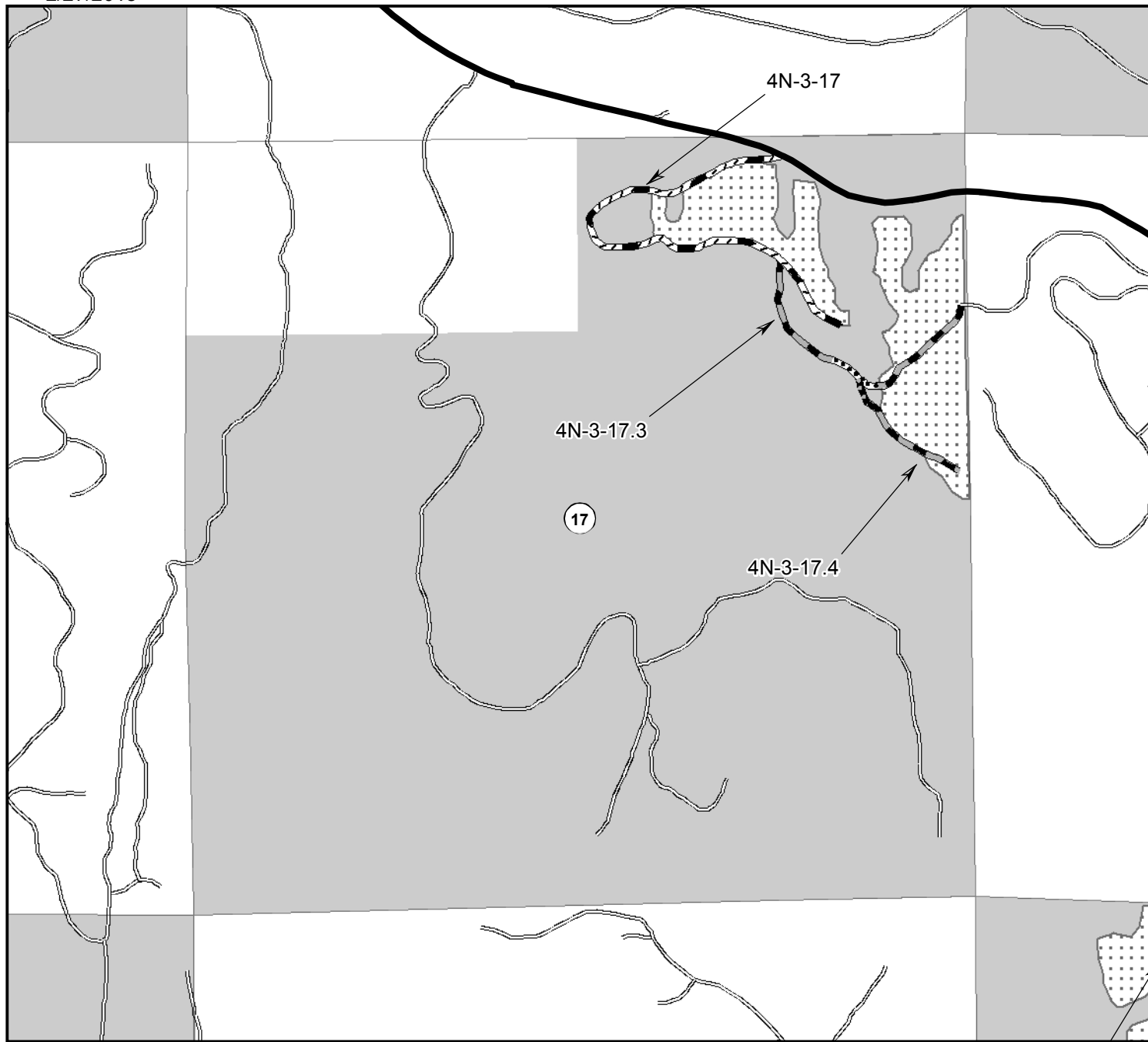




Road Plan Map

2/27/2018

T. 4N. R. 3W, Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 500 1,000 2,000 3,000 Feet

1 inch = 1,000 feet

- | | |
|---------------------------|--|
| Scappoose Vernonia Road | Rock surfaced road to be constructed-decommission after use |
| Other Roads | Natural surfaced road to be constructed-decommission after use |
| Snaggletooth Project Area | Existing rock surfaced road to be renovated-decommission after use |
| Bureau of Land Management | Existing rock surfaced road to be renovated |

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

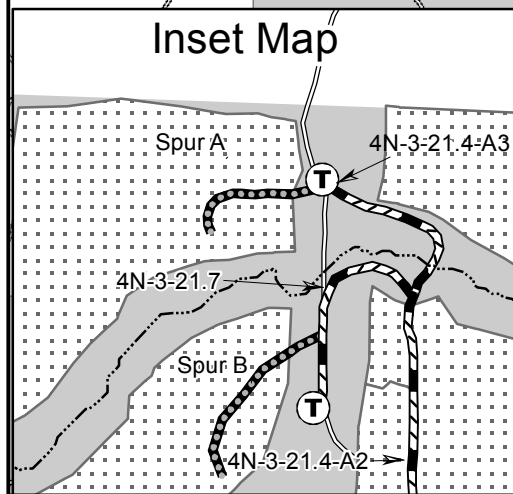
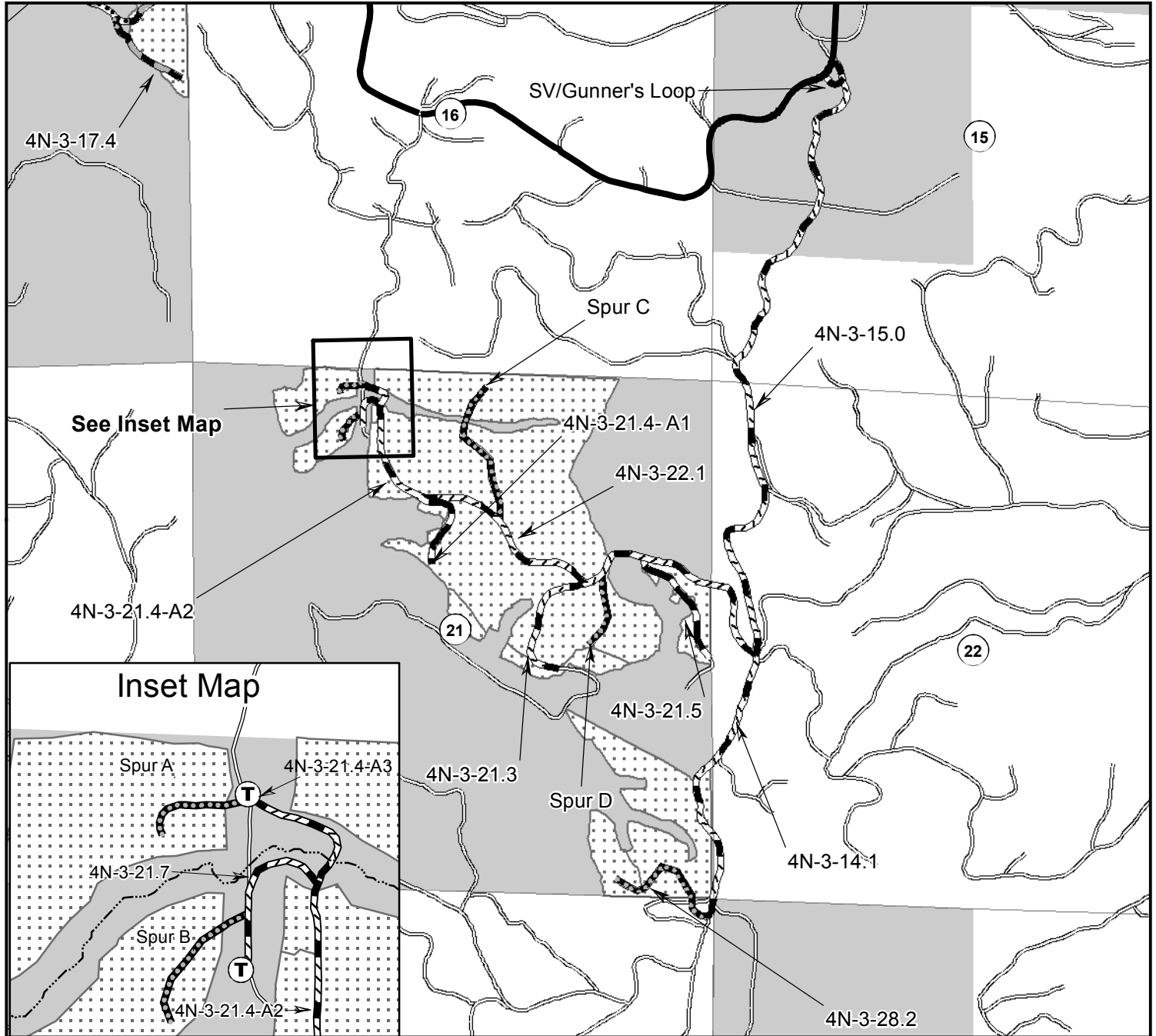
Prepared By: csween



Road Plan Map

2/27/2018

T. 4N. R. 3W, Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 750 1,500 3,000 4,500
Feet

1 inch = 1,500 feet

- Rock surfaced road to be constructed-decommission after use
- Natural surfaced road to be constructed-decommission after use
- Existing rock surfaced road to be renovated-stabilize after use
- Existing rock surfaced road to be renovated-decommission after use
- Existing rock surfaced road to be renovated

- Truck turn around
- Scappoose Vernonia Road
- Other Roads
- Snaggletooth Project Area
- Bureau of Land Management

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Prepared By: csween

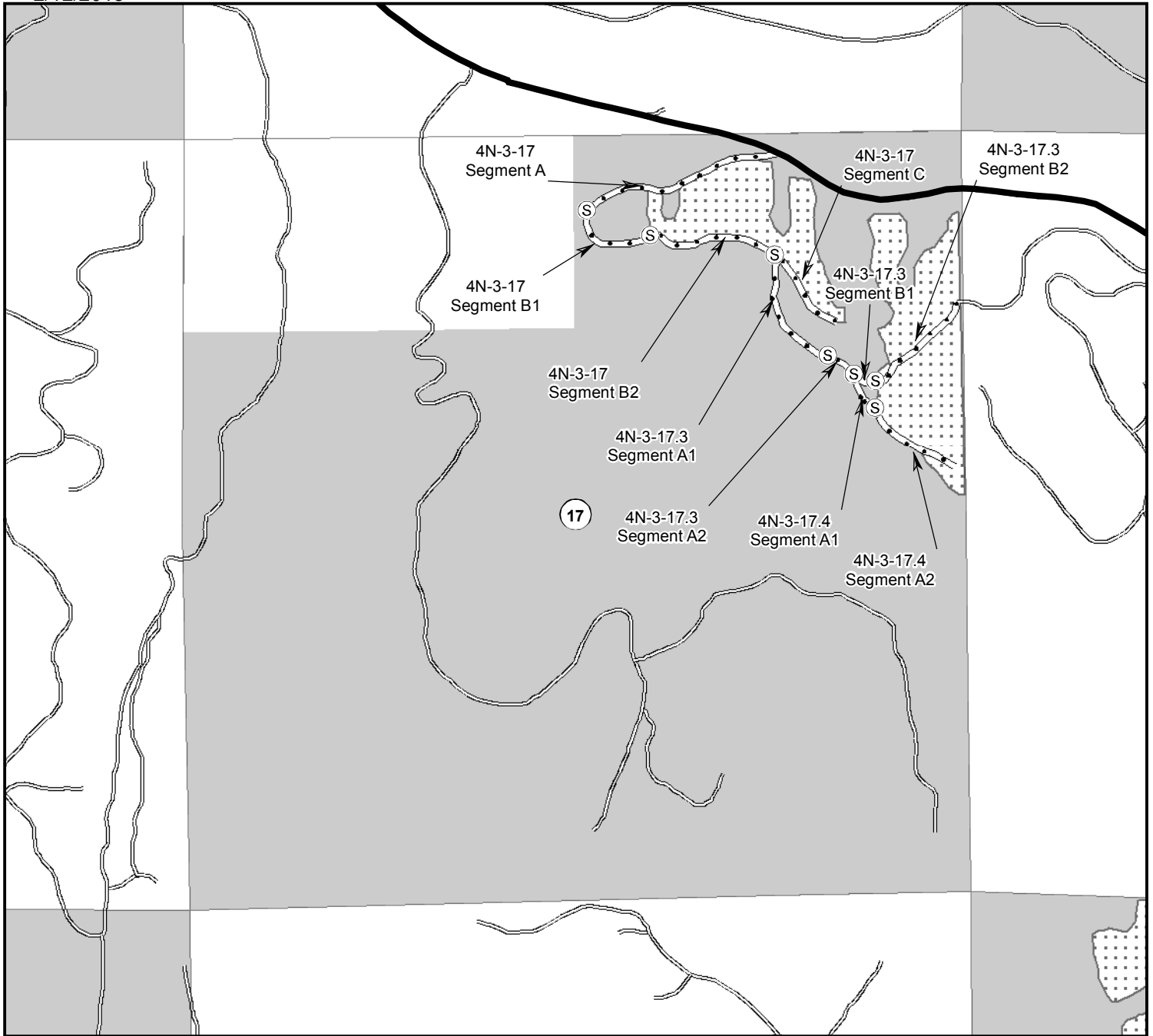
United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT-OREGON
MAINTENANCE AND ACCESS MAP

Snaggletooth Timber Sale
Contract No. ORN04-TS-2018.0401
Exhibit E
Page 1 of 2








2/12/2018

T. 4N. R. 3W, Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 500 1,000 2,000 3,000 Feet

1 inch = 1,000 feet

-  BLM controlled road- Purchaser maintenance
-  Snaggletooth Project Area
-  Road segment breaks
-  Scappoose Vernonia Road
-  Other Roads

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Prepared By: csween

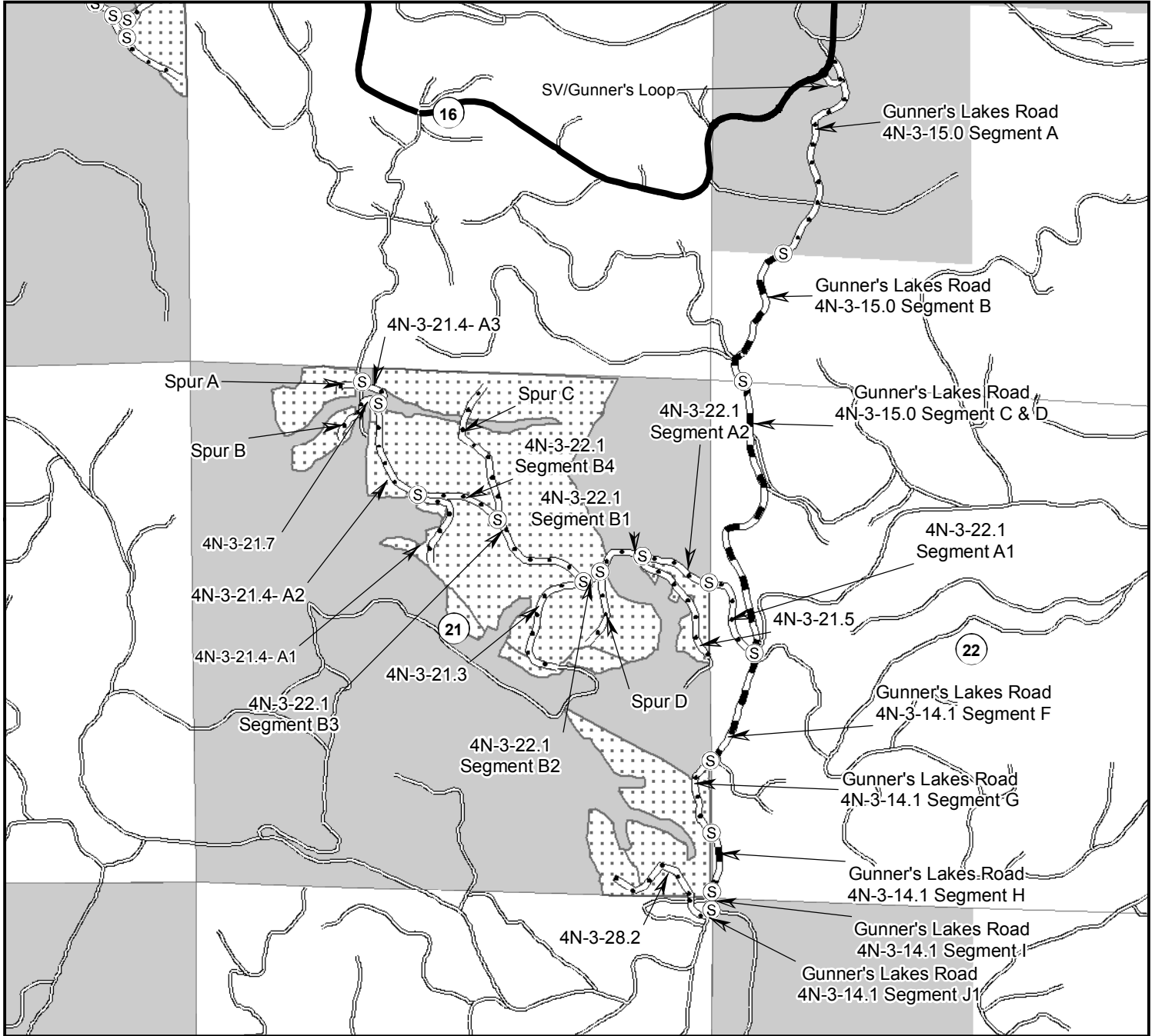
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MAINTENANCE AND ACCESS MAP

Snaggletooth Timber Sale
Contract No. ORN04-TS-2018.0401
Exhibit E
Page 2 of 2



2/27/2018

T. 4N. R. 3W, Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 750 1,500 3,000 4,500
Feet

1 inch = 1,500 feet

- | | |
|---|---------------------------|
| BLM controlled road-Purchaser maintenance | Snaggletooth Project Area |
| Privately controlled road-Purchaser maintenance | Scappoose Vernonia Road |
| Road segment breaks | Other Roads |

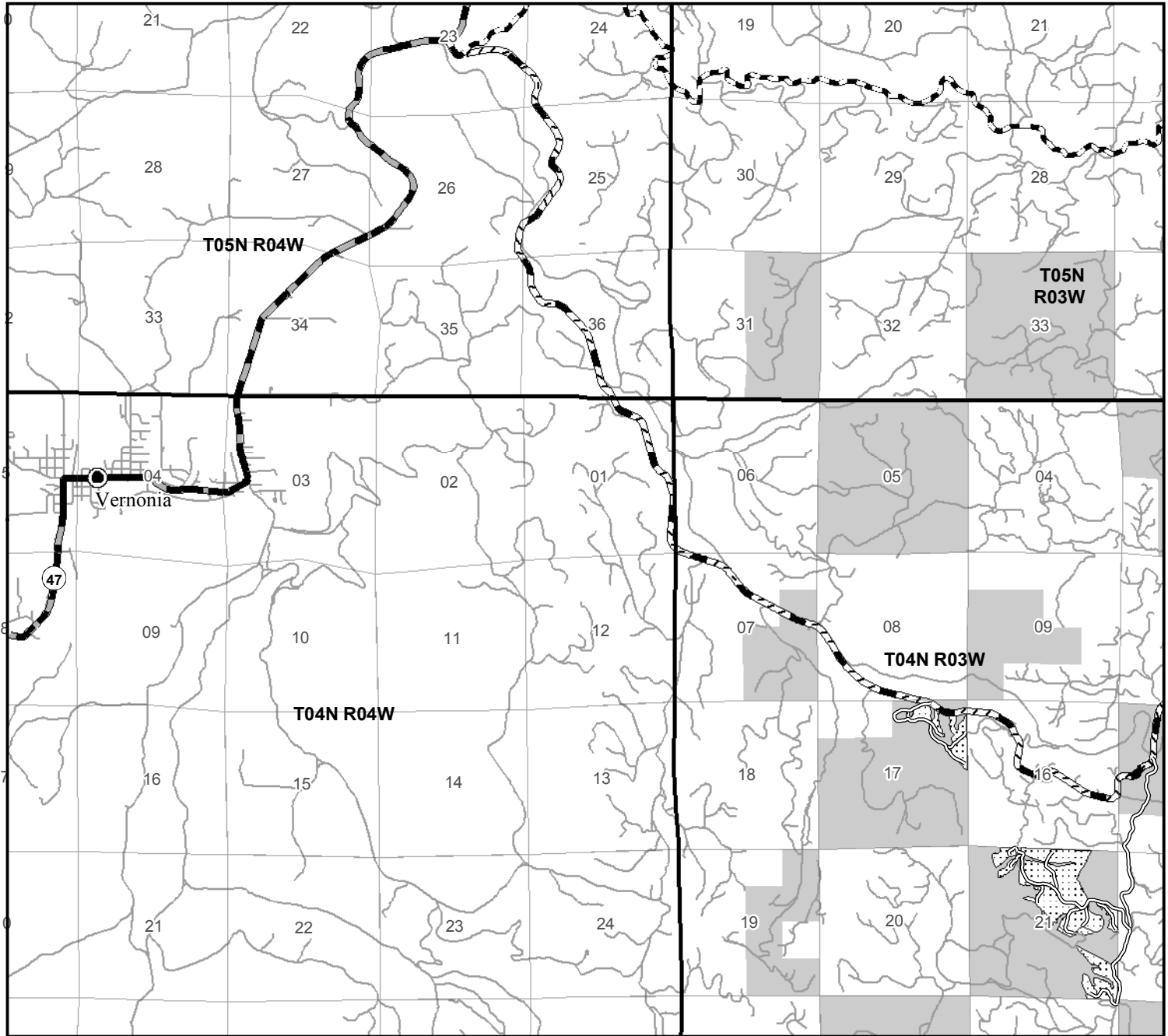
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Prepared By: csween



PROJECT LOCATION MAP

T. 4N. R. 3W, Section 17 & 21 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 0.5 1 2
Miles

- | | |
|---------------------------|---------------------------|
| Snaggletooth Project Area | Scappoose Vernonia Road |
| Project Roads | Highway |
| Pittsburgh Road | Other Roads |
| | Bureau of Land Management |



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Prepared By: csween Date: 1/16/2018

Information for Timber Sale Notice, Prospectus, Sec. 41 & 42
Snaggle Tooth Timber Sale
ORN04-TS-2018.0401

Approx # of trees	Est Volume MBF 32'	Species	Est Volume MBF 16'	Appraised \$/MBF	Appraised Price
11,606	5,024.0	Douglas Fir	6,190.0	\$388.10	\$2,402,339.00
1,791	25.0	Red Alder	33.0	\$284.30	\$9,381.90
141	15.0	Western Redcedar	22.0	\$656.60	\$14,445.20
152	0.7	Bigleaf Maple	1.0	\$54.80	\$54.80
13,690	5,064.7		6,246.0		\$2,426,220.90

CRUISED BY:	Salmon / Bryant
CRUISE COMPLETED:	September 2017
COMBINED SAMPLING ERROR:	9.90 %

CRUISE DESIGN/METHOD Description:
variable plot

TRACT FEATURES

ALL SPECIES

QM DBH	19.0	INCHES
GM LOG	98	BD FT
Total Gross Volume	6,786	MBF
Recovery	92	%
Salvage	0	MBF
Export	0	MBF

Dominant Species: Douglas Fir

QM DBH	19.8	INCHES
GM Log	102	BD FT
Recovery	95	%
Salvage	0	MBF

Admin Scale Allowance		\$0.00	\$/MBF
	TOTAL ADMIN. SCALE Allowance	\$0.00	

EXPORT VOLUME (LE-1)	Port Orford Cedar	0	MBF
----------------------	-------------------	---	-----

Reserve Tree Paint Color	Reserve Tree Count
	0

Harvest Tree Paint Color	Harvest Tree Count
	0

PRIVATE TIMBER:	Purchase at Independantly Appraised Price		
COMPANY NAME:	Rayonier Washington Timber		
LOCATION/ROAD #:	4N-3-28.2		
SPECIES	MBF VOLUME	\$/MBF	Appraised Value
Douglas Fir	6.10	\$570.33	\$3,479.01
Total:	6.10		\$3,479.01

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Columbia	4N	3W	17	E1/2NE1/4, NW1/4NE1/4	Willamette
O&C	Columbia	4N	3W	21	NE1/4, N1/2NW1/4, SE1/4NW1/4, N1/2SE1/4, SE1/4SE1/4	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	6,190.0	6,488.0	6,506.0	63,610	310	11,606
Red Alder	33.0	236.0	236.0	321	4,989	1,791
Western Redcedar	22.0	22.0	22.0	408	0	141
Bigleaf Maple	1.0	23.0	23.0	0	498	152
Totals	6,246.0	6,769.0	6,787.0	64,339	5,797	13,690

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
97.0	107.0	5.0	209.0	29.9

Logging Costs

Stump to Truck	\$652,882.05
Transportation	\$365,526.00
Road Construction	\$302,454.27
Maintenance/Rockwear	\$39,750.20
Road Use	\$0.00
Other Allowances	\$28,566.00
Total:	\$1,389,178.52
Total Logging Cost per MBF:	\$222.41

Utilization Centers

Location	Distance	% of Net Volume
Vancouver, Wa	49.0 miles	100 %

Profit & Risk

Basic Profit & Risk	9 %
Additional Risk	3 %
Total Profit & Risk	12 %

Tract Features

Quadratic Mean DBH	19.0 in
Average GM Log	98 bf
Average Volume per Acre	29.9 mbf
Recovery	92 %
<u>Net MBF volume:</u>	
Green	6,246.0 mbf
Salvage	0 mbf
Export	0 mbf
<u>Ground Base Logging:</u>	
Percent of Sale Volume	62 %
Average Yarding Slope	20 %
Average Yarding Distance	400 ft
<u>Cable Logging:</u>	
Percent of Sale Volume	38 %
Average Yarding Slope	50 %
Average Yarding Distance	300 ft
<u>Aerial Logging:</u>	
Percent of Sale Volume	0 %
Average Yarding Slope	0 %
Average Yarding Distance	0 ft

Cruise

Cruise Completed	September 2017
Cruised By	Salmon / Bryant
Cruise Method	variable plot

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	11,606	6,190.0	\$693.72	\$83.25	\$222.41	\$0.00	\$388.10	\$2,402,339.00
Red Alder	1,791	33.0	\$575.78	\$69.09	\$222.41	\$0.00	\$284.30	\$9,381.90
Western Redcedar	141	22.0	\$998.84	\$119.86	\$222.41	\$0.00	\$656.60	\$14,445.20
Bigleaf Maple	152	1.0	\$315.00	\$37.80	\$222.41	\$0.00	\$54.80	\$54.80
Totals	13,690	6,246.0						\$2,426,220.90

Other Wood Products

Product	Unit of Measure	# of Units	\$/Unit	Appraised Value
Clean Chips	Green Tons	808	\$5.00	\$4,040.00
Totals				\$4,040.00

Total Appraised Value: \$2,430,260.90

Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir				72.0 %	26.0 %	2.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill			Camp Run
Western Redcedar							100.0 %

Species							
Bigleaf Maple							100.0 %

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill		Camp Run
Red Alder							100.0 %

Snaggle Tooth**Unit Summary****ORN04-TS-2018.0401****Unit: 1**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	390.0	409.0	410.0	718
Red Alder	2.0	15.0	15.0	112
Western Redcedar	1.0	1.0	1.0	10
Totals:	393.0	425.0	426.0	840

Net Volume/Acre: 32.8 MBF

Regeneration Harvest	6.0
Partial Cut	6.0
Right of Way	0.0
Total Acres:	12.0

Unit: 2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	709.0	742.0	745.0	1,164
Red Alder	5.0	26.0	26.0	197
Western Redcedar	4.0	4.0	4.0	24
Totals:	718.0	772.0	775.0	1,385

Net Volume/Acre: 37.8 MBF

Regeneration Harvest	16.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	19.0

Unit: 3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	4,165.0	4,365.0	4,378.0	7,704
Red Alder	23.0	157.0	157.0	1,201
Western Redcedar	16.0	16.0	16.0	99
Bigleaf Maple	1.0	23.0	23.0	152
Totals:	4,205.0	4,561.0	4,574.0	9,156

Net Volume/Acre: 29.8 MBF

Regeneration Harvest	75.0
Partial Cut	66.0
Right of Way	0.0
Total Acres:	141.0

Unit: 4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	712.0	748.0	748.0	1,685
Red Alder	1.0	30.0	30.0	222
Totals:	713.0	778.0	778.0	1,907

Net Volume/Acre: 22.3 MBF

Regeneration Harvest	0.0
Partial Cut	32.0
Right of Way	0.0
Total Acres:	32.0

Unit: RW

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	214.0	224.0	225.0	335
Red Alder	2.0	8.0	8.0	59
Western Redcedar	1.0	1.0	1.0	8
Totals:	217.0	233.0	234.0	402

Net Volume/Acre: 43.4 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	5.0
Total Acres:	5.0

Total Stump To Truck	Net Volume	\$/MBF
\$652,882.05	6,246.0	\$104.53

Stump to Truck: Falling, Bucking, Yarding, & Loading

Yarding System	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Medium Yarder	GM MBF	2,029.0	\$154.57	\$313,622.53	cable thin 4.5/day
Cable: Medium Yarder	GM MBF	572.0	\$115.93	\$66,311.96	cable regen 6/day
Track Skidder	GM MBF	1,625.0	\$81.62	\$132,632.50	ground based thin 8/day
Track Skidder	GM MBF	2,543.0	\$54.42	\$138,390.06	ground based regen 12/day
Subtotal				\$650,957.05	

Additional Costs

Item	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Intermediate Support	Each	7.0	\$275.00	\$1,925.00	
Subtotal				\$1,925.00	

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Subtotal				\$0.00	

Total	Net Volume	\$/MBF
\$365,526.00	6,246.0	\$58.52

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost	% of Sale Volume
Vancouver, Wa	49.0	All Species	GM MBF	6,769.0	\$54.00	\$365,526.00	100 %

Comments:

\$90/hour 5mbf/load 3 hours round trip

Engineering Allowances

Total	Net Volume	\$/MBF
\$342,204.47	6,246.0	\$54.79

Cost Item	Total Cost
Road Construction:	\$302,454.27
Road Maintenance/Rockwear:	\$39,750.20
Road Use Fees:	\$0.00

Total	Net Volume	\$/MBF
\$28,566.00	6,246.0	\$4.57

Environmental Protection

Cost item	Total Cost
Equipment Wash	\$296.00
Subtotal	\$296.00

Miscellaneous

Cost item	Total Cost
2 Flaggers	\$1,280.00
Subtotal	\$1,280.00

Slash Disposal & Site Prep

Cost item	Total Cost
Landing Pile Cover, Burn	\$1,050.00
Slashing & Lopping	\$2,890.00
Hand Pile, Cover, Burn	\$5,950.00
Machine Pile Construct, Cover, Burn	\$17,100.00
Subtotal	\$26,990.00

Comments:

8 hours of washing for equipment.
one work week for two flaggers
Fuels items are from fuels appraisal