

Washington DNR Timber Sales Program

The documents for Red Stapler VRH and Thin Timber Sale have been changed as follows:

Documents amended:

Brief Description	DATE	Initials
Notice of Sale: Fees due upon removal has been corrected from \$9.00/ton to \$1.00/ton	10/04/23	kw



TIMBER NOTICE OF SALE

SALE NAME: RED STAPLER VRH AND THIN

AGREEMENT NO: 30-105512

AUCTION: November 16, 2023 starting at 10:00 a.m., **COUNTY:** Cowlitz
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 21 miles east of Toutle

**PRODUCTS SOLD
AND SALE AREA:**

All timber, except leave trees marked with blue paint, and all down timber existing 5 years prior to the day of sale, all down timber greater than 60 inches diameter, and snags bound by the following;

Unit 1, white "Timber Sale Boundary" tags and pink flagging, the 5625 and 5626 roads;

Unit 2, 3, 4, white "Timber Sale Boundary" tags and pink flagging, and the 5625 road;

Unit 5, white "Timber Sale Boundary" tags and pink flagging, the 3068 and 5631 roads;

Unit 6, all timber as described in Schedule A bounded by white "Timber Sale Boundary" tags and pink flagging, the 3060, 3068, 3069 and 3070 roads;

5633 ROW, orange "Right of Way Boundary" tags and pink flagging;

All forest products above located on part(s) of Sections 13, 14, 22, 23, 24 and 27 all in Township 9 North, Range 3 East, W.M., containing 356 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BVC-SFIFM-018227)

ESTIMATED SALE VOLUMES AND QUALITY:

Species	Avg DBH	Ring Count	Total MBF	Total Tons	Price \$/Ton	MBF by Grade								
						1P	2P	3P	SM	1S	2S	3S	4S	UT
Douglas fir	16.8	8	2,278	20,077	\$24.00						770	1,218	264	26
Noble fir	12.1		1,748	14,738	\$5.00						200	817	710	21
Hemlock	12.7		1,209	11,576	\$5.00						163	631	399	16
Red alder	10.3		67	564	\$3.00							3	64	
Sale Total			5,302	46,955										

MINIMUM BID: \$24/ton (est. value \$619,000.00) **BID METHOD:** Sealed Bids

PERFORMANCE SECURITY: \$100,000.00 **SALE TYPE:** Tonnage Scale

EXPIRATION DATE: October 31, 2026 **ALLOCATION:** Export Restricted

BIDDABLE SPECIES: Douglas fir

BID DEPOSIT: \$61,900.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.



TIMBER NOTICE OF SALE

HARVEST METHOD: Ground based equipment, Cable, and Cable-Assist. This sale is estimated to be 80 percent ground based harvest and 20 percent cable based harvest systems. Ground-based yarding is restricted to sustained slopes of 45 percent or less; Self-leveling equipment restricted to sustained slopes of 55 percent or less; Cable-assist to sustained slopes of 70 percent or less. For additional harvest requirements, refer to the H-140 clause in the contract.

ROADS: 47.22 stations of optional reconstruction. 1502.31 stations of required prehaul maintenance. 18.66 stations of abandonment. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the 5 Way Pit located in Section 15, T9N, R3E WM. on state land at no charge to the Purchaser.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the 4240 Stockpile located on the 4240 road at Station 85+00 on the right, 9 Mile Stockpile located on the 4250 Road at Station 176+00 on the left or 5 Way Stockpile locate in Section 15, T9N, R3E, W.M. on state land at no charge to the Purchaser.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense.

ACREAGE DETERMINATION

CRUISE METHOD: The sale acres were determined by GPS. The sale area was cruised using a variable plot cruise method.

FEES: \$90,134.00 is due on day of sale. \$1.00 per ton is due upon removal. These are in addition to the bid price.

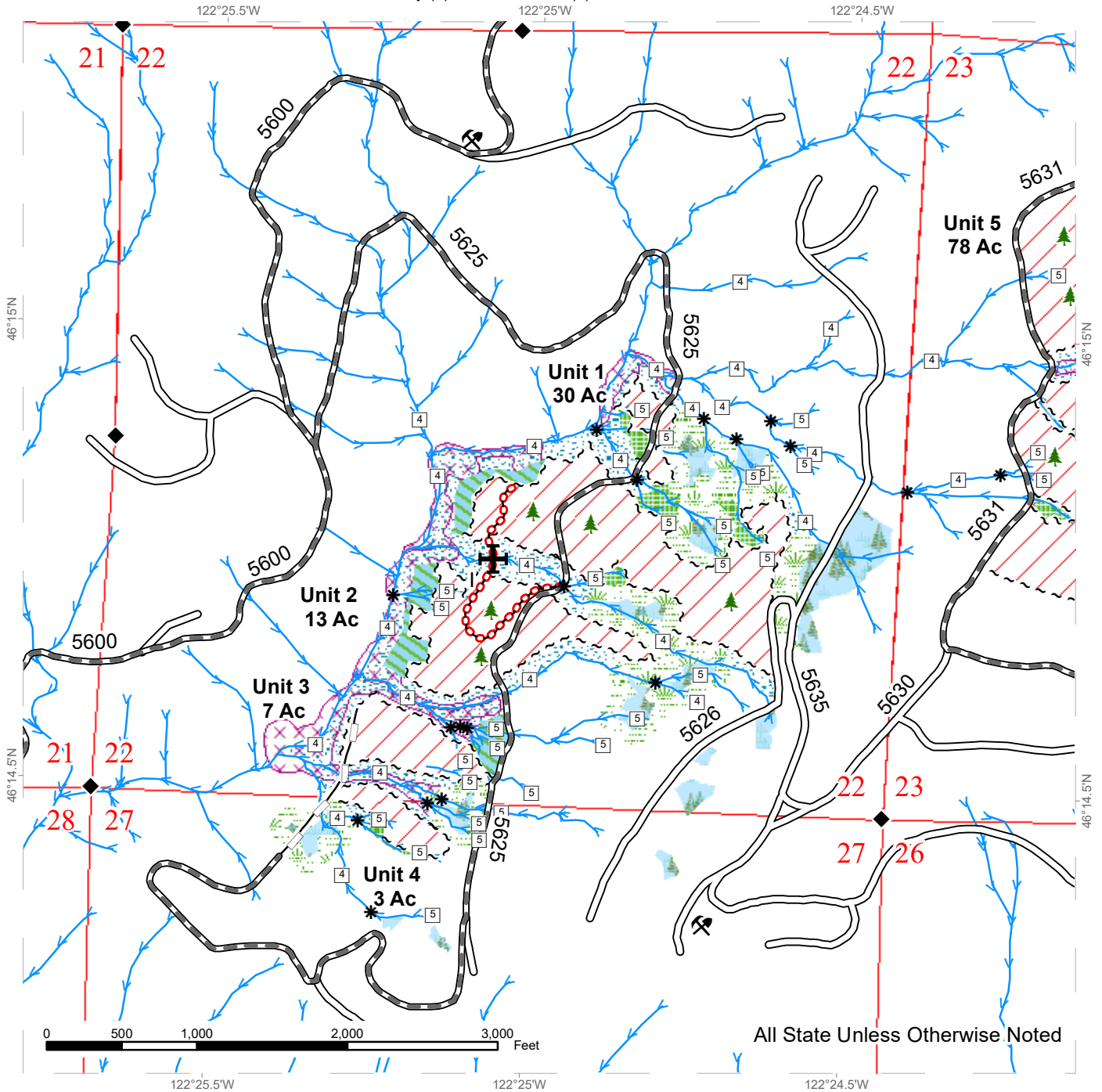
SPECIAL REMARKS: This sale has approximately 267 MBF of High Quality 2 Saw DF, 315 MBF of High Quality 3 Saw DF, see cruise for details.

Logs scaled as white fir, grand fir, silver fir, noble fir or hemlock will be priced the same.

TIMBER SALE MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT #: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)
 122°25.5'W

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000
 122°24.5'W



All State Unless Otherwise Noted

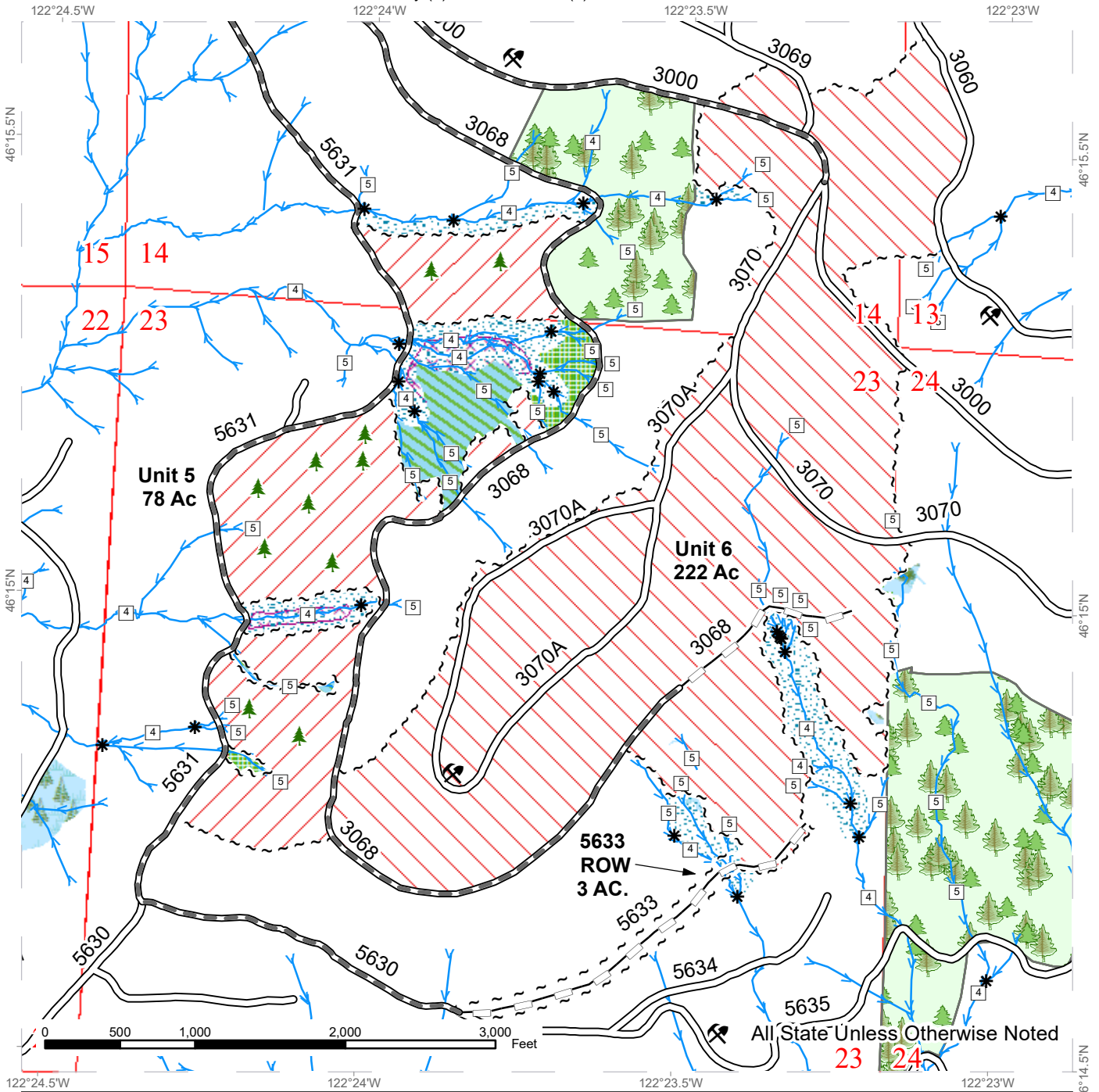
Variable Retention Harvest	Potentially Unstable Slopes	Streams
Non-Tradeable Leave Clump	Sale Boundary Tags	Stream Type
Leave Tree Area	Existing Roads	Stream Type Break
Riparian Mgt Zone	Required Pre-Haul Maintenance	Survey Monument
Forested Wetland	Optional Reconstruction	Leave Tree Area <1/4-acre
Wetland Mgt Zone	Required Abandonment	Culvert Removal



TIMBER SALE MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT #: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



All State Unless Otherwise Noted

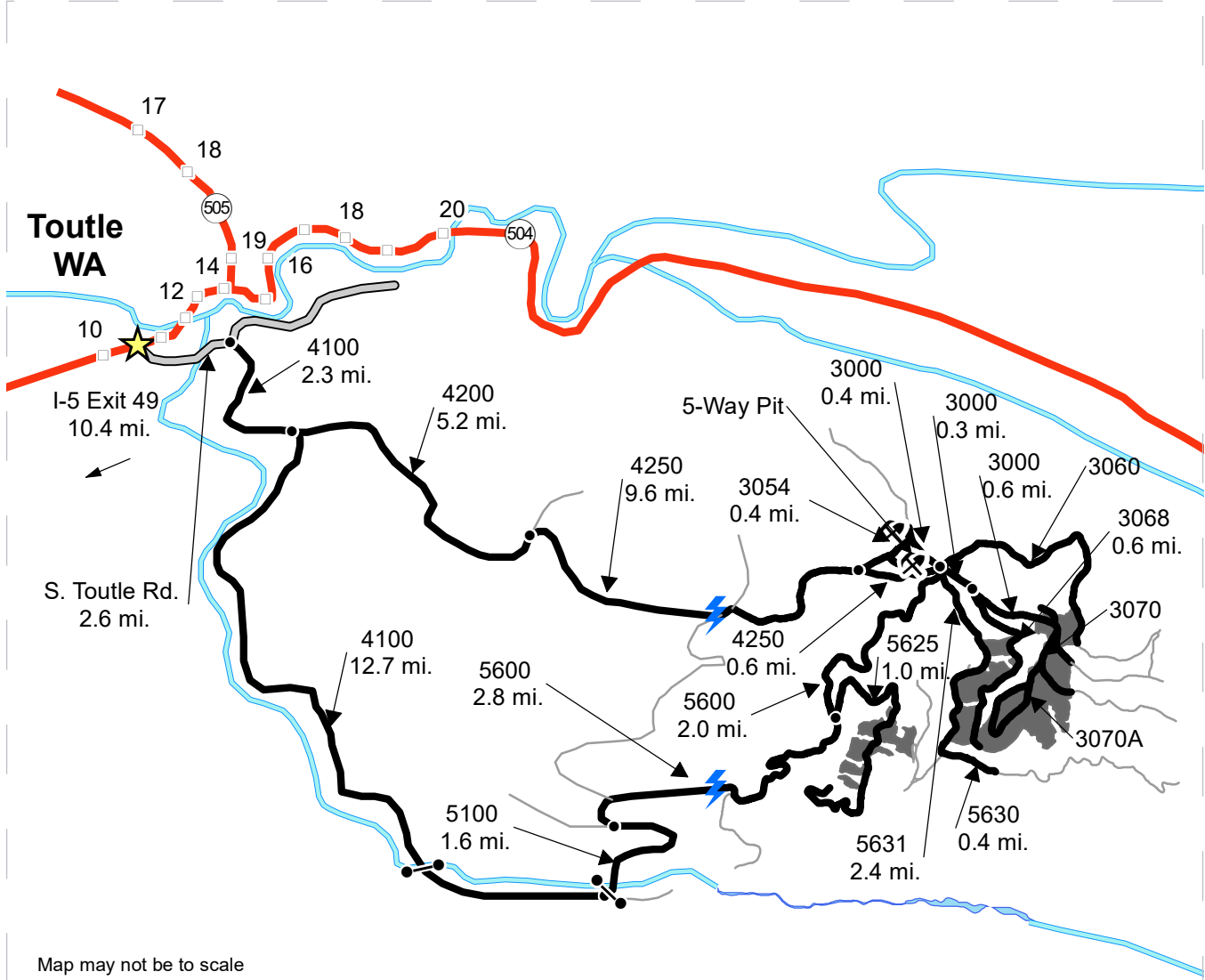
	Variable Retention Harvest		Potentially Unstable Slopes		Streams
	Variable Density Thinning		Old Growth		Stream Type
	Non-Tradeable Leave Clump		Sale Boundary Tags		Stream Type Break
	Leave Tree Area		Right of Way Tags		Leave Tree Area <1/4-acre
	Riparian Mgt Zone		Existing Roads		Optional Reconstruction
	Forested Wetland		Required Pre-Haul Maintenance		
	Wetland Mgt Zone				



DRIVING MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



Map may not be to scale

<ul style="list-style-type: none"> Timber Sale Unit Haul Route Other Road Milepost Markers Distance Indicator Gate (ABA) Rock Pit Town 	<p><u>DRIVING DIRECTIONS:</u></p> <p>From Exit 49 off I-5, follow SR 504 east for 10.4 miles. Turn right onto South Toutle Rd. and follow for 2.6 miles to the 4100. Continue on the 4100 for 2.3 miles to the 4200 junction.</p> <p>Units 1-4: Continue on the 4100 from the 4200 junction for 12.7 miles and then turn left on the 5100. Follow the 5100 for 1.6 miles and turn right onto the 5600. After following the 5600 for 2.8 miles turn right onto the 5625, after 1 mile Unit 1 will be on the right. Units 2-5 will follow Unit 1 over the next 0.7 miles on the right side of the road.</p> <p>Unit 5: From the 5625 junction continue on the 5600 for 2.0 miles to the 5-way. At the 5 way turn right onto the 3000 and follow for 0.3 miles. Turn right onto the 3068, after 0.6 miles Unit 5 will be on the right.</p> <p>Unit 6: From the 3068 junction continue on the 3000 for 0.6 miles. Unit 6 will be on the right.</p> <p>5-Way Pit: From the 5-way continue straight on the 3000 west for 0.4 miles and turn left onto the 3054, after 0.4 miles the road ends in the pit.</p> <p>5-Way: The 5-Way can also be reached by Turning left onto the 4200 from the 4100 and following for 5.2 miles to the 4250 Junction. Turn right onto the 4250 and follow for 9.5 miles.</p> <p>5633 ROW: From the 5-way turn right onto the 5600 and immediately stay to the left to continue onto the 5631. Follow for 2.4 miles then turn left onto the 5630. After 0.4 miles the 5633 will be on the left.</p>
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**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

**BILL OF SALE AND CONTRACT FOR
FOREST PRODUCTS**

Export Restricted Tonnage Scale AGREEMENT NO. 30-0105512

SALE NAME: RED STAPLER VRH AND THIN

**THE STATE OF WASHINGTON DEPARTMENT OF NATURAL
RESOURCES, HEREINAFTER ACTING SOLELY, IN ITS PROPRIETARY
CAPACITY, STATE, AND PURCHASER, AGREE AS FOLLOWS:**

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

Bill of Sale and Contract for Forest Products: Contract between the Purchaser and the State, which sets forth the procedures and obligations of the Purchaser in exchange for the right to remove forest products from the sale area. The Bill of Sale and Contract for Forest Products may include a Road Plan for any road construction or reconstruction, where applicable.

Contract Administrator: Region Manager's designee responsible for assuring that the contractual obligations of the Purchaser are met.

Forest Product: Any material derived from the forest for commercial use.

Purchaser: The company or individual that has entered into a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.

Road Construction: Includes building new and maintaining existing forest roads and associated work that may be optional or required as described in the Road Plan.

State: The Washington State Department of Natural Resources, landowner and seller of Forest Products from the timber sale area. The State is represented by the Region Manager as designated on the contract signature page. Contractual obligations to the State are enforced by the Region Manager or the designated Contract Administrator.

Subcontractor: Individual or company employed by the Purchaser to perform a portion or all of the services required by The Bill of Sale and Contract for Forest Products. The Purchaser is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

G-010 Products Sold and Sale Area

Purchaser was the successful bidder on November 16, 2023 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products: All timber, except leave trees marked with blue paint, and all down timber existing 5 years prior to the day of sale, all down timber greater than 60 inches diameter, and snags bound by the following;

Unit 1, white "Timber Sale Boundary" tags and pink flagging, the 5625 and 5626 roads;

Unit 2, 3, 4, white "Timber Sale Boundary" tags and pink flagging, and the 5625 road;

Unit 5, white "Timber Sale Boundary" tags and pink flagging, the 3068 and 5631 roads;

Unit 6, all timber as described in Schedule A bounded by white "Timber Sale Boundary" tags and pink flagging, the 3060, 3068, 3069 and 3070 roads;

5633 ROW, orange "Right of Way Boundary" tags and pink flagging;, located on approximately 356 acres on part(s) of Sections 13, 14, 22, 23, 24, and 27 all in Township 9 North, Range 3 East W.M. in Cowlitz County(s) as shown on the attached timber sale map and as designated on the sale area.

All forest products described above from the bole of the tree that meet or exceed 2 inches diameter inside bark on the small end are eligible for removal. Above ground components of a tree that remain as by-products after the manufacture of logs, including but not limited to tree tops, branches, limbs, needles, leaves, stumps, are not eligible for removal under the terms of this contract.

Forest products purchased under a contract that is designated as export restricted shall not be exported until processed. Forest products purchased under a contract that is designated as exportable may be exported prior to processing.

G-020 Inspection By Purchaser

Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products being sold. Purchaser also warrants to the State that they enter this contract without any reliance upon the volume estimates, acreage estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
A	RED STAPLER VRH AND THIN Schedule A

G-030 Contract Term

Purchaser shall remove the forest products conveyed and complete all work required by this contract prior to October 31, 2026.

G-040 Contract Term Adjustment - No Payment

Purchaser may request an adjustment in the contract term. A claim must be submitted in writing and received by the State within 30 days after the start of interruption or delay. The claim must also indicate the actual or anticipated length of interruption or delay. The State may grant an adjustment without charge only if the cause for contract term adjustment is beyond Purchaser's control. The cause must be one of the following and the adjustment may be granted only if operations or planned operations under this contract are actually interrupted or delayed:

- a. Road and bridge failures which deny access.
- b. Access road closures imposed by road owner.
- c. Excessive suspensions as provided in clause G-220.
- d. Regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.

G-050 Contract Term Extension - Payment

Extensions of this contract term may be granted only if, in the judgment of the State, Purchaser is acting in good faith and is endeavoring to remove the forest products conveyed. The term of this contract may be extended for a reasonable time by the State if all of the following conditions are satisfied:

- a. A written request for extension of the contract term must be received prior to the expiration date of the contract.

- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the contract value based on the contract payment rate and advertised volume.

For the second extension, not to exceed 1 year, payment of at least 90 percent of the contract value based on the contract payment rate base and advertised volume.

The payments shall not include the initial deposit which shall be held according to the provisions of RCW 79.15.100.

- d. Payment of an amount based on 12 percent interest per annum on the unpaid portion of the timber value of the contract.

To determine the unpaid portion of the contract, multiply the contract payment rate for each item by the remaining volume for each item based on the volumes from the Timber Notice of Sale. In addition, all cash deposits that can be used for timber payments, except the initial deposit, will be deducted from the unpaid portion of the contract.

- e. Payment of \$16.00 per acre per annum for the acres on which an operating release has not been issued on VRH Units. \$3.00 per acre on Thinning Units.
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

Whenever the State determines that a survey for sensitive, threatened, or endangered species is prudent, or when Purchaser determines a survey is prudent and the State agrees, Purchaser shall perform such surveys at Purchaser's expense and to the standards required by the State. The survey information shall be supplied to the State.

G-060 Exclusion of Warranties

The PARTIES AGREE that the IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE and ALL OTHER WARRANTIES EXPRESSED OR IMPLIED ARE EXCLUDED from this transaction and shall not apply to the goods sold. For example, THE FOLLOWING SPECIFIC MATTERS ARE NOT WARRANTED, and are EXCLUDED from this transaction:

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."

- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
- g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.
- h. Items contained in any other documents prepared for or by the State.

G-061 Inadvertent Discovery of Cultural Resources

Purchaser acknowledges that cultural resources as defined in WAC 222-16-010 may exist within the timber sale area and that the existence and location of such resources may be unknown at the time this contract is executed. Purchaser has a duty to exercise due care in its operations and in the event any human skeletal remains are discovered by the Purchaser or the State during the course of operations Purchaser shall immediately halt operations and notify local law enforcement in the most expeditious manner possible then notifying the Contract Administrator. In the event cultural resources are discovered by the Purchaser or the State during the course of operations Purchaser shall immediately halt operations and notify the Contract Administrator. Any potential resources shall not be removed or disturbed. Purchaser shall resume operations as directed in writing by the Contract Administrator.

G-062 Habitat Conservation Plan

The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address

state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the State's HCP area and are subject to the terms and conditions of the HCP, and the Services' Incidental Take Permit Nos. TE812521-1 and 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP conditions. All HCP materials, including the ITP, are available for review at the State's Regional Offices and the administrative headquarters in Olympia, Washington.

By signing this contract, Purchaser agrees to comply with the terms and conditions of the ITP, and the HCP, which shall become terms of this contract. The State agrees to authorize the lawful activities of the Purchaser carried out pursuant to this contract, PROVIDED the Purchaser remains in compliance with the terms and conditions of both the HCP and ITP. The requirements set forth in this contract are intended to comply with the terms and conditions of the HCP and ITP. Accordingly, non-compliance with the terms and conditions of the HCP and ITP will render the authorization provided in this paragraph void, be deemed a breach of the contract and may subject Purchaser to liability for violation of the Endangered Species Act.

Any modifications to the contract shall be proposed in writing by Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.

G-063 Incidental Take Permit Notification Requirements

- a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.
- b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.

- c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

Purchaser is responsible for obtaining any permits not already obtained by the State that relate to Purchaser's operation. Forest Practice Application / Hydraulic Project Approval permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.

G-065 Regulatory Disclaimer

The State disclaims any responsibility for, or liability relating to, regulatory actions by any government agency, including actions pursuant to the Forest Practices Act, Ch. 76.09 RCW that may affect the operability of the timber sale.

G-066 Governmental Regulatory Actions

a. Risk

Purchaser shall be responsible for any increased operational costs arising from any applicable foreign or domestic governmental regulation or order that does not cause contract performance to become commercially impracticable or that does not substantially frustrate the purpose of the contract. If impracticability or frustration results from Purchaser's failure to comply with this contract, Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.

b. Sale Area

When portions of the sale area become subject to a foreign or domestic governmental regulation or order that will likely prevent timber harvest for a period that will exceed the expiration date of this contract, and Purchaser has complied with this contract, the following shall apply:

- i. RCW 79.15.140 shall govern all adjustments to the contract area.

c. Adjustment of Price

The State shall adjust the total contract price by subtracting from the total contract price an amount determined in the following manner: The State shall cause the timber sale area subject to governmental regulation or order to be measured. The State shall calculate the percentage of the total sale area subject to the governmental regulation or order. The State shall reduce the total contract price by that calculated percentage. However, variations in species, value, costs, or other items pertaining to the affected sale area will be analyzed and included in the adjustment if deemed appropriate by the State. The State will further reduce the total contract price by the reasonable cost of unamortized roads Purchaser constructed but was unable to fully use for removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070 Limitation on Damage

In the event of a breach of any provision of this contract by the State, the exclusive remedy available to Purchaser will be limited to a return of the initial deposit, unapplied payments, and credit for unamortized improvements made by Purchaser. The State shall not be liable for any damages, whether direct, incidental or consequential.

G-080 Scope of State Advice

No advice by any agent, employee, or representative of the State regarding the method or manner of performing shall constitute a representation or warranty that said method, manner or result thereof will conform to the contract or be suitable for Purchaser's purposes under the contract. Purchaser's reliance on any State advice regarding the method or manner of performance shall not relieve Purchaser of any risk or obligation under the contract. Purchaser retains the final responsibility for its operations under this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

G-090 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-100 Forest Products Not Designated

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-105 Adding Naturally Damaged Forest Products

Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease

damage may be added to this sale by the Contract Administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-110 Title and Risk of Loss

Title to the forest products conveyed passes at confirmation of the sale. Purchaser bears the risk of loss of or damage to and has an insurable interest in the forest products in this contract from the time of confirmation of the sale of forest products. In the event of loss of or damage to the forest products after passage of title, whether the cause is foreseeable or unforeseeable, the forest products shall be paid for by Purchaser. Breach of this contract shall have no effect on this provision. Title to the forest products not removed from the sale area within the period specified in this contract shall revert to the State as provided in RCW 79.15.100.

G-116 Sustainable Forestry Initiative® (SFI®) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative 2022 Forest Management Standard under certificate number: BVC-SFIFM-018227.

Purchaser shall have at least one person regularly on-site during active operations that have completed training according to the requirements outlined within the SFI Standard. Purchaser shall designate in writing the name(s) of the individual(s) who will be on-site and provide proof of their successful completion of an approved training program prior to active operations.

G-120 Responsibility for Work

All work, equipment, and materials necessary to perform this contract shall be the responsibility of Purchaser. Any damage to improvements, except as provided in clause G-121 or unless the State issues an operating release pursuant to clause G-280, shall be repaired promptly to the satisfaction of the State and at Purchaser's expense.

G-121 Exceptions

Exceptions to Purchaser's responsibility in clause G-120 shall be limited exclusively to the following. These exceptions shall not apply where road damage occurs due to Purchaser's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

The State will bear the cost to repair damages caused by a third party. In all other cases, the Purchaser shall bear responsibility for the costs as described below.

Road is defined as the road bed, including but not limited to its component parts, such as cut and fill slopes, subgrade, ditches, culverts, bridges, and cattle guards.

For the purposes of this clause, damage will be identified by the State and is defined as:

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;
2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and
3. Includes, but is not limited to natural disasters such as earthquakes, volcanic eruptions, landslides, and floods.

The repair work identified by the State shall be promptly completed by Purchaser at an agreed price. The State may elect to accomplish repairs by means of State-provided resources.

For each event, Purchaser shall be solely responsible for the initial \$5,000 in repairs. For repairs in excess of \$5,000, the parties shall share equally the portion of costs between \$5,000 and \$15,000. The State shall be solely responsible for the portion of the cost of repairs that exceed \$15,000.

Nothing contained in clauses G-120 and G-121 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials. Authorization to haul does not warrant that Purchaser built roads are free from material defect and the State may require additional work, at Purchasers expense regardless of cost, to remedy deficiencies at any time.

G-140 Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligations to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

G-150 Insurance

Purchaser shall, at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in

a breach and/or termination of the contract at State's option. State may suspend Purchaser operations until required insurance has been secured.

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. If an insurer is not admitted, all insurance policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

The State of Washington, Department of Natural Resources region office of sale origin shall be provided written notice before cancellation or non-renewal of any insurance referred to therein, in accord with the following specifications:

1. Insurers subject to Chapter 48.18 RCW (admitted and regulated by the Insurance Commissioner): The insurer shall give the State 45 days advance notice of cancellation or non-renewal. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.
2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

Before starting work, Purchaser shall furnish State of Washington, Department of Natural Resources with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified in the contract. Insurance coverage shall be obtained by the Purchaser prior to operations commencing and continually maintained in full force until all contract obligations have been satisfied or an operating release has been signed by the State.

Purchaser shall include all subcontractors as insured under all required insurance policies, or shall furnish separate certificates of insurance and endorsements for each subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Purchaser's liability or responsibility.

The State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as an additional insured via endorsement on all general liability, excess, umbrella, and property insurance policies.

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

By requiring insurance herein, State does not represent that coverage and limits will be adequate to protect Purchaser and such coverage and limits shall not limit Purchaser's liability under the indemnities and reimbursements granted to State in this contract.

The limits of insurance, which may be increased as deemed necessary by State of Washington, Department of Natural Resources, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Purchaser shall maintain general liability (CGL) insurance, and, if necessary, commercial umbrella insurance with a limit of not less than \$1,000,000.00 per each occurrence. If such CGL insurance contains aggregate limits, the General Aggregate limit shall be at least twice the "each occurrence" limit. CGL insurance shall have products-completed operations aggregate limit of at least two times the "each occurrence" limit. CGL coverage shall include a Logging and Lumbering Endorsement (i.e. Logger's Broad-Form) to cover the events that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than \$2,000,000.00 each occurrence.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

Employer's Liability "Stop Gap" Insurance. Purchaser shall buy employers liability insurance, and, if necessary, commercial umbrella liability insurance with limits not less than \$1,000,000.00 each accident for bodily injury by accident or \$1,000,000.00 each employee for bodily injury by disease.

Workers' Compensation Coverage. Purchaser shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Purchaser and employees of any subcontractor or sub-subcontractor. Coverage shall include bodily injury (including death) by accident or disease, which exists out of or in connection with the performance of this contract. Except as prohibited by law, Purchaser waives all rights of subrogation against State for recovery of damages to the extent they are covered by workers' compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than \$1,000,000.00 per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or expense" as provided in the 1990 or later editions of CA 00 01. Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Castle Rock, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.

G-170 Assignment and Delegation

No rights or interest in this contract shall be assigned by Purchaser without prior written permission of the State. Any attempted assignment shall be void and ineffective for all purposes unless made in conformity with this paragraph. Purchaser may perform any duty through a delegate, but Purchaser is not thereby relieved of any duty to perform or any liability. Any assignee or delegate shall be bound by the terms of the contract in the same manner as Purchaser.

G-180 Modifications

Waivers, modifications, or amendments of the terms of this contract must be in writing signed by Purchaser and the State.

G-190 Contract Complete

This contract is the final expression of the Parties' agreement. There are no understandings, agreements, or representations, expressed or implied, which are not specified in this contract.

G-200 Notice

Notices required to be given under the following clauses shall be in writing and shall be delivered to Purchaser's authorized agent or sent by certified mail to Purchaser's address of record:

G-210 Violation of Contract
G-220 State Suspends Operations

All other notices required to be given under this contract shall be in writing and delivered to the authorized agent or mailed to the Party's post office address. Purchaser agrees to notify the State of any change of address.

G-210 Violation of Contract

- a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

G-220 State Suspends Operations

The Contract Administrator may suspend any operation of Purchaser under this contract when the State is suffering, or there is a reasonable expectation the State will suffer environmental, monetary, or other damage if the operation is allowed to continue.

Purchaser shall be in breach of this contract if the operation continues after the suspension notice or if the operation resumes without prior approval and notice from the Contract Administrator.

Purchaser may request a modification of a suspension within 30 days of the start of suspension through the dispute resolution process in clause G-240. If this process results in a finding that the suspension exceeded the time reasonably necessary to stop or prevent damage to the State, Purchaser is entitled to request a contract term adjustment under clause G-040.

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and Purchaser has complied with this contract, the provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.

G-230 Unauthorized Activity

Any cutting, removal, or damage of forest products by Purchaser, its employees, agents, or invitees, including independent contractors, in a manner inconsistent with the terms of this contract or State law, is unauthorized. Such activity may subject Purchaser to liability for triple the value of said forest products under RCW 79.02.320 or RCW 79.02.300 and may result in prosecution under RCW 79.02.330 or other applicable statutes.

G-240 Dispute Resolution

The following procedures apply in the event of a dispute regarding interpretation or administration of this contract and the parties agree that these procedures must be followed before a lawsuit can be initiated.

- a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
- b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
- c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.
- d. Unless otherwise agreed, a conference will be held by the Deputy Supervisor - Uplands within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Deputy Supervisor - Uplands will issue a decision within a reasonable time of being presented with both Parties' positions.

G-250 Compliance with All Laws

Purchaser shall comply with all applicable statutes, regulations and laws, including, but not limited to; chapter 27.53 RCW, chapter 68.50 RCW, WAC 240-15 and WAC 296-54. Failure to comply may result in forfeiture of this contract.

G-260 Venue

This contract shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County Superior Court.

G-270 Equipment Left on State Land

All equipment owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other State land by the termination date of this contract. Equipment remaining unclaimed on State land 60 days after the expiration of the contract period is subject to disposition as provided by law. Purchaser shall pay to the State all costs of moving, storing, and disposing of such equipment. The State shall not be responsible for any damages to or loss of the equipment or damage caused by the moving, storing or disposal of the equipment.

G-280 Operating Release

An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; 2798, 3000, 3054, 3060, 3060D, 3068, 3069, 3070, 3070A, 4100, 4200, 4250, 5100, 5600, 5625, 5626, 5630, 5631, 5633, and 5635 roads. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference

Purchaser shall arrange with the Contract Administrator to review this contract and to examine the sale area before beginning any operations. A plan of operations shall be developed and agreed upon by the Contract Administrator and Purchaser before beginning any operations. To the extent that the plan of operations is inconsistent with the contract, the terms of the contract shall prevail. State's acceptance and approval of Purchaser's plan of operations shall not be construed as any statement or warranty that the plan of operations is adequate for Purchaser's purposes or complies with applicable laws.

G-340 Preservation of Markers

Any legal land subdivision survey corners and witness objects are to be preserved. If such are destroyed or disturbed, the Purchaser shall, at the Purchaser's own expense, re-establish them through a licensed land surveyor in accordance with U.S. General Land Office standards. Corners and/or witness objects that must be disturbed or destroyed in the process of road construction or logging shall be adequately referenced and/or replaced in accordance with RCW 58.24.040(8). Such references must be approved by the Contract Administrator prior to removal of said corners and/or witness objects.

G-360 Road Use Reservation

The State shall have the right to use, without charge, all existing roads and any road constructed or reconstructed on State lands by Purchaser under this contract. The State may extend such rights to others. If the State grants such rights to others, the State shall require performance or payment, as directed by the State, for their proportionate share of maintenance based on their use.

G-370 Blocking Roads

Purchaser shall not block the 3000, 4100, 4200, 4250, 5100, and 5600 roads, unless authority is granted in writing by the Contract Administrator.

G-380 Road Easement and Road Use Permit Requirements

Purchaser agrees to comply with the terms and conditions of the attached:

Easement #55-000018 between Weyerhaeuser and State dated January 31, 1967 and March 1, 1984.

G-430 Open Fires

Purchaser shall not set, or allow to be set by Purchaser's employees, agents, invitees and independent contractors, any open fire at any time of the year without first obtaining permission, in writing, from the Contract Administrator.

G-450 Encumbrances

This contract and Purchaser's activities are subject to the following:

DATA MISSING

Section P: Payments and Securities

P-010 Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without Purchaser's payment of the full amount specified in the 'Payment for Forest Products' clause, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

P-024 Payment for Forest Products

Purchaser agrees to weigh all loads and pay the following rate per ton for forest products conveyed plus \$90,134.00 on day of sale and \$9.00 per ton upon removal in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause.

DATA MISSING

Species that are conveyed but are not listed in the table above shall be paid for at a rate to be determined by the State.

P-027 Payment for Removal of Optional Forest Products

Purchaser agrees to weigh all loads and pay the rate of \$2.00 per ton for forest products approved for removal from the sale area under clause H-157.

P-040 Weighing and Scaling Costs

Purchaser agrees to pay for all scaling and weighing costs for logs and other products sold under this contract. Purchaser also agrees to pay for all costs associated with the transmission and reporting of scale or weight data.

P-045 Guarantee of Payment

Purchaser will pay for forest products prior to cutting or will guarantee payment by posting an approved payment security. The amount of cash or payment security shall be determined by the State and shall equal or exceed the value of the cutting proposed by Purchaser.

P-052 Payment Procedure

If a third party Log and Load Reporting Service (LLRS) is required by this contract the State will compute and forward to the Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the Pacific Cascade region office on or before the date shown on the billing statement.

If a third party LLRS is not required by this contract, Purchaser shall pay for forest products removed on a monthly basis. Payments will be submitted to the office listed above on or before the fourteenth of the month following the month in which the timber was removed or, according to an alternate payment schedule as approved by the State with at least one payment each month for timber removed. The alternate payment schedule, once approved by the State, shall become part of this contract and may be changed only with written approval of the State.

Payment will be based on the contract rate multiplied by the tons (tonnage contracts) or volume (mbf contracts) removed during the month or payment period. Included with the payment will be a summary report along with all related load tickets and the corresponding certified weight tickets for the payment period. The summary report will be generated using a computer spreadsheet and list the load tickets in ascending numerical order with the corresponding ticket number and weight or volume for each load.

P-070 Payment for Products: Damage, Theft, Loss, or Mismanufacture

Forest products included in this agreement which are destroyed, damaged, stolen, lost, or mismanufactured shall be paid for by Purchaser on demand of the State. The rates contained in clause P-024 shall apply.

P-080 Payment Account Refund

Advance payments made under P-045 or P-045.2 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Refunds not made within the 30 day period will accrue interest at the interest rate, as established by WAC 332-100-030, computed on a daily basis until paid.

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$0.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

The State may reduce the performance security after an operating release has been issued if the State determines that adequate security exists for any remaining obligations of Purchaser.

Section L: Log Definitions and Accountability

L-060 Load Tickets

Purchaser shall complete and use load tickets as directed by the Contract Administrator and, if required, use other identification as directed by the State to ensure accounting of forest products removed from the sale area. A load ticket must be fixed, as designated by the Contract Administrator, to each truck and trailer load prior to leaving the landing.

Purchaser shall account for all load tickets issued by the Contract Administrator and return unused tickets at termination of the contract, or as otherwise required by the Contract Administrator. Unused tickets not returned shall be subject to liquidated damages per clause D-030.

The State may also treat load tickets either not accounted for or not returned as lost forest products per clause P-070. All costs associated with computing the billings for lost forest products shall be borne by Purchaser

L-071 Log and Load Reporting Service

This contract requires the use of a State approved third party Log and Load Reporting Service (LLRS). Purchaser shall ensure log volume measurement data and/or load and weight data is received by the LLRS within 1 business day of logs being measured or weighed. Purchaser agrees to pay the LLRS for log and load data supplied to the State.

If during the term of this contract, the State discontinues use of the LLRS, the State will notify the Purchaser in writing and the Purchaser will then be responsible to send log scale and/or weight information to the State.

L-110 State Approval of Log Scaling and Weighing Locations

Forest Product measurement and weighing facilities required by this contract must be approved by the State. Forest products sold under the contract which require log scaling shall be scaled, measured, or counted by a State approved third party log scaling organization. Forest products sold under the contract which require weighing shall be weighed at a location that meets Washington State Department of Agriculture approval.

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or enroute to final destinations. Forest products from this sale shall be measured or weighed at facilities, which are currently approved for use by the State and are currently authorized for this sale. The State reserves the right to verify load volume and weights with State employees or contractors at the State's own expense. The State reserves the right to revoke the authorization of previously approved measurement locations.

Section H: Harvesting Operations**H-011 Certification of Fallers and Yarder Operators**

All persons engaged in the felling and yarding of timber must receive certification in writing from the Contract Administrator. Certification may be revoked when the Contract Administrator determines that non-compliance of leave tree selection criteria or cut tree selection criteria is occurring, or excessive damage to leave trees or skid trails is occurring.

Excessive damage for leave trees is defined in clause H-012.

Excessive damage for reserve trees is defined in clause H-013.

Excessive skid trail damage is defined in clause H-015 or H-016.

When leave tree damage exceeds the limits set forth in clause H-012,
Purchaser shall be subject to liquidated damages (clause D-040)

When reserve tree damage exceeds the limits set forth in clause H-013,
Purchaser shall be subject to liquidated damages (clause D-041).

H-012 Leave Tree Damage Definition

Leave trees are trees required for retention within the sale boundary. Purchaser shall protect leave trees from being cut, damaged, or removed during operations.

Leave tree damage exists when more than 5 percent of the leave trees are damaged in a unit and when one or more of the following criteria occur as a result of Purchaser's operation, as determined by the Contract Administrator:

- a. A leave tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 100 square inches.
- b. A leave tree top is broken or the live crown ratio is reduced below 30 percent.
- c. A leave tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a leave tree has been cut or damaged, the Purchaser may be required to pay liquidated damages for Excessive Leave Tree Damage as detailed in clause D-040.

H-013 Reserve Tree Damage Definition

Reserve trees are trees required and designated for retention within the sale boundary. Purchaser shall protect reserve trees from being cut, damaged, or removed during operations.

Reserve tree damage exists when one or more of the following criteria occur as a result of Purchaser's operation, as determined by the Contract Administrator:

- a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 100 square inches.
- b. A reserve tree top is broken or the live crown ratio is reduced below 30 percent.
- c. A reserve tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a reserve tree has been cut or damaged, the Purchaser shall provide a replacement reserve tree of like condition, size, and species within the sale unit containing the damaged leave tree, as approved by the Contract Administrator. Purchaser may be required to pay liquidated damages for Excessive Reserve Tree Damage as detailed in clause D-041.

Removal of designated reserve trees from the sale area is unauthorized, and may invoke the use of the G-230 'Unauthorized Activity' clause. Purchaser is required to leave all cut or damaged reserve trees on site.

H-015 Skid Trail Requirements

A skid trail is defined as an area that is used for more than three passes by any equipment.

Purchaser shall comply with the following during the yarding operation:

- a. Skid trails will not exceed 12 feet in width, including rub trees.
- b. Skid trails shall not cover more than 10 percent of the total acreage on one unit.
- c. Skid trail location will be pre-approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- g. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

Purchaser shall not deviate from the requirements set forth in this clause without prior written approval from the Contract Administrator.

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 12 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-025 Timing Requirements for Timber Removal

All timber must be removed within 30 days of being felled.

H-030 Timber Falling

Trees shall be felled and logs shall be bucked to obtain the greatest practicable utilization of forest products and other valuable materials conveyed.

H-040 Purchaser Harvest Plan

Purchaser shall, as part of the plan of operations, prepare an acceptable harvest plan for all units. The plan shall address the felling and bucking, which are part(s) of this

contract. The harvest plan shall be approved by the Contract Administrator prior to beginning the harvest operation. Purchaser shall not deviate from the harvest plan without prior written approval by the Contract Administrator.

H-052 Branding and Painting

Forest products shall be branded with a brand furnished by the State prior to removal from the landing. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

For pulp loads purchased under a contract designated as export restricted, Purchaser shall brand at least 3 logs with legible brands at one end. Also, 10 logs shall be painted at one end with durable red paint.

H-110 Stump Height

Trees shall be cut as close to the ground as practicable. Stump height shall not exceed 12 inches in height measured on the uphill side, or 2 inches above the root collar, whichever is higher.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable, cable-assist, shovel, tracked skidder, 6 wheeled tracked skidder similar to Eco tracks. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. Active Haul Routes will be posted with CB channels by Purchaser.

B. Ground based yarding equipment shall only operate during dry soil conditions.

C. Shovels must be large enough to pick up one end of the largest log 35 feet from machine.

D. Ground based yarding equipment will not be permitted on sustained slopes over 45 percent.

E. Self-Leveling ground based yarding equipment will not be permitted on sustained slopes over 55 percent.

F. Sediment delivery from roads will not be allowed. Hauling operations will be shut down as needed until conditions improve or work can be completed that eliminates the delivery of sediment.

G. All trees 60 inches Diameter at Breast Height (DBH) and greater shall not be felled unless for safety reasons. If trees 60 inches DBH or greater needs to be felled for safety reasons, trees will be left where felled.

H. 6 Wheeled skidder with tracks similar to ECO-TRACKS™, will not be permitted on sustained slopes over 45 percent.

I. Cable assist operations will not be permitted on slopes over 70 percent.

J. No operations will be permitted, including cable lines on unstable slopes.

K. VRH Units 1-5 are to be completed by April 30, 2026.

Permission to do otherwise must be granted in writing by the Contract Administrator.

H-150 Required Removal of Forest Products

Purchaser shall remove from the sale area and present for scaling or weighing all forest products conveyed in the G-010 clause that meet the following minimum dimensions:

Species	Net bd ft	Log length (ft)	Log dib
Conifer	10	12	5
Hardwood	20	16	5

The State may treat failure to remove forest products left on the sale area that meet the above specifications as a breach of this contract. At the State's option, forest products that meet the above specifications and are left on the sale area may be scaled for volume or measured and converted to weight by the State or a third party scaling organization and billed to Purchaser at the contract payment rate. All costs associated with scaling, measuring and computing the billing will be borne by the Purchaser.

H-157 Optional Removal of Forest Products Not Designated

If in the course of operations, Purchaser decides to remove forest products that are below the minimum designated removal specifications per the 'Required Removal of Forest Products' (H-150), the payment rates in clause P-027 shall apply.

Forest products designated as optional shall be decked separately from forest products designated as required for removal. Prior to removal from the sale area, optional forest products as described in this clause must be inspected and approved by the Contract Administrator. Optional forest products may not be mixed with forest products that are

required for removal by this contract and shall be removed from the sale area in separate truck loads using load tickets specified by the Contract Administrator.

All material removed under this clause is subject to the same log and load accountability rules as defined in the Log Definitions and Accountability section of this contract. Purchaser shall follow the payment procedures as required in the P-052 clause and will submit a separate summary report for all forest products removed from the sale area under the authority of this clause.

H-160 Mismatch

Mismatch is defined as forest products remaining on the sale area that would have met the specifications in clause H-150 if bucking lengths had been varied to include such products.

The State may treat mismatch as a breach of this contract. At the State's option, forest products that are left on the sale area may be scaled for volume by the State or a third party scaling organization and billed to Purchaser at the contract payment rate. All costs associated with scaling and computing the billing will be borne by Purchaser.

H-180 Removal of Specialized Forest Products or Firewood

Prior to the removal of conveyed specialized forest products or firewood from the sale area, Purchaser and the State shall agree in writing to the method of accounting for/and removal of such products.

H-190 Completion of Settings

Operations begun on any setting of the sale area shall be completed before any operation begins on subsequent settings unless authorized in writing by the Contract Administrator.

H-220 Protection of Residual or Adjacent Trees

Unless otherwise specified by this contract, the Contract Administrator shall identify damaged adjacent or leave trees that shall be paid for according to clause G-230.

H-250 Additional Felling Requirements

Within all VRH units, all non-merchantable hardwood stems 2 inches DBH or 10 feet tall, shall be felled concurrently with felling operations. Areas of young or immature timber may be excluded from this requirement by the Contract Administrator.

H-260 Fall Leaners

Trees that have been pushed over in felling or skidding operations shall be felled.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 5/4/2023 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on 2798, 3054, 3060, 3060D, 3068, 3069, 3070, 3070A, 5625, 5626, 5630, 5631, 5633, and 5635 roads. All work shall be completed to the specifications detailed in the Road Plan.

C-060 Designated Road Maintainer

If required by the State, Purchaser shall perform maintenance and replacement work as directed by the Contract Administrator on all roads not listed in clause C-050.

Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

C-080 Landing Locations Approved Prior to Construction

Landings shall be marked by Purchaser and approved by the Contract Administrator prior to construction.

C-140 Water Bars

Purchaser shall, as directed by the Contract Administrator, construct water bars across haul roads, skid trails and fire trails as necessary to control soil erosion and water pollution.

Section S: Site Preparation and Protection

S-001 Emergency Response Plan

An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, valid contact numbers and procedures for medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or unlawful activity on or in the vicinity of the sale area. The Contract Administrator and the State shall be promptly notified whenever an incident occurs requiring an emergency response.

The ERP must be presented for inspection at the prework meeting and kept readily available to all personnel, including subcontractors, on site during active operations.

S-010 Fire Hazardous Conditions

Purchaser acknowledges that operations under this Contract may increase the risk of fire. Purchaser shall conduct all operations under this agreement following the requirements of WAC 332-24-005 and WAC 332-24-405 and further agrees to use the highest degree of care to prevent uncontrolled fires from starting.

In the event of an uncontrolled fire, Purchaser agrees to provide equipment and personnel working at the site to safely and effectively engage in first response fire suppression activity.

Purchaser's failure to effectively engage in fire-safe operations is considered a breach and may result in suspension of operations.

S-030 Landing Debris Clean Up

Landing debris shall be disposed of in a manner approved in writing by the Contract Administrator.

S-035 Logging Debris Clean Up

Slash and debris created from harvest activities shall be treated in a manner approved in writing by the Contract Administrator.

S-040 Noxious Weed Control

Purchaser shall notify the Contract Administrator in advance of moving equipment onto State lands. Purchaser shall thoroughly clean all off road equipment prior to entry onto State land to remove contaminated soils and noxious weed seed. If equipment is moved from one DNR project area to another, the Contract Administrator reserves the right to require the cleaning of equipment. Equipment shall be cleaned at a location approved by the Contract Administrator.

S-050 Cessation of Operations for Low Humidity

When the humidity is 30 percent or lower on the sale area, all operations must cease unless authority to continue is granted by the State in writing.

S-060 Pump Truck or Pump Trailer

Purchaser shall provide a fully functional pump truck or pump trailer equipped to meet the specifications of WAC 332-24-005 and WAC 332-24-405 during the "closed season" or as extended by the State and shall provide trained personnel to operate this equipment on the sale area during all operating periods.

S-100 Stream Cleanout

Slash or debris which enters any typed water as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

Purchaser is responsible for understanding and complying with all applicable local, state, and federal hazardous material/waste laws and regulations for operations conducted under this contract. Such regulations pertain to, but may not be limited to, hazardous material storage, handling and transport, personnel protection, release notification and emergency response, cleanup, and waste disposal.

Purchaser shall be responsible for restoring the site in the event of a spill or other releases of hazardous material/waste during operations conducted under this contract.

b. Hazardous Materials Spill Prevention

All operations shall be conducted in a manner that avoids the release of hazardous materials, including petroleum products, into the environment (water, air or land).

c. Hazardous Materials Spill Containment, Control and Cleanup

If safe to do so, Purchaser shall take immediate action to contain and control all hazardous material spills. Purchaser shall ensure that enough quick response spill kits capable of absorbing 10 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, Purchaser must be able to effectively control a container leak and contain & recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29CFR 1910.120 (j) (1) (vii)).

d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (ECY). It is the responsibility of the Purchaser to have all emergency contact information readily available and a means of remote communication for purposes of quick notification. In the event of a spill covered in part a., the Purchaser is responsible for immediately notifying all the following:

- Department of Emergency Management at 1-800-258-5990
- National Response Center at 1-800-424-8802
- Appropriate Department of Ecology (ECY) at 1-800-645-7911
- DNR Contract Administrator

S-131 Refuse Disposal

As required by RCW 70.93, All Purchaser generated refuse shall be removed from state lands for proper disposal prior to termination of this contract. No refuse shall be burned, buried or abandoned on state forest lands. All refuse shall be transported in a manner such that it is in compliance with RCW 70.93 and all loads or loose materials shall be covered/secured such that these waste materials are properly contained during transport.

Section D: Damages

D-010 Liquidated Damages

The clauses in the DAMAGES section of this contract provide for payments by Purchaser to the State for certain breaches of the terms of this contract. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State caused by Purchaser's breach. These liquidated damages provisions are agreed to by the State and Purchaser with the understanding of the difficulty of proving loss and the inconvenience or infeasibility of obtaining an adequate remedy. These liquidated damages provisions provide greater certainty for the Purchaser by allowing the Purchaser to better assess its responsibilities under the contract.

D-021 Failure to Remove Forest Products

Purchaser's failure to remove all or part of the forest products sold in this agreement prior to the expiration of the contract term results in substantial injury to the State. The value of the forest products sold at the time of breach is not readily ascertainable. Purchaser's failure to perform disrupts the State's management plans, the actual cost of which is difficult to assess. A resale involves additional time and expense and is not an adequate remedy. Therefore, Purchaser agrees to pay the State as liquidated damages a sum calculated using the following formula:

$$LD = .35V-ID-P+C+A$$

Where:

LD = Liquidated Damage value.

V = The unremoved value at the date of breach of contract. The value is determined by subtracting the removal tonnage to date from the cruised tonnage multiplied by the contract bid rates.

ID = Initial Deposit paid at date of contract that has not been applied to timber payments.

P = Advance payments received but not yet applied to specific contract requirements.

C = Charges assessed for contract requirements completed prior to breach of contract but not paid for.

A = Administrative Fee = \$2,500.00.

The above formula reflects the Purchaser's forfeiture of the initial deposit in accordance with clause P-010 by deducting the initial deposit from the amount owed. In no event shall the liquidated damages be less than zero. Interest on the liquidated damage is owed from the date of breach until final payment, calculated using the following formula: Interest = $r \times LD \times N$.

Where:

r = daily equivalent of an annual interest at current interest rate as established by WAC 332-100-030.

LD = Liquidated damage value.

N = Number of days from date of breach to date payment is received.

D-030 Inadequate Log Accountability

Removal of forest products from the sale area without adequate branding and/or valid load tickets attached to the load and scaling forest products in a location other than the facility approved by the State can result in substantial injury to the State. Failure to properly account for loads and scaling and/or weighing information can result in loss to the State. The potential loss from not having proper branding, ticketing, scaling and/or weighing location and accountability is not readily ascertainable. Purchaser's failure to perform results in a loss of log weight and scale accountability, increases the potential for unauthorized removal of forest products, and increases the State's administration costs, the actual costs of which are difficult to assess.

Enforcement actions for unauthorized removal of forest products for each improperly branded load, improperly ticketed load, lost or unaccounted for tickets, or use of a facility not authorized for this sale or improper submission of scaling data are impractical, expensive, time consuming and are not an adequate remedy. Therefore, Purchaser agrees to pay the State, as liquidated damages, a sum of \$100 each time a load of logs does not have branding as required in the contract, \$250 each time a load of logs does not have a load ticket as required by the contract, \$250 each time a load ticket has not been filled out as required by the plan of operations, \$250 each time a load is weighed or scaled at a location not approved as required under this contract, \$250 each time a log ticket summary report is not submitted properly, and if a third party Log and Load Reporting Service is required, \$250 each time scaling or weight data is not properly submitted to the Log and Load Reporting Service per clause L-071, and \$250 each unused ticket that is not returned to the State, for any reason.

D-040 Leave Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-012, Leave Tree Damage Definition, the trees damaged result in substantial injury to the State. The value of the damaged leave trees at the time of the breach is not readily ascertainable. Therefore, Purchaser agrees to pay the State as liquidated damages at the rate of \$250.00 per tree for all damaged trees in Unit 6.

D-041 Reserve Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-013, Reserve Tree Damage Definition, and when the Contract Administrator determines that a suitable replacement for a damaged reserve tree is not possible, the damaged trees result in substantial injury to the State. The value of the damaged reserve trees at the time of the breach is not readily ascertainable. Therefore, the Purchaser agrees to pay

the State as liquidated damages at the rate of \$1,000.00 per tree for all damaged reserve trees that are not replaced in all VRH units.

SIGNATURES

This agreement may be executed in any number of counterparts (including by electronic mail in portable document format (.pdf), or by facsimile) each of which shall be deemed an original but all of which, when taken together, shall constitute one and the same Agreement binding on all parties.

IN WITNESS WHEREOF, the Parties hereto have entered into this contract.

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser

Scott Sargent

Print Name

Pacific Cascade Region Manager

Date: _____

Date: _____

Address:

CORPORATE ACKNOWLEDGEMENT
(Required for both LLC and Inc. Entities)

STATE OF _____)

COUNTY OF _____)

On this _____ day of _____, 20____, before me personally appeared _____

_____ to me known to be the _____ of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that (he/she was) (they were) authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Notary Public in and for the State of

My appointment expires _____

Schedule A
RED STAPLER VRH AND THIN Schedule A

SCHEDULE A
HARVESTING PRESCRIPTIONS

Commercial Thinning Prescription for Red Stapler VRH and Thin Timber Sale Unit 6.

For Unit 6

A. THINNING PRESCRIPTION:

The thinning activity will be a “thinning from below” retaining the most dominant trees on the site. The residual basal area will range from 190 - 210 square feet of basal area (BA) per acre. Specific prescriptions are listed in the table on the following page.

- The basal area shall not vary by +/- 10 square feet from the prescribed basal area target listed in the table.
- Residual tree spacing shall be varied to preserve trees of good form and vigor with the largest diameter and height.

LEAVE TREE SELECTION CRITERIA:

Leave Tree Definition:

Leave trees in the unit will be selected by comparing their characteristics with other trees in the stand. NO WESTERN RED CEDAR SHALL BE CUT, unless approved in writing by the Contract Administrator.

Priority #1: Leave trees shall be selected based on the following criteria:

- 1) Free of multiple tops;
- 2) No sweep in the bole (stem);
- 3) Free of conks, broken tops, or visible rot;
- 4) Possess the biggest, fullest crowns.

If leave trees do not meet one or more of the criteria above, then the Purchaser must leave the required basal area per acre regardless of form or quality.

Priority #2: Species of trees to be left in order of preference:

*Target Residual BA **Preferred Order of Leave Species

Unit 6: 200 1. Noble fir, 2. W. hemlock, 3. Douglas fir

*In each unit, the BA shall not vary by +/- 10 square feet from the prescribed target listed above.

**Highest priority species to retain is listed first.

B. GROUND-BASED YARDING CORRIDORS:

Skid trail locations shall be marked by the Purchaser and approved, in writing, by the Contract Administrator prior to any harvesting or felling activities. Pre-approved corridors are limited to 12 feet in width (including rub trees), and should be no less than 100 feet apart where operationally feasible, as measured from the center of the corridor. Where possible, corridors shall be located in a manner that minimizes the potential for damaging or needing to remove any leave trees.

C. PURCHASER CERTIFICATION:

All persons engaged in the selection of leave trees, including the Purchaser, must receive certification, in writing, from the Contract Administrator prior to the start of harvest activities. Within the sale area, certification entails the following:

- 1) Marking an unmarked area with red paint to meet the desired Leave Tree Marking Specifications, Leave Tree Selection Criteria, down woody debris, snag creation, and Spacing Requirements under close supervision of the Contract Administrator.
- 2) Only individuals with written approval by the Contract Administrator are certified. Certification may be revoked when the Contract Administrator determines that non-compliance of leave tree selection criteria or cut tree selection criteria is occurring.
- 3) A 48 hour advance notice will be required to the CA prior to starting any non-certified faller or feller operator.

All marking will be approved by the Contract Administrator prior to harvest.

Certification for fallers is defined in clause H-011.

Leave Tree Damage Definition is defined in clause H-012.

Leave Tree Excessive Damage is defined in clause D-040.

PRE-CRUISE NARRATIVE

Sale Name: Red Stapler VRH and Thin	Region: Pacific Cascade
Agreement #: 30-105512	District: St. Helens
Contact Forester: Jacob Harvey Phone / Location: (360) 703-4896	County(s): Choose a county, Cowlitz
Alternate Contact: Scott Hancock Phone / Location: (360) 608-9294	Other information: Click here to enter text.

Type of Sale: Weight Scale	
Harvest System: Ground based Click here to enter text.	80
Harvest System: Uphill Cable Click here to enter text.	20
Enter % of sale acres	
Harvest System: Select harvest system Click here to enter text.	Click here to enter percent sale acres.

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1.	Sec 22, T09N R03E	08	49	12	5	2	0	30	Combination
2	Sec 22, T09N R03E	08	36	18	3	2	0	13	GPS (Garmin)
3	Sec 22, T09N R03E	08	19	10	2	0	0	7	GPS (Garmin)
4	Sec 22, T09N R03E Sec 27, T09N R03E	08, 03	14	10	1	0	0	3	GPS (Garmin)
5	Sec 14, T09N R03E Sec 23, T09N R03E	08, 03	113	19	16	0	0	78	GPS (Garmin)
6	Sec 13, T09N R03E Sec 14, T09N R03E Sec 23, T09N R03E Sec 24, T09N R03E	08, 03	251	14	0	15	0	222	GPS (Garmin)
5633 ROW	Sec 23, R09N R03E	03	3	0	0	0	0	3	GPS (Garmin)
TOTAL ACRES			485	83	27	19	0	356	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Bounded by white "Timber Sale Boundary" tags with pink flagging and the 5626 Road.	Variable Retention Harvest	470 Clumped Leave Trees, 4 Scattered.
2	Bounded by white "Timber Sale Boundary" tags with pink flagging.	Variable Retention Harvest	248 Clumped Leave Trees, 2 Scattered
3	Bounded by white "Timber Sale Boundary" tags with pink flagging and the 5625 Road.	Variable Retention Harvest	137 Clumped Leave Trees.
4	Bounded by white "Timber Sale Boundary" tags with pink flagging.	Variable Retention Harvest	36 Clumped Leave Trees.
5	Bounded by white "Timber Sale Boundary" tags with pink flagging and the 5631 and 3068 Roads. .	Variable Retention Harvest	1246 Clumped Leave Trees, 11 Scattered.
6	Bounded by white "Timber Sale Boundary" tags with pink flagging and the 3060 and 3068 Roads.	Variable Density Thinning	Looking to take 1/3 of the volume. Looking to take the worst and smallest trees first.
5633 ROW	Bounded by orange "Right-of-Way Boundary" tags with pink flagging.	Right-of-Way	

OTHER PRE-CRUISE INFORMATION:

Unit#	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	Douglas fir, western hemlock, Noble fir / 840 MBF	4100 to the 5100 to the 5600 to the 5625. Both have ABA Locks on the gates. Unit 1 is about a mile down the 5625 road and is l on both sides.	See Driving Map
2	Douglas fir, western hemlock, Noble fir / 476 MBF.	4100 to the 5100 to the 5600 to the 5625. Both have ABA Locks on the gates. Unit 2 is across the RMZ of Unit 1 on both sides of the 5625.	See Driving Map
3	Douglas fir, western hemlock, Noble fir / 210 MBF.	4100 to the 5100 to the 5600 to the 5625. Both have ABA Locks on the gates. Unit 3 is across the RMZ of Unit 2.	See Driving Map
4	Douglas fir, western hemlock, Noble fir / 90 MBF.	4100 to the 5100 to the 5600 to the 5625. Access the Unit 4 is from the very end of the 5625 and walking the grade that is to be reconstructed into the bottom of the unit.	See Driving Map
5	Noble fir, western hemlock, Douglas fir / 1248 MBF.	4100 to the 4250 to the 5way. To access the top of the unit continue up the 3000 to the 3068. To access the bottom of the unit turn down the 5600 and then immediately to the left on to the 5631.	See Driving Map.
6	Noble fir, western hemlock, Douglas fir / 3996 total, 1332 take.	4100 to the 4200 to the 4250 to the 3000 to the 3070. Once you hit the 3070 you will be in the unit but further access can be gained by turning right onto the 3070A.	See Driving Map.
5633 Row	Noble fir, red alder, douglas fir, western hemlock / 5 MBF.	4100 to the 4200 to the 4250. At the 5 way turn right onto the 5600 and then immediately left onto the 5631. Turn left on to the 5635 and then the old road grade of the 5633 will be off to the left.	See Driving Map.
TOTAL MBF	4201 MBF (take).		

REMARKS:

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Prepared By: Jacob Harvey Date: 06/06/23	Title: Green Mtn. Unit Forester	CC:
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Timber Sale Cruise Report RED STAPLER VRH ANF THIN

Sale Name: RED STAPLER

Sale Type: WEIGHT SCALE

Region: PACIFIC CASC

District: ST.HELENS

Lead Cruiser: Blake Warnstadt

Other Cruisers: DBuchanan

Cruise Narrative:

Location: From Exit 49 off I-5, follow SR504 east for 10.4 miles. Then right onto South Toutle Rd. and follow for 2.6 miles to the 4100. Continue on the 4100 for 2.3 miles to the 4200 junction.

Units 1-4: Continue on the 4100 from the 4200 junction for 12.7 miles and then left on the 5100. Follow the 5100 for 2.6 miles and turn right onto the 5600. After following the 5600 for 2.8 miles turn right onto the 5625, after 1 mile Unit 1 will be on the right. Units 2-5 will follow Unit 1 over the next 0.7 miles on the right side of the road.

Unit 5: From the 5625 junction continue on the 5600 for 2 miles to the 5-way. At the 5 way turn right onto the 3000 and follow for 0.3 miles. Turn right onto the 3068, after 0.6 miles Unit 5 will be on the right.

Unit 6: From the 3068 junction continue on the 3000 for 0.6 miles. Unit 6 will be on the right.

Cruise Design: All units were cruised with variable radius plots except the 5633 ROW was cruised using a fixed 1/20 acre plot. All conifer logs were scaled preferring 40' lengths. Hardwood logs are scaled preferring 30' lengths. Software used is TRISS. Units 1-5 are Variable Retention Harvest units and Unit 6 is a Variable Density Thinning.

Timber Quality: Units 1-4 similarly contain a mix of mostly DF with WH and a small amount of NF and RA. DF has diameters averaging 18.5" at DBH with a good amount of high quality B logs and a few poles mixed in with the domestic sorts. WH has some mistletoe, NF looks good with minimal frost crack and RA looks OK. Damages observed in DF was mainly spike knots and a trace of old bear and storm damage.

Units 5 and 6 are mostly NF with a secondary mix of DF and WH. DF averages 14.5" at DBH and is mostly domestic log sorts, NF DBH average is 12.3", WH 11.5". Damages observed were old storm damage throughout, spike knots, some frost crack in NF and mistletoe in WH.

Logging and Stand Conditions: All stands are well stocked with very few gaps. The sale is predicted to be 79% ground based and 21% uphill cable logged.

General Remarks:

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	16.8	8.8		2,278	770	1,218	264	26
NF	12.1			1,748	200	817	710	21
WH	12.7			1,209	163	631	399	16
RA	10.3			68		3	64	
ALL	13.8	8.9		5,302	1,133	2,669	1,437	64

Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
DF	20,077	5,859	11,209	2,829	180
NF	14,738	1,527	7,263	5,815	134
WH	11,576	1,399	6,320	3,731	127
RA	564		25	539	
ALL	46,954	8,784	24,817	12,914	440

Timber Sale Overall Cruise Statistics

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
281.3	1.8	88.2	1.7	24,673	2.5

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
RED STAPLER U1	B1C: VR, 1 BAF (46.94) Measure/ Count Plots, Sighting Ht = 4.5 ft	30.0	36.5	36	18	0
RED STAPLER U2	B1C: VR, 1 BAF (46.94) Measure/ Count Plots, Sighting Ht = 4.5 ft	13.0	18.4	17	9	0
RED STAPLER U3	B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	7.0	8.7	8	8	0
RED STAPLER U4	B1: VR, 1 BAF (46.94) Measure All, Sighting Ht = 4.5 ft	3.0	3.8	4	4	0
RED STAPLER U5	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	78.0	93.7	82	40	1
RED STAPLER U6	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	222.0	237.0	122	42	0

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
RED STAPLER 5633 ROW	FX: FR plots (20 tree / acre expansion)	2.1	2.1	3	3	0
All		355.1	400.2	272	124	1

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	13.7	39	1,266	1,230	2.9	3,355.3	436.6
DF	LIVE	2 SAW	HQ-A	13.5	40	94	94	0.0	233.5	33.3
DF	LIVE	2 SAW	HQ-B	13.3	40	668	658	1.6	1,770.8	233.6
DF	LIVE	2 SAW	Pole	13.5	40	187	187	0.0	499.3	66.4
DF	LIVE	3 SAW	Domestic	8.0	39	2,453	2,328	5.1	8,067.0	826.5
DF	LIVE	3 SAW	HQ-B	9.5	40	893	886	0.8	2,581.3	314.5
DF	LIVE	3 SAW	Pole	10.3	40	217	217	0.0	561.1	77.0
DF	LIVE	4 SAW	Domestic	5.3	26	777	725	6.7	2,766.1	257.5
DF	LIVE	4 SAW	Pole	5.2	36	18	18	0.0	62.9	6.5
DF	LIVE	CULL	Cull	5.3	6	64	0	100.0	0.0	0.0
DF	LIVE	UTILITY	Pulp	5.3	13	73	72	0.6	179.8	25.7
NF	LIVE	2 SAW	Domestic	13.5	40	570	562	1.3	1,526.8	199.6
NF	LIVE	3 SAW	Domestic	7.9	40	2,325	2,301	1.0	7,262.9	817.2
NF	LIVE	4 SAW	Domestic	5.2	29	2,040	2,000	2.0	5,814.6	710.1
NF	LIVE	CULL	Cull	5.1	4	66	0	100.0	0.0	0.0
NF	LIVE	UTILITY	Pulp	5.2	14	60	60	0.0	133.6	21.4
RA	LIVE	3 SAW	Domestic	10.7	30	10	9	2.8	24.5	3.3
RA	LIVE	4 SAW	Domestic	5.7	32	195	181	7.2	539.0	64.3
RA	LIVE	CULL	Cull	5.0	3	3	0	100.0	0.0	0.0
WH	LIVE	2 SAW	Domestic	13.7	40	472	459	2.8	1,398.5	163.0
WH	LIVE	3 SAW	Domestic	7.9	39	1,821	1,776	2.5	6,319.8	630.6
WH	LIVE	4 SAW	Domestic	5.2	28	1,154	1,122	2.7	3,731.0	398.5
WH	LIVE	CULL	Cull	5.6	5	65	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	5.2	14	46	46	0.6	126.4	16.4

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Pulp	5.6	13	69	0.6	168.3	24.4
DF	5 - 7	LIVE	Cull	5.7	5	0	100.0	0.0	0.0
DF	5 - 7	LIVE	Domestic	5.9	32	1,688	5.8	6,383.2	599.2

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Pole	5.9	38	41	0.0	138.3	14.4
DF	8 - 11	LIVE	Pulp	8.0	13	4	0.0	11.5	1.3
DF	8 - 11	LIVE	Cull	8.1	6	0	100.0	0.0	0.0
DF	8 - 11	LIVE	Domestic	9.5	39	1,365	5.2	4,449.9	484.8
DF	8 - 11	LIVE	HQ-B	9.8	40	886	0.8	2,581.3	314.5
DF	8 - 11	LIVE	Pole	10.6	40	194	0.0	485.7	69.1
DF	12 - 19	LIVE	HQ-A	13.5	40	94	0.0	233.5	33.3
DF	12 - 19	LIVE	HQ-B	13.6	40	658	1.6	1,770.8	233.6
DF	12 - 19	LIVE	Pole	13.6	40	187	0.0	499.3	66.4
DF	12 - 19	LIVE	Domestic	14.0	40	1,200	2.9	3,290.3	426.0
DF	20+	LIVE	Domestic	20.1	40	30	2.6	65.0	10.6
NF	5 - 7	LIVE	Pulp	5.1	14	58	0.0	129.2	20.8
NF	5 - 7	LIVE	Cull	5.2	4	0	100.0	0.0	0.0
NF	5 - 7	LIVE	Domestic	5.5	31	2,907	1.7	8,799.9	1,032.3
NF	8 - 11	LIVE	Domestic	9.0	40	1,394	0.9	4,277.6	495.0
NF	8 - 11	LIVE	Pulp	10.0	13	2	0.0	4.4	0.6
NF	12 - 19	LIVE	Domestic	13.5	40	529	1.4	1,458.2	187.9
NF	20+	LIVE	Domestic	21.6	40	33	0.0	68.5	11.7
RA	5 - 7	LIVE	Cull	5.0	3	0	100.0	0.0	0.0
RA	5 - 7	LIVE	Domestic	5.5	31	137	8.5	403.8	48.6
RA	8 - 11	LIVE	Domestic	8.6	30	53	3.0	159.7	19.0
WH	5 - 7	LIVE	Cull	5.1	5	0	100.0	0.0	0.0
WH	5 - 7	LIVE	Pulp	5.2	13	46	0.6	126.4	16.4
WH	5 - 7	LIVE	Domestic	5.7	31	1,850	2.6	6,481.8	656.9
WH	8 - 11	LIVE	Cull	9.7	7	0	100.0	0.0	0.0
WH	8 - 11	LIVE	Domestic	9.8	40	1,048	2.5	3,569.1	372.2
WH	12 - 19	LIVE	Domestic	14.1	40	459	2.8	1,398.5	163.0

Cruise Unit Report RED STAPLER U1

Unit Sale Notice Volume (MBF): RED STAPLER U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
DF	19.0	9.0		586	316	235	32	2
WH	14.4			262	90	125	45	2
NF	18.0			180	108	60	12	1
RA	9.9			18		3	15	
ALL	16.2	9.0		1,046	513	423	105	5

Unit Cruise Design: RED STAPLER U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	30.0	36.5	36	18	0

Unit Cruise Summary: RED STAPLER U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	55	111	3.1	1
WH	39	60	1.7	0
NF	15	31	0.9	0
RA	5	5	0.1	0
ALL	114	207	5.8	1

Unit Cruise Statistics: RED STAPLER U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	144.7	57.7	9.6	134.9	16.0	2.2	19,527	59.9	9.9
WH	78.2	94.1	15.7	111.8	24.3	3.9	8,743	97.1	16.2
NF	40.4	147.3	24.5	148.2	14.0	3.6	5,990	148.0	24.8
RA	6.5	390.7	65.1	93.3	16.9	7.5	608	391.1	65.6
ALL	269.9	23.7	3.9	129.2	21.1	2.0	34,868	31.7	4.4

Unit Summary: RED STAPLER U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	55	ALL	19.0	80	102	19,946	19,527	2.1	73.5	144.7	33.2	585.8
NF	LIVE	CUT	15	ALL	18.0	81	103	6,098	5,990	1.8	22.9	40.4	9.5	179.7
RA	LIVE	CUT	5	ALL	9.9	54	66	682	608	10.8	12.2	6.5	2.1	18.2
WH	LIVE	CUT	39	ALL	14.4	59	74	9,143	8,743	4.4	69.2	78.2	20.6	262.3
ALL	LIVE	CUT	114	ALL	16.7	70	89	35,869	34,868	2.8	177.8	269.9	65.4	1,046.0
ALL	ALL	ALL	114	ALL	16.7	70	89	35,869	34,868	2.8	177.8	269.9	65.4	1,046.0

Cruise Unit Report RED STAPLER U2

Unit Sale Notice Volume (MBF): RED STAPLER U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	19.0	9.0		444	253	173	17	3
WH	16.8			92	28	52	12	
NF	15.4			10	4	5	1	
RA	9.0			7			7	
ALL	17.9	9.0		553	285	229	36	3

Unit Cruise Design: RED STAPLER U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	13.0	18.4	17	9	0

Unit Cruise Summary: RED STAPLER U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	42	82	4.8	1
WH	8	18	1.1	0
NF	2	2	0.1	0
RA	1	2	0.1	0
ALL	53	104	6.1	1

Unit Cruise Statistics: RED STAPLER U2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	226.4	42.3	10.2	150.9	13.2	2.0	34,176	44.3	10.4
WH	49.7	127.0	30.8	142.2	7.8	2.7	7,066	127.3	30.9
NF	5.5	282.3	68.5	133.8	10.7	7.6	739	282.5	68.9
RA	5.5	282.3	68.5	97.3	0.0	0.0	538	282.3	68.5
ALL	287.2	26.4	6.4	148.1	13.5	1.9	42,519	29.7	6.7

Unit Summary: RED STAPLER U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	42	ALL	19.0	87	110	34,942	34,176	2.2	115.0	226.4	51.9	444.3
NF	LIVE	CUT	2	ALL	15.4	75	95	742	739	0.3	4.3	5.5	1.4	9.6
RA	LIVE	CUT	1	ALL	9.0	57	69	563	538	4.4	12.5	5.5	1.8	7.0
WH	LIVE	CUT	8	ALL	16.8	74	93	7,123	7,066	0.8	32.3	49.7	12.1	91.9
ALL	LIVE	CUT	53	ALL	17.9	82	103	43,369	42,519	2.0	164.1	287.2	67.3	552.7
ALL	ALL	ALL	53	ALL	17.9	82	103	43,369	42,519	2.0	164.1	287.2	67.3	552.7

Cruise Unit Report RED STAPLER U3

Unit Sale Notice Volume (MBF): RED STAPLER U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	18.6	7.0		178	109	58	8	2
WH	20.3			26	14	11	1	
RA	11.2			20			20	
ALL	17.0	7.0		223	123	69	29	2

Unit Cruise Design: RED STAPLER U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	7.0	8.7	8	8	0

Unit Cruise Summary: RED STAPLER U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	30	31	3.9	1
WH	5	5	0.6	0
RA	6	6	0.8	0
ALL	41	42	5.3	1

Unit Cruise Statistics: RED STAPLER U3

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	181.9	40.1	14.2	139.4	15.0	2.7	25,354	42.8	14.4
WH	29.3	146.6	51.8	126.9	14.9	6.7	3,722	147.3	52.2
RA	30.0	118.2	41.8	93.0	27.9	11.4	2,791	121.4	43.3
ALL	241.2	15.4	5.4	132.1	20.1	3.1	31,867	25.3	6.3

Unit Summary: RED STAPLER U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	30	ALL	18.6	82	104	26,312	25,354	3.6	96.4	181.9	42.2	177.5
RA	LIVE	CUT	6	ALL	11.2	58	71	3,002	2,791	7.0	43.9	30.0	9.0	19.5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	5	ALL	20.3	73	91	3,847	3,722	3.2	13.1	29.3	6.5	26.1
ALL	LIVE	CUT	41	ALL	17.0	74	93	33,160	31,867	3.9	153.4	241.2	57.7	223.1
ALL	ALL	ALL	41	ALL	17.0	74	93	33,160	31,867	3.9	153.4	241.2	57.7	223.1

Cruise Unit Report RED STAPLER U4

Unit Sale Notice Volume (MBF): RED STAPLER U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	16.8	8.0		63	28	30	5	1
WH	21.9			21	17	4		
RA	10.3			20			20	
NF	14.5			11		10	1	
ALL	14.3	8.0		115	44	44	27	1

Unit Cruise Design: RED STAPLER U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (46.94) Measure All, Sighting Ht = 4.5 ft	3.0	3.8	4	4	0

Unit Cruise Summary: RED STAPLER U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	12	12	3.0	1
WH	4	4	1.0	0
RA	6	6	1.5	0
NF	2	2	0.5	0
ALL	24	24	6.0	1

Unit Cruise Statistics: RED STAPLER U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	140.8	86.1	43.0	148.6	16.6	4.8	20,920	87.7	43.3
WH	46.9	141.4	70.7	146.4	6.0	3.0	6,873	141.6	70.8
RA	70.4	127.7	63.8	95.6	14.0	5.7	6,731	128.4	64.1
NF	23.5	200.0	100.0	162.4	11.9	8.4	3,811	200.4	100.4
ALL	281.6	23.6	11.8	136.1	22.6	4.6	38,335	32.6	12.7

Unit Summary: RED STAPLER U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	12	ALL	16.8	85	108	21,874	20,920	4.4	91.5	140.8	34.4	62.8
NF	LIVE	CUT	2	ALL	14.5	90	114	3,903	3,811	2.4	20.5	23.5	6.2	11.4
RA	LIVE	CUT	6	ALL	10.3	53	69	7,282	6,731	7.6	121.7	70.4	21.9	20.2
WH	LIVE	CUT	4	ALL	21.9	83	104	7,184	6,873	4.3	17.9	46.9	10.0	20.6
ALL	LIVE	CUT	24	ALL	14.3	70	89	40,242	38,335	4.7	251.6	281.6	72.5	115.0
ALL	ALL	ALL	24	ALL	14.3	70	89	40,242	38,335	4.7	251.6	281.6	72.5	115.0

Cruise Unit Report RED STAPLER U5

Unit Sale Notice Volume (MBF): RED STAPLER U5

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
NF	12.2			941	88	533	304	16
DF	14.9	9.0		550	65	397	79	10
WH	12.5			402	14	281	96	11
ALL	12.9	9.0		1,893	167	1,211	478	36

Unit Cruise Design: RED STAPLER U5

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	78.0	93.7	82	40	1

Unit Cruise Summary: RED STAPLER U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
NF	133	284	3.5	0
DF	77	149	1.8	1
WH	58	116	1.4	0
ALL	268	549	6.7	1

Unit Cruise Statistics: RED STAPLER U5

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
NF	138.5	88.0	9.7	87.1	25.4	2.2	12,068	91.6	10.0
DF	72.7	120.8	13.3	97.0	25.2	2.9	7,051	123.4	13.6
WH	56.6	113.8	12.6	91.0	24.4	3.2	5,151	116.4	13.0
ALL	267.8	33.0	3.6	90.6	25.6	1.6	24,269	41.7	4.0

Unit Summary: RED STAPLER U5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	77	ALL	14.9	60	77	7,438	7,051	5.2	60.0	72.7	18.8	550.0
NF	LIVE	CUT	133	ALL	12.2	52	64	12,431	12,068	2.9	170.7	138.5	39.7	941.3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	58	ALL	12.5	50	61	5,425	5,151	5.1	66.4	56.6	16.0	401.7
ALL	LIVE	CUT	268	ALL	12.9	53	66	25,294	24,269	4.1	297.1	267.8	74.5	1,893.0
ALL	ALL	ALL	268	ALL	12.9	53	66	25,294	24,269	4.1	297.1	267.8	74.5	1,893.0

Cruise Unit Report RED STAPLER U6

Unit Sale Notice Volume (MBF): RED STAPLER U6

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	3 Saw	4 Saw	Utility
NF	10.0			606	210	392	5
DF	13.4			436	309	119	8
WH	9.8			406	157	245	4
ALL	11.0			1,449	675	756	17

Unit Cruise Design: RED STAPLER U6

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (54.44) Measure/Count Plots, Sighting Ht = 4.5 ft	222.0	237.0	122	42	0

Unit Cruise Summary: RED STAPLER U6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
NF	33	425	3.5	0
DF	40	127	1.0	2
WH	24	98	0.8	0
ALL	97	650	5.3	2

Unit Cruise Statistics: RED STAPLER U6

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
NF	189.6	54.4	4.9	80.5	25.5	4.4	15,273	60.1	6.6
DF	56.7	138.3	12.5	62.0	43.7	6.9	3,515	145.0	14.3
WH	43.7	125.7	11.4	75.9	15.5	3.2	3,318	126.6	11.8
ALL	290.0	26.6	2.4	76.2	30.6	3.1	22,106	40.5	3.9

Unit Summary: RED STAPLER U6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	40	ALL	12.6	44	56	2,153	1,965	8.7	36.6	31.7	8.9	436.3
DF	LIVE	LEA	32	ALL	15.7	57	71	1,698	1,550	8.7	18.6	25.0	6.3	344.1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
NF	LIVE	CUT	33	ALL	10.5	45	56	2,807	2,731	2.7	56.4	33.9	10.5	606.3
NF	LIVE	LEA	108	ALL	16.1	59	73	12,891	12,542	2.7	110.2	155.7	38.8	2,784.3
WH	LIVE	CUT	24	ALL	9.6	42	52	1,915	1,828	4.5	47.9	24.1	7.8	405.9
WH	LIVE	LEA	20	ALL	14.1	53	65	1,560	1,490	4.5	18.1	19.6	5.2	330.7
ALL	LIVE	LEA	160	ALL	15.8	58	72	16,149	15,582	3.5	146.9	200.4	50.3	3,459.1
ALL	LIVE	CUT	97	ALL	10.8	44	55	6,875	6,525	5.1	140.9	89.7	27.2	1,448.5
ALL	ALL	ALL	257	ALL	13.6	51	63	23,025	22,106	4.0	287.8	290.0	77.5	4,907.6

Cruise Unit Report RED STAPLER 5633 ROW

Unit Sale Notice Volume (MBF): RED STAPLER 5633 ROW

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	16.0			21	18	4
RA	9.3			3		3
ALL	14.3			24	18	6

Unit Cruise Design: RED STAPLER 5633 ROW

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FX: FR plots (20 tree / acre expansion)	2.1	2.1	3	3	0

Unit Cruise Summary: RED STAPLER 5633 ROW

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	12	12	4.0	0
RA	5	5	1.7	0
ALL	17	17	5.7	0

Unit Cruise Statistics: RED STAPLER 5633 ROW

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	111.3	38.1	22.0	90.5	20.8	6.0	10,073	43.4	22.8
RA	15.6	173.2	100.0	80.1	17.1	7.7	1,247	174.0	100.3
ALL	126.8	22.9	13.2	89.3	19.5	4.7	11,320	30.1	14.0

Unit Summary: RED STAPLER 5633 ROW

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	12	ALL	16.0	57	72	10,660	10,073	5.5	79.7	111.3	27.8	21.1
RA	LIVE	CUT	5	ALL	9.3	47	58	1,447	1,247	13.8	33.0	15.6	5.1	2.6
ALL	LIVE	CUT	17	ALL	14.4	54	68	12,107	11,320	6.5	112.7	126.8	32.9	23.7
ALL	ALL	ALL	17	ALL	14.4	54	68	12,107	11,320	6.5	112.7	126.8	32.9	23.7



Forest Practices Application/Notification Notice of Decision

FPA/N No: 2941716

Effective Date: 8/17/2023

Expiration Date: 8/17/2026

Shut Down Zone: 660 ; .

EARR Tax Credit: Eligible Non-eligible

Reference: Red Stapler VRH & Thin

30-105512

Decision

- Notification Accepted** Operations shall not begin before the effective date.
- Approved** This Forest Practices Application is subject to the conditions listed below.
- Disapproved** This Forest Practices Application is disapproved for the reasons listed below.
- Withdrawn** Applicant has withdrawn the Forest Practices Application/Notification (FPA/N).
- Closed** All forest practices obligations are met.

FPA/N Classification

Class II Class III Class IVG Class IVS

Number of Years Granted on Multi-Year Request

4 years 5 years

Conditions on Approval/Reasons for Disapproval

No additional conditions.

Issued By: Jon Byerly

Region: Pacific Cascade Region

Title: Forest Practices Forester

Date: 8/17/2023

Copies to: Landowner, Timber Owner and Operator

Issued in person: LO TO OP By: *Acquifahr* Date: 8/17/23

Appeal Information

You have thirty (30) days to *file* (i.e., *actually deliver*) an appeal in writing of this Decision and any related State Environmental Policy Act (SEPA) determinations to the Pollution Control Hearings Board, the Attorney General's Office, and the Department of Natural Resources' region office. See [RCW 76.09.205](#). The appeal period starts when the applicant receives this decision, which usually happens electronically on the date indicated below.

You must file your appeal at all three addresses below:

Pollution Control Hearings Board	Office of the Attorney General Natural Resources Division	Department Of Natural Resources Pacific Cascade Region
<u>Physical Address</u> 1111 Israel Road, SW Suite 301 Tumwater, WA 98501	<u>Physical Address</u> 1125 Washington Street, SE Olympia, WA 98504	<u>Physical Address</u> 601 Bond Rd Castle Rock WA 98611
<u>Mailing address</u> Post Office Box 40903 Olympia, WA 98504-0903	<u>Mailing Address</u> Post Office Box 40100 Olympia, WA 98504-0100	<u>Mailing Address</u> Post Office Box 280 Castle Rock, WA 98611-0280

Information regarding the Pollution Control Hearings Board can be found at: <https://elaho.wa.gov>

Other Applicable Laws

Operating as described in this application/notification does not ensure compliance with the Endangered Species Act, or other federal, state, or local laws.

Transfer of Forest Practices Application/Notification (WAC 222-20-010)

Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website <https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and>. Notify DNR of new Operators within 48 hours.

Continuing Forestland Obligations (RCW 76.09.060, RCW 76.09.070, RCW 76.09.390, and WAC 222-20-055)

Obligations include reforestation, road maintenance and abandonment plans, conversions of forestland to non- forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.

Before the sale or transfer of land or perpetual timber rights subject to continuing forest and obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

If the seller fails to notify the buyer about the continuing forestland obligation, the seller must pay the buyer's costs related to continuing forestland obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forestland obligation against the seller.

Failure by the seller to send the required notice to DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forestland obligation prior to sale.

DNR Declaration of Mailing

I, _____ caused the Notice of Decision for FPA/N No. to be placed in the United States mail at Castle Rock, WA, postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

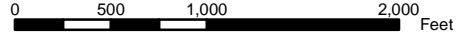
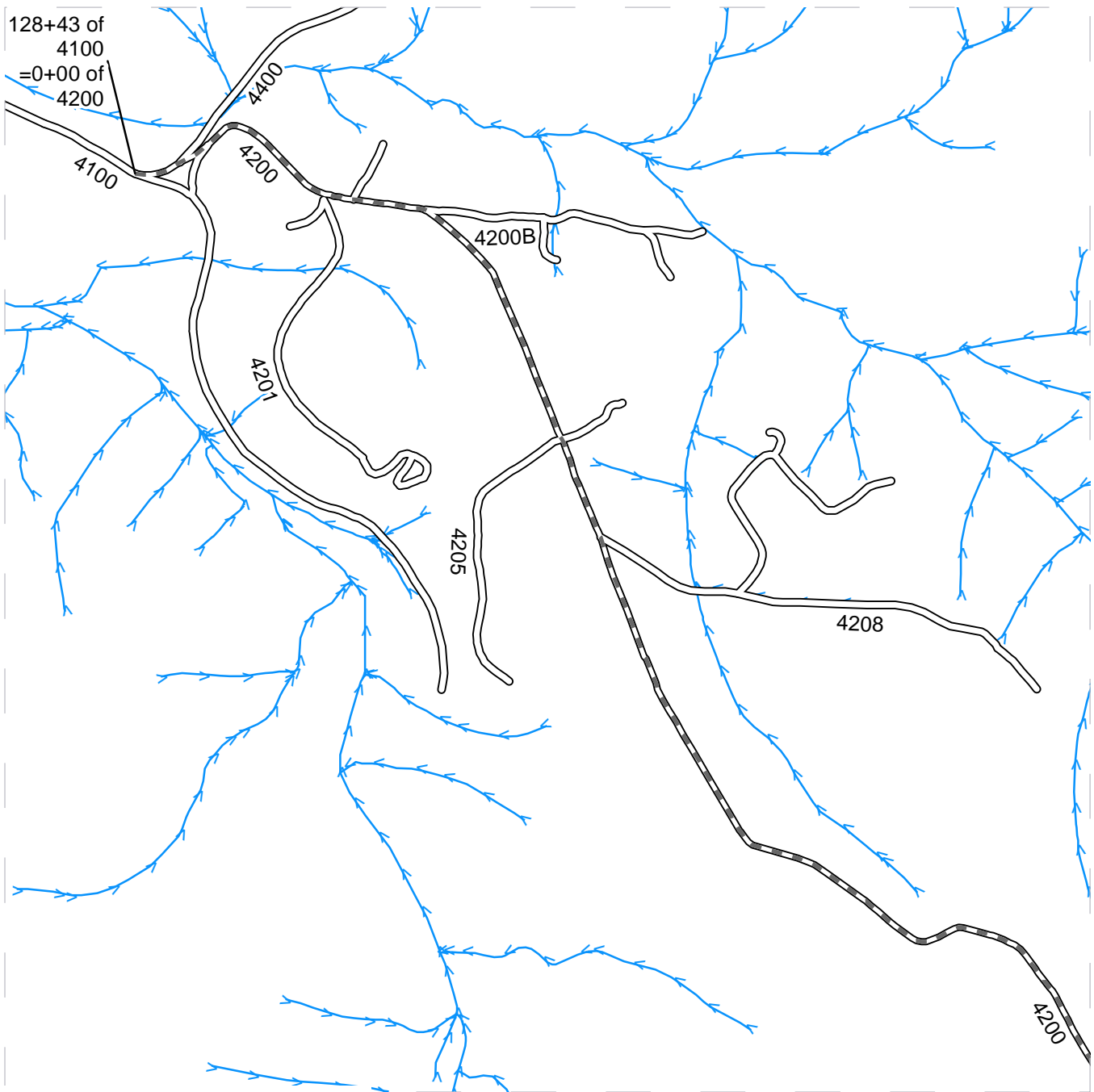
(Date) Castle Rock, WA
 (City & State where signed)

(Signature)

ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



Legend:

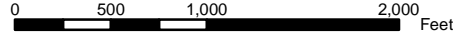
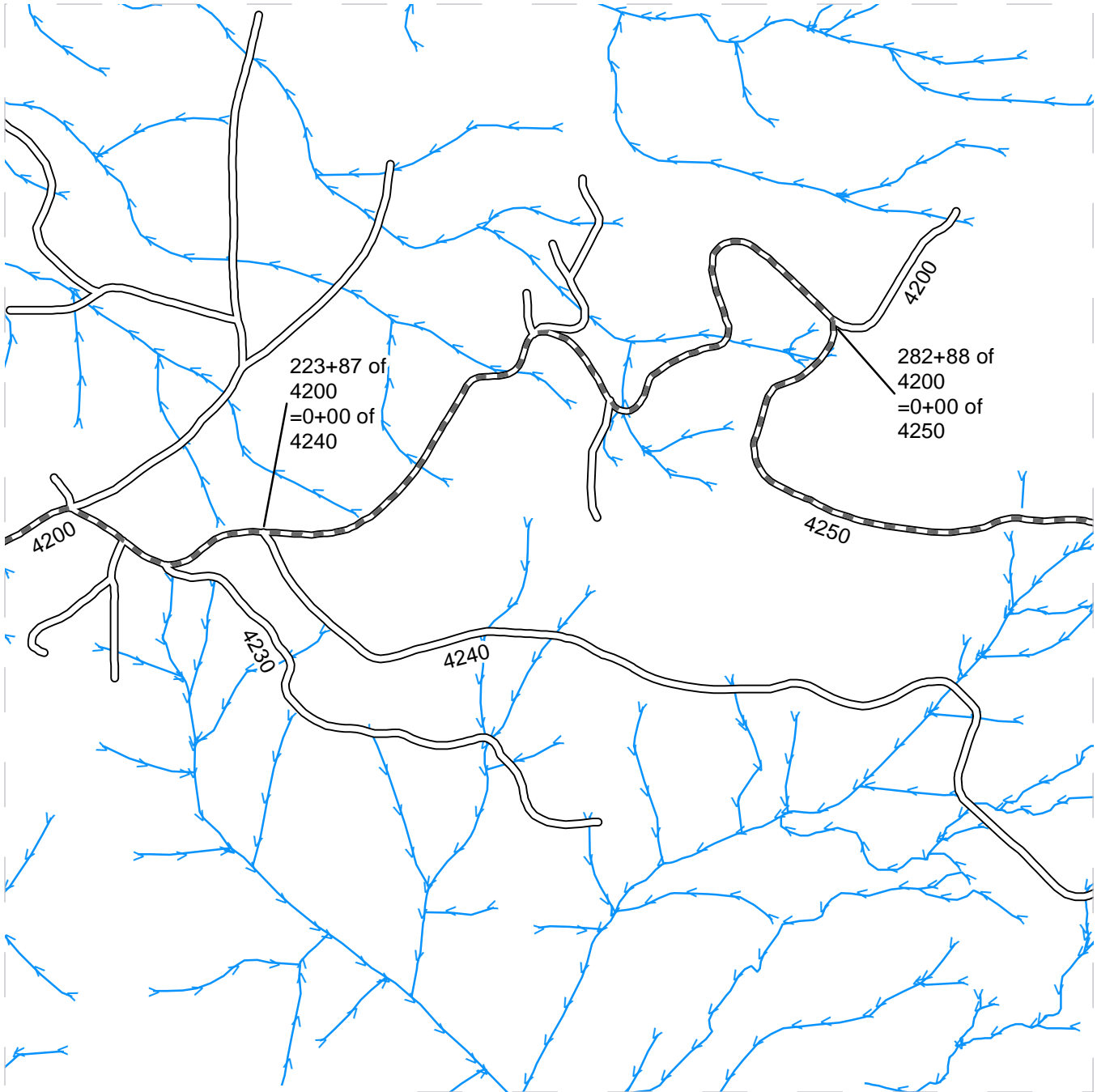
- Existing Roads
- Required Pre-Haul Maintenance
- Streams

North Arrow

ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



Legend:

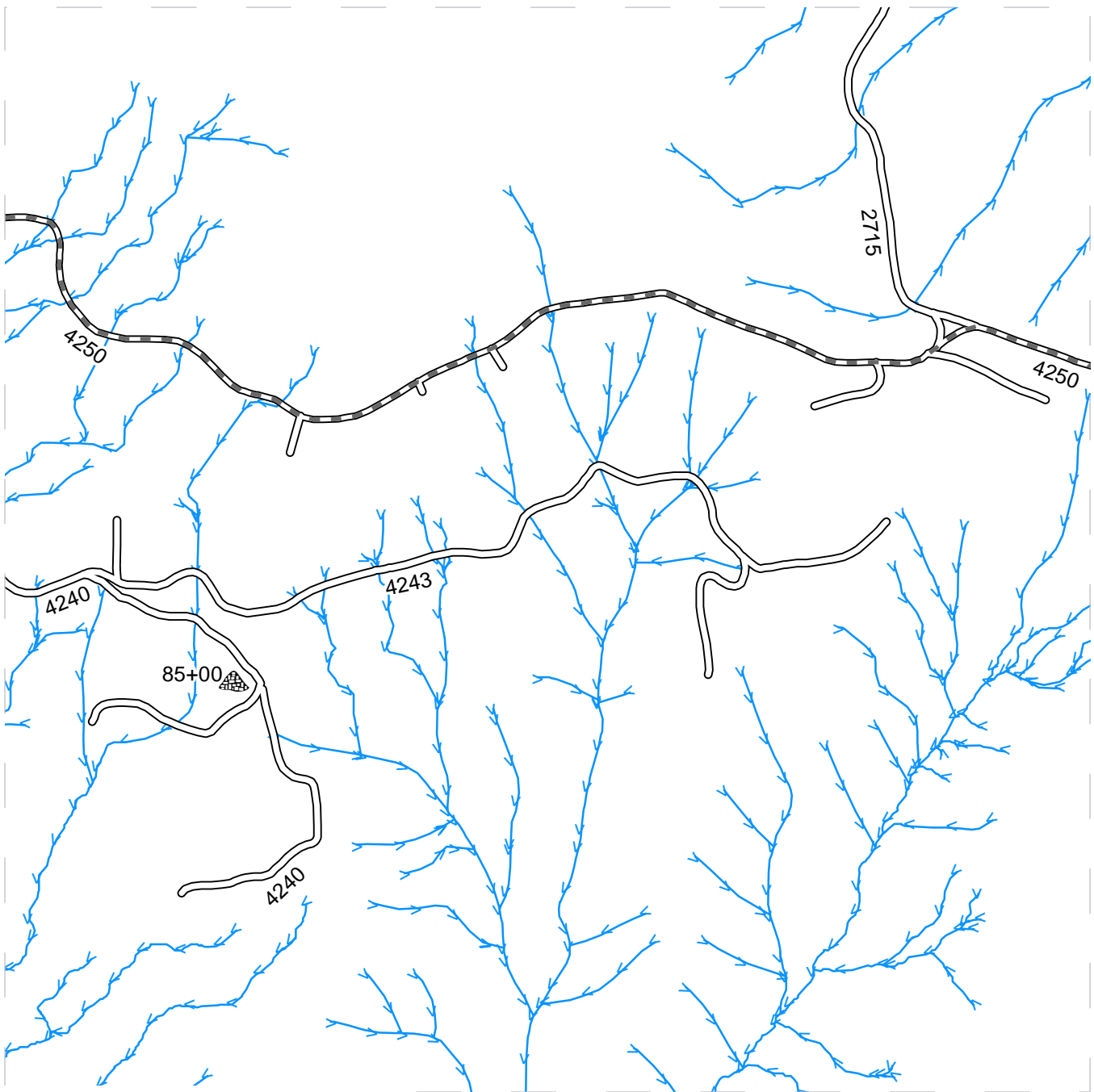
- Existing Roads
- Required Pre-Haul Maintenance
- Streams

N

ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



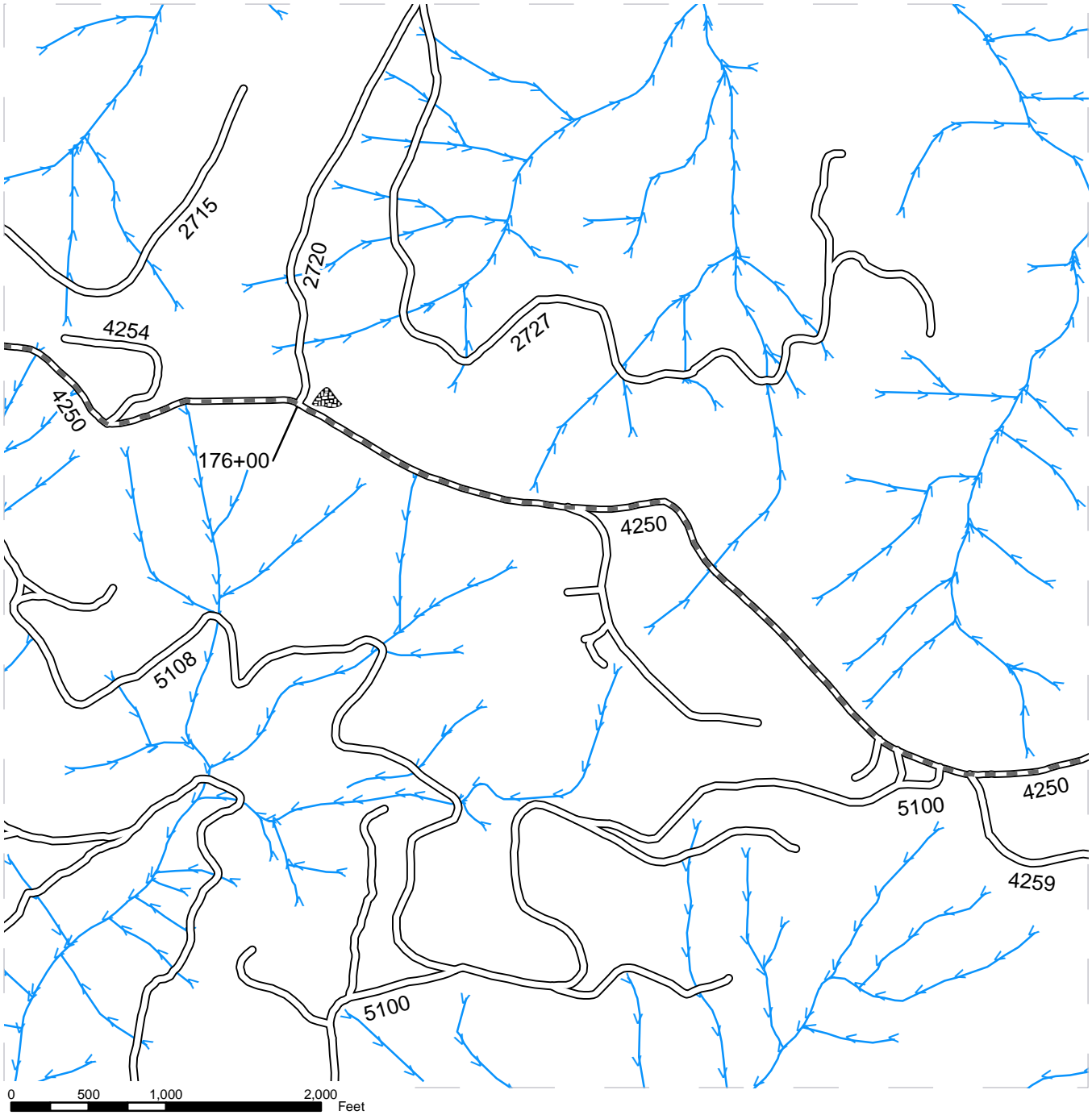
Existing Roads	Stockpile
Required Pre-Haul Maintenance	Streams



ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
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ELEVATION RGE: 2200-4000



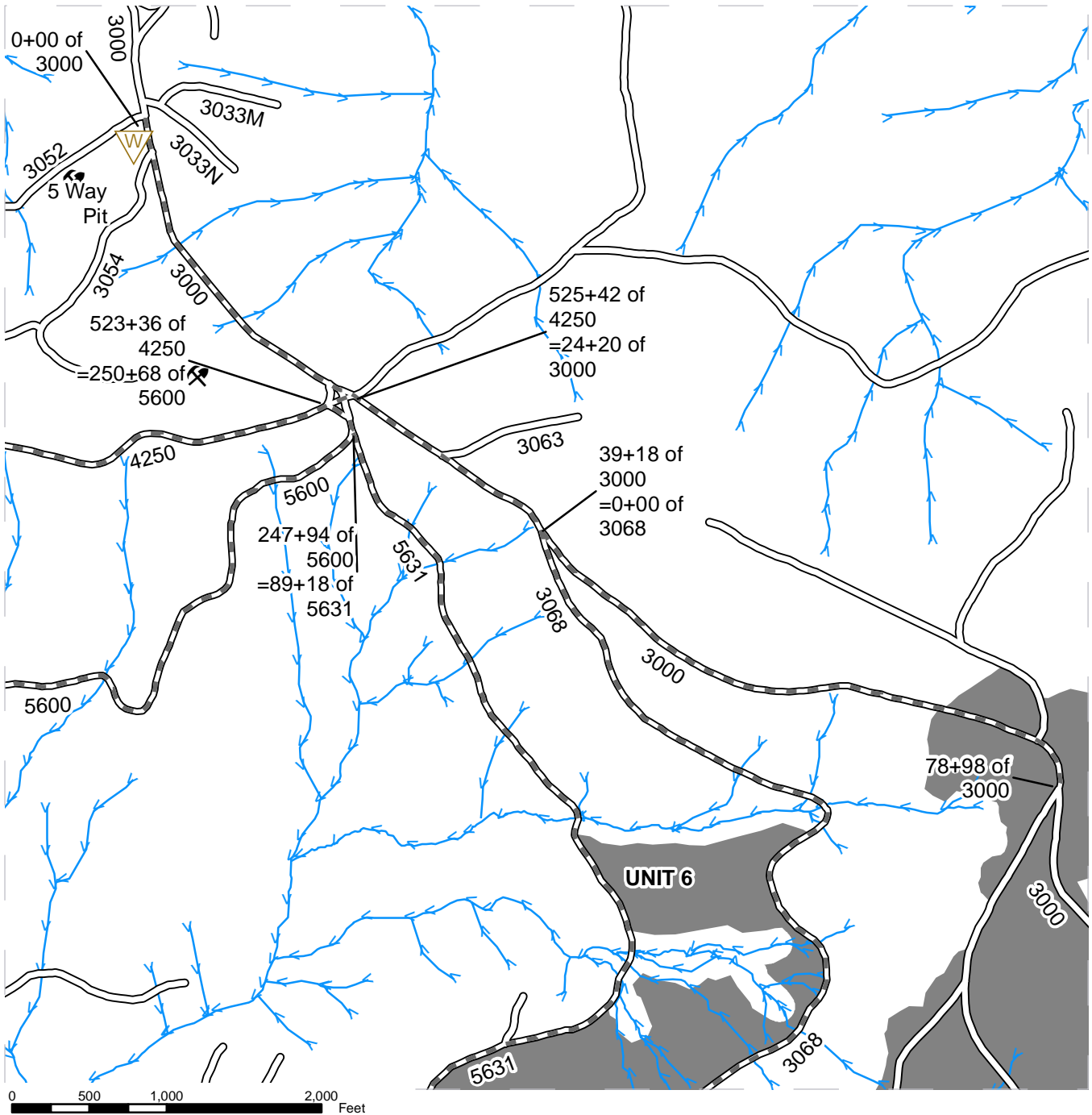
Existing Roads	Stockpile
Required Pre-Haul Maintenance	Streams

N

ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
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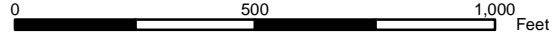
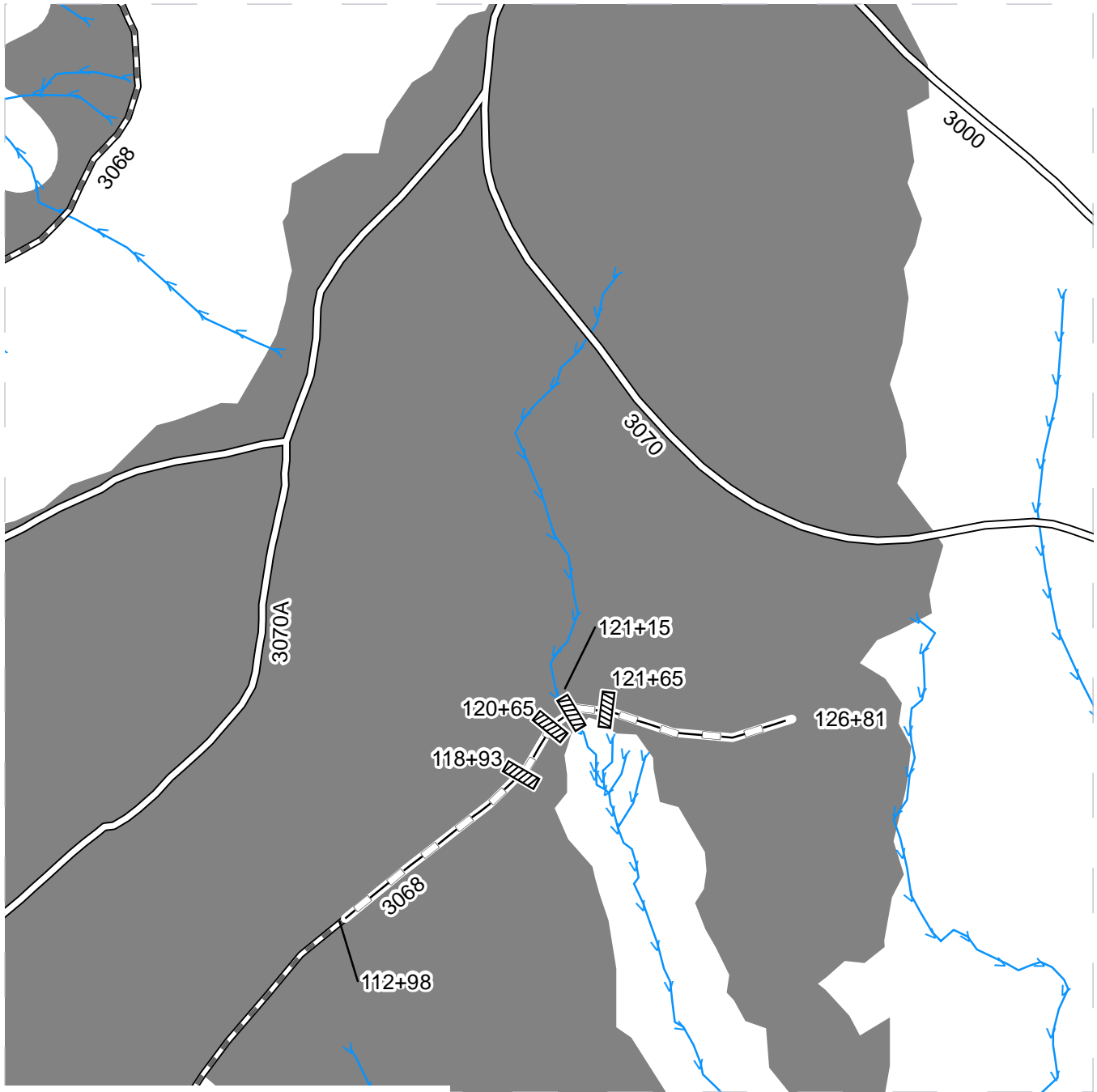
Existing Roads	Rock Pit	Harvest Unit
Required Pre-Haul Maintenance	Waste Area	Streams



ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



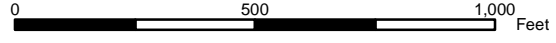
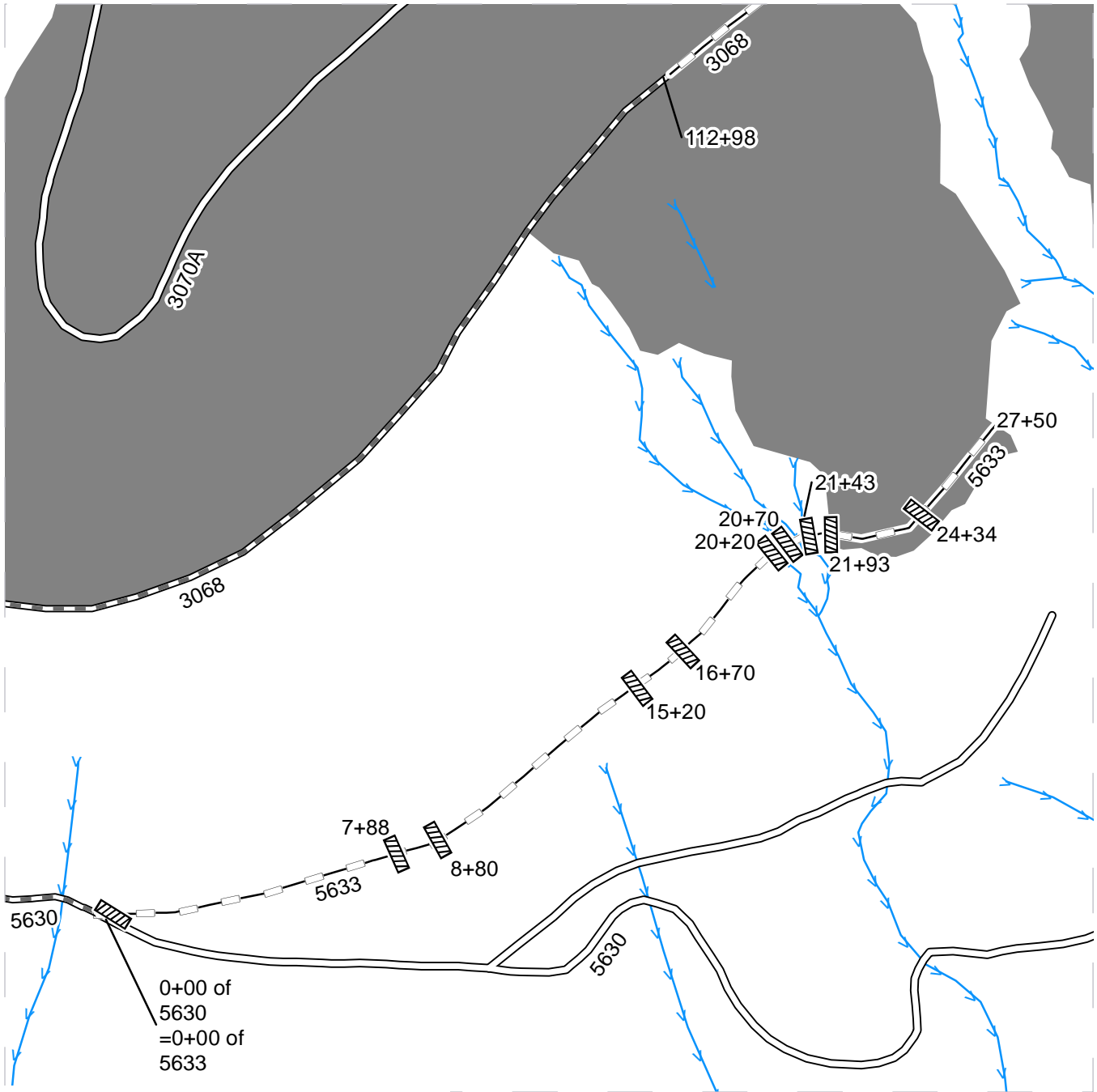
Existing Roads	Culvert	Harvest Unit
Required Pre-Haul Maintenance		Streams
Optional Reconstruction		



ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



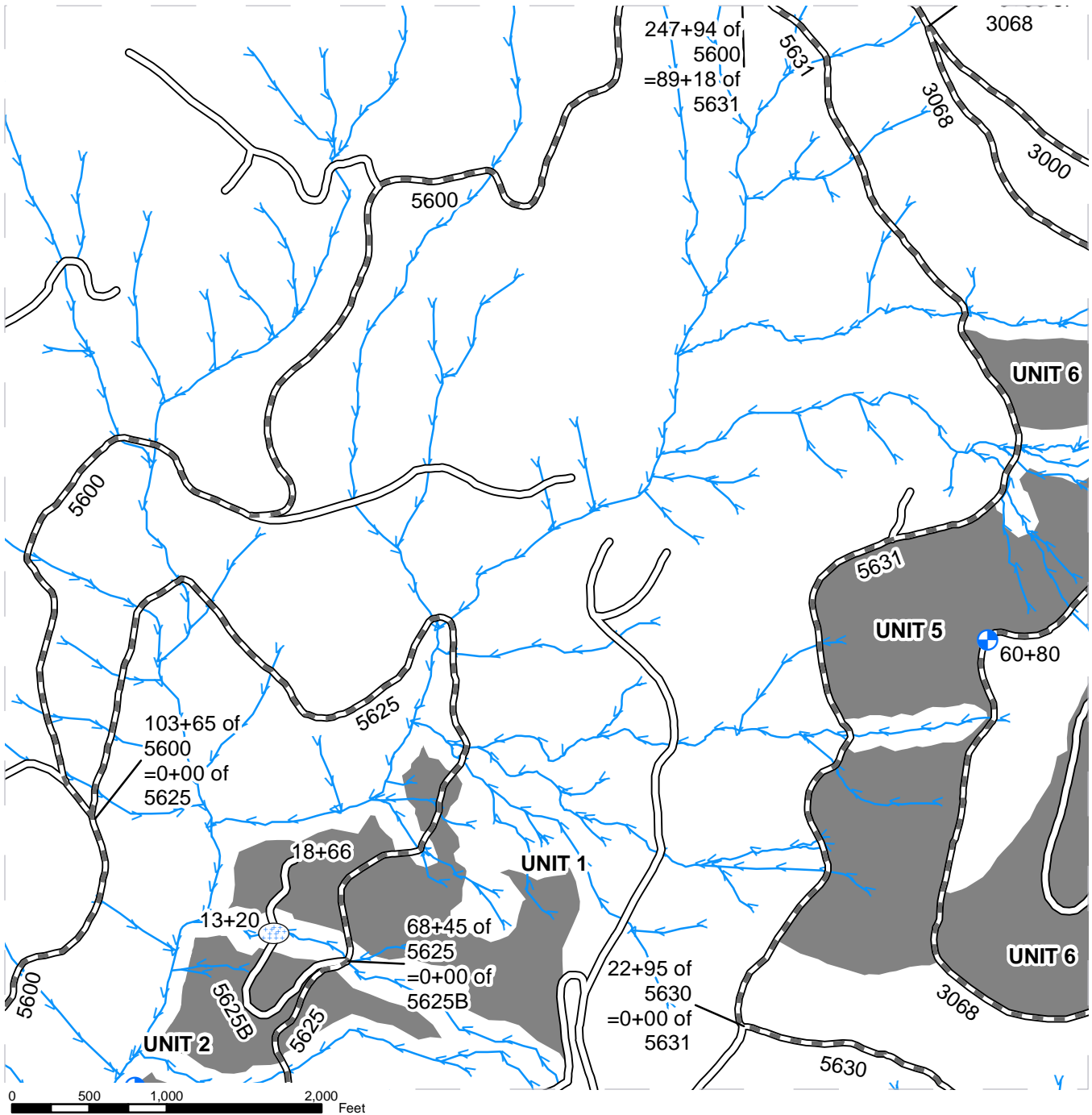
Existing Roads	Culvert	Harvest Unit
Required Pre-Haul Maintenance		Streams
Optional Reconstruction		



ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



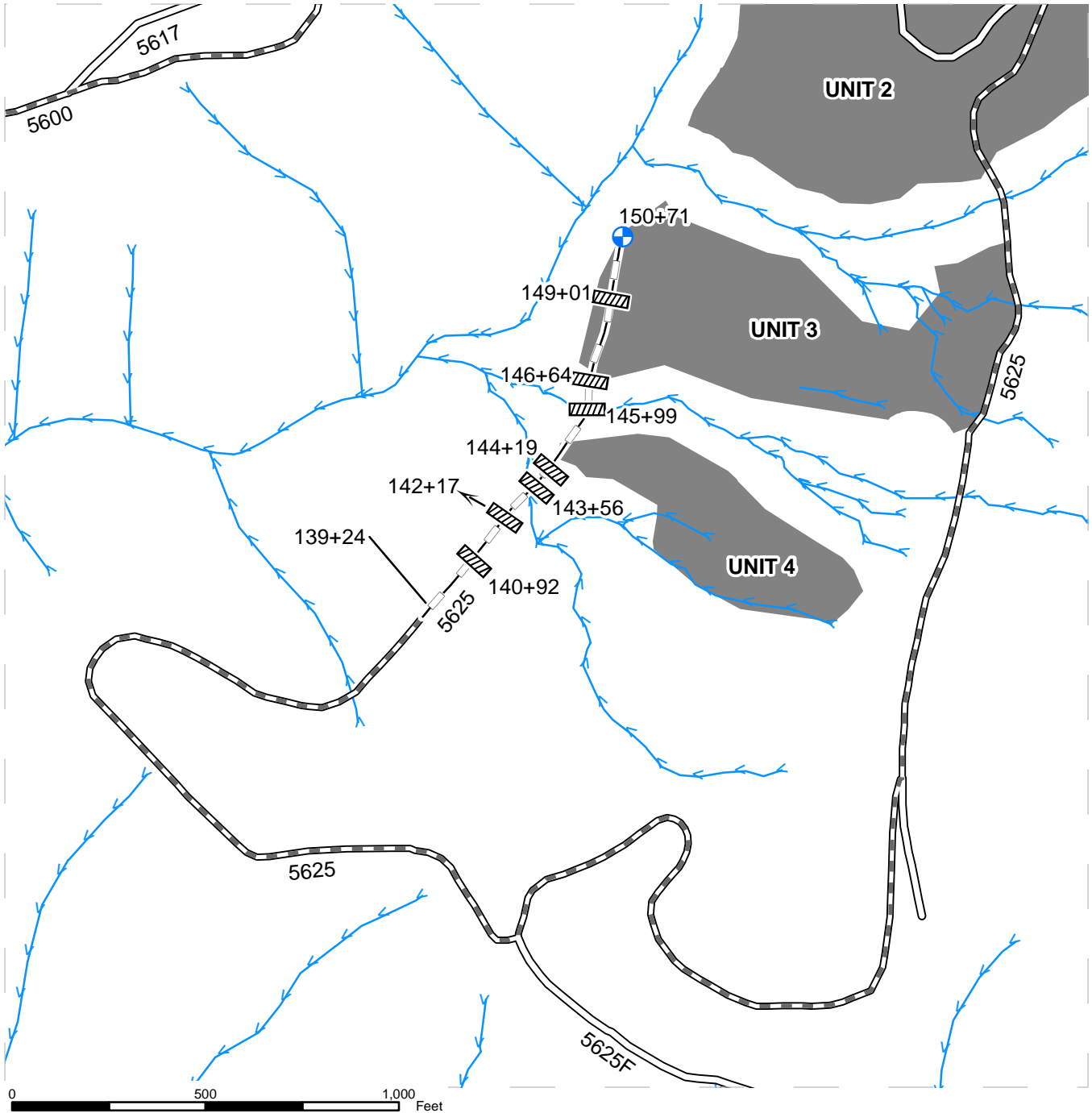
Existing Roads	Culvert Removal	Harvest Unit
Required Pre-Haul Maintenance	Landing - Proposed	Streams
Optional Reconstruction		



ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
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ELEVATION RGE: 2200-4000



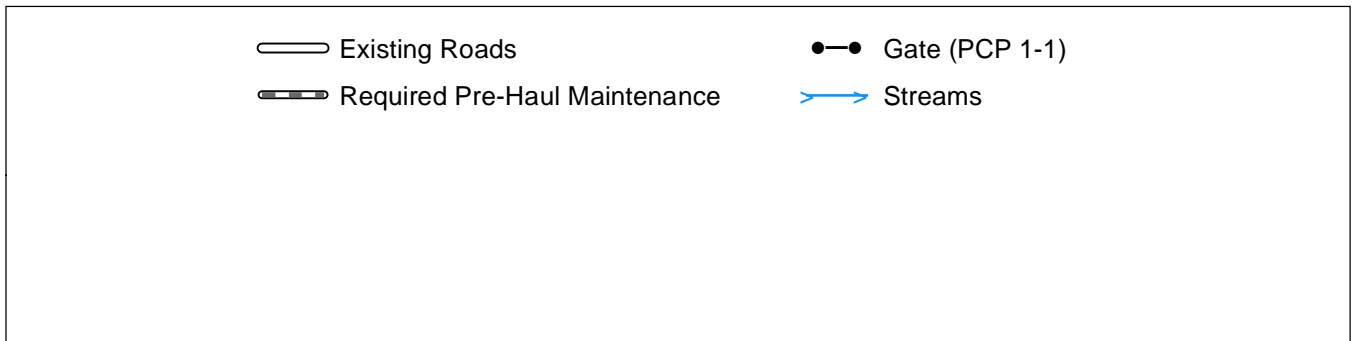
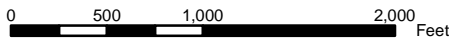
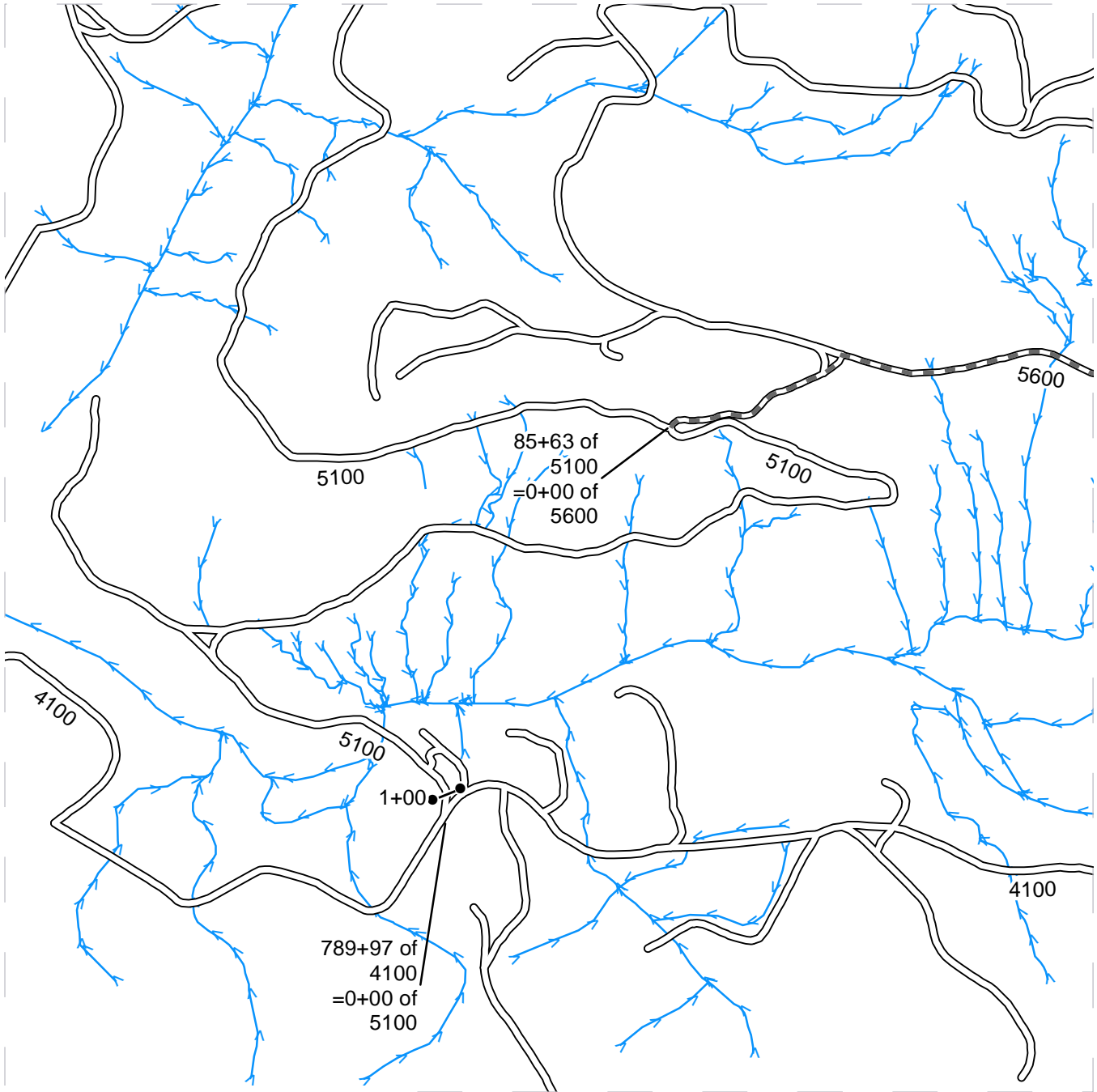
Existing Roads	Ditchout	Harvest Unit
Required Pre-Haul Maintenance	Culvert	Streams
Optional Reconstruction	Landing - Proposed	



ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

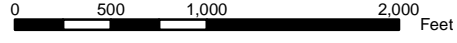
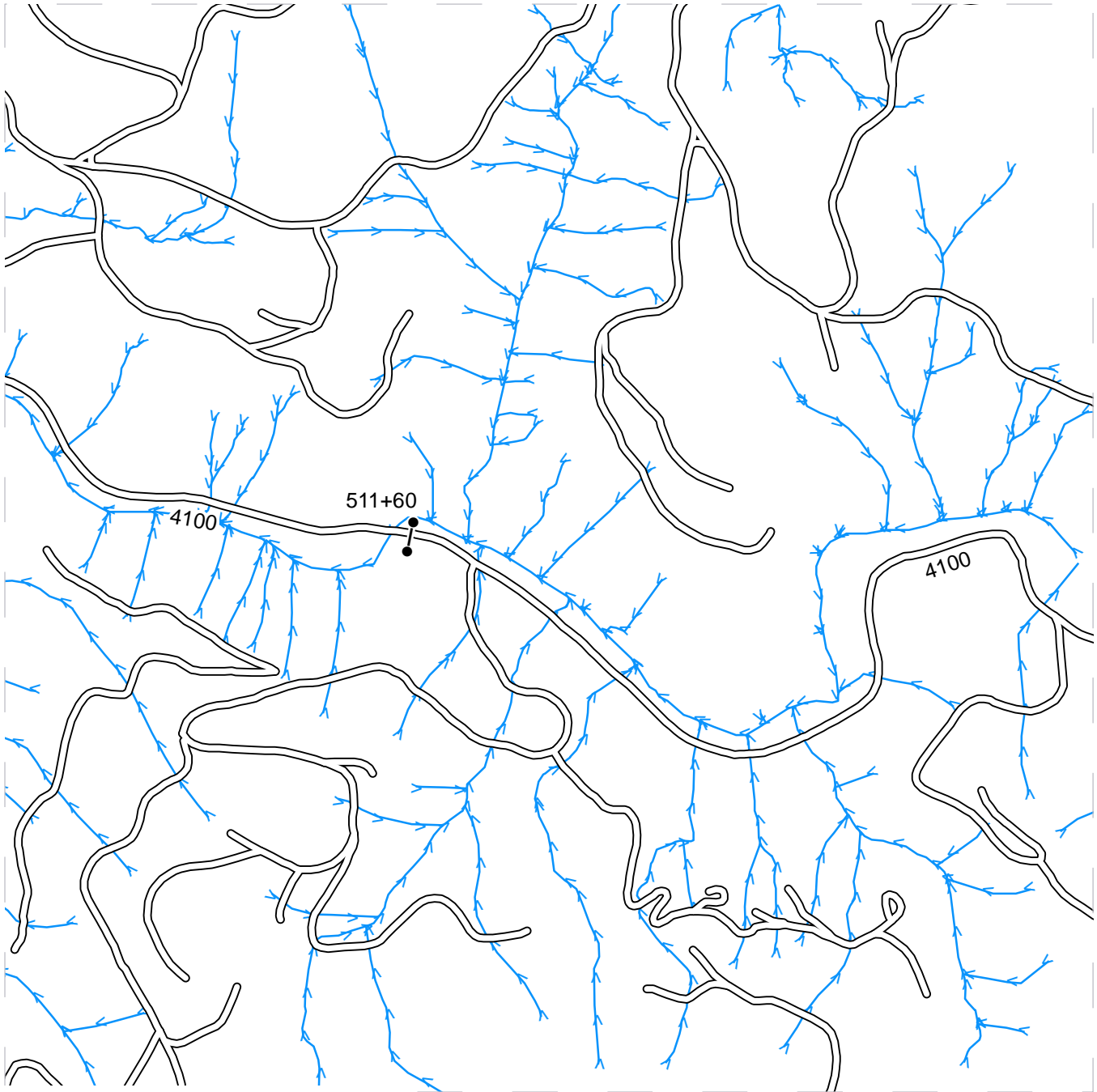
REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000







ROAD PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



 Existing Roads	 Gate (PCP 1-1)
	 Streams



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

RED STAPLER TIMBER SALE ROAD PLAN
COWLITZ COUNTY
ST. HELENS DISTRICT
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-105512

STAFF ENGINEER: CHACE JOHANSON

DRAWN & COMPILED BY: ALICIA COMPTON

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

0-2 REQUIRED ROADS

The specified work on the following roads is required.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
3000	0+00 to 78+98	Pre-haul Maintenance
3068	0+00 to 112+98	
4200	0+00 to 282+88	
4250	0+00 to 525+42	
5600	0+00 to 250+68	
5625	0+00 to 139+24	
5630	0+00 to 22+95	
5631	0+00 to 89+18	
5625B	0+00 to 18+66	Abandonment

0-3 OPTIONAL ROADS

The specified work on the following roads is not required. Any optional roads built by the Purchaser must meet all the specifications in the road plan.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
3068	112+98 to 126+81	Reconstruction
5625	139+24 to 150+71	
5633	0+00 to 27+50	

0-5 RECONSTRUCTION

This project includes, but is not limited to the following reconstruction requirements:

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
3068	112+98 to 126+81	Clearing and grubbing, widen subgrade to dimensions shown on the TYPICAL SECTION SHEET, install culverts according to CULVERT LIST, shape and compact existing road surface, apply rock according to ROCK LIST, install erosion control structures
5625	139+24 to 150+71	
5633	0+00 to 27+50	

0-6 PRE-HAUL MAINTENANCE

This project includes, but is not limited to the following pre-haul maintenance requirements:

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
3000	0+00 to 78+98	Maintenance grading, spot rock, shaping and compaction
3068	0+00 to 112+98	
4200	0+00 to 282+88	
4250	0+00 to 525+42	
5600	0+00 to 250+68	
5625	0+00 to 139+24	
5630	0+00 to 22+95	
5631	0+00 to 89+18	

0-10 ABANDONMENT

This project includes abandonment listed in Clause 9-21 ROAD ABANDONMENT.

0-12 DEVELOP ROCK SOURCE

Purchaser may develop an existing rock source. Rock source development will involve clearing, grubbing, organic debris disposal, stripping overburden, waste material disposal, drilling, blasting, and manufacturing rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

If the Purchaser desires a change from this road plan including, but not limited to, relocation, extension, change in design, or adding roads; a revised road plan must be submitted in writing to the Contract Administrator for consideration. Before work begins, Purchaser shall obtain approval from the State for the submitted plan.

1-2 UNFORESEEN CONDITIONS

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions, or Purchaser's choice of construction season or techniques will be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan.

1-4 ROAD TOLERANCES

Purchaser shall perform road work within the tolerances listed below. The tolerance class for each road is listed on the TYPICAL SECTION SHEET.

<u>Tolerance Class</u>	<u>A</u>	<u>B</u>	<u>C</u>
Road and Subgrade Width (feet)	+1.5	+1.5	+2.0
Subgrade Elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

1-6 ORDER OF PRECEDENCE

Any conflict or inconsistency in the road plan will be resolved by giving the documents precedence in the following order:

1. Addenda.
2. Designs or Plans. On designs and plans, figured dimensions shall take precedence over scaled dimensions.
3. Road Plan Clauses.
4. Typical Section Sheet.
5. Standard Lists.
6. Standard Details.
7. Road Plan maps.

In case of any ambiguity or dispute over interpreting the road plan, the Contract Administrator's or designee's decision will be final.

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

Purchaser shall repair or replace all materials, roadway infrastructure, and road components damaged during road work or operation activities. The Contract Administrator will direct repairs and replacements. Repairs to structural materials must be made in accordance with the manufacturer’s recommendation and may not begin without written approval from the Contract Administrator.

1-15 ROAD MARKING

Purchaser shall perform road work in accordance with the state’s marked location. All road work is marked as follows:

- Stakes, orange ribbon, or orange paint for reconstruct roads.
- Orange paint for pre-haul maintenance.
- Stakes, orange ribbon, or orange paint for abandonments.

1-21 HAUL APPROVAL

Purchaser shall not use roads under this road plan for timber haul, other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1-22 WORK NOTIFICATIONS

Purchaser shall notify the Contract Administrator a minimum of 3 business days before work begins.

1-23 ROAD WORK PHASE APPROVAL

Purchaser shall obtain written approval from the Contract Administrator upon completion of each of the following phases of road work:

- Maintenance grading
- Subgrade reconstruction, culvert installations, shaping & compaction
- Rock application & compaction
- Abandonment
- Rock pit completion

1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not allowed during the listed closure period(s) unless authorized in writing by the Contract Administrator.

<u>Activity</u>	<u>Closure Period</u>
Road Reconstruction & Abandonment	October 1 to April 30

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION, Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract Administrator for the maintenance plan and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense, including those listed in contract clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

1-29 SEDIMENT RESTRICTION

Purchaser shall not allow silt-bearing runoff to enter any streams.

1-30 CLOSURE TO PREVENT DAMAGE

In accordance with Contract Clause G-220 STATE SUSPENDS OPERATION, the Contract Administrator will suspend road work or hauling right-of-way timber, forest products, or rock under the following conditions:

- Wheel track rutting exceeds 6 inches on pit run or jaw run roads.
- Wheel track rutting exceeds 4 inches on crushed rock roads.
- Wheel track rutting exceeds 8 inches on native surface roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator, excessive road damage or rutting may occur.

Operations must stop unless authority to continue working or hauling is granted in writing by the Contract Administrator. In the event that surface or base stability problems persist, Purchaser shall cease operations, or perform corrective maintenance or repairs, subject to specifications within this road plan. Before and during any suspension, Purchaser shall protect the work from damage or deterioration.

1-32 BRIDGE OR ASPHALT SURFACE RESTRICTION

The use of metal tracked equipment is not allowed on bridge or asphalt surfaces at any time. If Purchaser must run equipment on bridge or asphalt surfaces, then rubber tired equipment or other methods, approved in writing by Contract Administrator, must be used.

If tracked equipment is used on bridge or asphalt surfaces, Purchaser shall immediately cease all road construction and hauling operations. Purchaser shall remove any dirt, rock, or other material tracked or spilled on the bridge or asphalt surface(s) and have surface(s) evaluated by the Contract Administrator or their designee for any damage caused by transporting equipment. Any damage to the surface(s) will be repaired, at the Purchaser's expense, as directed by the Contract Administrator.

1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contract Administrator upon request. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

Purchaser shall immediately remove any mud, dirt, rock, or other material tracked or spilled on to county roads and state highways.

If additional damage to the surface, signs, guardrails, etc. occurs then the damage will be repaired, at the Purchaser's expense, as directed by the Contract Administrator when authorized by the county or WSDOT.

SECTION 2 – MAINTENANCE

2-1 GENERAL ROAD MAINTENANCE

Purchaser shall maintain all roads used under this contract in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS for the entire term of this contract. Maintenance is required even during periods of inactivity.

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

Purchaser shall perform maintenance on roads listed in Contract Clause C-050 PURCHASER ROAD MAINTENANCE AND REPAIR in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

Purchaser may be required to perform maintenance on roads listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER as directed by the Contract Administrator. Purchaser shall maintain roads in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

2-4 PASSAGE OF LIGHT VEHICLES

Purchaser shall maintain roads in a condition that will allow the passage of light administrative vehicles.

2-5 MAINTENANCE GRADING – EXISTING ROAD

On the following roads, Purchaser shall use a grader to shape the existing surface before rock application.

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
3000	0+00 to 78+98	Grade, shape, apply specified rock, compact
3068	0+00 to 112+98	
4200	0+00 to 282+88	
4250	0+00 to 525+42	
5600	0+00 to 250+68	
5625	0+00 to 139+24	
5630	0+00 to 22+95	
5631	0+00 to 89+18	

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-5 CLEARING

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 5 feet high between the marked right-of-way boundaries and within waste and debris areas, or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-8 PROHIBITED DECKING AREAS

Purchaser shall not deck right-of-way timber in the following areas:

- Within the grubbing limits.
- Within 25 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 45%.
- Against standing trees.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Purchaser shall remove stumps using a hydraulic mounted excavator unless authorized in writing by the Contract Administrator. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps outside of the grubbing limits, on the downhill side of the road, and in compliance with all other clauses in this road plan.

3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clause G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume.

3-21 DISPOSAL COMPLETION

Purchaser shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris, except by burning, before timber haul.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located as listed below.

<u>Road</u>	<u>Disposal Location</u>
3000	0+00 right

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 25 feet of a cross drain culvert.
- Within 50 feet of a live stream or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.
- On the uphill side of the road.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

Purchaser shall not bury organic debris unless otherwise stated in this plan.

3-25 SCATTERING ORGANIC DEBRIS

Contractor shall scatter organic debris outside of the grubbing limits on the downhill side of the road, unless otherwise detailed in this road plan, or as directed by the Contract Administrator.

SECTION 4 – EXCAVATION

4-2 PIONEERING

Pioneering may not extend past construction that will be completed during the current construction season. In addition, the following actions must be taken as pioneering progresses:

- Drainage must be provided on all uncompleted construction.
- Road pioneering operations may not undercut the final cut slope or restrict drainage.
- Culverts at live stream crossings must be installed during pioneering operations prior to embankment.

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 12 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 12% in 100 feet.
- Maximum grade change for crest vertical curves is 8% in 100 feet.

4-5 CUT SLOPE RATIO

Purchaser shall construct excavation slopes no steeper than shown on the following table:

<u>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Excavation Slope Percent</u>
Common Earth	1:1	100
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

Purchaser shall construct embankment slopes no steeper than shown on the following table:

<u>Material Type</u>	<u>Embankment Slope Ratio</u>	<u>Embankment Slope Percent</u>
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	1½:1	67
Angular Rock	1¼:1	80

4-7 SHAPING CUT AND FILL SLOPE

Purchaser shall construct excavation and embankment slopes to a uniform line and left rough for easier revegetation.

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

- 6 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 2 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

Purchaser shall apply embankment widening equally to both sides of the road to achieve the required width.

4-10 WIDEN THE EXISTING SUBGRADE

On the following roads, Purchaser shall widen the subgrade and fill slopes to the dimensions shown on the TYPICAL SECTION SHEET. If necessary, Purchaser shall reconstruct excavation slopes to provide sufficient width for the road surface and any ditches.

<u>Road</u>	<u>Stations</u>
3068	112+98 to 126+81
5625	139+24 to 150+71
5633	0+00 to 27+50

4-22 TURNAROUNDS

Purchaser shall construct turnarounds as designated on the ROCK LIST. Turnarounds must be no larger than 30 feet long and 30 feet wide.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

Purchaser shall reconstruct ditches into the subgrade as specified on the TYPICAL SECTION SHEET. Ditches must be constructed concurrently with construction of the subgrade.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Purchaser shall construct ditchouts as identified on the CULVERT LIST or as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio. L or R denotes ditchout left or ditchout right.

4-35 WASTE MATERIAL DEFINITION

Waste material is defined as all dirt, rock, mud, or related material that is extraneous or unsuitable for construction material. Waste material, as used in Section 4 EXCAVATION, is not organic debris.

4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to 45% if the waste material is compacted and free of organic debris. On side slopes greater than 45%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37 WASTE AREA LOCATION.

4-37 WASTE AREA LOCATION

Purchaser shall deposit waste material in the listed designated areas. The amount of material allowed in a waste area is at the discretion of the Contract Administrator.

<u>Road</u>	<u>Waste Area Location</u>	<u>Estimated Volume</u>
3000	0+00 right	10,000 cy
5625B	Road Prism Adjacent to Removal	100 cy

4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas, except as otherwise specified in this plan:

- Within 25 feet of a cross drain culvert.
- Within 50 feet of a live stream or wetland.
- On side slopes steeper than 45%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- On the uphill side of the road.

4-48 NATIVE MATERIAL

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 4 inches in any dimension.

4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free. Purchaser shall accomplish all shaping using a motor grader.

4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift. Waste material may be placed by end-dumping or sidecasting until sufficiently wide enough to support the equipment.

4-61 SUBGRADE COMPACTION

Purchaser shall compact reconstructed subgrades in accordance with the COMPACTION LIST by routing equipment over the entire width. Purchaser shall obtain written approval from the Contract Administrator for subgrade compaction before rocking or timber haul.

4-63 EXISTING SURFACE COMPACTION

Purchaser shall compact maintained road surfaces in accordance with the COMPACTION LIST by routing equipment over the entire width.

SECTION 5 – DRAINAGE

5-5 CULVERTS

Purchaser shall install culverts made of plastic as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and meet the specifications in Clauses 10-17 through 10-22.

5-10 CULVERT MARKER INSTALLATION

Purchaser shall provide and install culvert markers in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all new culverts.

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the CULVERT LIST that are not installed will become property of the state. Purchaser shall stockpile materials as directed by the Contract Administrator.

5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL. Culverts shall be banded using lengths of no less than 10 feet, and no more than one length less than 20 feet. Shorter sections of banded culvert shall be installed at the inlet end.

5-17 CROSS DRAIN SKEW AND SLOPE

Cross drains, on road grades in excess of 3%, must be skewed at least 30 degrees from perpendicular to the road centerline, except where the cross drain is at the low point in the road culverts will not be skewed. Cross drain culverts must be installed at a slope steeper than the incoming ditch grade, but not less than 3% or more than 10%.

5-18 CULVERT DEPTH OF COVER

All culverts must be installed with a depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point.

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock at the outlet. Energy dissipater installation is subject to approval by the Contract Administrator.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT LIST.

5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts on the CULVERT LIST that specify the placement of rock at the inlet. Rock may not restrict the flow of water into culvert inlets or catch basins. The type and quantity of rock used for headwalls shall be as specified on the CULVERT LIST.

5-27 ARMORING FOR STREAM CROSSING CULVERTS

Purchaser shall place inlet armor in conjunction with or immediately following construction of the embankment at culverts designated as stream crossings on the CULVERT LIST. The type of armor and the amount of material must be consistent with the specifications listed on the CULVERT LIST. Rock must be placed around culvert inlet. Rock may not restrict the flow of water into culvert inlets. Armor installation is subject to approval by the Contract Administrator.

5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be waterbarred by November 1. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following source(s) on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock source(s), a joint operating plan must be developed. All parties shall follow this plan. Purchaser shall notify the Contract Administrator a minimum of 5 business days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
5 Way Pit	S15 T9N R3E	4-INCH JAW RUN ROCK

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following existing stockpile(s) on state land at no charge to the Purchaser. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator. Other stockpiles may not be used without prior written approval from the Contract Administrator.

<u>Source</u>	<u>Location</u>
4240 Stockpile	4240 at 85+00 right
9 Mile Stockpile	4250 at 176+00 left
5 Way Stockpile	5 Way Pit

6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense. Rock sources are subject to written approval by the Contract Administrator before their use.

<u>Possible Source</u>	<u>Phone</u>
Gardner Rock	360-274-6720

6-10 ROCK SOURCE DEVELOPMENT PLAN BY STATE

Purchaser shall conduct rock source development and use at the following sources in accordance with the written ROCK SOURCE DEVELOPMENT PLAN prepared by the state and included in this road plan. Upon completion of operations, the rock source must be left in the condition specified in the ROCK SOURCE DEVELOPMENT PLAN, and approved in writing by the Contract Administrator. Purchaser shall notify the Contract Administrator a minimum of 5 business days before starting any operations in the rock source.

<u>Source</u>
5 Way Pit

6-22 FRACTURE REQUIREMENT FOR ROCK

A minimum of 50% by visual inspection of coarse aggregate must have at least one fractured face. Coarse aggregate is the material greater than 1/4-inch in size.

6-23 ROCK GRADATION TYPES

Purchaser shall provide and/or manufacture rock in accordance with the types and amounts listed in the ROCK LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles. The exact point of evaluation for conformance to specifications will be determined by the Contract Administrator.

6-37	4-INCH JAW RUN ROCK	
	% Passing 4" square sieve	95%
	% Passing U.S. #40 sieve	16% maximum
	% Passing U.S. #200 sieve	5% maximum

The portion of aggregate retained on the No. 4 sieve may not contain more than 0.2 percent organic debris and trash. All percentages are by weight.

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are loose yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements and are not subject to reduction.

6-56 ROCK MEASUREMENT BY TRUCK VOLUME

Measurement of Spot Rock, Culvert rock, and Landing rock is on a cubic yard truck measure basis. Purchaser shall measure each truck box before rock hauling. An average of such volumes for each truck will be used to tally the volume hauled. The Contract Administrator may periodically require that a load be flattened off and its volume calculated. Purchaser shall maintain load tally sheets for each truck and shall give them to the Contract Administrator on a weekly basis during rocking operations.

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for subgrade construction, compaction, and drainage installation before rock application.

6-71 ROCK APPLICATION

Purchaser shall apply rock in accordance with the specifications and quantities shown on the ROCK LIST. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. Road surfaces must be compacted in accordance with the COMPACTION LIST by routing equipment over the entire width.

6-73 ROCK FOR WIDENED PORTIONS

Purchaser shall apply rock to turnarounds, turnouts, and areas with curve widening to the same depth and specifications as the traveled way.

6-75 OPTIONAL ROCK EXCEPTION

On the following roads, if hauling takes place from May 1 to September 30 Purchaser may provide and place less rock than shown on the ROCK LIST, when approved in writing by the Contract Administrator.

If less rock is applied, Purchaser shall submit a written plan, for approval, describing how these roads will be constructed, used, maintained, and treated post-haul. Purchaser shall meet post-haul specifications in Section 9 POST-HAUL ROAD WORK, the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS, or other conditions of the approved plan.

<u>Road</u>	<u>Stations</u>
5633	0+00 to 27+50
5625	139+24 to 150+71
3068	112+98 to 126+81

6-76 DRY WEATHER ROCK COMPACTION

The Contract Administrator may require the application of water to facilitate compaction of the rock surfacing. The method of water application is subject to approval by the Contract Administrator.

SECTION 7 – STRUCTURES

7-5 STRUCTURE DEBRIS

Purchaser shall not allow debris from the installation or removal of structures to enter any stream. Components removed from existing structures(s) must be removed from state land. Purchaser shall maintain a clean jobsite, with all materials stored away from the high water mark or other area presenting a risk of the materials entering a stream. Debris entering any stream must be removed immediately, and placed in the site(s) designated for stockpiling or disposal. Purchaser shall retrieve all material carried downstream from the jobsite.

7-6 STREAM CROSSING INSTALLATION

Purchaser shall install stream crossing structures in accordance with LIVE STREAM CULVERT INSTALLATION PROCEDURE, CULVERT AND DRAINAGE SPECIFICATION DETAIL, and any other requirements in this road plan.

7-70 GATE CLOSURE

On the following road(s), Purchaser shall keep gates closed and locked except during periods of haul. All gates that remain open during haul must be locked or securely fastened in the open position. All gates must be closed at termination of use.

<u>Road</u>	<u>Station</u>	<u>Comment</u>
4100	511+60	DNR ACCESS PROCEDURES THROUGH WEYERHAEUSER'S LONGVIEW AREA GATE LOCKING PROCEDURE
5100	1+00	

SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES

Sediment control shall be accomplished using sediment traps, silt fences, settling ponds or other methods as approved in writing by the Contract Administrator.

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 4-inch layer of straw to all exposed soils within 50 feet of a stream or wetland.

8-15 REVEGETATION

On the following roads, Purchaser shall spread grass seed on all exposed soils resulting from road work activities. Required seed not spread by the termination of this contract will become the property of the state.

<u>Road</u>	<u>Qty (lbs)*</u>
5633	126
5625	26
3068	32
5625B	86
Waste Area	50
Total	320

*Quantities are estimates only. Actual quantities may vary and are the responsibility of the Purchaser.

8-16 REVEGETATION SUPPLY

The Purchaser shall provide the grass seed.

8-17 REVEGETATION TIMING

Purchaser shall revegetate during the first available opportunity after road work is completed between March 15th and September 30th. Soils may not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator.

8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed in areas that have failed to germinate or have been damaged through any cause, restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed at no additional cost to the state.

8-25 GRASS SEED

Purchaser shall evenly spread the seed mixture listed below on all exposed soil at a rate of 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

1. Weed seed may not exceed 0.5% by weight.
2. All seed species must have a minimum 90% germination rate, unless otherwise specified.
3. Seed must be certified.
4. Seed must be furnished in standard containers showing the following information:
 - a. Common name of seed
 - b. Net weight
 - c. Percent of purity
 - d. Percentage of germination
 - e. Percentage of weed seed and inert material
5. Seed must conform to the following mixture unless a comparable mix is approved in writing by the Contract Administrator.

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Ryegrass	35-45
Fescue	30-45
Highland Bent	5-15
White Clover	8-20
Inert and Other Crop	0.5

SECTION 9 – POST-HAUL ROAD WORK

9-2 CULVERT REMOVAL FROM LIVE STREAM

On the following road(s), Purchaser shall remove existing culverts from live streams and leave the resulting channel open with excavation slope and excavated channel width as specified. Place excavated material in a waste area designated in Clause 4-37 WASTE AREA LOCATION. Culvert removal from live streams must be in accordance with the LIVE STREAM CULVERT REMOVAL PROCEDURE.

<u>Road</u>	<u>Stations</u>	<u>Excavated Channel Width</u>	<u>Slope Ratio</u>
5625B	13+20	3'	2:1

9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culverts removed from roads become the property of the Purchaser and must be removed from state land.

9-5 POST-HAUL MAINTENANCE

Purchaser shall perform post-haul maintenance in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

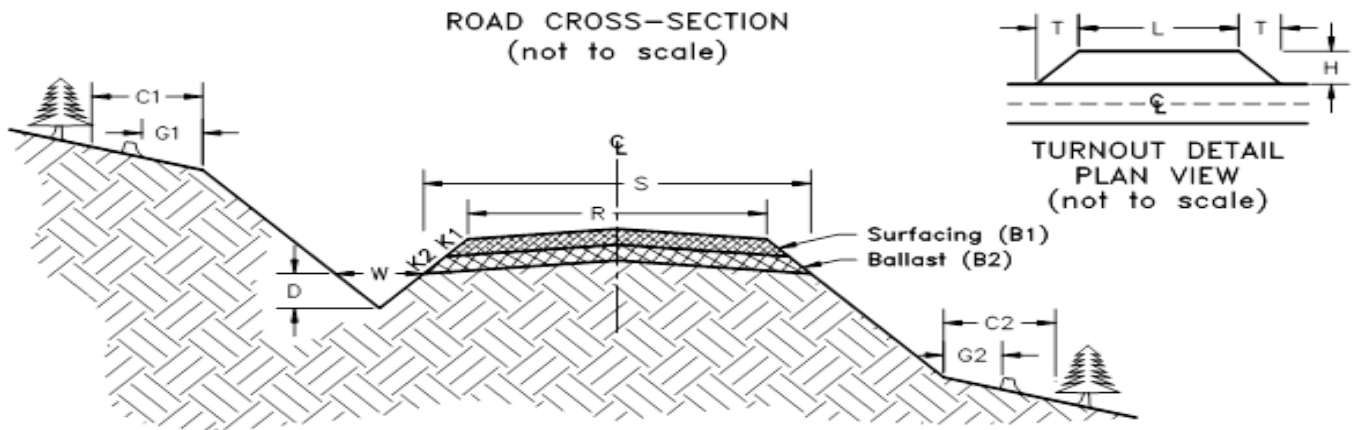
Purchaser shall slope landing embankments to the original construction specifications.

9-21 ROAD ABANDONMENT

Purchaser shall abandon the following roads before the termination of this contract. Work must be in accordance with the ROAD ABANDONMENT CROSS SECTIONS DETAIL.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
5625B	0+00 to 18+66	Abandonment

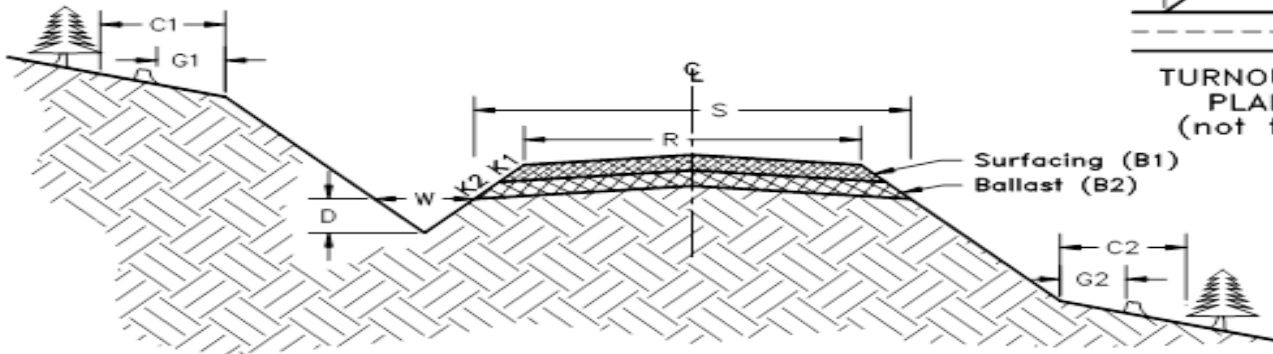
TYPICAL SECTION SHEET



Road Name	From Station	To Station	Tolerance Class	Width (ft)		Ditch (ft)		Crown (%)	Grubbing Limits (ft)		Clearing Limits (ft)	
				Subgrade S	Road R	Width W	Depth D		G1	G2	C1	C2
3000	0+00	78+98	A	-	12	-	-	4	-	-	-	-
4200	0+00	282+88	A	-	12	-	-	4	-	-	-	-
4250	0+00	525+42	A	-	12	-	-	4	-	-	-	-
5600	0+00	250+68	A	-	12	-	-	4	-	-	-	-
5625	0+00	139+24	A	-	12	-	-	4	-	-	-	-
5630	0+00	22+95	A	-	12	-	-	4	-	-	-	-
5631	0+00	89+18	A	-	12	-	-	4	-	-	-	-
3068	0+00	112+98	A	-	12	-	-	4	-	-	-	-
3068	112+98	126+81	B	16	12	3	1	4	5	5	10	10
5633	0+00	27+50	B	16	12	3	1	4	5	5	10	10
5625	139+24	150+71	B	16	12	3	1	4	5	5	10	10

ROCK LIST
(Page 1 of 2)

ROAD CROSS-SECTION
(not to scale)



STOCKPILED CRUSHED ROCK

Road	From	To	Compacted		No. Stations	CY Subtotal	Rock	Turnout (ft)			
			Rock Depth (in)	CY/Station			Source	L	H	T	
3000	0+00	78+98				120	Spot Rock				
4200	0+00	282+88				430	Spot Rock				
4250	0+00	525+42				800	Spot Rock				
5600	0+00	250+68				380	Spot Rock				
5625	0+00	139+24				210	Spot Rock				
5630	0+00	22+95				40	Spot Rock				
5631	0+00	89+18				140	Spot Rock				
3068	0+00	112+98				180	Spot Rock				
REQUIRED STOCKPILED CRUSHED ROCK TOTAL						2300		Cubic Yards			

ROCK LIST
(Page 2 of 2)

4-INCH JAW RUN ROCK

			<u>Compacted</u>				<u>Rock</u>					
<u>Road</u>		<u>From</u>	<u>To</u>	<u>Rock</u> <u>Depth (in)</u>	<u>CY/</u> <u>Station</u>	<u>No.</u> <u>Stations</u>	<u>CY</u> <u>Subtotal</u>	<u>Source</u>		<u>Turnout (ft)</u>		
										<u>L</u>	<u>H</u>	<u>T</u>
3068	*	112+98	126+81	12	65	13.83	899	5 Way Pit				
3068		Culvert	--	--	--	--	14					
3068	*	Turnaround	125+81	--	--	--	42					
3068	*	Landing	60+80	--	--	--	63					
5633	*	0+00	27+50	12	65	27.50	1788					
5633		Culvert	--	--	--	--	32					
5633	*	Turnaround	19+00	--	--	--	42					
5625	*	139+24	150+71	8	43	11.47	497					
5625		Culvert	--	--	--	--	26					
5625	*	Turnaround	141+50	--	--	--	28					
5625	*	Landing	150+71	--	--	--	42					

* Optional rock, see Road Plan Clause 6-75

REQUIRED 4-INCH JAW RUN ROCK TOTAL 3472 Cubic Yards

CULVERT LIST

Road		Culvert		Erosion rock			Bedding/backfill	Construction	Culvert marker		
Name	Station	Diameter (in)	Length (ft)	Inlet (CY)	Outlet (CY)	Type	Type	Staked (Y/N)	Inlet (Y/N)	Outlet (Y/N)	Remarks
3068	118+93	18	30	1	1	JR	NT	N	Y	Y	Cross Drain
	120+65	18	30	1	1	JR	NT	N	Y	Y	Disconnect
	121+15	24	40	4	4	JR	NT	N	Y	Y	Stream, Np
	121+65	18	30	1	1	JR	NT	N	Y	Y	Disconnect
5633	0+00	18	40	1	1	JR	NT	N	Y	Y	Cross Drain
	7+88	18	30	1	1	JR	NT	N	Y	Y	Cross Drain, Sag
	8+80	18	30	1	1	JR	NT	N	Y	Y	Cross Drain
	15+20	18	30	1	1	JR	NT	N	Y	Y	Cross Drain, Seep
	16+70	18	30	1	1	JR	NT	N	Y	Y	Cross Drain
	20+20	18	30	1	1	JR	NT	N	Y	Y	Disconnect
	20+70	24	40	4	4	JR	NT	N	Y	Y	Stream, Np
	21+43	24	40	4	4	JR	NT	N	Y	Y	Stream, Np
	21+93	18	30	1	1	JR	NT	N	Y	Y	Disconnect
	24+34	18	30	1	1	JR	NT	N	Y	Y	Cross Drain
5625	140+92	18	30	1	1	JR	NT	N	Y	Y	Cross Drain
	142+17	18	30	1	1	JR	NT	N	Y	Y	Disconnect
	142+17	--	--	--	--	--	--	--	--	--	DOL
	143+56	24	40	4	4	JR	NT	N	Y	Y	Stream, Np
	144+19	18	30	1	1	JR	NT	N	Y	Y	Disconnect
	145+99	24	40	4	4	JR	NT	N	Y	Y	Stream, Np
	146+64	18	30	1	1	JR	NT	N	Y	Y	Disconnect
149+01	18	30	1	1	JR	NT	N	Y	Y	Cross Drain	

Key

- JR- 4-INCH JAW RUN ROCK
- NT- NATIVE MATERIAL
- DOL- Ditchout left
- DOR- Ditchout right

COMPACTION LIST

	<u>Maximum</u>				<u>Maximum</u>	<u>Maximum</u>
	<u>Depth</u>		<u>Equipment</u>	<u>Minimum</u>	<u>Operating</u>	<u>Amount of</u>
	<u>Per Lift</u>	<u>Equipment</u>	<u>Weight</u>	<u>Number</u>	<u>Speed</u>	<u>Deflection</u>
<u>Type</u>	<u>(inches)</u>	<u>Type</u>	<u>(pounds)</u>	<u>of Passes</u>	<u>(MPH)</u>	<u>(inches)</u>
Existing Surface	-	Vibratory Smooth Drum	20000	5	3	1
Subgrade	-	Vibratory Smooth Drum	20000	4	3	1
Embankment	12	Excavation	30000	4	3	2
Fill	24	Excavation	30000	4	3	2
Rock	-	Vibratory Smooth Drum	20000	5	3	1
Waste Area	24	Excavation	30000	-	-	4

9-22 ABANDONMENT

- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 100 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Block roads with earthen barricades in accordance with the attached EARTHEN BARRICADE DETAIL.

- Remove native fill in accordance with Clause 9-2 CULVERT REMOVAL FROM LIVE STREAM.
- Remove culverts.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.
- Provide and evenly spread a 6-inch layer of straw to all exposed soils associated with stream culvert and puncheon removals, as well as all waste material generated by fill removal that is within 30 feet of excavation limits.

SECTION 10 MATERIALS

10-17 CORRUGATED PLASTIC CULVERT

Polyethylene culverts must meet AASHTO M-294 specifications, or ASTM F-2648 specifications for recycled polyethylene. Culverts must be Type S – double walled with a corrugated exterior and smooth interior.

10-22 PLASTIC BAND

Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used. Couplings must be split coupling band. Split coupling bands must have a minimum of four corrugations, two on each side of the pipe joint.

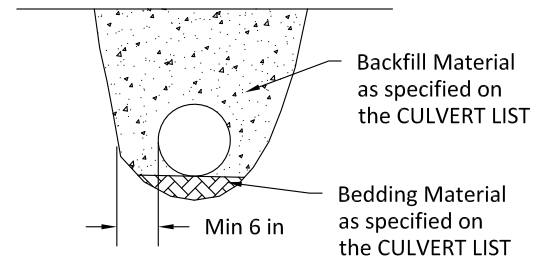
CULVERT AND DRAINAGE SPECIFICATION DETAIL
PAGE 1 OF 2

INSTALLATION REQUIREMENTS:

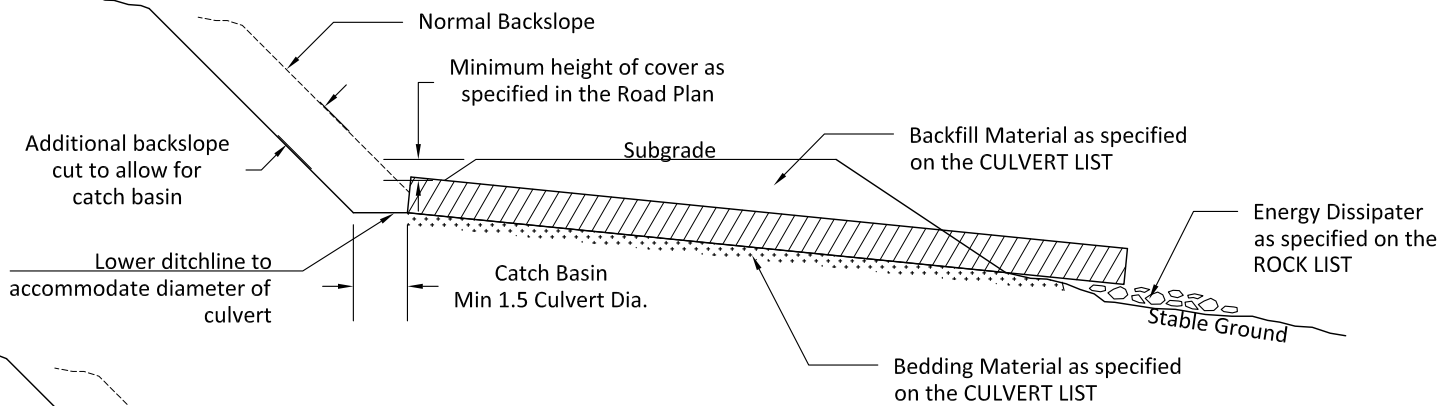
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly supported along the barrel.
2. Backfill material shall be compacted under the culvert haunches, around the sides, and above the culvert in accordance with the COMPACTION LIST.

ALL DRAWINGS ARE NOT TO SCALE

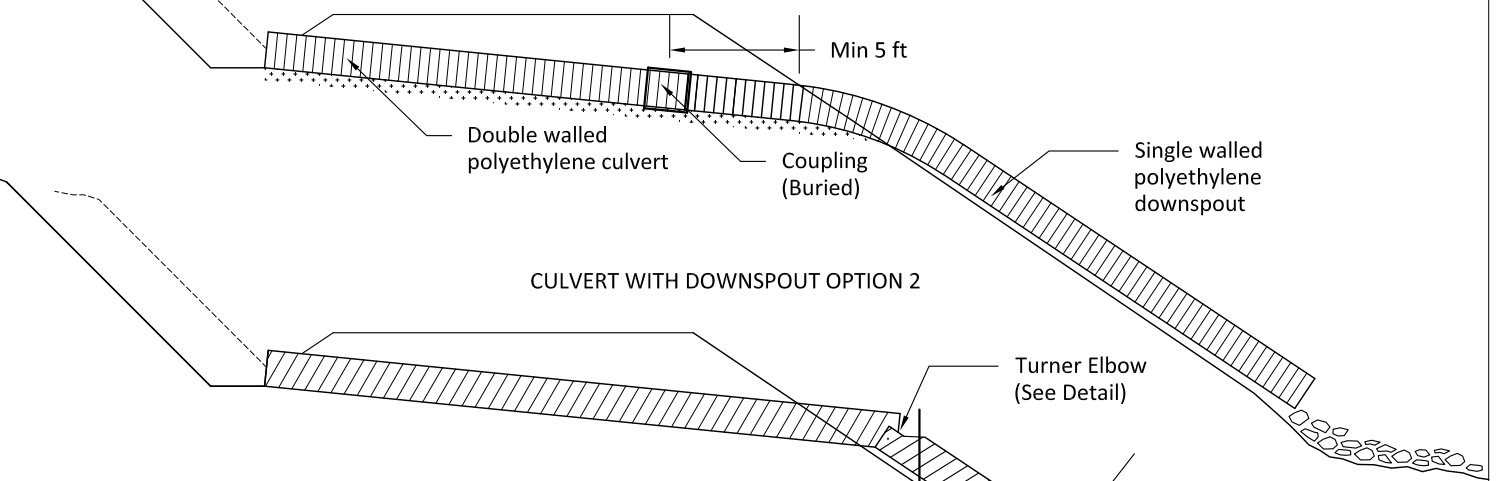
CROSS SECTION



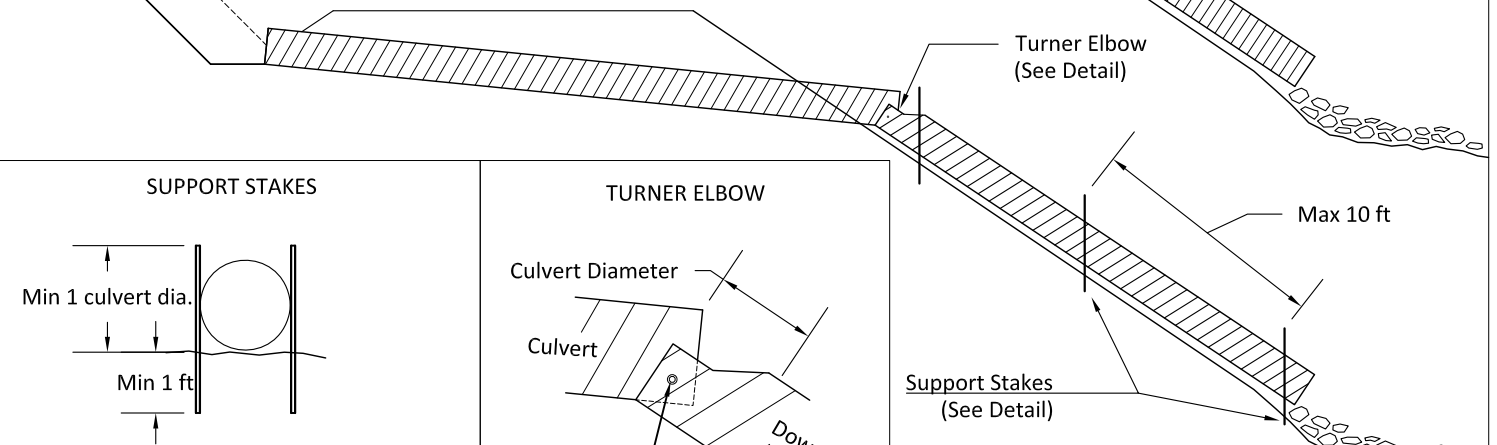
CULVERT PROFILE (TYPICAL)



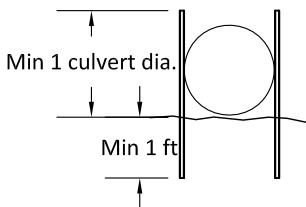
CULVERT WITH DOWNSPOUT OPTION 1



CULVERT WITH DOWNSPOUT OPTION 2

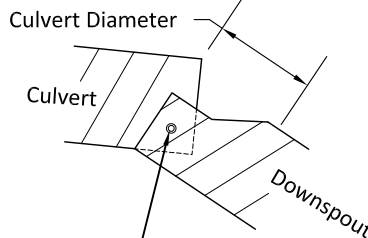


SUPPORT STAKES



Stake Material: T-post with rust protection coating.
Connections: Bolt support stakes to the culvert with $\frac{5}{8}$ " u-bolts, with washers on both the inside and outside of the culvert.
Alternative staking methods may be approved, in writing, by the Contract Administrator.

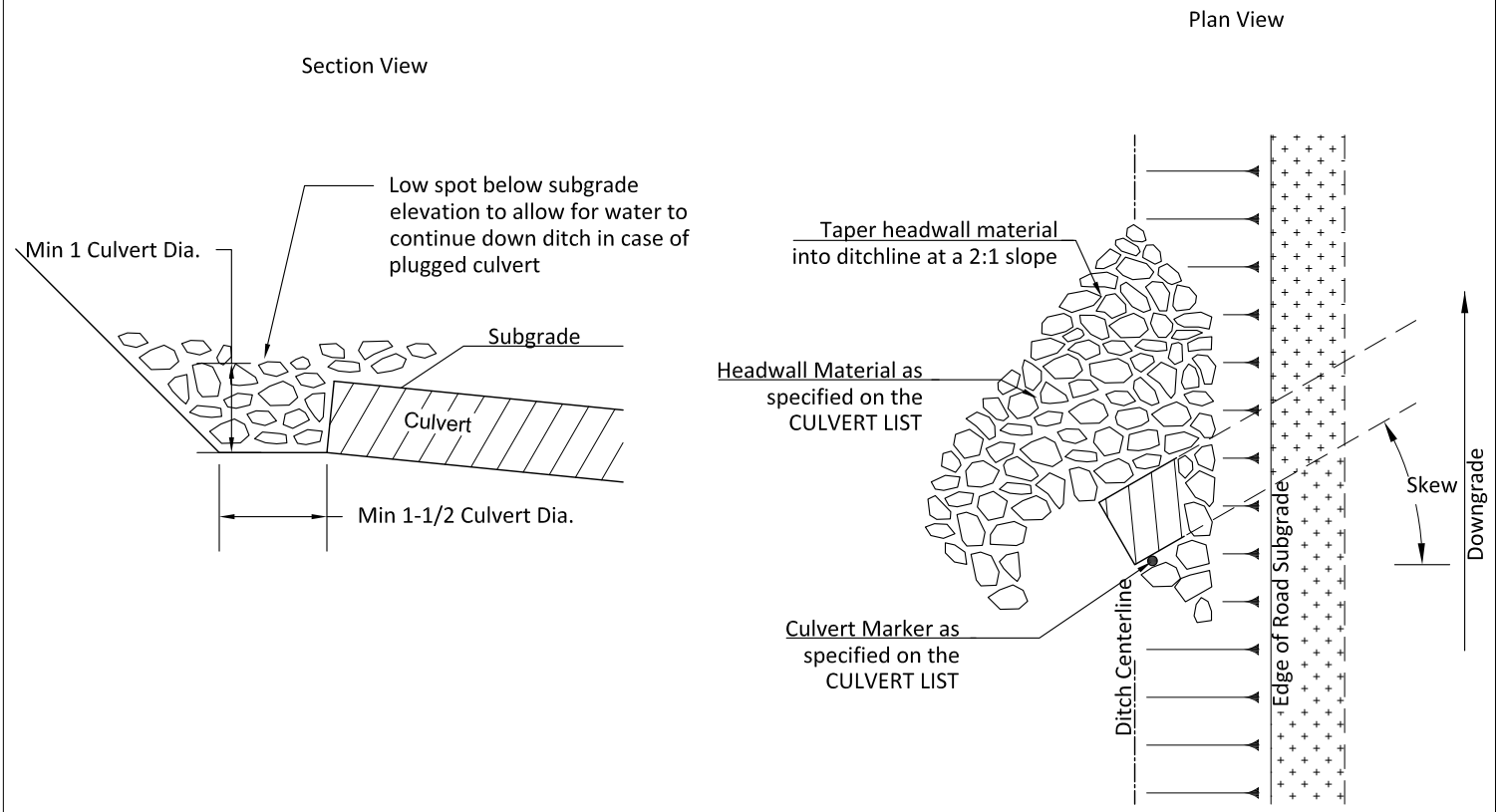
TURNER ELBOW



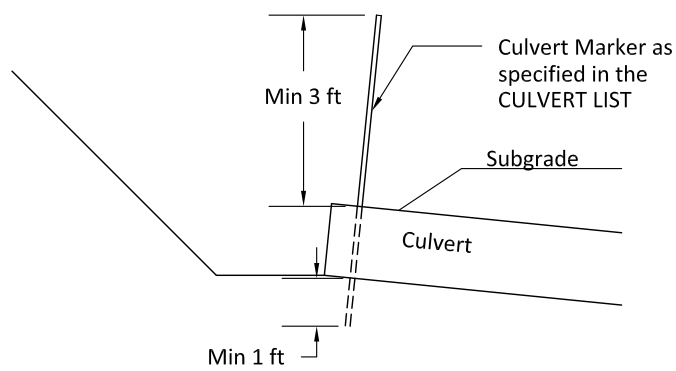
Bolted with $\frac{5}{8}$ " galvanized bolts and washers (both sides)
Downspout must be 6 inches larger in diameter than the culvert.

CULVERT AND DRAINAGE SPECIFICATION DETAIL
PAGE 2 OF 2

HEADWALLS

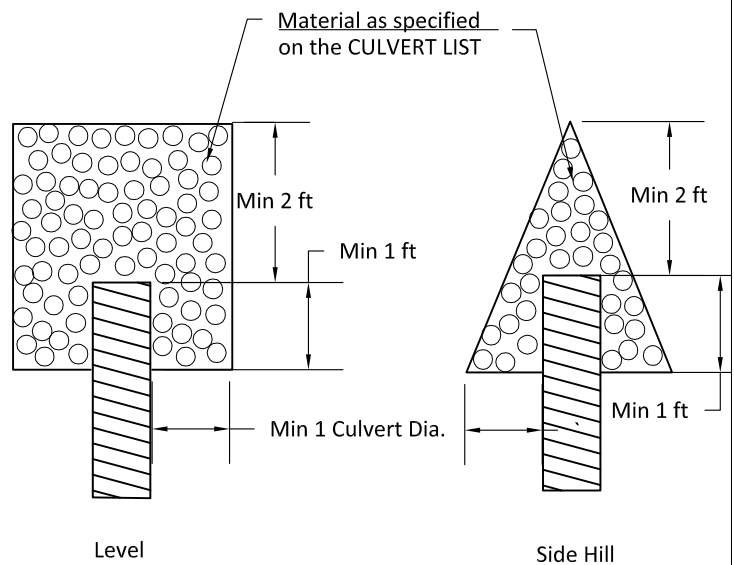


CULVERT MARKERS



Culvert Marker Material: 1 Inch I.D., Schedule 40 PVC Pipe, White. Marker must be capped on the top.
 Culvert Marker Placement: Place on uphill side of culvert, between corrugations if possible.
 Alternative culvert marker types may be approved, in writing, by the Contract Administrator.

ENERGY DISSIPATORS



Min Energy Dissipater Depth: 1 Culvert Dia.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 1 of 2

Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides from ditches and the roadway. Repair fill-failures with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

Surface

- Grade and shape the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET to provide a smooth, rut-free traveled surface and maintain surface water runoff in an even, unconcentrated manner.
- Blading shall not undercut the backslope or cut into geotextile fabric on the road.
- If required by the Contract Administrator, water shall be applied as necessary to control dust and retain fine surface rock.
- Surface material shall not be bladed off the roadway. Replace surface material when lost or worn away, or as directed by the Contract Administrator.
- Remove shoulder berms, created by grading, to facilitate drainage, except as marked or directed by the Contract Administrator.
- For roads with geotextile fabric: spread surface aggregate to fill in soft spots and wheel ruts (barrel spread) to prevent damage to the geotextile fabric.

Drainage

- Prevent silt bearing road surface and ditch runoff from delivering sediment to any streams or wetlands.
- Maintain rolling dips and drivable waterbars as needed to keep them functioning as intended.
- Maintain headwalls to the road shoulder level with material that will resist erosion.
- Maintain energy dissipaters at culvert outlets with non-erodible material or rock.
- Keep ditches, culverts, and other drainage structures clear of obstructions and functioning as intended.
- Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This shall be done even during periods of inactivity.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 2 of 2

Preventative Maintenance

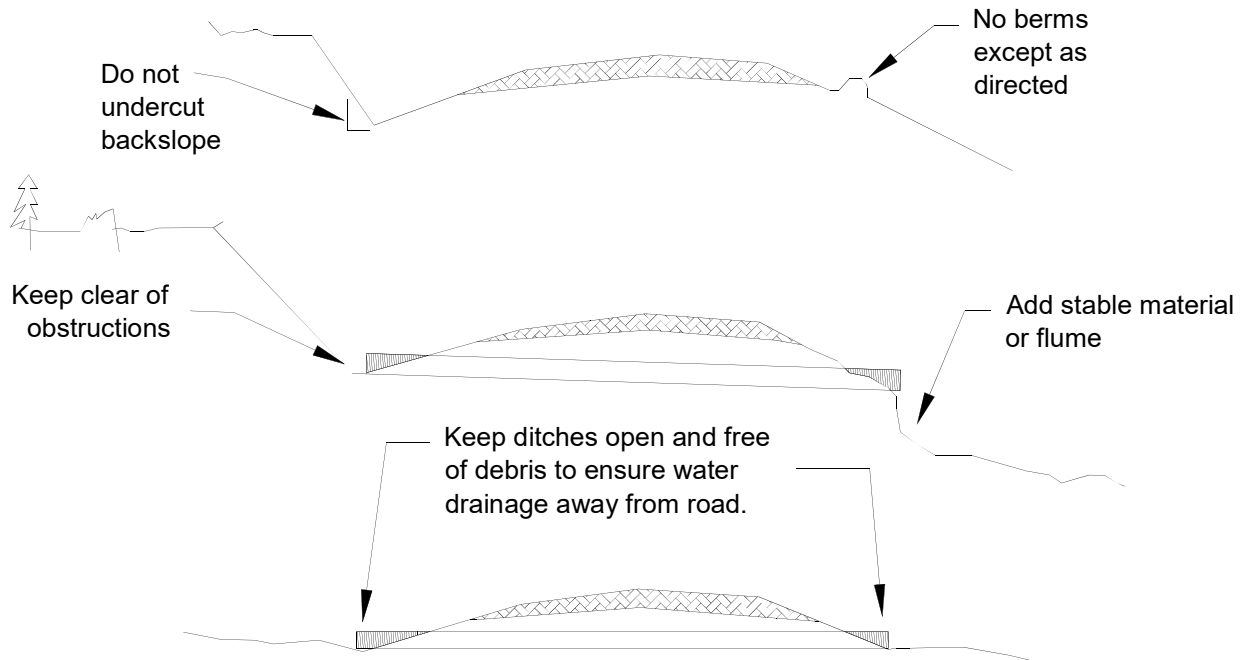
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



**DNR Access Procedures through Weyerhaeuser's Longview
Area Gate Locking Procedure**

The gate tag procedure is to improve Weyerhaeuser tree farm security and restrict unauthorized public access.

Gates that would allow the public to access Weyerhaeuser ownership are to remain locked unless they need to be open for active timber sales or operations. If you go through a gate on the perimeter of Weyerhaeuser ownership that is open and not tagged, please close it after passing through.

GATES:

- Gates will be locked with specific Weyerhaeuser/ DNR locks currently stamped with ABA. These keys will only open the specific DNR easement gates.
- ABA keys will be checked out to prospective purchasers, contractors, and personnel having business on DNR property. Keys may be obtained from Pacific Cascade Region, Asset Management Staff. At the conclusion of DNR operations or contracts, keys are to be returned to DNR region office.
- During active operations when there is a specific safety or operational need to leave gates open during business hours, a blue aluminum tag will be affixed by locking it to the open gate. This will notify security personnel, Weyerhaeuser employees, and DNR staff that a gate is being left open for business purposes.
- Blue tags are available from the Contract Administrator.
- If multiple operations are using the same access point, each contractor shall post their tag to the open gate.
- Each flag color represents a unique landowner. Weyerhaeuser- Yellow, Weyerhaeuser contractor - Green, DNR – Blue, and Weyerhaeuser Security - Orange
- Tags for Weyerhaeuser Security (Orange), will be locked on gates that are to be left open for public access such as during hunting seasons.
- Buncher operators, cutters, cruisers, prospective purchasers or anyone that does not need to leave the gate open for haul traffic are not required to tag the gate open. The gate maybe LOCKED behind them for the day to keep unauthorized vehicles out if they are the only one working in the area.
- Anyone going through an open gate and not tagging the gate open should lock it behind them if there is no tag present.

Keys :

Keys are to be used for business and authorized activity only. (Personal use of a key is not allowed) Keys are not to be loaned out for any reason without authorization from DNR.

LIVE STREAM CULVERT INSTALLATION PROCEDURE

Order of work is as follows, deviations shall be approved, in writing, by the Contract Administrator.

- 1) Contractor shall notify the Contract Administrator of intent to install each live stream culvert.
- 2) Assemble the items on the Materials List onsite before proceeding.
- 3) Culvert installation may not start during rain or forecast of rain.
- 4) Manage stream water according to the DEWATERING DETAIL.
- 5) Establish culvert lay, install energy dissipater, install culvert, build road fill, and place fill armor.
- 6) Backfill sumps.
- 7) Apply erosion control according to Section 8 of the Road Plan.

Materials List:

- pumps
- erosion rock
- culvert
- fill material
- armor
- grass seed
- straw bales

LIVE STREAM CULVERT REMOVAL PROCEDURE

Order of work is as follows, deviations shall be approved, in writing, by the Contract Administrator.

- 1) Purchaser shall notify the Contract Administrator of intent to remove each live stream culvert.
- 2) Assemble the items on the Materials List onsite before proceeding.
- 3) Culvert removal should not start during rain or forecast of rain.
- 4) Manage stream water according to the DEWATERING DETAIL.
- 5) Remove fill, remove culvert.
- 6) Backfill sumps.
- 7) Apply erosion control according to Section 8 of the Road Plan.

Materials List:

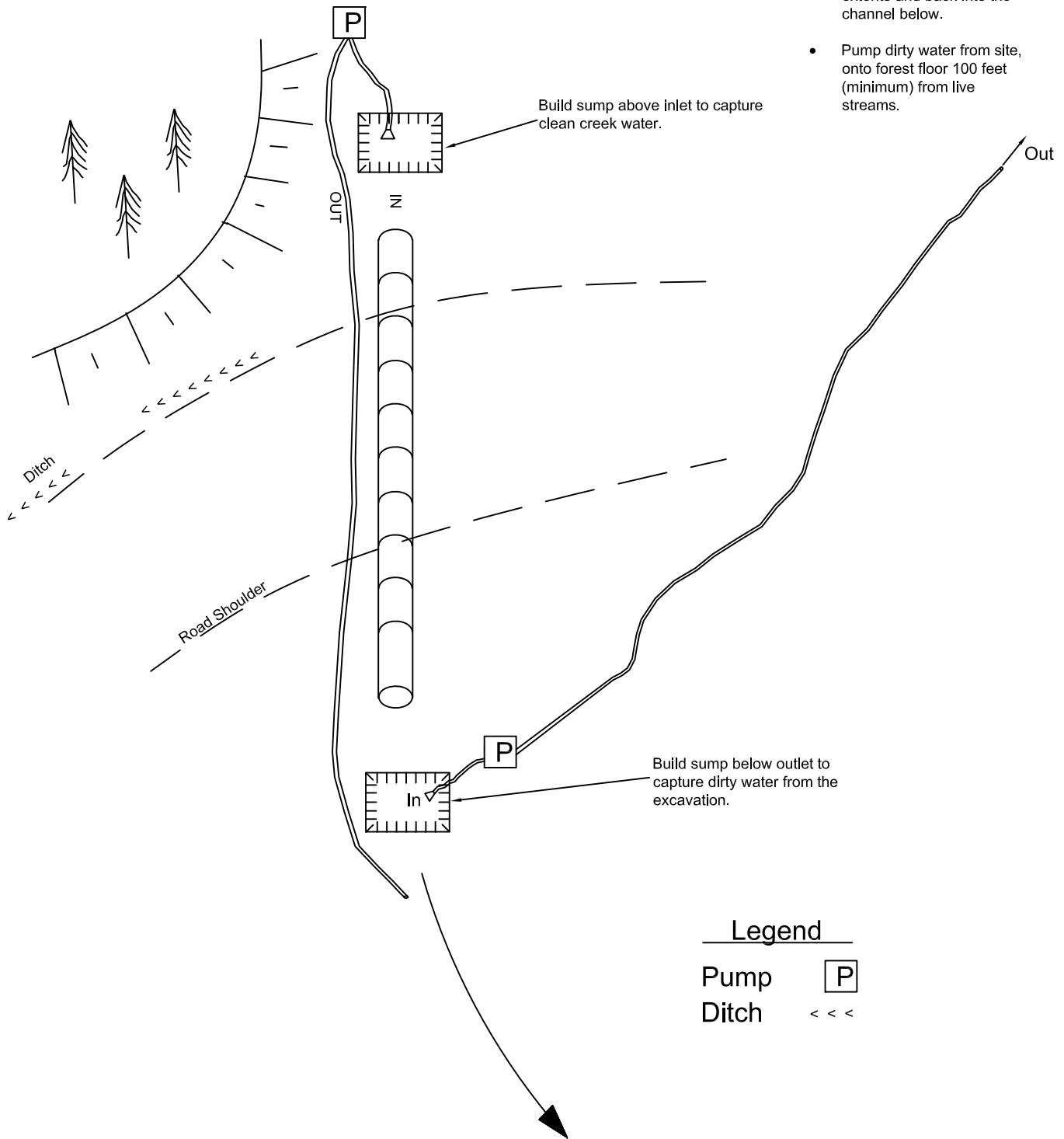
- pumps
- grass seed
- straw bales

DEWATERING DETAIL

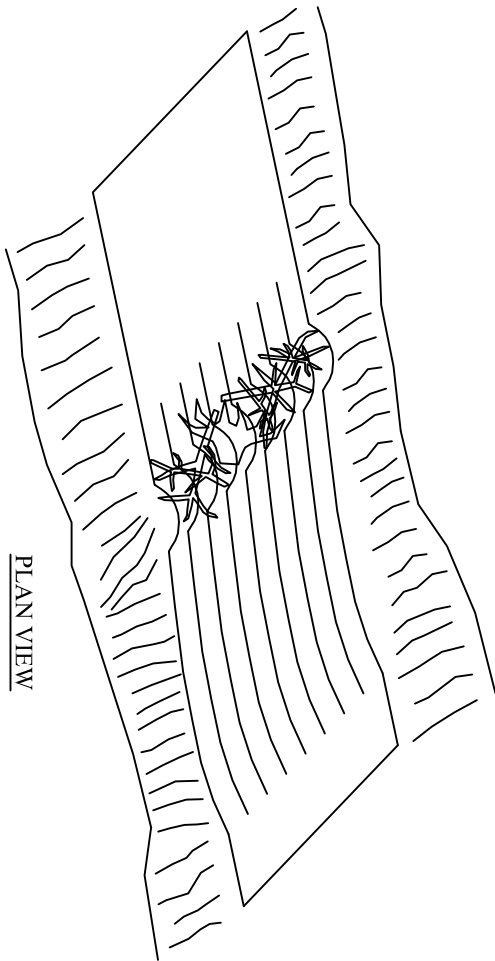
NOT TO SCALE

Notes:

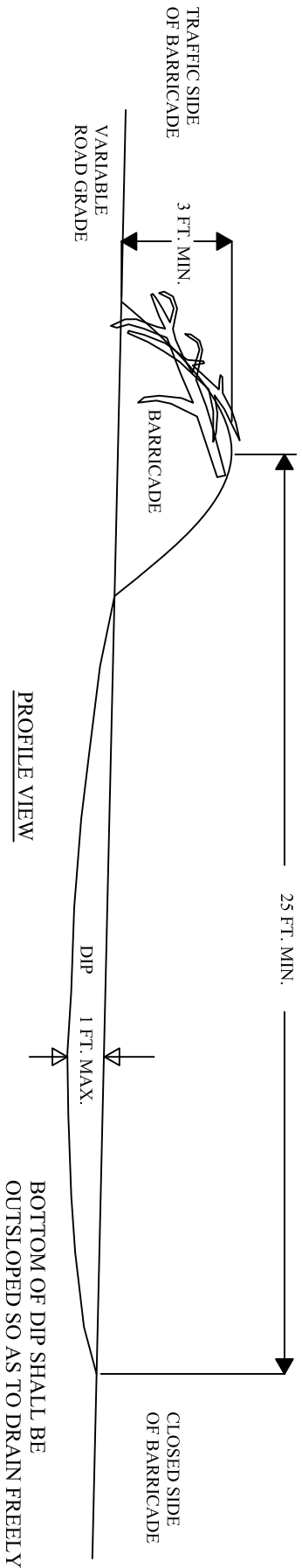
- Pump clean creek water around the excavation extents and back into the channel below.
- Pump dirty water from site, onto forest floor 100 feet (minimum) from live streams.



EARTHEN BARRICADE DETAIL



SLASH AND ROOT WADS SHALL BE INCORPORATED INTO THE TRAFFIC SIDE OF THE BARRICADE.



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

RED STAPLER ROCK SOURCE DEVELOPMENT PLAN
5 Way Pit
Page 1 of 3

1. Vegetation shall be cleared a minimum of 10 feet beyond the top of the overburden top of cut.
2. Stumps shall be grubbed a minimum of 5 feet beyond the top of the overburden top of cut.
3. Overburden shall be stripped to rock a minimum of 5 feet beyond the top of all pit faces and sloped no steeper than a 1:1 to daylight.
4. The Operator shall submit an informational drilling and shooting plan to the Contract Administrator prior to any drilling. (Form #M-126PAC)
5. Drilling and rock extraction may begin when the Contract Administrator has approved the clearing and grubbing, overburden removal, and informational drilling and shooting plan.
6. Pit faces shall not exceed 20 feet in height. Faces shall be sloped at $\frac{1}{4}$:1. Working bench width shall be a minimum of 20 feet.
7. The pit floor shall have continuity of slope and be left in a smooth and neat condition, providing drainage at a minimum of 2 percent. All knobs, bumps, or extrusions shall be removed to the designated floor level by excavation or drill and shoot techniques.
8. No sediment shall enter live water.
9. The location and amount of material to be placed in a temporary stockpile are subject to approval of the Contract Administrator. All stockpiled material shall be maintained in a neat and useable condition.
10. Oversize material remaining in the pit at the conclusion of use shall not exceed 5 percent of the total volume mined during that operation. Oversize material is defined as rock fragments larger than two feet in any direction. At the conclusion of operations, all remaining oversize material shall be placed as directed by the Contract Administrator.
11. All operations shall be carried out in compliance with all regulations of:
 - a. Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration.
 - b. "Safety Standards for Construction Work" (296-155 WAC), Washington Department of Labor and Industries.

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

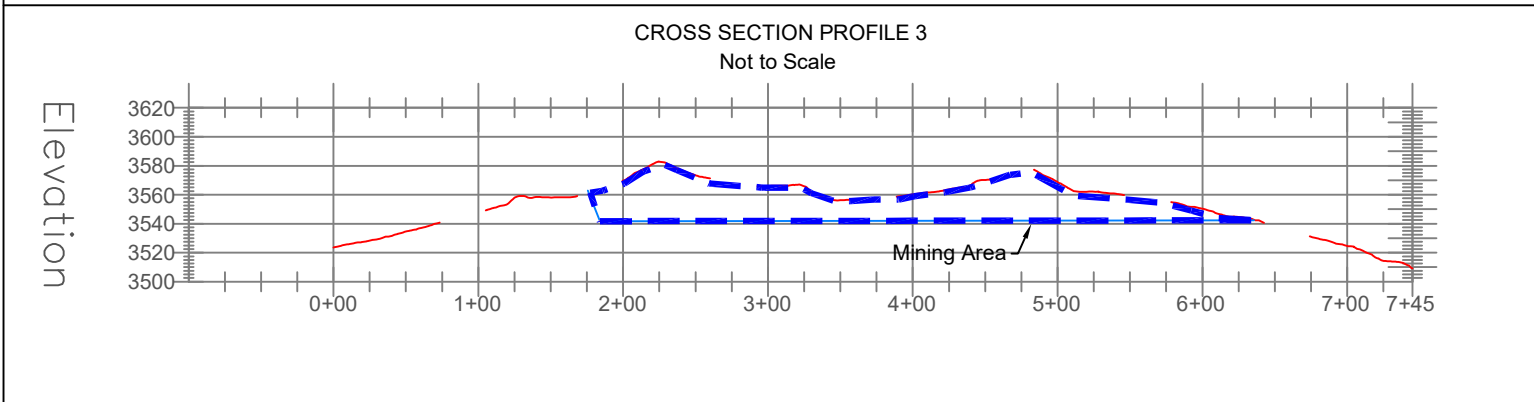
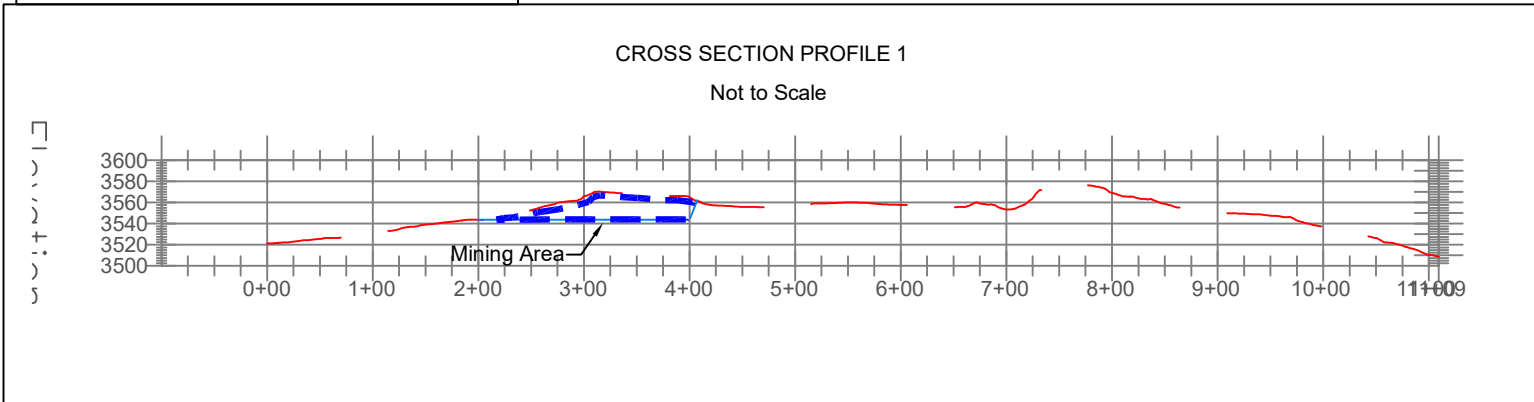
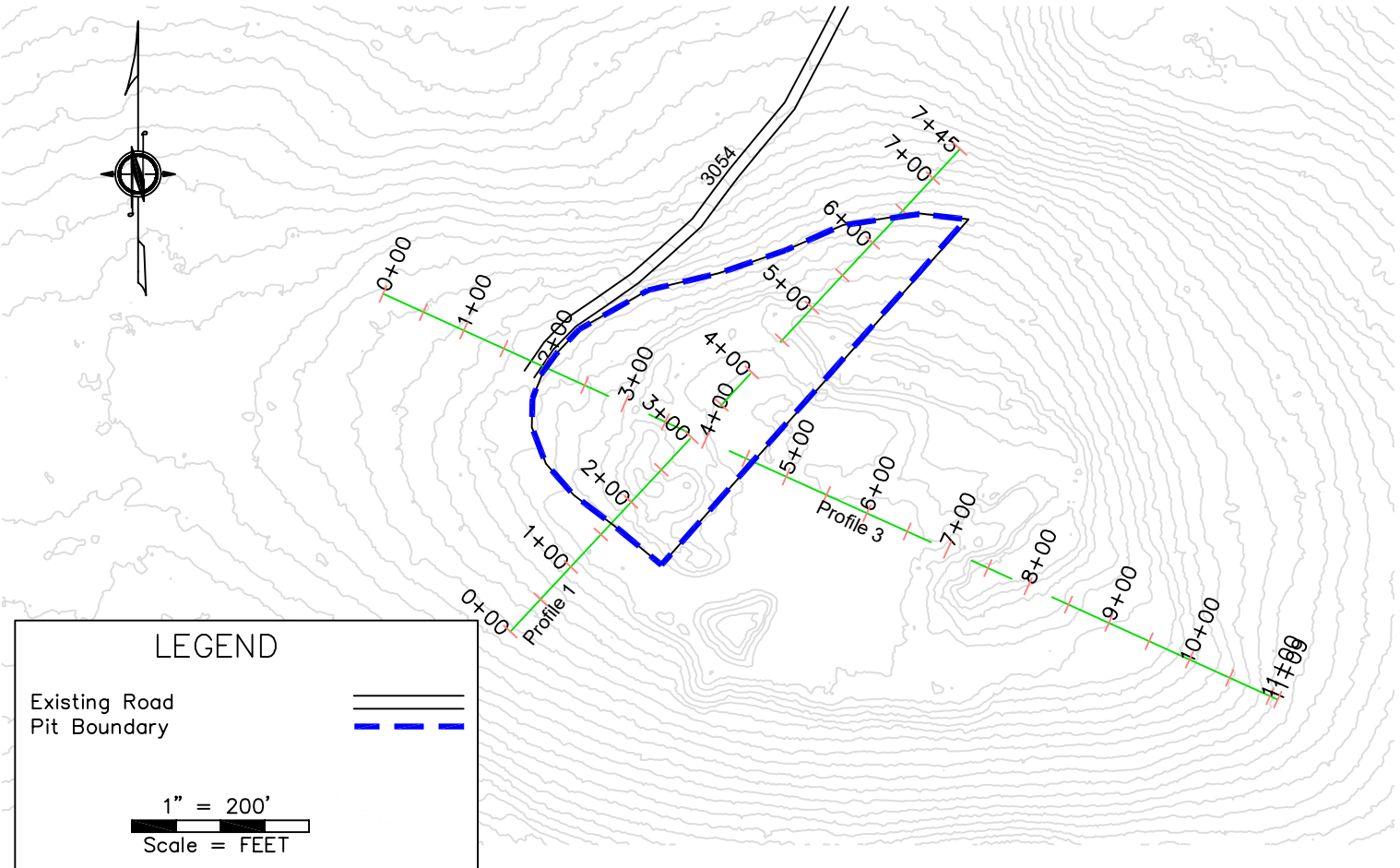
RED STAPLER ROCK SOURCE DEVELOPMENT PLAN
5 Way Pit
Page 2 of 3

12. At the end of operations, pit faces and walls shall be scaled and cleared of loose and overhanging material; benches shall have safety berms constructed or access blocked to highway vehicles. Upon completion of operations in the pit, the area will be left in a condition that will not endanger public safety, damage property, or be hazardous to animal or human life.
13. All exposed soil in the waste area shall be revegetated in accordance with ROAD PLAN clause 8-15 through 8-25.
14. The pit area shall be worked and left in a condition that future operations may proceed in an orderly manner.
15. Upon completion of operations, the site shall be cleared of all temporary structures and left in a neat and presentable condition. Access shall be blocked with rip rap as directed by the Contract Administrator.
16. At the completion of rock source operations, the Contractor shall obtain written approval of final rock source condition and compliance with the terms of this plan.

RED STAPLER ROCK SOURCE DEVELOPMENT PLAN

5 Way Pit

Page 3 of 3



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PACIFIC CASCADE REGION

INFORMATIONAL BLASTING PLAN

Timber Sale/Project Name: _____ App./Project No.: _____

1. Blaster-in-Charge: Name: _____

Company: _____

Address: _____

Telephone: _____

2. Quarry Name/Location: _____

3. Total Estimated Cubic Yards in Blast (loose): _____

4. Hole Spacing: _____

5. Burden: _____

6. Hole Diameter: _____

7. Hole Depth: _____

8. Sub Drill: _____

9. Number of Holes: _____

10. Stemming Depth: _____

11. Explosive (mfg., name, density, %, V.O.D.): _____

12. Type and Size of Primer (if applicable): _____

13. Total Weight of Primers for Shot: _____

14. Calculated Powder Factor/Cubic Yard: _____

15. Number of Delays (in M.S.): _____

M-126PAC (03/04)

INFORMATIONAL BLASTING PLAN

Page 2 of 3

16. Number of Holes Fired on Each Delay: _____

17. Total Amount of Explosives Fired on Each Delay: _____

18. Type of Blasting Machine: _____

19. Date, Start Drilling: _____

20. Date and Time, Start Loading: _____

21. Date and Time of Blast (approx.): _____

INFORMATIONAL BLASTING PLAN

Page 3 of 3

22. Detail drawing of delay system (show hole pattern and delays in milliseconds). Attach additional sheets if required:

23. Typical cross-section of hole (show primer, main charge, sub drill, and stemming):

23. Submitted by: _____ Date: _____

24. Received by: _____ Date: _____

Note: Attach copies of manufacturer=s data sheet(s) for explosive and caps.

M-126PAC (03/04)

SUMMARY Road Development Estimate
 REGION Pacific Cascade
 DISTRICT St Helens

SALE/PROJECT NAME Red Stapler

AGREEMENT NO. 30-105512

ROAD NAME	3068, 5633, 5625	3000, 3068, 5630, 5631, 4200, 4250, 5600, 5625	
ROAD STANDARD	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS	0.00	52.80	1,502.31
CLEARING & GRUBBING	\$ -	\$ 9,809	\$ -
EXCAVATION AND FILL	\$ -	\$ 16,925	\$ -
MISC. MAINTENANCE	\$ -	\$ 2,322	\$ 48,711
ROAD ROCK	Optional \$ -	\$ -	\$ -
	Required \$ -	\$ 119,392	\$ 62,627
	Total \$ -	\$ 148,984	\$ 62,627
ROCK STOCKPILE PROD	\$ -	\$ -	\$ -
CULVERTS AND FLUMES	\$ -	\$ 17,757	\$ -
STRUCTURES	\$ -	\$ -	\$ -
MOBILIZATION	\$ -	\$ 4,550	\$ 4,550
TOTAL COSTS	\$ -	\$ 200,347	\$ 115,888
COST PER STATION	\$ -	\$ 3,794	\$ 77
ROAD DEACTIVATION & ABANDONMENT COSTS	\$ 4,216		

TOTAL (All Roads)	\$320,451
TOTAL (Minus Optional Rock)	\$320,451
SALE VOLUME MBF	5302
TOTAL \$/MBF	\$ 60.44
TOTAL \$/MBF (Minus Optional Rock)	\$ 60.44

ESTIMATED BY CHACE JOHANSON

ROCK SOURCE SUMMARY

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512

PIT NAME 5 Way Pit
LOCATION S15 T9N R3E

ASSUMED ROCK SWELL FACTOR LOOSE/COMPACTED 1.25
ASSUMED ROCK DENSITY TONS/CY 1.3

MISCELLANEOUS

ROCK PIT PREPARATION

Grubbing w/ large excavator	\$ 280.00	per hour x	20	\$ 5,600
End haul organic debris to Waste Area	\$ 165.00	per hour x	20	\$ 3,300
Stack organic debris at Waste Area w/ small excavator	\$ 205.00	per hour x	10	\$ 2,050
Stripping overburden w/ large excavator	\$ 280.00	per hour x	20	\$ 5,600
Stripping overburden w/ large dozer	\$ 378.00	per hour x	20	\$ 7,560
End haul overburden to Waste Area	\$ 165.00	per hour x	20	\$ 3,300
Spreading overburden at Waste Area w/ small dozer	\$ 200.00	per hour x	10	\$ 2,000

WASTE AREA REVEGETATION

Grass seeding	\$ 3.64	per pound x	50	\$ 182
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MISCELLANEOUS TOTAL \$ 29,592

MOBILIZATION

SALE/PROJECT NAME Red Stapler

CONTRACT # 30-105512

PRE-HAUL/CONSTRUCTION EQUIPMENT

MOBILIZATION

Grader	\$ 1,000	each x 1	\$ 1,000
Loader	\$ 1,000	each x 1	\$ 1,000
Dump truck	\$ 100	each x 6	\$ 600
Dozer, small	\$ 500	each x 1	\$ 500
Dozer, large	\$ 1,000	each x 1	\$ 1,000
Excavator, small	\$ 500	each x 1	\$ 500
Excavator, large	\$ 1,000	each x 1	\$ 1,000
Roller	\$ 500	each x 1	\$ 500
Rock drill	\$ 1,000	each x 1	\$ 1,000
Jaw	\$ 2,000	each x 1	\$ 2,000

MOBILIZATION TOTAL \$ 9,100

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 5630

Required pre-haul maintenance (stations) 22+95
Distance to 5 Way Pit (miles) 2.41

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	22.95		\$	414
Maintenance rolling	\$	14.39	per station x	22.95		\$	330

ROAD ROCK

REQUIRED							
STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	40		\$	66
Rock haul	\$	165.00	per hour x	4.9	round trip haul (miles)	5.25	\$ 803

TOTAL ROAD COST \$ 1,612

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 5600

Required pre-haul maintenance (stations) 250+68
Distance to 5 Way Pit (miles) 0.37

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	250.68		\$	4,520
Maintenance rolling	\$	14.39	per station x	250.68		\$	3,608

ROAD ROCK

REQUIRED

STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	380		\$	625
Rock haul	\$	165.00	per hour x	48	round trip haul (miles)	5.49	\$ 7,935

TOTAL ROAD COST \$ 16,688

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 4250

Required pre-haul maintenance (stations) 525+42
Distance to 4250 9 Mile Stockpile (miles) 0.00

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	525.42	\$	9,473
Maintenance rolling	\$	14.39	per station x	525.42	\$	7,563

ROAD ROCK

REQUIRED

STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	800	\$	1,316
Rock haul	\$	165.00	per hour x	173 round trip haul (miles)	9.95	\$ 28,471

TOTAL ROAD COST \$ 46,823

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 3000

Required pre-haul maintenance (stations) 78+98
Distance to 5 Way Pit (miles) 0.37

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	78.98		\$	1,424
Maintenance rolling	\$	14.39	per station x	78.98		\$	1,137

ROAD ROCK

REQUIRED

STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	120		\$	197
Rock haul	\$	165.00	per hour x	7.4	round trip haul (miles)	2.24	\$ 1,218

TOTAL ROAD COST \$ 3,976

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 4200

Required pre-haul maintenance (stations) 282+88
Distance to 4240 Stockpile (miles) 1.62

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	282.88	\$	5,100
Maintenance rolling	\$	14.39	per station x	282.88	\$	4,072

ROAD ROCK

REQUIRED						
STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	430	\$	707
Rock haul	\$	165.00	per hour x	81 round trip haul (miles)	8.60	\$ 13,389

TOTAL ROAD COST \$ 23,268

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 5631

Required pre-haul maintenance (stations) 89+18
Distance to 5 Way Pit (miles) 0.72

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	89.18		\$	1,608
Maintenance rolling	\$	14.39	per station x	89.18		\$	1,284

ROAD ROCK

REQUIRED							
STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	140		\$	230
Rock haul	\$	165.00	per hour x	11.1	round trip haul (miles)	3.12	\$ 1,828

TOTAL ROAD COST \$ 4,950

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
 CONTRACT # 30-105512
 ROAD NAME 5633

Optional Reconstruction (stations) 27+50
 Distance to 5 Way Pit (miles) 2.56

OPTIONAL RECONSTRUCTION

CLEARING & GRUBBING

Clearing & grubbing \$ 238.20 per station x 27.50 \$ 6,551

EXCAVATION AND FILL

Reconstruction \$ 329.00 per station x 27.50 \$ 9,048

Turnaround \$ 284.00 each x 1 \$ 284

Shape & compact subgrade \$ 36.03 per station x 27.50 \$ 991

MISC. MAINTENANCE

Grass seeding \$ 3.64 per pound x 126 \$ 460

Straw mulching \$ 3,301.40 per acre x 0.3 \$ 990

ROAD ROCK

REQUIRED

4-INCH JAW RUN ROCK \$ 12.27 per CY x 1829 \$ 22,438

Rock haul \$ 165.00 per hour x 134 round trip haul (miles) 5.63 \$ 22,033

Spread & compact rock \$ 3.06 per CY x 1829 \$ 5,592

Culvert rock \$ 10.25 per CY x 32 \$ 328

CULVERTS AND FLUMES

18" Polyethylene, double wall \$ 20.89 per foot x 250 \$ 5,224

24" Polyethylene, double wall \$ 28.26 per foot x 80 \$ 2,261

Live water installation, diversion/pumping \$ 114.00 each x 2 \$ 228

Culvert marker \$ 28.50 each x 20 \$ 570

TOTAL ROAD COST \$ 76,996

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
 CONTRACT # 30-105512
 ROAD NAME 5625

Total road length (stations) 150+71
 Required pre-haul maintenance (stations) 139+24
 Distance to 5 Way Pit (miles) 3.48
 Optional reconstruction (stations) 11+47
 Distance to 5 Way Pit (miles) 6.12

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE

Maintenance grading	\$	18.03	per station x	139.24		\$	2,510.54
Maintenance rolling	\$	14.39	per station x	139.24		\$	2,004.21

ROAD ROCK

STOCKPILED CRUSHED ROCK	\$	1.64	per CY x	210		\$	345.33
Rock haul	\$	165.00	per hour x	24	round trip haul (miles)	9.60	\$ 3,902.33

REQUIRED PRE-HAUL MAINTENANCE SUBTOTAL \$ 8,762.41

OPTIONAL RECONSTRUCTION

CLEARING & GRUBBING

Clearing & grubbing	\$	128.80	per station x	11.47		\$	1,477.34
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EXCAVATION AND FILL

Reconstruction	\$	202.50	per station x	11.47		\$	2,322.68
Shape & compact subgrade	\$	36.03	per station x	11.47		\$	413.23

MISC. MAINTENANCE

Grass seeding	\$	3.64	per pound x	26		\$	95.85
Straw mulching	\$	3,301.40	per acre x	0.1		\$	330.14

ROAD ROCK

REQUIRED							
4-INCH JAW RUN ROCK	\$	12.27	per CY x	567		\$	6,952.80
Rock haul	\$	165.00	per hour x	151	round trip haul (miles)	12.45	\$ 24,843.69
Culvert rock	\$	10.25	per CY x	26		\$	266.50
Spread & compact rock	\$	3.06	per CY x	567		\$	1,732.82

CULVERTS AND FLUMES

18" Polyethylene, double wall	\$	20.89	per foot x	150		\$	3,134.12
24" Polyethylene, double wall	\$	28.26	per foot x	80		\$	2,260.75
Ditchout	\$	100.00	each x	1		\$	100.00
Live water installation, diversion/pumping	\$	114.00	each x	2		\$	228.00
Culvert marker	\$	28.50	each x	14		\$	399.00

OPTIONAL RECONSTRUCTION SUBTOTAL \$ 44,556.90

TOTAL ROAD COST \$ 53,319.31

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
 CONTRACT # 30-105512
 ROAD NAME 3068

Total road length (stations) 126+81
 Required pre-haul maintenance (stations) 112+98
 Distance to 5 Way Pit (miles) 0.28
 Optional reconstruction (stations) 13+83
 Distance to 5 Way Pit (miles) 2.42

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE
 Maintenance grading \$ 18.03 per station x 112.98 \$ 2,037.06
 Maintenance rolling \$ 14.39 per station x 112.98 \$ 1,626.23

ROAD ROCK
 REQUIRED
 STOCKPILED CRUSHED ROCK \$ 1.64 per CY x 180 \$ 296.00
 Rock haul \$ 165.00 per hour x 8 round trip haul (miles) 2.71 \$ 1,299.26

REQUIRED PRE-HAUL MAINTENANCE SUBTOTAL \$ 5,258.55

OPTIONAL RECONSTRUCTION

CLEARING & GRUBBING
 Clearing & grubbing \$ 128.80 per station x 13.83 \$ 1,781.30

EXCAVATION AND FILL
 Reconstruction \$ 202.50 per station x 13.83 \$ 2,800.58
 Landing \$ 284.00 each x 1 \$ 284.00
 Turnaround \$ 284.00 each x 1 \$ 284.00
 Shape & compact subgrade \$ 36.03 per station x 13.83 \$ 498.25

MISC. MAINTENANCE
 Grass seeding \$ 3.64 per pound x 32 \$ 115.57
 Straw mulching \$ 3,301.40 per acre x 0.1 \$ 330.14

ROAD ROCK
 REQUIRED
 4-INCH JAW RUN ROCK \$ 12.27 per CY x 1004 \$ 12,310.88
 Rock haul \$ 165.00 per hour x 119 round trip haul (miles) 5.11 \$ 19,682.80
 Spread & compact rock \$ 3.06 per CY x 1004 \$ 3,068.20
 Culvert rock \$ 10.25 per CY x 14 \$ 143.50

CULVERTS AND FLUMES
 18" Polyethylene, double wall \$ 20.89 per foot x 90 \$ 1,880.47
 24" Polyethylene, double wall \$ 28.26 per foot x 40 \$ 1,130.37
 Live water installation, diversion/pumping \$ 114.00 each x 1 \$ 114.00
 Culvert marker \$ 28.50 each x 8 \$ 228.00

OPTIONAL RECONSTRUCTION SUBTOTAL \$ 44,652.07

TOTAL ROAD COST \$ 49,910.62

SUMMARY OF ROAD

SALE/PROJECT NAME Red Stapler
CONTRACT # 30-105512
ROAD NAME 5625B

Required Abandonment (stations) 18+66

REQUIRED ABANDONMENT

ROAD DEACTIVATION & ABANDONMENT

Light abandonment	\$ 143.50	per station x	18.66	\$ 2,678
Fill removal	\$ 3.38	per cubic yard x	100	\$ 338
Live water removal, diversion/pumping	\$ 114.00	each x	1	\$ 114
Stream culvert removal and disposal	\$ 445.00	each x	1	\$ 445
Grass seeding	\$ 3.64	per pound x	86	\$ 312
Straw mulching	\$ 3,301.40	per acre x	0.1	\$ 330

TOTAL ROAD COST \$ 4,216



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

Construction: **linear feet**
Road to be constructed (optional and required) but not abandoned

Reconstruction: **linear feet**
Road to be reconstructed (optional and required) but not abandoned

Abandonment: **linear feet**
Abandonment of existing roads not reconstructed under the contract

Decommission: **linear feet**
Road to be made undriveable but not officially abandoned.

Pre-Haul Maintenance: **linear feet**
Existing road to receive maintenance work (optional and required) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

Temporary Construction: **linear feet**
Roads to be constructed (optional and required) and then abandoned

Temporary Reconstruction: **linear feet**
Roads to be reconstructed (optional and required) and then abandoned

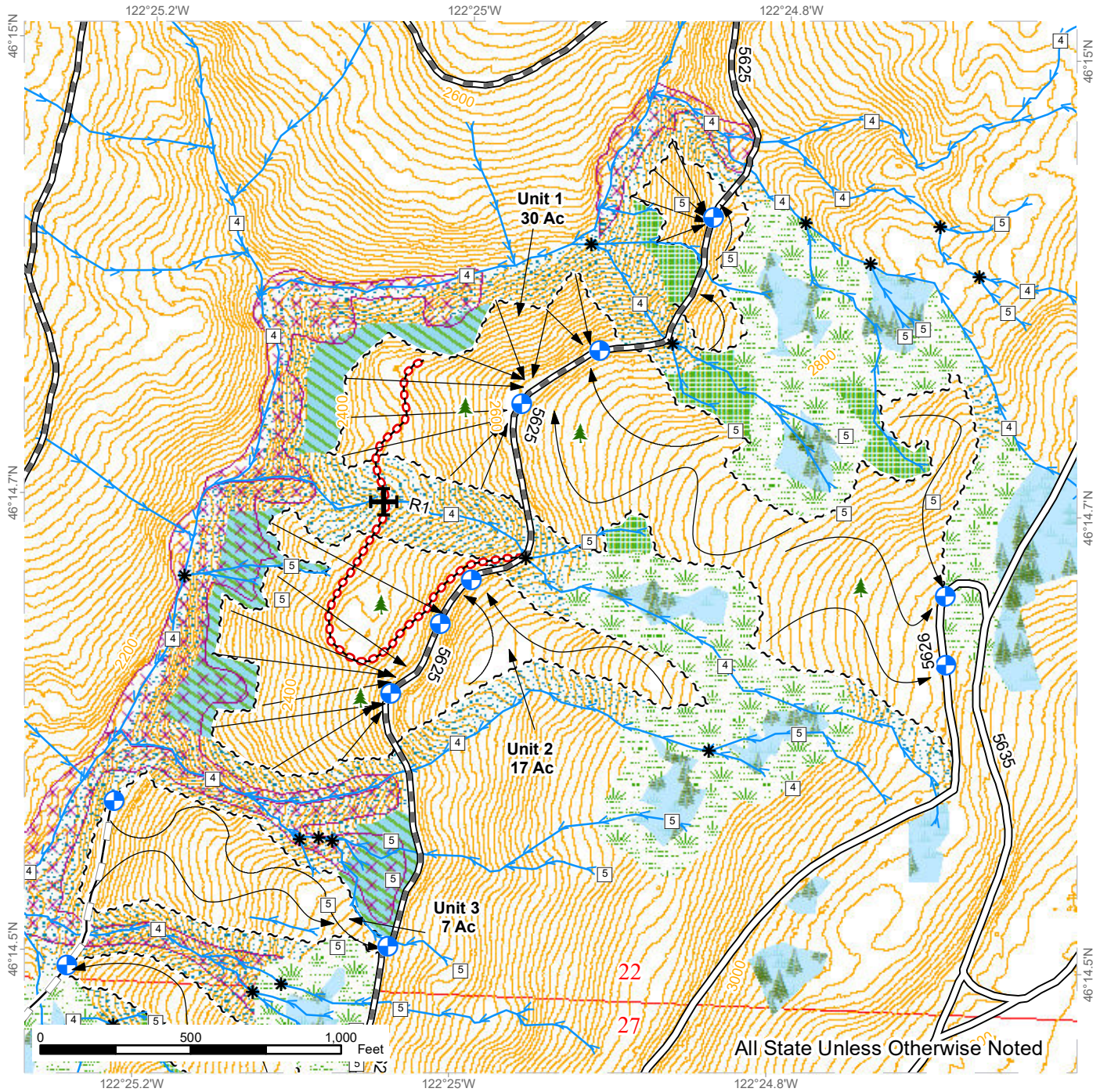
All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.

(Revised 9/18)

LOGGING PLAN MAP

SALE NAME: RED STAPLER VRH AND THIN
AGREEMENT#: 30-105512
TOWNSHIP(S): T9R3E
TRUST(S): Common School and Indemnity (3), Normal School (8)

REGION: Pacific Cascade Region
COUNTY(S): Cowlitz
ELEVATION RGE: 2200-4000



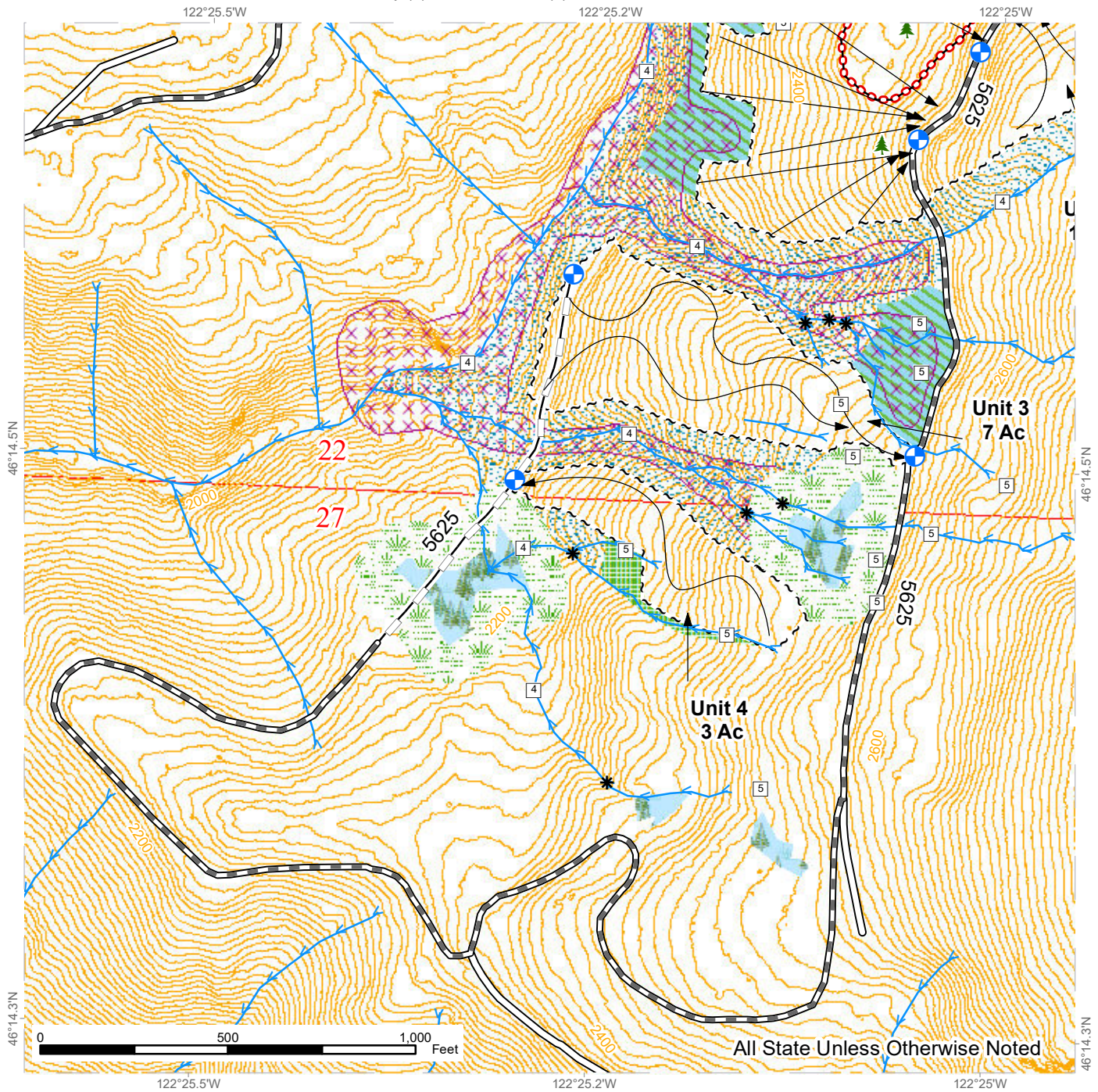
	Non-Tradeable Leave Clump		Sale Boundary Tags		Streams
	Leave Tree Area		Existing Roads		Stream Type
	Riparian Mgt Zone		Required Pre-Haul Maintenance		Stream Type Break
	Forested Wetland		Optional Reconstruction		Landing - Proposed
	Wetland Mgt Zone		Required Abandonment		Leave Tree Area
	Potentially Unstable Slopes		Ground Harvest		Culvert Removal
			Cable Harvest		



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All State Unless Otherwise Noted

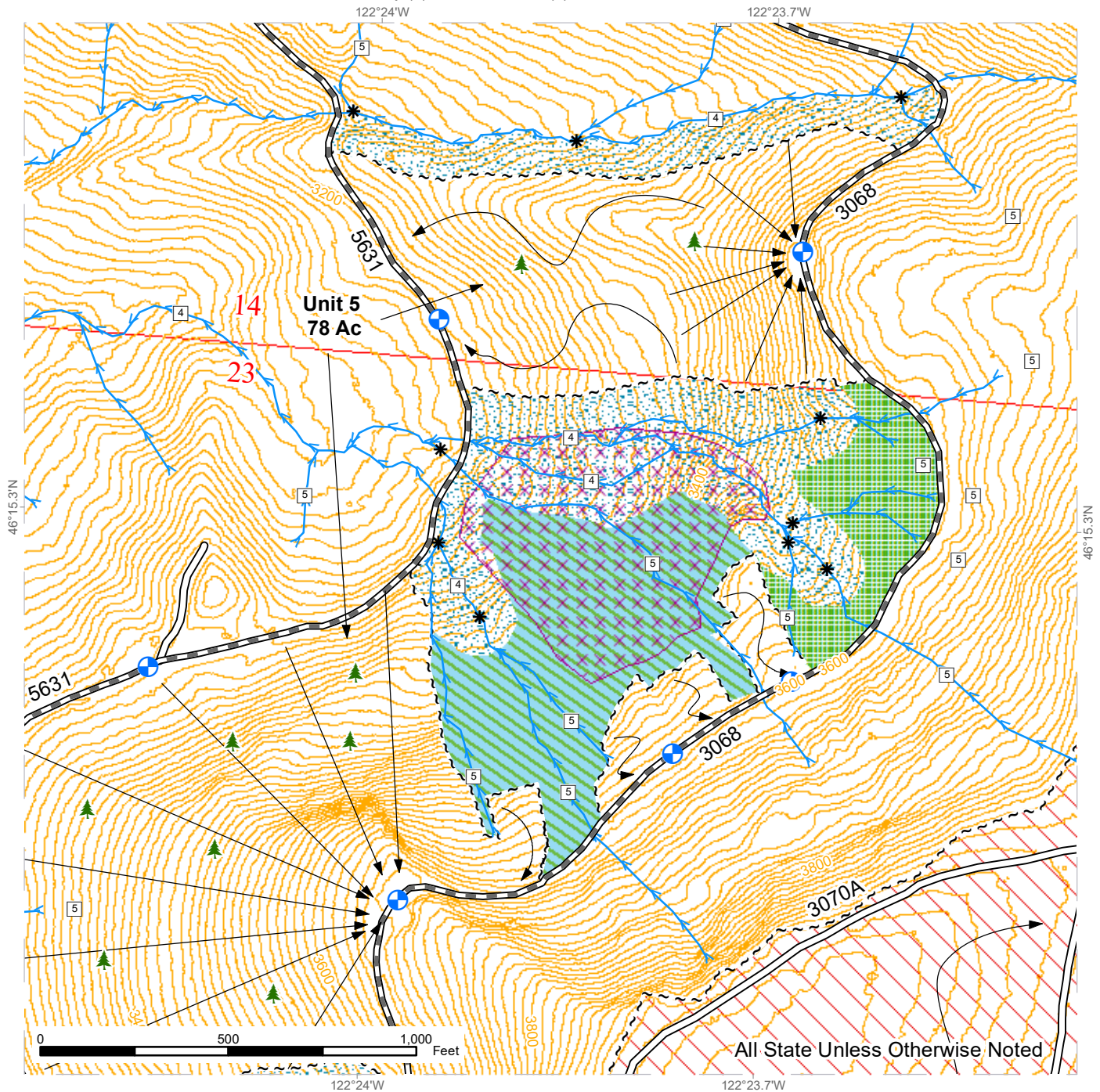
	Non-Tradeable Leave Clump		Sale Boundary Tags		Streams
	Leave Tree Area		Existing Roads		Stream Type
	Riparian Mgt Zone		Required Pre-Haul Maintenance		Stream Type Break
	Forested Wetland		Optional Reconstruction		Landing - Proposed
	Wetland Mgt Zone		Required Abandonment		Leave Tree Area
	Potentially Unstable Slopes		Ground Harvest		
			Cable Harvest		



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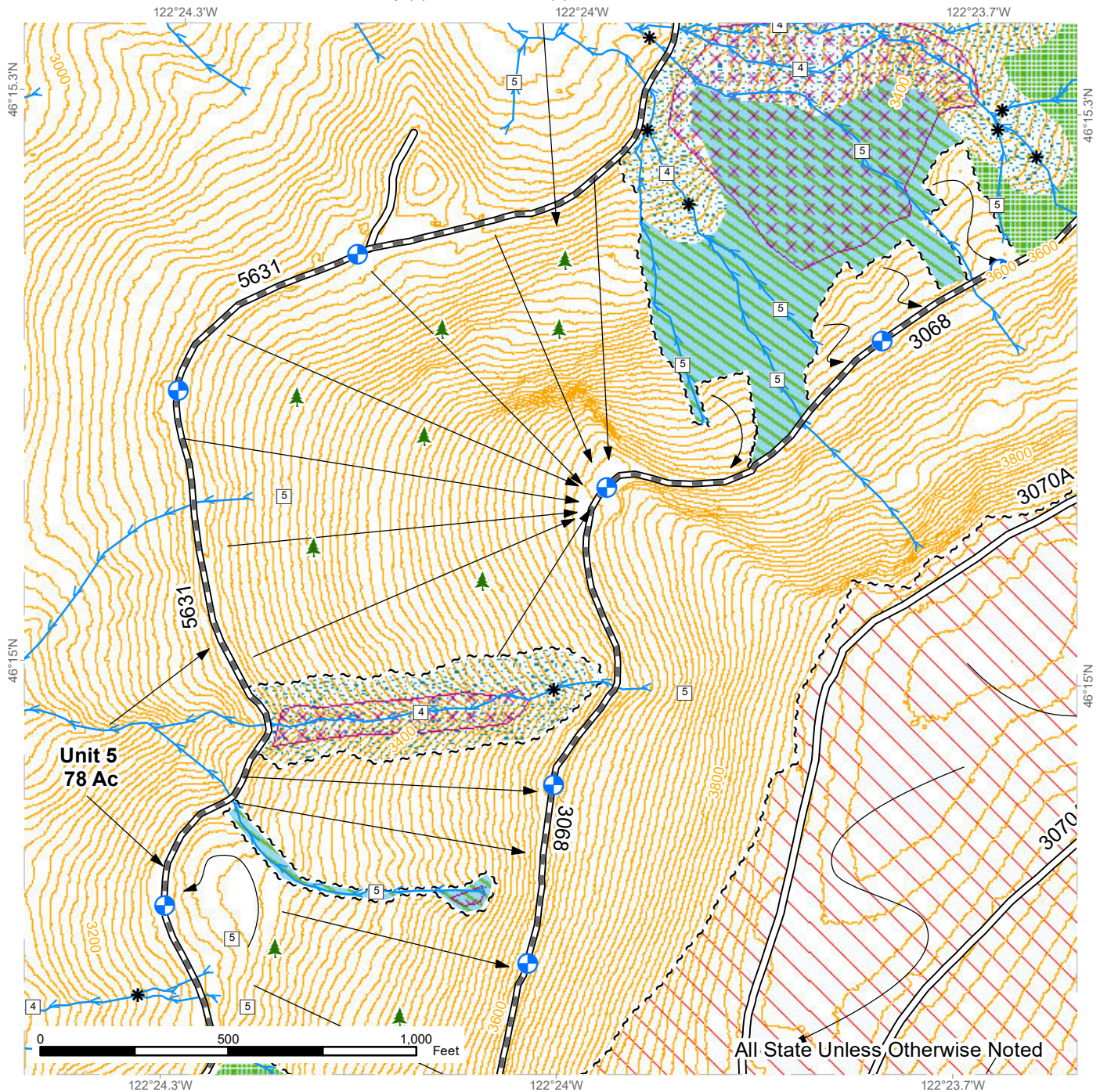
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	Non-Tradeable Leave Clump		Existing Roads		Stream Type
	Leave Tree Area		Required Pre-Haul Maintenance		Stream Type Break
	Riparian Mgt Zone		Ground Harvest		Landing - Proposed
	Potentially Unstable Slopes		Cable Harvest		Leave Tree Area



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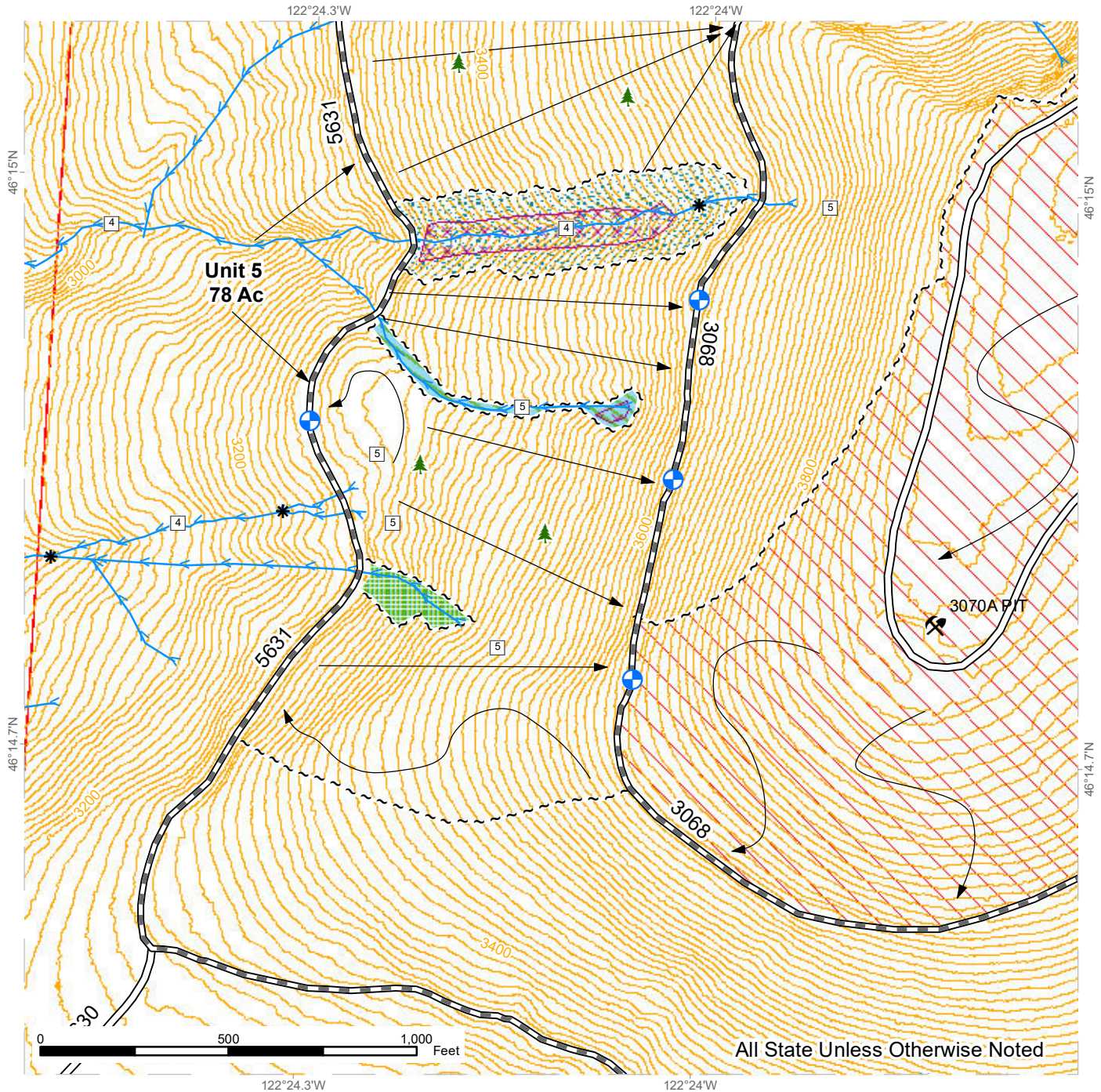


Variable Density Thinning	Sale Boundary Tags	Streams
Non-Tradeable Leave Clump	Existing Roads	Stream Type
Leave Tree Area	Required Pre-Haul Maintenance	Stream Type Break
Riparian Mgt Zone	Ground Harvest	Landing - Proposed
Potentially Unstable Slopes	Cable Harvest	Leave Tree Area

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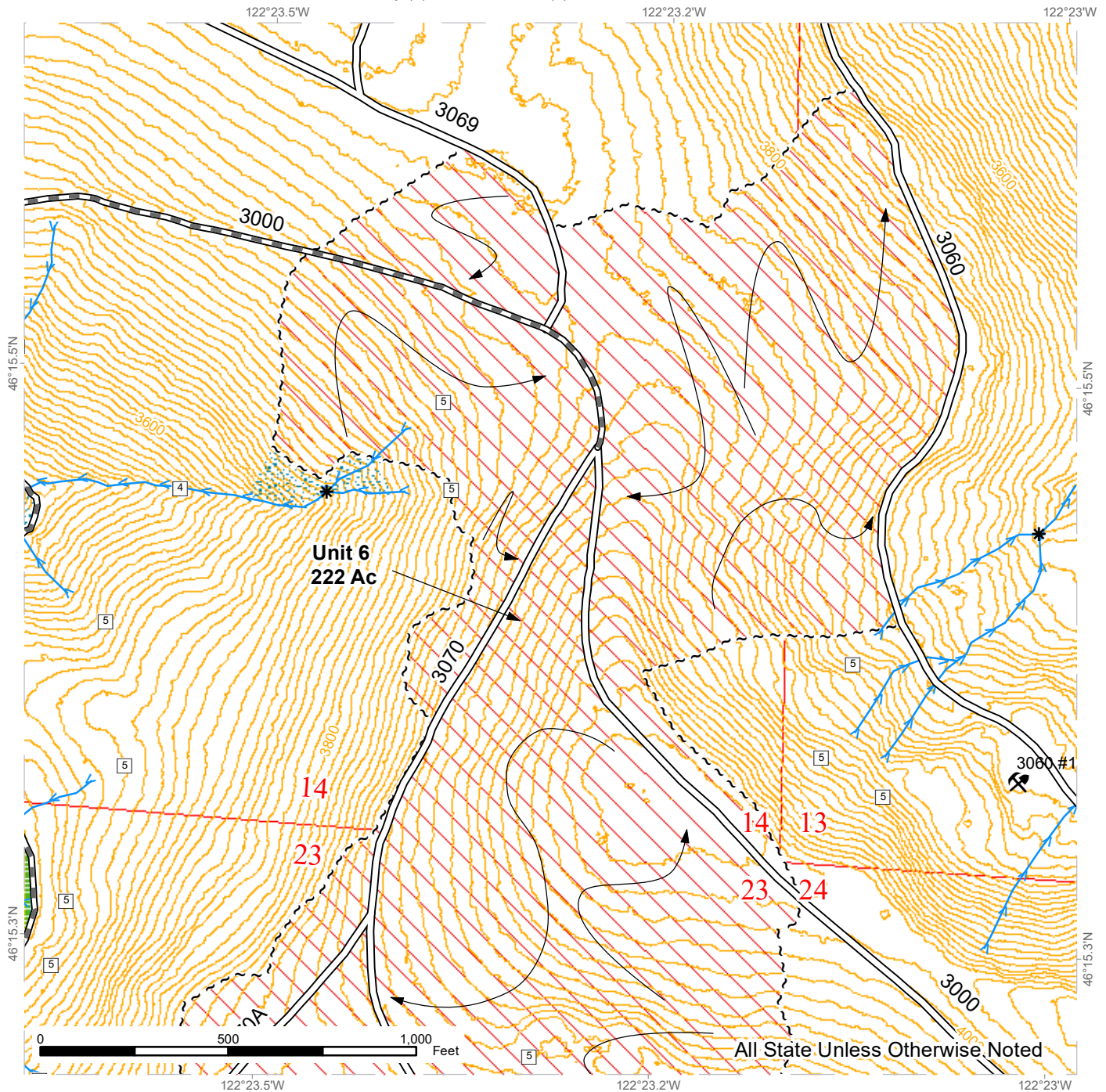
	Variable Density Thinning		Sale Boundary Tags		Streams
	Non-Tradeable Leave Clump		Existing Roads		Stream Type
	Leave Tree Area		Required Pre-Haul Maintenance		Stream Type Break
	Riparian Mgt Zone		Ground Harvest		Landing - Proposed
	Potentially Unstable Slopes		Cable Harvest		Leave Tree Area



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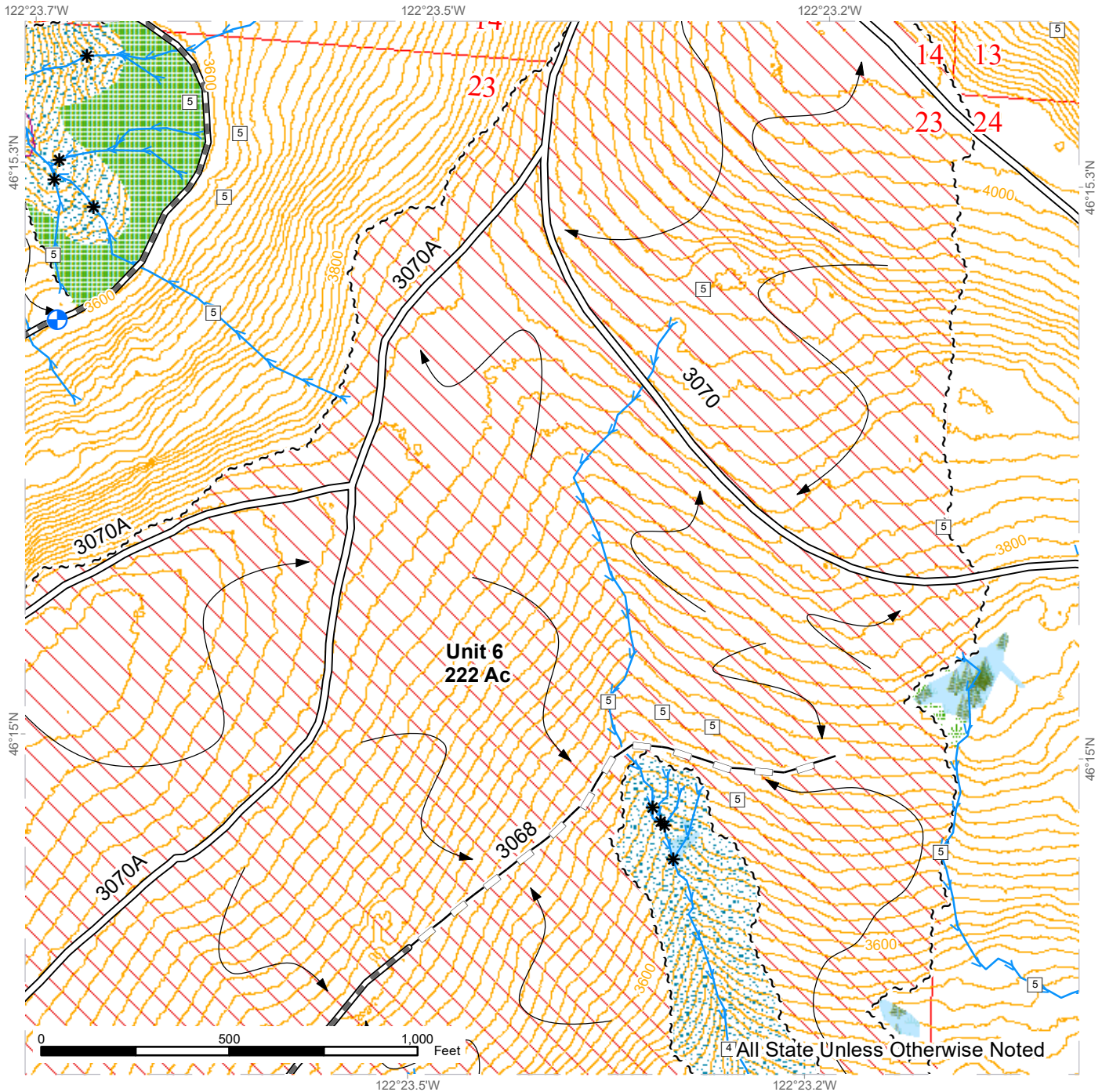
	Variable Density Thinning		Sale Boundary Tags		Streams
	Leave Tree Area		Existing Roads		Stream Type
	Riparian Mgt Zone		Required Pre-Haul Maintenance		Stream Type Break
			Ground Harvest		



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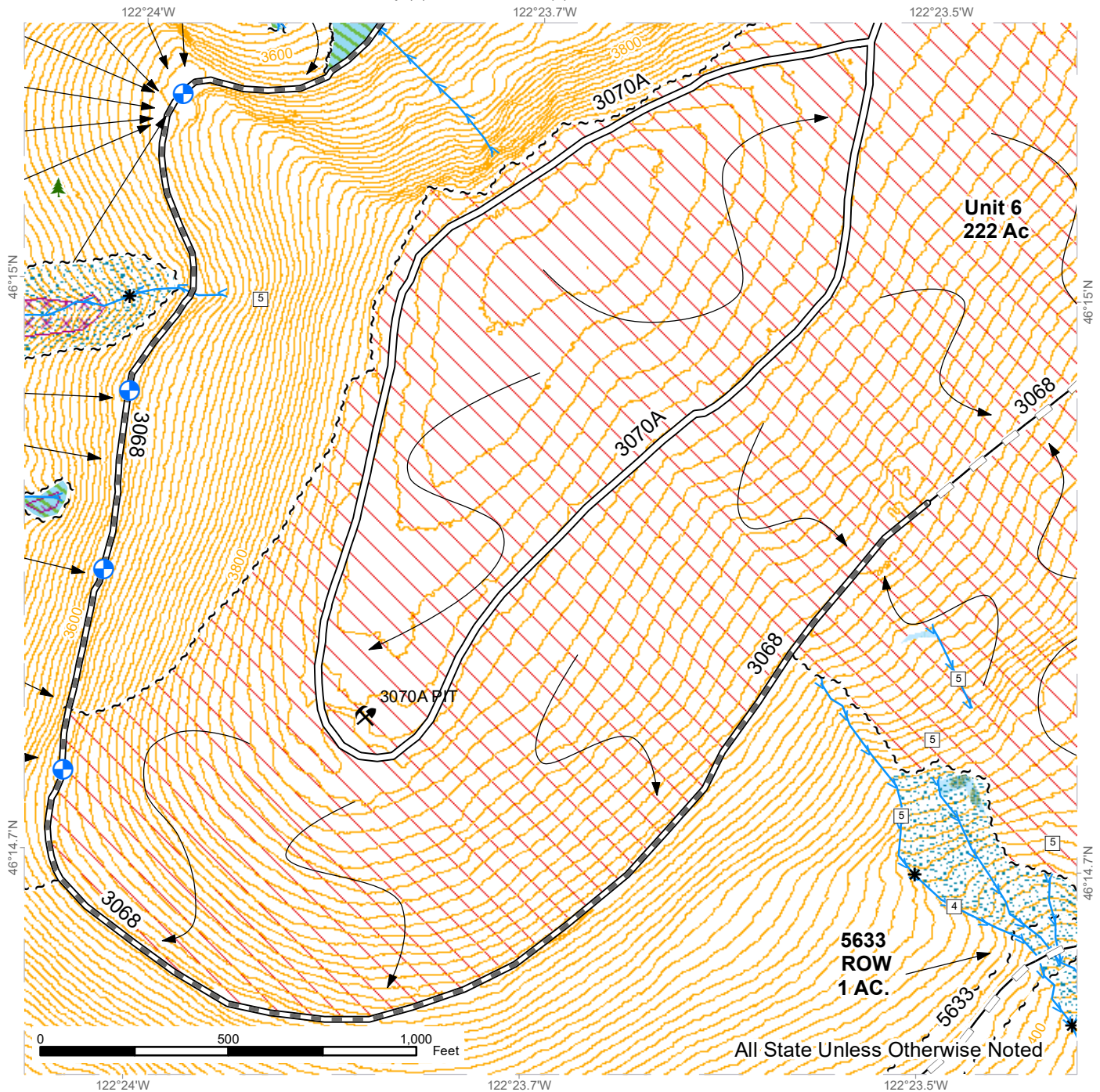


Variable Density Thinning	Sale Boundary Tags	Streams
Leave Tree Area	Existing Roads	Stream Type
Riparian Mgt Zone	Required Pre-Haul Maintenance	Stream Type Break
Forested Wetland	Optional Reconstruction	Landing - Proposed
Wetland Mgt Zone	Ground Harvest	
Potentially Unstable Slopes		

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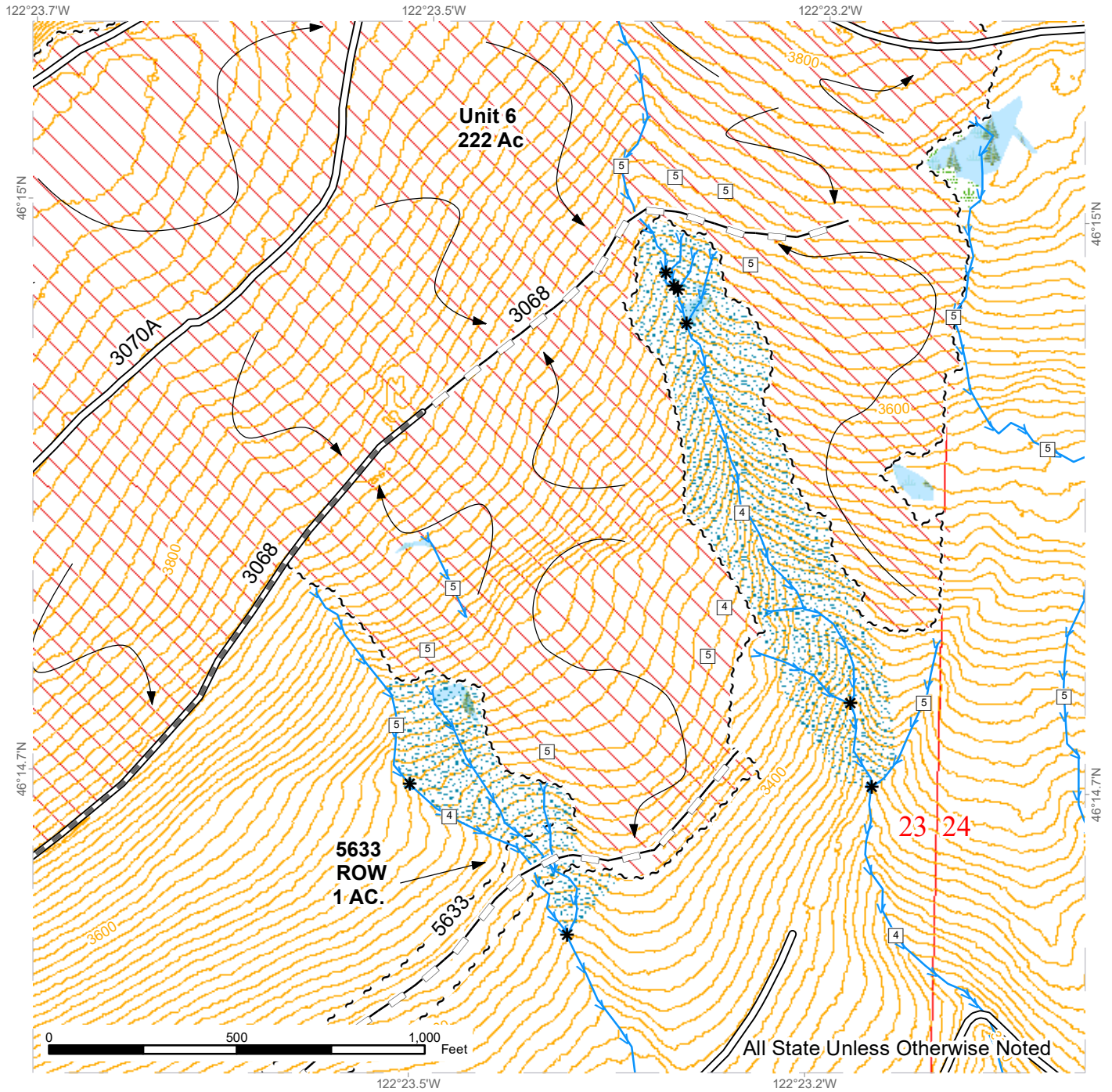
	Variable Density Thinning		Sale Boundary Tags		Streams
	Non-Tradeable Leave Clump		Right of Way Tags		Stream Type
	Riparian Mgt Zone		Existing Roads		Stream Type Break
	Forested Wetland		Required Pre-Haul Maintenance		Landing - Proposed
	Potentially Unstable Slopes		Optional Reconstruction		Leave Tree Area
			Ground Harvest		
			Cable Harvest		



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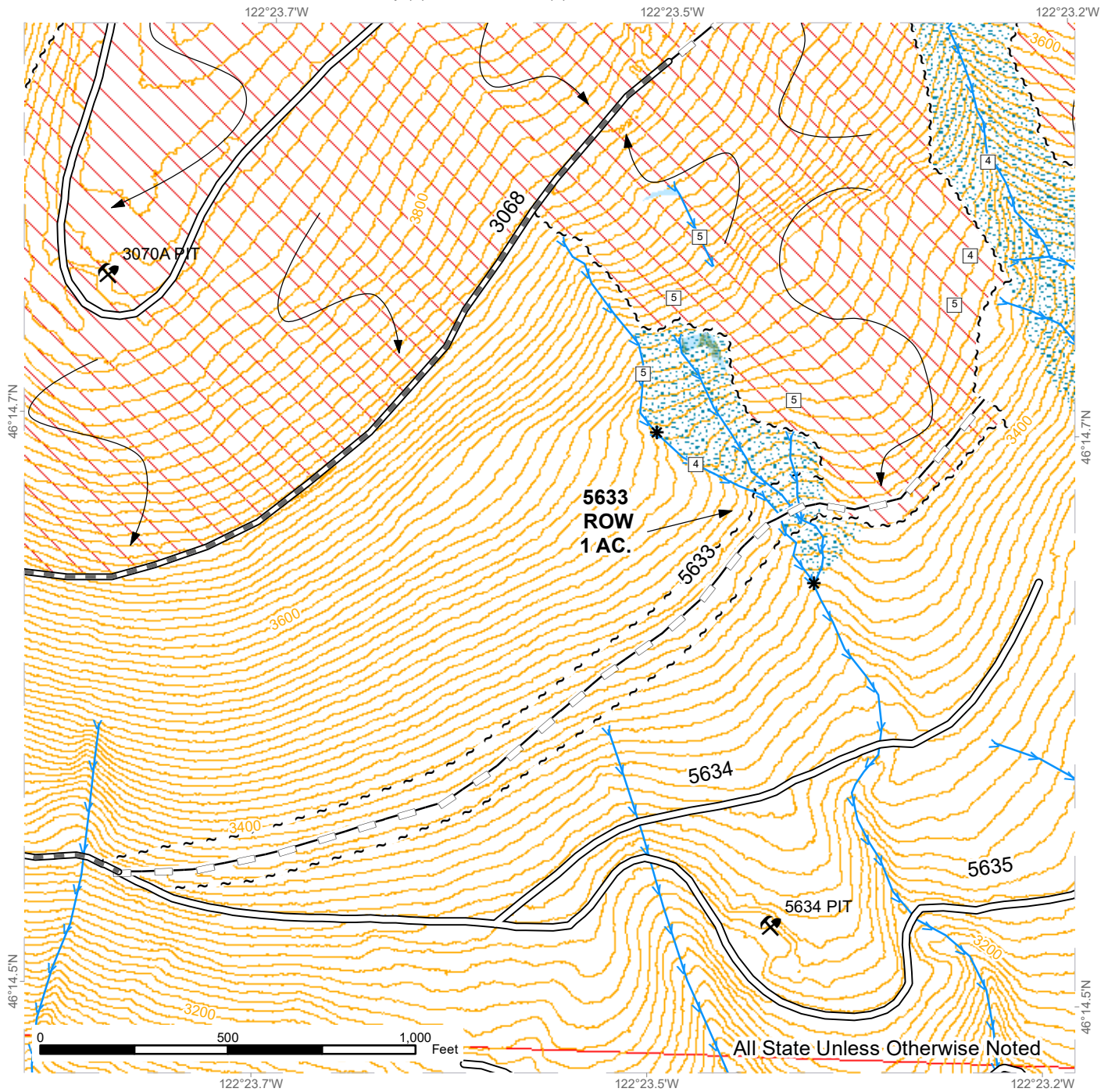


	Variable Density Thinning		Sale Boundary Tags		Streams
	Riparian Mgt Zone		Right of Way Tags		Stream Type
	Forested Wetland		Existing Roads		Stream Type Break
	Wetland Mgt Zone		Required Pre-Haul Maintenance		
			Optional Reconstruction		
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	Variable Density Thinning		Sale Boundary Tags		Streams
	Riparian Mgt Zone		Right of Way Tags		Stream Type
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