| AUCTION: | September 26, 2024 starting at 10:00 a.m., COUNTY: Pacific Pacific Cascade Region Office, Castle Rock, WA |
| :---: | :---: |
| SALE LOCATION: | Sale located approximately 12 miles southeast of Raymond, WA |
| PRODUCTS SOLD <br> AND SALE AREA: |  |
|  | All timber, except leave trees marked with blue paint, all downed timber existing 5 years prior to day of sale, all downed timber greater than 55 inches in diameter and snags bound by the following: |
|  | Unit 1, white "Timber Sale Boundary" tags with pink flagging and timber type change; |
|  | Unit 2, white "Timber Sale Boundary" tags with pink flagging, B-Line, B-400 and Property Line timber type change; |
|  | Unit 3, white "Timber Sale Boundary" tags with pink flagging, B-400 and timber type change; |
|  | Unit 4, white "Timber Sale Boundary" tags with pink flagging; |
|  | Unit 5 (ROW), orange "Right of Way" tags with orange flagging; |
|  | All forest products above located on part(s) of Sections 17, 19 and 20 all in Township 13 North, Range 8 West, W.M., containing 226 acres, more or less. |
| CERTIFICATION: | This sale is certified under the Sustainable Forestry Initiative ${ }^{\circledR}$ program Standard (cert no: BVC-SFIFM-018227) |

## ESTIMATED SALE VOLUMES AND QUALITY:

 percent, cable-assist to sustained slopes of 70 percent or less. For additional harvest requirements, refer to the $\mathrm{H}-140$ clause in the contract.

ROADS:
36.02 stations of required reconstruction. 10.89 stations of optional construction. 122.32 stations of optional reconstruction. 419.85 stations of required prehaul maintenance. 6.97 stations of abandonment.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the B-1321 Pit Located in Section 30, T13N, R8W, WM. 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.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the B-1321 existing stockpile located in Section 30, T13N, R8W, 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 any commercial source at the Purchaser's expense. Rock sources are subject to written approval by the Contract Administrator before their use.

See Road Plan for further details.

## ACREAGE DETERMINATION

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

FEES:
$\$ 129,115.00$ is due on day of sale. $\$ 9.00$ per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: This sale has approximately 150 MBF of High Quality 2 Saw DF, 356 MBF of High Quality 3 Saw DF, see cruise for details.

There are research plots located within Unit 1. The aluminum tags, nails, and rebar stakes may be removed or destroyed during harvest operations.

TIMBER SALE MAP


TIMBER SALE MAP


TIMBER SALE MAP


| / / Sale Area | Existing Roads | $\longrightarrow$ | Streams |
| :---: | :---: | :---: | :---: |
| :W].] Leave Tree Area | $\pm$ Required Pre-Haul Maintenance | $\square$ | Stream Type |
| Fit Riparian Mgt Zone | - Required Reconstruction |  | Stream Type Break |
| ~~ Sale Boundary Tags | -- Optional Construction |  | Gate (PCP 1-1) |
| - Timber Type Change | $\rightarrow$ Optional Reconstruction | 爯 | Leave Tree Area < $1 / 4$-acre |
| ~ ~ Right of Way Tags | --- Old Grades/Trails | 人 | Rock Pit |
|  |  |  | Survey Monument |

DRIVING MAP

| SALE NAME: | RUE BEE |
| :--- | :--- |
| AGREEMENT\#: | $30-106089$ |
| TOWNSHIP(S) | T13R8W, T13R09W |
| TRUST(S): | Common School and Indemnity (3), State Forest Transfer (1) |


| REGION: | Pacific Cascade Region |
| :--- | :--- |
| COUNTY(S) | $\quad$ Pacific |
| ELEVATION RGE: | 320-1080 |

(20)

|  | Timber Sale Unit |
| :---: | :--- |
|  | Highway |
|  | Haul Route |
| $\square$ | Other Road |
| $\square$ | Milepost Markers |
| $\bullet$ | Distance Indicator |
| $\approx$ | Rock Pit |
| $\star$ | Town |
| $\bullet$ | Gate (PCP 1-1) |

## DRIVING DIRECTIONS:

From State Route 6 in Town of Menlo:
Turn west onto Rue Creek County Road and continue 2.2 miles.
Turn southwest (left) onto the B-Line and continue for 1.0 mile.
Turn west (right/ continue straight) to B-200 and continue 0.5 mile to Unit 4.
From B-200 junction, continue on B-Line for 1.8 miles to Unit 2 or turn north (right) onto B-400 to Unit 3.

From B-400 junction, continue on B-Line for 1.5 miles to B-1320 shoofly. Continue west (right) on B-1320 1.0 mile to A Line Jct. Continue right on A-Line for 1.8 miles. Turn southeast (right) onto A-1500 for 0.25 mile to Unit 1 and Unit 5.

# STATE OF WASHINGTON <br> DEPARTMENT OF NATURAL RESOURCES 

## BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

Export Restricted Lump Sum AGREEMENT NO. 30-0106089

SALE NAME: RUE BEE
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-011 Right to Remove Forest Products and Contract Area
Purchaser was the successful bidder on September 26, 2024 and the sale was confirmed on $\qquad$ . The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber, except leave trees marked with blue paint, all downed timber existing 5 years prior to day of sale, all downed timber greater than 55 inches in diameter and snags bound by the following:

Unit 1, white "Timber Sale Boundary" tags with pink flagging and timber type change;
Unit 2, white "Timber Sale Boundary" tags with pink flagging, B-Line, B-400 and Property Line timber type change;

Unit 3, white "Timber Sale Boundary" tags with pink flagging, B-400 and timber type change;

Unit 4, white "Timber Sale Boundary" tags with pink flagging;
Unit 5 (ROW), orange "Right of Way" tags with orange flagging;
All forest products described above located on approximately 226 acres on part(s) of Sections 17, 19, and 20 all in Township 13 North, Range 8 West W.M. in Pacific County(s) as designated on the sale area and as shown on the attached timber sale map.

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-031 Contract Term
Purchaser shall 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-051 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 total contract price.

For the second extension, not to exceed 1 year, payment of at least 90 percent of the total contract price.

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 total contract price.

All payments, except the initial deposit, will be deducted from the total contract price to determine the unpaid portion of the contract.
e. Payment of $\$ 1,035.00$ per acre per annum for the acres on which an operating release has not been issued .
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, PRESALE 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-091 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, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, $\mathrm{G}-102$, or G-103. If the sale area is reduced, the State shall determine the volume to be reduced. The State shall calculate the reduction to the total contract price using the rates set forth in clause G-101, G-102, or G-103.
G-101 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 the Scribner log scale volume, as defined by the Northwest Log Rules Advisory Group, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per Mbf Scribner log scale.

The pricing schedule has not been set for the sale.

## G-111 Title and Risk of Loss

Title to the forest products under this contract passes to the Purchaser after they are removed from the sale area, if adequate advance payment or payment security has been provided to the State under this contract. Purchaser bears all risk of loss of, or damage to, and has an insurable interest in, the forest products described in this contract from
the time the sale is confirmed under RCW 79.15.120. Breach of this contract shall have no effect on this provision.
G-116 Sustainable Forestry Initiative ${ }^{\circledR}$ (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.

## 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 nonpayment 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 0001 (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 0001 , 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 0001 . 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.
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.

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.
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 29654. Failure to comply may result in forfeiture of this contract.

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.

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; A-Line, A-1500, A-1510, A-1520, A1530, B-Line, B-200, B-210, B-211, B-212, B-213, B-214, B-215, B-400, B-430, B500 , B-550, B-560, B-900, B-920, B-1320 and B-1321 roads. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

## 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, reestablish 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 B-Line, 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 \#55-077411 between Rayonier Forest Resources, LP and State dated May 27, 2005.

G-396 Public Hauling Permit
The hauling of forest products, rock or equipment may require a state, county, or city hauling permit. Purchaser is responsible for obtaining any necessary permit and any costs associated with extra maintenance or repair levied by the permitting agency. Purchaser must provide the Contract Administrator with a copy of the executed permit.
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-011 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 Clause P-020, 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-020 Payment for Forest Products
Purchaser agrees to pay the total, lump sum contract price of $\$ 197,470.00$. The total contract price consists of a $\$ 0.00$ contract bid price plus $\$ 197,470.00$ in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

THE PURCHASE PRICE SHALL NOT BE AFFECTED BY ANY FACTORS, INCLUDING: the amount of forest products actually present within the contract area, the actual acreage covered by the contract area, the amount or volume of forest products actually cut or removed by purchaser, whether it becomes physically impossible or uneconomic to remove the forest products, and whether the subject forest products have been lost or damaged by fire or any other cause. The only situations Purchaser may not be liable for the full purchase price are governed by clause G-066, concerning governmental regulatory actions taken during the term of the contract.
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-050 Billing Procedure
The State will compute and forward to Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the State on or before the date shown on the billing statement.

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 $\$ 100,000.00$. 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 H: Harvesting Operations
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-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-035 Fall Trees Into Sale Area
Trees shall be felled into the sale area unless otherwise approved by the Contract Administrator.

H-051 Branding and Painting
Purchaser shall provide a State of Washington registered log brand, acceptable to the State, unless the State agrees to furnish the brand. 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-080 Snags Not to be Felled
Snags not required to be felled for safety reasons may be left standing. Snags felled for safety reasons shall not be removed and must remain where felled.
H-120 Harvesting Equipment
Forest products sold under this contract shall be harvested and removed using cable, cable-assist or shovel. 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-126 Tailholds on State Land
If Purchaser tailholds on State land, methods to minimize damage to live trees outside the sale area shall be employed and must be approved in writing by the Contract Administrator.

H-127 Tailholds on Private Land
If Purchaser chooses to tailhold on private property, Purchaser shall obtain permit(s) and assumes responsibility for all costs and damages associated with the permit(s). Purchaser must provide the State with a copy of the executed permit(s) or a letter from the landowner indicating that a satisfactory tailhold permit(s) has been consummated between Purchaser and the landowner.

H-140 Special Harvest Requirements
Purchaser shall accomplish the following during the harvest operations:
A. Ground based yarding equipment shall only operate during dry soil conditions.
B. Ground based yarding equipment will not be permitted on sustained slopes over 45 percent.
C. Self-Leveling ground based yarding equipment will not be permitted on sustained slopes over 55 percent.
D. 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.
E. 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.
F. Long butts remaining on the sale must be dispersed as directed by the Contract Administrator.
G. Cable assist operations will not be permitted on slopes over 70 percent.
H. Tailhold locations will be marked by the purchaser to avoid Rule Identified Landforms and approved in writing by the Contract Administrator prior to commencement of operations.

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

## H-142 Wildlife Timing Restrictions

The following wildlife timing restrictions apply to this contract and shall be in place in the locations shown on the attached timber sale map.

Marbled Murrelet - Timing restrictions are described as no operations of heavy equipment within the critical nesting season (April 1 through September 23) during the daily peak activity periods (two hours prior to official sunset to two hours after official sunrise). Heavy equipment is identified as felling, yarding, and loading equipment for logging, and road maintenance and construction equipment. This area includes theB210 , B-211 and B-400 road(s).

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

## Section C: Construction and Maintenance

C-040 Road Plan
Road construction and associated work provisions of the Road Plan for this sale, dated $2 / 1 / 2024$ are hereby made a part of this contract.
C-050 Purchaser Road Maintenance and Repair
Purchaser shall perform work at their own expense on A-Line, A-1500, A-1510, A1520, A-1530, B-Line, B-200, B-210, B-212, B-213, B-214, B-215, B-400, B-430, B500 , B-550, B-560, B-900, B-920, B-1320 and B-1321 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.

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.

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-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.

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.

Stream Cleanout
Slash or debris which enters all streams 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-013 Liquidated Damages or Failure to Perform
The following clauses provide for payments by Purchaser to the State for breaches of the terms of this contract other than failure to perform. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State, which will be 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.

Clause P-020 governs Purchaser's liability in the event Purchaser fails to perform any of the contract requirements other than the below liquidated damage clauses without written approval by the State. Purchaser's failure to pay for all or part of the forest products sold in this contract prior to expiration of the contract term results in substantial injury to the State. Therefore, Purchaser agrees to pay the State the full lump sum contract price in P-020 in the event of failure to perform.
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 harvest 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
Print Name
Date:
Address:

Scott Sargent
Pacific Cascade Region Manager

Date: $\qquad$

## CORPORATE ACKNOWLEDGEMENT

(Required for both LLC and Inc. Entities)
STATE OF $\qquad$
COUNTY OF
On this $\qquad$ day of $\qquad$ , 20 $\qquad$ , before me personally appeared $\qquad$ _ 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 $\qquad$

## PRE-CRUISE NARRATIVE

| Sale Name: Rue Bee | Region: Pacific Cascade |
| :--- | :--- |
| Agreement \#: 30-106089 | District: St. Helens |
| Contact Forester:Brittany Church <br> Phone / Location: 360-790-9438 | County(s): Pacific |
| Alternate Contact:Mike Henrie <br> Phone / Location: 360-751-0075 | Other information: <br> Click here to enter text. |


| Type of Sale: Lump Sum |  |
| :--- | :---: |
| Harvest System: Uphill Cable | $40 \%$ |
| Harvest System: Ground based | $60 \%$ |
| Enter \% of sale acres |  |

## UNIT ACREAGES AND METHOD OF DETERMINATION:

| Unit \# <br> Harvest R/W or RMZ WMZ | Legal Description <br> (Enter only one legal for each unit) Sec/Twp/Rng |  |  |  | Deductions from Gross Acres (No harvest acres) |  |  |  |  | Acreage Determi nation (List method and error of closure if applicabl e) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| 1 | T13N;R08 W. $\text { SEC } 19$ | 03 | 119 | 53 | 66 | 5 | 2 |  | 59 | $\begin{aligned} & \hline \text { GPS } \\ & \text { (Garmin) } \end{aligned}$ |
| 2 | $\begin{aligned} & \text { T13N; R08 W. } \\ & \text { SEC } 19 \end{aligned}$ | 03 | 146 | 36 | 110 | 9 | 3 |  | 98 | GPS (Garmin) |
| 3 | T13N; R08 W. SEC 19 | 03 | 51 | 12 | 39 | 4 | 2 |  | 33 | $\begin{aligned} & \hline \text { GPS } \\ & \text { (Garmin) } \end{aligned}$ |
| 4 | T13N; R08 W. SEC 17 AND 20 | $\begin{aligned} & \hline 01 / \\ & 03 \end{aligned}$ | 61 | 20 | 41 | 3 | 3 |  | 35 | $\begin{aligned} & \text { GPS } \\ & \text { (Garmin) } \end{aligned}$ |
| $\begin{array}{\|l\|} \hline 5 \\ \text { (ROW) } \\ \hline \end{array}$ | $\begin{aligned} & \text { T13N;R08 W. } \\ & \text { SEC } 19 \end{aligned}$ | 03 | 0.6 | 0 | 0.6 | 0 | 0 |  | 0.6 | $\begin{aligned} & \hline \text { GPS } \\ & \text { (Garmin) } \end{aligned}$ |
| (ROTAL |  |  | 377.6 | 121 | 256.6 | 21 | 10 |  | 225.6 |  |

HARVEST PLAN AND SPECIAL CONDITIONS:

| Unit \# | Harvest Prescription: (Leave, take, paint color, tags, flagging etc.) | Special Management areas: | Other conditions (\# leave trees, etc.) |
| :---: | :---: | :---: | :---: |
| 1 | Boundaries are marked with white timber sale tags, pink flagging, or timber type change. Leave tree areas are marked with white timber sale tags and pink flagging. Individual leave trees are marked with blue paint. | None | See Logging Plan Maps. |
| 2 | Boundaries are marked with white timber sale tags, pink flagging, timber type change, and existing roads. Leave trees are marked with white timber sale tags and pink flagging. Individual leave trees are marked with blue paint. | None | See Logging Plan Maps. |
| 3 | Boundaries are marked with white timber sale tags, pink flagging, timber type change, and existing roads. Leave trees are marked with white timber sale tags and pink flagging. Individual leave trees are marked with blue paint. | None | See Logging Plan Maps. |
| 4 | Boundaries are marked with white timber sale tags and pink flagging. Leave tree areas are marked with white timber sale tags and pink flagging. Individual leave trees are marked with blue paint. | None |  |
| $\begin{aligned} & 5 \\ & (\mathrm{ROW}) \\ & \hline \end{aligned}$ | ROW boundary is marked with orange flagging and Right-of-Way tags | None | See Logging Plan Maps. |

OTHER PRE-CRUISE INFORMATION:

| Unit \# | Primary,secondary Species / Estimated Volume (MBF) | Access information (Gates, locks, etc.) | Photos, traverse maps required |
| :---: | :---: | :---: | :---: |
| 1 | DF, WH, WRC, SS, RA | Rue Creek County Rd. to B-Line to B1320 to A-Line to A-1500 | See Logging Plan Map and Driving Map |
| 2 | DF, WH, WRC, SS, RA | Rue Creek County Rd. to B-Line | See Logging Plan Map and Driving Map |
| 3 | DF, WH, WRC, SS, RA | Rue Creek County Rd. to B-Line to B-400 | See Logging Plan Map and Driving Map |
| 4 | DF, WH, WRC, SS, RA | Rue Creek County Rd. to B-Line to B-200 | See Logging Plan Map and Driving Map |
| $\begin{aligned} & 5 \\ & \text { (ROW) } \end{aligned}$ | DF, WH, WRC, SS, RA | Rue Creek County Rd. to B-Line | See Logging Plan Map and Driving Map |


| TOTAL |  |  |  |
| :--- | :--- | :--- | :--- |
| MBF | 7,595 MBF |  |  |

## REMARKS:

Units are mostly Douglas-fir, with scattered Western Hemlock, Western Red Cedar, Red Alder, and Sitka Spruce.

| Prepared By: Brittany Church <br> Date: $6 / 05 / 2023$ | Title: Naselle Forester | CC: |
| :--- | :--- | :--- |

# Timber Sale Cruise Report <br> Rue Bee 

Sale Name: RUE BEE
Sale Type: LUMP SUM
Region: PACIFIC CASC
District: ST.HELENS
Lead Cruiser: Blake Warnstadt
Other Cruisers:
Cruise Narrative:
Location: The RUE BEE timber sale is located approximately 4 miles southwest of Menlo. It can be accessed by taking the B-Line off Rue Creek Rd.

Cruise Design: All plots were cruised using variable radius plots sighted at 4.5 feet. Conifers were cruised to 40 foot preferred log lengths. Hardwoods were cruised to 30 foot preferred log lengths.
Unit 1 was cruised with a 46.94 BAF and had a cruise to count plot ratio of 1:2. Average diameters at DBH are DF 20 ", WH 15", RA 13.8", and SS 27.5". The south end of U1 (estimated 7 acres) is a little older than the rest of the stand. There is a research are in the north end of this stand that is scheduled to have some trees cut and bucked.(These trees were not included in the cruise.)
Unit 2 was cruised with a 46.94 BAF and had a cruise to count plot ratio of 1:2. Average diameters at DBH are DF and WH 17", RA 11.5", and SS 21".
Unit 3 was cruised with a 46.94 BAF and had a cruise to count plot ratio of 1:1. Average diameters are DF $16.5^{\prime \prime}$, WH 14.7", RA 10.8", and SS at 27".
Unit 4 was cruised with a 40 BAF and had a cruise to count plot ratio of 1:1. Stand is mostly clean DF with an average DBH of $16.5^{\prime \prime}$
Unit 5 was cruised with a 40 BAF and had 3 cruise plots.
Timber Quality: This sale is well stocked mostly Western Hemlock and Douglas Fir. There is a small amount of Red Alder and Sitka Spruce with a trace of Silver Fir. Logs are mostly domestic 2 Saw and 3 Saw with a small amount of high quality B DF. Observed defects: mostly spike knots, light wind damage, a couple mistletoe pockets (U1 WH on south end), some old bear damage. Unit 1 has a large amount of WH forked at the tree base. Observed very little root rot and no conks on live trees.

Logging and Stand Conditions: RUE BEE is gently sloped and estimated to be 60\% ground based and 40\% uphill cable logged.

Timber Sale Notice Volume (MBF)

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| WH | 16.0 |  |  | 4,194 | 1,866 | 1,872 | 412 | 44 |
| DF | 17.1 | 7.0 |  | 3,256 | 1,213 | 1,714 | 297 | 31 |
| RA | 11.8 |  |  | 119 | 19 | 10 | 90 |  |
| SS | 25.8 |  |  | 26 | 22 | 4 |  |  |
| ALL | 16.0 | 7.0 | 7,595 | 3,120 | 3,601 | 799 | 76 |  |

Timber Sale Notice Weight (tons)

|  | Tons by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sp | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| WH | 37,749 | 15,395 | 17,670 | 4,332 | 351 |
| DF | 27,254 | 9,631 | 14,569 | 2,814 | 240 |
| RA | 1,042 | 143 | 71 | 827 |  |
| SS | 194 | 141 | 52 |  |  |
| ALL | 66,239 | 25,311 | 32,364 | 7,974 | 590 |

Timber Sale Overall Cruise Statistics

| BA <br> (sq ft/acre) | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol SE <br> $(\%)$ |
| :--- | :---: | ---: | ---: | ---: | ---: |
| 249.6 | 1.5 | 134.7 | 0.9 | 33,666 | 1.8 |

Timber Sale Unit Cruise Design

| Unit | Design | Cruise <br> Acres | FMA Acres | N Plots | N Cruise Plots | N Void Plots |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RUE BEE U1 | B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht $=4.5 \mathrm{ft}$ | 59.0 | 66.6 | 61 | 21 | 0 |
| RUE BEE U2 | B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht $=4.5 \mathrm{ft}$ | 98.0 | 110.5 | 105 | 36 | 0 |
| RUE <br> BEE U3 | B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht $=4.5 \mathrm{ft}$ | 33.0 | 38.9 | 35 | 18 | 0 |
| RUE <br> BEE U4 | B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 35.0 | 41.3 | 40 | 20 | 0 |
| RUE <br> BEE U5 | B1: VR, 1 BAF (40) Measure All, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 0.6 | 0.7 | 3 | 3 | 0 |
| All |  | 225.6 | 258.0 | 244 | 98 | 0 |

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 | 13.8 | 40 | 5,020 | 4,712 | 6.1 | $8,517.6$ | $1,063.1$ |
| DF | LIVE | 2 SAW | HQ-B | 13.8 | 40 | 679 | 664 | 2.2 | $1,113.8$ | 149.9 |
| DF | LIVE | 3 SAW | Domestic | 8.6 | 39 | 6,386 | 6,022 | 5.7 | $11,947.1$ | $1,358.7$ |
| DF | LIVE | 3 SAW | HQ-B | 10.3 | 40 | 1,596 | 1,577 | 1.2 | $2,622.2$ | 355.7 |
| DF | LIVE | 4 SAW | Domestic | 5.2 | 32 | 1,355 | 1,318 | 2.7 | $2,813.9$ | 297.3 |
| DF | LIVE | CULL | Cull | 5.9 | 4 | 84 | 0 | 100.0 | 0.0 | 0.0 |
| DF | LIVE | UTILITY | Pulp | 6.1 | 13 | 140 | 139 | 0.3 | 239.6 | 31.5 |
| RA | LIVE | 2 SAW | Domestic | 13.5 | 30 | 94 | 84 | 11.5 | 143.1 | 18.9 |


| Sp | Status | Grade | Sort | Dia | Len | BF Gross | BF Net | Defect \% | Tons | MBF Net |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| RA | LIVE | 3 SAW | Domestic | 10.0 | 30 | 49 | 46 | 6.1 | 71.4 | 10.3 |
| RA | LIVE | 4 SAW | Domestic | 6.0 | 27 | 434 | 399 | 8.3 | 827.2 | 89.9 |
| RA | LIVE | CULL | Cull | 5.0 | 3 | 4 | 0 | 100.0 | 0.0 | 0.0 |
| SS | LIVE | 2 SAW | Domestic | 16.7 | 38 | 107 | 96 | 10.2 | 141.4 | 21.8 |
| SS | LIVE | 3 SAW | Domestic | 8.1 | 38 | 22 | 18 | 16.5 | 52.5 | 4.2 |
| SS | LIVE | CULL | Cull | 9.0 | 3 | 0 | 0 | 100.0 | 0.0 | 0.0 |
| WH | LIVE | 2 SAW | Domestic | 14.0 | 40 | 8,731 | 8,271 | 5.3 | $15,395.4$ | $1,865.9$ |
| WH | LIVE | 3 SAW | Domestic | 8.6 | 39 | 8,600 | 8,296 | 3.5 | $17,670.3$ | $1,871.7$ |
| WH | LIVE | 4 SAW | Domestic | 5.3 | 30 | 1,875 | 1,825 | 2.6 | $4,332.3$ | 411.8 |
| WH | LIVE | CULL | Cull | 6.2 | 5 | 82 | 0 | 100.0 | 0.0 | 0.0 |
| WH | LIVE | UTILITY | Pulp | 5.5 | 15 | 211 | 197 | 6.8 | 350.8 | 44.5 |

Timber Sale Log Sort x Diameter Bin Summary

| Sp | Bin | Status | Sort | Dia | Len | BF Net | Defect $\%$ | Tons | MBF Net |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | $5-7$ | LIVE | Cull | 5.8 | 4 | 0 | 100.0 | 0.0 | 0.0 |
| DF | $5-7$ | LIVE | Pulp | 5.8 | 13 | 131 | 0.0 | 217.0 | 29.5 |
| DF | $5-7$ | LIVE | Domestic | 5.9 | 35 | 3,063 | 3.7 | $6,655.4$ | 691.0 |
| DF | $8-11$ | LIVE | Cull | 8.3 | 9 | 0 | 100.0 | 0.0 | 0.0 |
| DF | $8-11$ | LIVE | Pulp | 8.6 | 14 | 8 | 4.8 | 22.6 | 1.9 |
| DF | $8-11$ | LIVE | Domestic | 9.9 | 40 | 4,277 | 6.2 | $8,105.6$ | 964.9 |
| DF | $8-11$ | LIVE | HQ-B | 10.4 | 40 | 1,577 | 1.2 | $2,622.2$ | 355.7 |
| DF | $12-15$ | LIVE | Cull | 12.0 | 6 | 0 | 100.0 | 0.0 | 0.0 |
| DF | $12-15$ | LIVE | Domestic | 13.4 | 40 | 4,222 | 6.0 | $7,703.4$ | 952.4 |
| DF | $12-15$ | LIVE | HQ-B | 13.7 | 40 | 664 | 2.2 | $1,113.8$ | 149.9 |
| DF | $16+$ | LIVE | Domestic | 17.5 | 40 | 491 | 7.2 | 814.2 | 110.7 |
| RA | $5-7$ | LIVE | Cull | 5.2 | 3 | 0 | 100.0 | 0.0 | 0.0 |
| RA | $5-7$ | LIVE | Domestic | 5.6 | 29 | 315 | 8.6 | 643.5 | 71.1 |
| RA | $8-11$ | LIVE | Domestic | 8.8 | 30 | 129 | 6.7 | 255.1 | 29.2 |
| RA | $12-15$ | LIVE | Domestic | 13.7 | 30 | 84 | 11.5 | 143.1 | 18.9 |
| SS | $5-7$ | LIVE | Domestic | 7.0 | 40 | 5 | 9.7 | 14.2 | 1.2 |
| SS | $8-11$ | LIVE | Cull | 9.0 | 3 | 0 | 100.0 | 0.0 | 0.0 |
| SS | $8-11$ | LIVE | Domestic | 9.4 | 37 | 13 | 18.9 | 38.3 | 3.0 |
| SS | $12-15$ | LIVE | Domestic | 15.0 | 36 | 22 | 14.1 | 32.2 | 5.0 |
| SS | $16+$ | LIVE | Domestic | 18.7 | 40 | 74 | 9.0 | 109.2 | 16.7 |
| WH | $5-7$ | LIVE | Pulp | 5.3 | 14 | 182 | 7.3 | 306.6 | 40.9 |
| WH | $5-7$ | LIVE | Domestic | 5.9 | 33 | 3,959 | 2.4 | $9,421.9$ | 893.1 |
| WH | $5-7$ | LIVE | Cull | 6.0 | 5 | 0 | 100.0 | 0.0 | 0.0 |


| Sp | Bin | Status | Sort | Dia | Len | BF Net | Defect $\%$ | Tons | MBF Net |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| WH | $8-11$ | LIVE | Cull | 8.2 | 3 | 0 | 100.0 | 0.0 | 0.0 |
| WH | $8-11$ | LIVE | Pulp | 8.4 | 13 | 16 | 0.0 | 44.2 | 3.5 |
| WH | $8-11$ | LIVE | Domestic | 9.9 | 39 | 6,119 | 3.8 | $12,485.4$ | $1,380.4$ |
| WH | $12-15$ | LIVE | Domestic | 13.6 | 40 | 6,680 | 4.4 | $12,607.1$ | $1,506.9$ |
| WH | $16+$ | LIVE | Domestic | 17.3 | 39 | 1,636 | 9.3 | $2,883.7$ | 369.0 |

## Cruise Unit Report <br> RUE BEE U1

Unit Sale Notice Volume (MBF): RUE BEE U1

| Sp | DBH | Rings/In | Age | MBF Volume by Grade |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| WH | 15.0 |  |  | 1,826 | 661 | 907 | 247 | 12 |
| DF | 20.0 |  |  | 211 | 124 | 79 | 6 | 3 |
| RA | 13.8 |  |  | 25 | 9 |  | 16 |  |
| SS | 27.5 |  |  | 12 | 11 | 1 |  |  |
| ALL | 15.6 |  |  | 2,074 | 805 | 987 | 268 | 15 |

Unit Cruise Design: RUE BEE U1

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B1C: VR, 1 BAF (46.94) Measure/Count Plots, <br> Sighting Ht $=4.5 \mathrm{ft}$ | 59.0 | 66.6 | 61 | 21 | 0 |

Unit Cruise Summary: RUE BEE U1

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| WH | 94 | 302 | 5.0 | 0 |
| DF | 19 | 32 | 0.5 | 0 |
| RA | 5 | 6 | 0.1 | 0 |
| SS | 2 | 2 | 0.0 | 0 |
| ALL | 120 | 342 | 5.6 | 0 |

Unit Cruise Statistics: RUE BEE U1

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ |  | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | | Vol CV |
| :---: |
| $(\%)$ | | Vol SE |
| :---: |
| $(\%)$ |

## Unit Summary: RUE BEE U1

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 19 | ALL | 20.0 | 86 | 110 | 3,768 | 3,578 | 5.0 | 11.3 | 24.6 | 5.5 | 211.1 |
| RA | LIVE | CUT | 5 | ALL | 13.5 | 53 | 69 | 490 | 418 | 14.7 | 4.6 | 4.6 | 1.3 | 24.6 |
| SS | LIVE | CUT | 2 | ALL | 27.5 | 78 | 98 | 232 | 203 | 12.5 | 0.4 | 1.5 | 0.3 | 12.0 |
| WH | LIVE | CUT | 94 | ALL | 15.1 | 66 | 86 | 32,740 | 30,951 | 5.5 | 186.9 | 232.4 | 59.8 | $1,826.1$ |
| ALL | LIVE | CUT | 120 | ALL | 15.4 | 66 | 87 | 37,230 | 35,150 | 5.6 | 203.2 | 263.2 | 66.9 | $2,073.9$ |
| ALL | ALL | ALL | 120 | ALL | 15.4 | 66 | 87 | 37,230 | 35,150 | 5.6 | 203.2 | 263.2 | 66.9 | $2,073.9$ |

## Cruise Unit Report

## RUE BEE U2

Unit Sale Notice Volume (MBF): RUE BEE U2

|  |  |  |  | MBF Volume by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw |  |
| Utility |  |  |  |  |  |  |  |  |
| WH | 17.2 |  |  | 2,029 | 1,052 | 837 | 112 |  |
| DF | 17.5 | 7.0 |  | 1,328 | 520 | 684 | 111 |  |
| RA | 11.5 |  | 74 | 10 | 10 | 53 |  |  |
| SS | 21.0 |  | 6 | 5 | 13 |  |  |  |
| ALL | 16.6 | 7.0 | 3,436 | 1,587 | 1,532 | 277 | 40 |  |

Unit Cruise Design: RUE BEE U2

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B1C: VR, 1 BAF (46.94) Measure/Count Plots, <br> Sighting Ht $=4.5 \mathrm{ft}$ | 98.0 | 110.5 | 105 | 36 | 0 |

Unit Cruise Summary: RUE BEE U2

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| WH | 98 | 315 | 3.0 | 0 |
| DF | 83 | 227 | 2.2 | 1 |
| RA | 15 | 19 | 0.2 | 0 |
| SS | 1 | 1 | 0.0 | 0 |
| ALL | 197 | 562 | 5.4 | 1 |

Unit Cruise Statistics: RUE BEE U2

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ | Vol SE <br> $(\%)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| WH | 140.8 | 81.8 | 8.0 | 147.0 | 18.6 | 1.9 | 20,702 | 83.9 | 8.2 |
| DF | 101.5 | 102.9 | 10.0 | 133.5 | 17.7 | 1.9 | 13,547 | 104.4 | 10.2 |
| RA | 8.5 | 418.2 | 40.8 | 88.3 | 35.8 | 9.2 | 750 | 419.7 | 41.8 |
| SS | 0.4 | $1,024.7$ | 100.0 | 141.4 | 0.0 | 0.0 | 63 | $1,024.7$ | 100.0 |
| ALL | 251.2 | 24.2 | 2.4 | 139.6 | 21.7 | 1.5 | 35,063 | 32.5 | 2.8 |

## Unit Summary: RUE BEE U2

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 83 | ALL | 17.5 | 80 | 104 | 14,451 | 13,547 | 6.3 | 60.8 | 101.5 | 24.3 | $1,327.6$ |
| RA | LIVE | CUT | 15 | ALL | 11.4 | 44 | 61 | 804 | 750 | 6.7 | 12.0 | 8.5 | 2.5 | 73.5 |
| SS | LIVE | CUT | 1 | ALL | 21.0 | 78 | 99 | 73 | 63 | 13.3 | 0.2 | 0.4 | 0.1 | 6.2 |
| WH | LIVE | CUT | 98 | ALL | 17.3 | 76 | 96 | 21,477 | 20,702 | 3.6 | 86.3 | 140.8 | 33.9 | $2,028.8$ |
| ALL | LIVE | CUT | 197 | ALL | 17.0 | 75 | 96 | 36,805 | 35,063 | 4.7 | 159.3 | 251.2 | 60.7 | $3,436.1$ |
| ALL | ALL | ALL | 197 | ALL | 17.0 | 75 | 96 | 36,805 | 35,063 | 4.7 | 159.3 | 251.2 | 60.7 | $3,436.1$ |

## Cruise Unit Report <br> RUE BEE U3

Unit Sale Notice Volume (MBF): RUE BEE U3

| Sp | DBH | Rings/In | Age | MBF Volume by Grade |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| DF | 16.5 | 7.0 |  | 797 | 257 | 451 | 77 | 12 |
| WH | 14.7 |  |  | 309 | 150 | 115 | 40 | 5 |
| RA | 10.8 |  |  | 9 |  |  | 9 |  |
| SS | 27.0 |  |  | 8 | 6 | 2 |  |  |
| ALL | 15.7 | 7.0 |  | 1,123 | 413 | 568 | 126 | 17 |

Unit Cruise Design: RUE BEE U3

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B1C: VR, 1 BAF (46.94) Measure/Count Plots, <br> Sighting Ht $=4.5 \mathrm{ft}$ | 33.0 | 38.9 | 35 | 18 | 0 |

Unit Cruise Summary: RUE BEE U3

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 67 | 134 | 3.8 | 1 |
| WH | 24 | 54 | 1.5 | 0 |
| RA | 3 | 3 | 0.1 | 0 |
| SS | 1 | 1 | 0.0 | 0 |
| ALL | 95 | 192 | 5.5 | 1 |

Unit Cruise Statistics: RUE BEE U3

| Sp | BA (sq ft/acre) | BA CV (\%) | BA SE (\%) | V-BAR <br> (bf/sq ft) | V-BAR CV <br> (\%) | V-BAR SE <br> (\%) | Net Vol (bf/acre) | Vol CV <br> (\%) | Vol SE <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DF | 179.7 | 48.4 | 8.2 | 134.4 | 15.4 | 1.9 | 24,156 | 50.8 | 8.4 |
| WH | 72.4 | 138.2 | 23.4 | 129.5 | 26.0 | 5.3 | 9,377 | 140.7 | 24.0 |
| RA | 4.0 | 435.7 | 73.7 | 65.2 | 47.1 | 27.2 | 262 | 438.3 | 78.5 |
| SS | 1.3 | 591.6 | 100.0 | 175.1 | 0.0 | 0.0 | 235 | 591.6 | 100.0 |
| ALL | 257.5 | 22.7 | 3.8 | 132.2 | 20.9 | 2.1 | 34,030 | 30.9 | 4.4 |

## Unit Summary: RUE BEE U3

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 67 | ALL | 16.5 | 77 | 100 | 25,200 | 24,156 | 4.1 | 121.0 | 179.7 | 44.2 | 797.2 |
| RA | LIVE | CUT | 3 | ALL | 10.8 | 38 | 58 | 302 | 262 | 13.3 | 6.3 | 4.0 | 1.2 | 8.7 |
| SS | LIVE | CUT | 1 | ALL | 27.0 | 86 | 110 | 256 | 235 | 8.3 | 0.3 | 1.3 | 0.3 | 7.8 |
| WH | LIVE | CUT | 24 | ALL | 14.7 | 57 | 77 | 10,072 | 9,377 | 6.9 | 61.4 | 72.4 | 18.9 | 309.4 |
| ALL | LIVE | CUT | 95 | ALL | 15.8 | 69 | 91 | 35,831 | 34,030 | 5.0 | 189.0 | 257.5 | 64.6 | $1,123.0$ |
| ALL | ALL | ALL | 95 | ALL | 15.8 | 69 | 91 | 35,831 | 34,030 | 5.0 | 189.0 | 257.5 | 64.6 | $1,123.0$ |

## Cruise Unit Report

## RUE BEE U4

Unit Sale Notice Volume (MBF): RUE BEE U4

|  |  |  | MBF Volume by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw |
| Utility |  |  |  |  |  |  |  |
| DF | 16.5 | 7.0 | 917 | 310 | 499 | 103 | 4 |
| WH | 9.2 |  | 25 |  | 11 | 13 | 1 |
| RA | 10.2 |  | 8 |  |  | 8 |  |
| ALL | 15.3 | 7.0 | 950 | 310 | 511 | 124 | 5 |

Unit Cruise Design: RUE BEE U4

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B1C: VR, 1 BAF (40) Measure/Count Plots, <br> Sighting Ht $=4.5 \mathrm{ft}$ | 35.0 | 41.3 | 40 | 20 | 0 |

Unit Cruise Summary: RUE BEE U4

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 106 | 207 | 5.2 | 1 |
| WH | 6 | 6 | 0.2 | 0 |
| RA | 3 | 3 | 0.1 | 0 |
| ALL | 115 | 216 | 5.4 | 1 |

Unit Cruise Statistics: RUE BEE U4

| Sp | BA <br> (sq ft/acre) | BA CV <br> $(\%)$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ | Vol SE <br> $(\%)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | 207.0 | 22.3 | 3.5 | 126.6 | 15.9 | 1.5 | 26,203 | 27.4 | 3.8 |
| WH | 6.0 | 355.7 | 56.2 | 119.1 | 17.8 | 7.3 | 715 | 356.1 | 56.7 |
| RA | 3.0 | 466.5 | 73.8 | 79.4 | 54.2 | 31.3 | 238 | 469.7 | 80.1 |
| ALL | 216.0 | 17.2 | 2.7 | 125.7 | 17.5 | 1.6 | 27,156 | 24.6 | 3.2 |

Unit Summary: RUE BEE U4

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 106 | ALL | 16.5 | 76 | 98 | 27,691 | 26,203 | 5.4 | 139.4 | 207.0 | 51.0 | 917.1 |
| RA | LIVE | CUT | 3 | ALL | 10.2 | 43 | 69 | 265 | 238 | 10.2 | 5.3 | 3.0 | 0.9 | 8.3 |


| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| WH | LIVE | CUT | 6 | ALL | 9.2 | 51 | 74 | 728 | 715 | 1.9 | 13.0 | 6.0 | 2.0 | 25.0 |
| ALL | LIVE | CUT | 115 | ALL | 15.8 | 73 | 95 | 28,684 | 27,156 | 5.3 | 157.7 | 216.0 | 53.9 | 950.5 |
| ALL | ALL | ALL | 115 | ALL | 15.8 | 73 | 95 | 28,684 | 27,156 | 5.3 | 157.7 | 216.0 | 53.9 | 950.5 |

## Cruise Unit Report

## RUE BEE U5

Unit Sale Notice Volume (MBF): RUE BEE U5

|  |  | MBF Volume by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw |
| 4 Saw |  |  |  |  |  |  |
| WH | 19.9 | 5 | 3 | 1 | 0 |  |
| RA | 9.9 | 4 |  |  | 4 |  |
| DF | 21.3 | 3 | 2 | 1 | 0 |  |
| ALL | 13.3 | 12 | 5 | 3 | 4 |  |

Unit Cruise Design: RUE BEE U5

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B1: VR, 1 BAF (40) Measure All, Sighting Ht <br> $=4.5 \mathrm{ft}$ | 0.6 | 0.7 | 3 | 3 | 0 |

Unit Cruise Summary: RUE BEE U5

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| WH | 4 | 4 | 1.3 | 0 |
| RA | 5 | 5 | 1.7 | 0 |
| DF | 3 | 3 | 1.0 | 0 |
| ALL | 12 | 12 | 4.0 | 0 |

Unit Cruise Statistics: RUE BEE U5

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ | Vol SE <br> $(\%)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| WH | 53.3 | 114.6 | 66.1 | 141.5 | 9.4 | 4.7 | 7,547 | 114.9 | 66.3 |
| RA | 66.7 | 124.9 | 72.1 | 99.8 | 7.9 | 3.5 | 6,654 | 125.1 | 72.2 |
| DF | 40.0 | 100.0 | 57.7 | 129.0 | 12.5 | 7.2 | 5,161 | 100.8 | 58.2 |
| ALL | 160.0 | 25.0 | 14.4 | 121.0 | 18.3 | 5.3 | 19,363 | 31.0 | 15.4 |

Unit Summary: RUE BEE U5

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 3 | ALL | 21.3 | 83 | 105 | 5,506 | 5,161 | 6.3 | 16.2 | 40.0 | 8.7 | 3.1 |
| RA | LIVE | CUT | 5 | ALL | 9.9 | 45 | 71 | 7,203 | 6,654 | 7.6 | 124.7 | 66.7 | 21.2 | 4.0 |


| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| WH | LIVE | CUT | 4 | ALL | 19.9 | 75 | 93 | 7,830 | 7,547 | 3.6 | 24.7 | 53.3 | 12.0 | 4.5 |
| ALL | LIVE | CUT | 12 | ALL | 13.3 | 53 | 77 | 20,538 | 19,363 | 5.7 | 165.6 | 160.0 | 41.8 | 11.6 |
| ALL | ALL | ALL | 12 | ALL | 13.3 | 53 | 77 | 20,538 | 19,363 | 5.7 | 165.6 | 160.0 | 41.8 | 11.6 |

FPANN No: 2942323

Effective Date: 4/10/2024
Expiration Date: 4/10/2027
Shut Down Zone: 651N ; .
EARR Tax Credit: Eligible Non-eligible
Reference: Rue Bee TS
30-106089

## Decision

Notification Accepted
## Approved

Disapproved$\square$ WithdrawnClosed

## FPAN Classification

$\square$ Class II Class III

Operations shall not begin before the effective date.
This Forest Practices Application is subject to the conditions listed below.
This Forest Practices Application is disapproved for the reasons listed below.
Applicant has withdrawn the Forest Practices Application/Notification (FPAN).
All forest practices obligations are met.

## Conditions on Approval/Reasons for Disapproval

No additional conditions.
NOTE: Forest practice activities located within 0.25 miles of an occupied marbled murrelet site are subject to disturbance avoidance timing restrictions per WAC 222-24-030, 222-30-050, 222-30-060, 222-30-065, 222-30-070, and 222-30-100. (April 1 to August 31)

Issued By: Lisa Kaino
Region: Pacific Cascade Region
Title: Forest Practices Forester
Date: $4 / 10 / 2024$
Copies to:
Issued in person:Landowner, Timber Owner, and Operator

- LO TO MOP


Date:


## 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 <br> Natural Resources Division | Department Of Natural Resources <br> Pacific Cascade Region |
| :--- | :--- | :--- |
| $\frac{\text { Physical Address }}{1111 \text { Israel Road, SW }}$Suite 301 <br> Tumwater, WA 98501 | Physical Address <br> 1125 Washington Street, SE <br> Olympia, WA 98504 | $\frac{\text { Physical Address }}{601 \text { Bond Rd }}$ |
| Mailing address <br> Post Office Box 409 403 <br> Olympia, WA 98504-0903 | Mailing Address |  |

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

## Other Andicable Laws

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

## Iransfer of Forest Practices Arolication/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

1. $\qquad$ caused the Notice of Decision for FPANN 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.

Castle Rock, WA
(Cily \& State where signed)

ROAD PLAN MAP
SALE NAME: RUE BEE
REGION: Pacific Cascade Region
AGREEMENT\#: 30-106089
COUNTY(S): Pacific
TOWNSHIP(S): T13R8W ELEVATION RGE: 160-960
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1), University - Transferred (5)

$\rightleftharpoons$ County Road
$\rightleftharpoons$ Existing Roads
$\Longrightarrow$ Required Pre-Haul Maintenance

ROAD PLAN MAP


ROAD PLAN MAP
$\begin{array}{ll}\text { SALE NAME: } & \text { RUE BEE } \\ \text { AGREEMENT\#: } & 30-106089\end{array}$

## REGION:

 Pacific Cascade RegionAGREEMENT \#: $30-106089$
TOWNSHIP(S): T13R8W
COUNTY(S): Pacific
ELEVATION RGE: $160-960$
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1), University - Transferred (5)


ROAD PLAN MAP
SALE NAME: RUE BEE
REGION:
COUNTY(S): Pacific Cascade Region
AGREEMENT\#: 30-106089
ELEVATION RGE: $160-960$
TOWNSHIP(S): T13R8W
ransferred (5)

$1 \angle 5-44 \mathrm{vv}$
$\int$ Existing Roads
$=$ Required Pre-Haul Maintenance
$\Longrightarrow$ Required Reconstruction
---( Cross-drain Culvert
man Culvert
© Landing - Proposed
-- Optional Construction
$\rightarrow$ Optional Reconstruction

SALE NAME: RUE BEE
REGION:
COUNTY(S): Pacific Cascade Region AGREEMENT\#: 30-106089 ific
TOWNSHIP(S): T13R8W
ELEVATION RGE: 160-960

TRUST(S): Common School and Indemnity (3), State Forest Transfer (1), University - Transferred (5)

$\int$ Existing Roads
$\Longrightarrow$ Required Pre-Haul Maintenance
-- Optional Construction
$\rightarrow$ Optional Reconstruction
)-- Cross-drain Culvert
< Ditchout
© Landing - Proposed

SALE NAME: RUE BEE
AGREEMENT\#: 30-106089
REGION:
COUNTY(S): Pacific Cascade Region Pacific

TOWNSHIP(S): T13R8W
ELEVATION RGE: 160-960
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1), University - Transferred (5)

$1 \angle 5-45 \mathrm{vv}$
$\int$ Existing Roads
$=$ Required Pre-Haul Maintenance
$\rightarrow$ Optional Reconstruction
$\infty$ Required Abandonment
r-- Cross-drain Culvert
© Landing-Proposed


Harvest Unit

ROAD PLAN MAP

| SALE NAME: | RUE BEE | REGION: | Pacific Cascade Region |
| :--- | :--- | :--- | :--- |
| AGREEMENT\#: | $30-106089$ | COUNTY(S): | Pacific |
| TOWNSHIP(S): T13R8W | ELEVATION RGGE: | $160-960$ |  |

TRUST(S): Common School and Indemnity (3), State Forest Transfer (1), University - Transferred (5)

$123^{\circ} 41.5^{\prime} \mathrm{W}$


| SALE NAME: | RUE BEE | REGION: |
| :--- | :--- | :--- |$\quad$ Pacific Cascade Region

TRUST(S): Common School and Indemnity (3), State Forest Transfer (1), University - Transferred (5)

$1 \angle s \sim 4 \angle \mathrm{vv}$
$\int$ Existing Roads
$=$ Required Pre-Haul Maintenance
$\Longrightarrow$ Required Reconstruction
$\rightarrow$ Optional Reconstruction
$\infty$ Required Abandonment
)-- Cross-drain Culvert
© Landing - Proposed

STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

## RUE BEE TIMBER SALE ROAD PLAN <br> PACIFIC COUNTY <br> ST HELENS DISTRICT <br> PACIFIC CASCADE REGION

AGREEMENT NO.: 30-106089
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.

| $\underline{\text { Road }}$ | $\underline{\text { Stations }}$ | $\underline{\text { Type }}$ |
| :---: | :---: | :---: |
| A-Line | $0+00$ to $95+10$ | Pre-Haul Maintenance |
| A-1500 | $0+79$ to $9+44$ | Pre-Haul Maintenance |
| B-Line | $0+00$ to $219+11$ | Pre-Haul Maintenance |
| B-200 | $0+00$ to $17+19$ | Pre-Haul Maintenance |
| B-400 | $0+00$ to $20+66$ | Pre-Haul Maintenance |
| B-1320 | $0+00$ to $46+10$ | Pre-Haul Maintenance |
| B-1321 | $0+00$ to $12+25$ | Pre-Haul Maintenance |
| A-1500 | $0+00$ to $0+79$ | Reconstruction |
| A-1500 | $9+44$ to $23+60$ | Reconstruction |
| A-1520 | $0+00$ to $19+31$ | Reconstruction |
| B-210 | $0+00$ to $21+86$ | Reconstruction |
| B-211 | $0+00$ to $6+47$ | Abandonment |
| B-400 | $30+46$ to $30+96$ | 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.

| Road | $\underline{\text { Stations }}$ | Type |
| :---: | :---: | :---: |
| A-1500 | $23+60$ to $36+30$ | Reconstruction |
| A-1510 | $0+00$ to $5+19$ | Reconstruction |
| A-1530 | $0+00$ to $4+64$ | Construction |
| B-210 | $21+86$ to $29+85$ | Reconstruction |
| B-212 | $0+00$ to $11+66$ | Reconstruction |
| B-213 | $0+00$ to $3+16$ | Reconstruction |
| B-214 | $0+00$ to $2+30$ | Reconstruction |
| B-215 | $0+00$ to $2+03$ | Reconstruction |
| B-400 | $20+66$ to $30+46$ | Reconstruction |
| B-430 | $0+00$ to $6+21$ | Reconstruction |
| B-500 | $0+00$ to $31+88$ | Reconstruction |
| B-550 | $0+00$ to $10+09$ | Reconstruction |
| B-560 | $0+00$ to $6+25$ | Construction |

## 0-4 CONSTRUCTION

Construction includes, but is not limited to: clearing, grubbing, and organic debris disposal; excavation, embankment, fill, and waste material disposal; turnout, landing, turnaround, ditch, and ditch-out construction; acquisition and installation of drainage structures; shaping and compaction; acquisition, manufacture, and application of rock; acquisition and installation of (a) gate(s); acquisition and application of erosion control.

## 0-5 RECONSTRUCTION

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

| Road | Stations | Requirements |
| :---: | :---: | :---: |
| A-1500 | 0+00 to 0+79 | Clearing and grubbing, widening the road prism, installing new culverts, maintaining existing culverts, shaping and compaction, rock, erosion control |
| A-1500 | 9+44 to 23+60 |  |
| A-1500 | 23+60 to 36+30 |  |
| A-1510 | 0+00 to 5+19 |  |
| A-1520 | 0+00 to 19+31 |  |
| B-210 | $0+00$ to 21+86 |  |
| B-210 | 21+86 to 29+85 |  |
| B-212 | 0+00 to 11+66 |  |
| B-213 | 0+00 to 3+16 |  |
| B-214 | $0+00$ to $2+30$ |  |
| B-215 | 0+00 to 2+03 |  |
| B-400 | 20+66 to 30+46 |  |
| B-430 | $0+00$ to 6+21 |  |
| B-500 | 0+00 to 31+88 |  |
| B-550 | 0+00 to 10+09 |  |

## 0-6 PRE-HAUL MAINTENANCE

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

| $\underline{\text { Road }}$ | $\underline{\text { Stations }}$ | $\underline{\text { Requirements }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A-Line | $0+00$ to $95+10$ | Maintenance grading, rock |  |  |
| A-1500 | $0+79$ to $9+44$ |  |  |  |
| B-Line | $0+00$ to $219+11$ |  |  |  |
| B-400 | $0+00$ to $20+66$ |  |  |  |
| B-1320 | $0+00$ to $46+10$ | $0+00$ to $12+25$ |  |  |
| B-1321 | $0+00$ to $17+19$ | Brushing, maintenance grading, rock <br> application in accordance with the <br> ROCK LIST, compaction |  |  |

## 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, ripping, blasting, and pre-screening. 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.

| Tolerance Class | $\underline{\mathrm{A}}$ | $\underline{\mathrm{B}}$ | $\underline{\mathrm{C}}$ |
| :--- | :---: | :---: | :---: |
| 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.

## 1-9 DAMAGED METALLIC COATING

Any cut ends, or damaged galvanized or aluminized coating on existing or new bridge components, culverts, downspouts, and flumes must be cleaned and treated with a minimum of two coats of zinc rich paint or cold galvanizing compound.

## 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, orange paint, ROW tags


## 1-18 REFERENCE POINT DAMAGE

Purchaser shall reset reference points (RPs) that were moved or damaged at any time during construction to their original locations. Excavation and embankment may not proceed on road segments controlled by said RPs until Purchaser resets all moved or damaged RPs.

## 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:

- Brushing
- Ditch \& culvert cleaning
- Subgrade construction \& reconstruction, drainage installation \& subgrade compaction
- Grading, rock application \& compaction
- Erosion control application


## 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.

| Activity | Closure Period |
| :---: | :---: |
| Road Construction <br> and Reconstruction | October 1 to April 30, except work <br> listed in 1-27 |

## 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.

## 1-27 TIMING RESTRICTION FOR MARBLED MURRELET

On the following roads, any road work, right-of-way timber falling and yarding, rock pit operation, or heavy equipment operation is not allowed from one hour before official sunrise to two hours after official sunrise, and from one hour before official sunset to one hour after official sunset from April 1 through September 23. This restriction does not apply to hauling timber, rock, or equipment on listed roads.

| $\frac{\text { Road }}{\text { Activity }}$ | $\underline{\text { Stations }}$ |  |
| :---: | :---: | :---: |
| B-210 | Reconstruction | $6+70$ to $10+25$ |
| B-211 | Abandonment | $0+00$ to $6+47$ |
| B-400 | Abandonment | $30+46$ to $30+96$ |

## 1-29 SEDIMENT RESTRICTION

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

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 select pit 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. Material utilized to protect the deck surface from tracked equipment damage must be of substantial thickness, durability, and width to support the machine weight and prevent grousers from touching the bridge deck and asphalt surfaces.

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 Region Engineer 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 Region Engineer.

## 1-33 SNOW PLOWING RESTRICTION

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

## 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. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

| $\underline{\text { Road }}$ | Stations | Requirements |
| :---: | :---: | :---: |
| A-Line | $0+00$ to $95+10$ |  |
| A-1500 | $0+79$ to $9+44$ | Grade and shape existing road surface, |
| B-Line | $0+00$ to $219+11$ | apply rock in accordance with the <br> ROCK LIST, compact |
| B-200 | $0+00$ to $17+19$ |  |
| B-400 | $0+00$ to $20+66$ |  |
| B-1320 | $0+00$ to $46+10$ |  |
| B-1321 | $0+00$ to $12+25$ |  |

## SECTION 3 - CLEARING, GRUBBING, AND DISPOSAL

## 3-1 BRUSHING

Purchaser shall cut vegetative material up to 5 inches in diameter, including limbs, as shown on the ROADSIDE BRUSHING DETAIL. Brushing must be achieved by manual or mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation may not be disturbed unless directed by the Contract Administrator. Purchaser shall remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets.

## 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.

## 3-7 RIGHT-OF-WAY DECKING

Purchaser shall deck all right-of-way timber. Decks must be parallel to the road centerline and placed within the cleared right-of-way. Decks must be free of dirt, limbs, and other right-of-way debris, and removable by standard log loading equipment from the roadbed.

## 3-8 PROHIBITED DECKING AREAS

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

- Within the grubbing limits.
- Within 50 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 and within waste and debris areas. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. 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 subgrade compaction, application of rock, and timber haul.

## 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

Purchaser shall scatter organic debris outside of the grubbing limits and in natural openings. Where natural openings are unavailable or restrictive, alternate debris disposal methods are subject to the written approval of 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, unless construction staked or designed:

|  | Excavation | Excavation Slope |
| :---: | :---: | :---: |
| Material Type | Slope Ratio | Percent |
| Common Earth (on side slopes up to 55\%) | 1:1 | 100 |
| Common Earth ( $56 \%$ to 70\% side slopes) | 3/4:1 | 133 |
| Common Earth (on slopes over 70\%) | 1/2:1 | 200 |
| Fractured or loose rock | 1/2:1 | 200 |
| Hardpan or solid rock | 11/4:1 | 400 |

## 4-6 EMBANKMENT SLOPE RATIO

Purchaser shall construct embankment slopes no steeper than shown on the following table, unless construction staked or designed:

|  | Embankment |  | Embankment |
| :--- | :---: | :---: | :---: |
| Material Type |  | Slope Ratio <br> Slope Percent |  |
| Sandy Soils | $2: 1$ |  | 50 |
| Common Earth and Rounded Gravel | $11 / 2: 1$ |  | 67 |
| Angular Rock | $11 / 4: 1$ |  | 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

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.

## 4-21 TURNOUTS

Purchaser shall construct turnouts as designated on the ROCK LIST. Minimum dimensions are shown on the ROCK LIST.

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

## 4-27 DITCH WORK - MATERIAL USE PROHIBITED

Purchaser shall not pull ditch material across the road or mix in with the road surface. Excavated material must be disposed of in accordance with Clause 4-38 PROHIBITED WASTE DISPOSAL AREAS.

## 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. DOL or DOR 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 $55 \%$, 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 areas identified or approved by the Contract Administrator. Additional waste areas may also be identified or approved by the Contract Administrator. The amount of material allowed in a waste area is at the discretion of the Contract Administrator.

## 4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas:

- 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.
- Within the operational area for cable landings.
- 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.

## 4-56 DRY WEATHER SHAPING

The Contract Administrator may require the application of water to facilitate shaping activities. The method of water application is subject to written approval by the Contract Administrator.

## 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 constructed and 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 timber haul.

## 4-62 DRY WEATHER COMPACTION

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

## 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

## 5-1 REMOVAL OF SHOULDER BERMS

Purchaser shall remove berms from road shoulders. The construction of ditchouts is required where ponding could result from the effects of sidecast debris.

## 5-5 CULVERTS

Purchaser shall install culverts 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.

## 5-6 CULVERT TYPE

Purchaser shall install culverts made of plastic in accordance with Clauses 10-17 through 10-22.

## 5-10 CULVERT MARKER INSTALLATION

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

## 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 placement of rock. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Placement must be with a zero-drop-height method only.

## 5-27 ARMORING FOR STREAM CROSSING CULVERTS

At the following culvert(s), Purchaser shall place SELECT PIT RUN ROCK in conjunction with or immediately following construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the CULVERT LIST. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement must be with a zero-drop-height method only. No placement by end dumping or dropping of rock is allowed. SELECT PIT RUN ROCK must meet the specifications in Clause 6-41.

| Road | $\frac{\text { Stations }}{15+05}$ | Rock Type |
| :---: | :---: | :---: |
| A-1520 | SELECT PIT RUN |  |

## 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.

| $\underline{\text { Source }}$ | $\underline{\text { Location }}$ | $\underline{\text { Rock Type }}$ |
| :---: | :---: | :---: |
| B-1321 Pit | S30 T13N R08W | SELECT PIT RUN |

## 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. Quantities needed in excess of the stockpiled amount may be obtained from a commercial source.

| $\underline{\text { Source }}$ | $\underline{\text { Location }}$ | Rock Type | $\underline{\text { Quantity }}$ |
| :---: | :---: | :---: | :---: |
| B-1321 | S30 T13N R08W | 2 - INCH MINUS CRUSHED | 1300 cy |

*Stockpiled quantities are an estimate only. Actual quantities may vary.

## 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.

| Possible Source | $\underline{\text { Phone }}$ |
| :---: | :---: |
| Hawk's Superior Rock | $360-942-5414$ |

## 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.

| Source | Rock Type |
| :---: | :---: |
| B-1321 Pit | SELECT PIT RUN |

## 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 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. Purchaser shall provide a sieve analysis upon request from the Contract Administrator.

## 6-30 2-INCH MINUS CRUSHED ROCK

\% Passing 2" square sieve 100\%
\% Passing 1" square sieve 55-75\%
\% Passing U.S. \#4 sieve $20-45 \%$

Of the fraction passing the No. 4 sieve, $40 \%$ to $60 \%$ must pass the No. 10 sieve.
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.

## 6-41 SELECT PIT RUN ROCK

No more than 50 percent of the rock may be larger than 6 inches in any dimension and no rock may be larger than 10 inches in any dimension. Select Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

## 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 MEASURMENT BY TRUCK VOLUME

Measurement of spot, turnaround, turnout, energy dissipater, headwall, culvert armoring, 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 as shown in ROCK ACCOUNTABILITY DETAIL 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 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. The Contract Administrator may direct locations for rock that is to be applied as spot patching. 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 unless otherwise specified in the ROCK LIST.

## 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.

## 6-80 WATERING FOR DUST ABATEMENT

Purchaser shall use water for dust abatement as directed 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. Purchaser shall retrieve all material carried downstream from the jobsite.

## 7-6 STREAM CROSSING INSTALLATION

Purchaser shall install stream crossing structures in accordance with the manufacturer's requirements.

## SECTION 8 - EROSION CONTROL

## 8-1 SEDIMENT CONTROL STRUCTURES

Purchaser shall install 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

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.

| Road | Qty (lbs) ${ }^{*}$ |
| :---: | :---: |
| A-1500 | 74 |
| A-1510 | 14 |
| A-1520 | 53 |
| A-1530 | 13 |
| B-210 | 82 |
| B-212 | 32 |
| B-213 | 9 |
| B-214 | 6 |
| B-215 | 6 |
| B-400 | 45 |
| B-430 | 17 |
| B-500 | 146 |
| B-550 | 28 |
| B-560 | 17 |
| TOTAL | 542 |

*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. 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.

## 8-25 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.

| Kind and Variety of Seed in Mixture | \% by Weight |
| :---: | :---: |
|  | Ryegrass |
| Fescue | $35-45$ |
| Highland Bent | $5-15$ |
| White Clover | $8-20$ |
| Inert and Other Crop | 0.5 |

SECTION 9 - POST-HAUL ROAD WORK

## 9-1 EARTHEN BARRICADES

Purchaser shall construct barricades in accordance with the EARTHEN BARRICADE DETAIL.

| $\frac{\text { Road }}{}$ | $\frac{\text { Stations }}{}$ |
| :---: | :---: |
| B-211 | $0+00$ |
| B-400 | $30+46$ |

## 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.

## 9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

## 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.

| Road | $\underline{\text { Stations }}$ | Type |
| :---: | :---: | :---: |
| B-211 | $0+00$ to $6+47$ | Light |
| B-400 | $30+46$ to $30+96$ | Light |

## 9-22 LIGHT ABANDONMENT

- Remove road shoulder berms except as directed.
- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing which 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.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars shall be outsloped to provide positive drainage. Outlets shall be on stable locations.
- Remove culverts.
- Remove ditch cross drain culverts and leave the resulting trench open.
- Transport all removed culverts off site. All removed culverts shall become the property of the Purchaser.
- Block roads with earthen barricades according to the attached EARTHEN BARRICADE DETAIL.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.
- Cover, concurrently with abandonment, all exposed soils within 100 feet of any live stream, with a 4-inch deep layer of straw.

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.

## ROAD CROSS-SECTION (not to scale)



TURNOUT DETAIL PLAN VIEW (not to scale) Surfacing (B1) Ballast (B2)

|  |  |  |  | Width (ft) |  | Ditch (ft) |  |  | Grubbing |  | Clearing |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Road | From | To | Tolerance | Subgrade | Road | Width | Depth |  | Limi | (ft) | Limi | (ft) |
| Name | Station | Station | Class | $\underline{S}$ | $\underline{R}$ | W | D | Crown (\%) | G1 | G2 | C1 | C2 |
| A-Line | 0+00 | 95+10 | A | - | 12 | - | - | 4 | - | - | - | - |
| A-1500 | 0+79 | 9+44 | A | - | 12 | - | - | 4 | - | - | - | - |
| B-Line | 0+00 | 219+11 | A | - | 12 | - | - | 4 | - | - | - | - |
| B-200 | 0+00 | 17+19 | A | - | 12 | - | - | 4 | - | - | - | - |
| B-400 | 0+00 | 20+66 | A | - | 12 | - | - | 4 | - | - | - | - |
| B-1320 | 0+00 | $46+10$ | A | - | 12 | - | - | 4 | - | - | - | - |
| B-1321 | 0+00 | 12+25 | A | - | 12 | - | - | 4 | - | - | - | - |
| A-1500 | 0+00 | 0+79 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| A-1500 | 9+44 | 23+60 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| A-1500 | 23+60 | 36+30 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| A-1510 | 0+00 | 5+19 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| A-1520 | 0+00 | 19+31 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| A-1530 | 0+00 | 4+64 | C | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-210 | 0+00 | 21+86 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-210 | 21+86 | 29+85 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-212 | 0+00 | 11+66 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-213 | 0+00 | 3+16 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-214 | 0+00 | 2+30 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-215 | 0+00 | 2+03 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-400 | 20+66 | 30+46 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-430 | 0+00 | 6+21 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-500 | 0+00 | 31+88 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-550 | 0+00 | 10+09 | B | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
| B-560 | 0+00 | 6+25 | C | 16 | 12 | 3 | 1 | 4 | 5 | 5 | 10 | 10 |
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2-INCH MINUS CRUSHED ROCK

|  |  |  | Compacted |  |  |  | Rock |  |  |  | Rock Slope |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rock | CY/ | No. | CY | Source |  | nout |  | Ratio |
| Road | From | To | Depth (in) | Station | Stations | Subtotal |  | L | H | T | K1 |
| A-Line | 0+00 | 95+10 | Sp | t Rock |  | 110 |  | - | - | - | 1.5:1 |
| A-1500 | 0+79 | 9+44 |  | t Rock |  | 40 |  | - | - | - | 1.5:1 |
| B-Line | 0+00 | 219+11 |  | t Rock |  | 260 |  | - | - | - | 1.5:1 |
| B-200 | 0+00 | 17+19 |  | t Rock |  | 30 | B-1321 Pit | - | - | - | 1.5:1 |
| B-400 | 0+00 | 20+66 |  | t Rock |  | 30 | Stockpile | - | - | - | 1.5:1 |
| B-500 | 0+00 | 31+88 | 3 | 16 | 31.88 | 518 |  | - | - | - | 1.5:1 |
| B-1320 | 0+00 | $46+10$ | Spot Rock |  |  | 70 |  | - | - | - | 1.5:1 |
| B-1321 | 0+00 | $12+25$ | Spot Rock |  |  | 20 |  | - | - | - | 1.5:1 |
|  |  |  |  |  |  |  |  |  |  |  |  |

REQUIRED 2-INCH MINUS CRUSHED ROCK TOTAL $\underline{1078}$
Cubic Yards

ROCK LIST
(Page 2 of 3)

SELECT PIT RUN ROCK

|  |  |  | Compacted |  |  |  | Rock |  |  |  | Rock Slope |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rock | CY/ | No. | CY | Source | Turnout (ft) |  |  | Ratio |
| Road | From | To | Depth (in) | Station | Stations | Subtotal | B-1321 Pit | L | H | T | K2 |
| A-1500 | Junction Widening | 0+00 | 12 | 63 | 1.00 | 63 |  | - | - | - | 1.5:1 |
| A-1500 | 9+44 | 23+60 | 8 | 42 | 14.16 | 595 |  | - | - | - | 1.5:1 |
| A-1500 | 23+60 | 36+30 | 8 | 42 | 12.70 | 533 |  | - | - | - | 1.5:1 |
| A-1500 | Turnaround | 35+30 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| A-1510 | 0+00 | 5+19 | 12 | 63 | 5.19 | 327 |  | - | - | - | 1.5:1 |
| A-1510 | Turnaround | 4+19 | -- | -- | -- | 42 |  | - | - | - | 1.5:1 |
| A-1510 | Landing | 5+19 | -- | -- | -- | 63 |  | - | - | - | - |
| A-1520 | 0+00 | 19+31 | 12 | 63 | 19.31 | 1,217 |  | - | - | - | 1.5:1 |
| A-1520 | Turnout | 8+94 | -- | -- | -- | 23 |  | 50 | 10 | 25 | 1.5:1 |
| A-1520 | Turnaround | 2+00 | -- | -- | -- | 42 |  | - | - | - | 1.5:1 |
| A-1520 | Turnaround | 18+31 | -- | -- | -- | 42 |  | - | - | - | 1.5:1 |
| A-1520 | Landing | 2+90 | -- | -- | -- | 63 |  | - | - | - | - |
| A-1520 | Landing | 10+04 | -- | -- | -- | 63 |  | - | - | - | - |
| A-1520 | Landing | 19+31 | -- | -- | -- | 63 |  | - | - | - | - |
| A-1520 | Culvert | -- | -- | -- | -- | 16 |  | - | - | - | - |
| A-1530 | 0+00 | 4+64 | 12 | 63 | 4.64 | 292 |  | - | - | - | 1.5:1 |
| A-1530 | Turnaround | 3+64 | -- | -- | -- | 42 |  | - | - | - | 1.5:1 |
| A-1530 | Landing | 4+64 | -- | -- | -- | 63 |  | - | - | - | - |
| B-210 | 0+00 | 21+86 | 8 | 42 | 21.86 | 918 |  | - | - | - | 1.5:1 |
| B-210 | Turnout | 19+33 | -- | -- | -- | 15 |  | 50 | 10 | 25 | 1.5:1 |
| B-210 | Culvert | -- | -- | -- | -- | 2 |  | - | - | - | - |
| B-210 | 21+86 | 29+85 | 8 | 42 | 7.99 | 336 |  | - | - | - | 1.5:1 |
| B-210 | Landing | 29+85 | -- | -- | -- | 42 |  | - | - | - | - |
| B-210 | Turnaround | 28+85 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-212 | 0+00 | 11+66 | 8 | 42 | 11.66 | 490 |  | - | - | - | 1.5:1 |
| B-212 | Turnout | 3+08 | -- | -- | -- | 15 |  | 50 | 10 | 25 | 1.5:1 |
| B-212 | Turnaround | 10+66 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-212 | Culvert | -- | -- | -- | -- | 2 |  | - | - | - | - |
| B-213 | 0+00 | 3+16 | 8 | 42 | 3.16 | 133 |  | - | - | - | 1.5:1 |
| B-213 | Landing | 3+16 | -- | -- | -- | 42 |  | - | - | - | - |
| B-213 | Turnaround | 2+16 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-214 | 0+00 | 2+30 | 8 | 42 | 2.30 | 97 |  | - | - | - | 1.5:1 |
| B-214 | Landing | 2+30 | -- | -- | -- | 42 |  | - | - | - | - |
| B-214 | Turnaround | 1+30 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-215 | 0+00 | 2+03 | 8 | 42 | 2.03 | 85 |  | - | - | - | 1.5:1 |
| B-215 | Landing | 2+03 | -- | -- | -- | 42 |  | - | - | - | - |
| B-215 | Turnaround | 1+03 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |

ROCK LIST
(Page 3 of 3)

SELECT PIT RUN ROCK

|  |  |  | Compacted |  |  |  | Rock |  |  |  | Rock Slope |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rock | CY/ | No. | CY | Source | Turnout (ft) |  |  | Ratio |
| Road | From | To | Depth (in) | Station | Stations | Subtotal | B-1321 Pit | L | H | T | K2 |
| B-400 | 20+66 | 30+46 | 8 | 42 | 9.80 | 412 |  | - | - | - | 1.5:1 |
| B-400 | Turnaround | 23+53 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-400 | Landing | 24+53 | -- | -- | -- | 42 |  | - | - | - | - |
| B-400 | Turnaround | 28+59 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-400 | Landing | 29+59 | -- | -- | -- | 42 |  | - | - | - | - |
| B-400 | Culvert | -- | -- | -- | -- | 2 |  | - | - | - | - |
| B-430 | 0+00 | 6+21 | 8 | 42 | 6.21 | 261 |  | - | - | - | 1.5:1 |
| B-430 | Landing | 6+21 | -- | -- | -- | 42 |  | - | - | - | - |
| B-430 | Turnaround | 5+21 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-500 | 0+00 | 31+88 | 8 | 42 | 31.88 | 1,339 |  | - | - | - | 1.5:1 |
| B-500 | Turnaround | 5+11 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-500 | Turnout | 16+03 | -- | -- | -- | 15 |  | 50 | 10 | 25 | 1.5:1 |
| B-500 | Turnaround | 18+44 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-500 | Turnaround | 23+92 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-500 | Turnaround | 30+88 | -- | -- | -- | 28 |  | - | - | - | 1.5:1 |
| B-500 | Landing | 6+11 | -- | -- | -- | 42 |  | - | - | - | - |
| B-500 | Landing | 13+67 | -- | -- | -- | 42 |  | - | - | - | - |
| B-500 | Landing | 19+54 | -- | -- | -- | 42 |  | - | - | - | - |
| B-500 | Landing | 24+92 | -- | -- | -- | 42 |  | - | - | - | - |
| B-500 | Landing | 31+88 | -- | -- | -- | 42 |  | - | - | - | - |
| B-500 | Culvert | -- | -- | -- | -- | 4 |  | - | - | - | - |
| B-550 | 0+00 | 10+09 | 12 | 63 | 10.09 | 636 |  | - | - | - | 1.5:1 |
| B-550 | Turnaround | 9+09 | -- | -- | -- | 42 |  | - | - | - | 1.5:1 |
| B-550 | Landing | 3+39 | -- | -- | -- | 63 |  | - | - | - | - |
| B-550 | Landing | 10+09 | -- | -- | -- | 63 |  | - | - | - | - |
| B-550 | Culvert | -- | -- | -- | -- | 4 |  | - | - | - | - |
| B-560 | 0+00 | 6+25 | 12 | 63 | 6.25 | 394 |  | - | - | - | 1.5:1 |
| B-560 | Landing | 6+25 | -- | -- | -- | 63 |  | - | - | - | - |
| B-560 | Turnaround | 5+25 | -- | -- | -- | 42 |  | - | - | - | 1.5:1 |
| B-560 | Junction Widening | 0+00 | 12 | 63 | 1.00 | 63 |  | - | - | - | 1.5:1 |
| B-560 | Culvert | -- | -- | -- | -- | 4 |  | - | - | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |


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| Road |  | Culvert | Length (ft) | Culvert Rock |  |  | Bedding/backfill | Construction | Culvert Marker |  |  |
| Name | Station | Diameter (in) | Culvert | Inlet (CY) | Outlet (CY) | Type | Type | Staked (Y/N) | Inlet (Y/N) | Outlet (Y/N) | Remarks |
| A-1510 | 0+00 | 18 | 30 | - | - | SPR | NT | N | $Y$ | Y | Cross Drain |
| A-1520 | 7+18 | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| A-1520 | $12+50$ | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| A-1520 | $14+30$ | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Disconnect |
| A-1520 | $15+05$ | 24 | 60 | 4 | 4 | SPR | NT | N | Y | Y | Stream Crossing |
| A-1520 | $15+80$ | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Disconnect |
| A-1530 | 0+00 | 18 | 30 | - | - | SPR | NT | N | Y | Y | Cross Drain |
| B-210 | 11+63 | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-212 | 7+53 | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-215 | 0+00 | 18 | 30 | - | - | SPR | NT | N | Y | Y | Cross Drain |
| B-400 | $25+56$ | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-500 | $11+10$ | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-500 | $26+45$ | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-500 | $31+88$ | - | - | - | - | - | - | N | - | - | DOL |
| B-550 | 1+16 | 18 | 40 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-550 | 7+53 | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-560 | 3+00 | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
| B-560 | 5+66 | 18 | 30 | 1 | 1 | SPR | NT | N | Y | Y | Cross Drain |
|  |  |  |  |  |  |  |  |  |  |  |  |
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Kеу
Culvert Rock- Armoring on stream culverts - Headwall and energy dissipater rock on cross drains
SPR- SELECT PIT RUN ROCK
NT- NATIVE MATERIAL
DOL- Ditchout left
DOR- Ditchout right

|  |  |  |  | Maximum |  |  |  | Maximum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Depth |  | Equipment | Minimum | Operating | Amount of |
| Road | From | To |  | Per Lift | Equipment | Weight | Number | Speed | Deflection |
| Name | Station | Station | Type | (inches) | Type | (pounds) | of Passes | (MPH) | (inches) |
| All | - | - | Existing Surface | - | Vibratory Smooth Drum | 20000 | 5 | 3 | 1 |
| All | - | - | Subgrade | - | Vibratory Smooth Drum | 20000 | 4 | 3 | 1 |
| All | - | - | Embankment | 12 | Excavation | 30000 | 4 | 3 | 2 |
| All | - | - | Fill | 24 | Excavation | 30000 | 4 | 3 | 2 |
| All | - | - | Rock | - | Vibratory Smooth Drum | 20000 | 5 | 3 | 1 |
| All | - | - | Waste Area | 24 | Excavation | 30000 | - | - | 4 |

## CULVERT AND DRAINAGE SPECIFICATION DETAIL PAGE 1 OF 2



## CULVERT AND DRAINAGE SPECIFICATION DETAIL <br> PAGE 2 OF 2



## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS <br> 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.



## ROADSIDE BRUSHING DETAIL



## GENERAL NOTES

1) Vegetative material, including limbs, up to 4 inches in diameter shall be cut within the brushing limits shown on the drawing above. This includes vegetative material growing on the running surface.
2) Vegetative material shall be cut as near flush with the ground as possible, but shall not extend more than 6 inches above the ground.
3) Brushing Limit C shall be increased to 12 feet on the inside of switchbacks and tight curves.
4) On truck turnouts or turnarounds, brush shall be cut 8 feet back from outside edge of running surface.



## ROAD ABANDONMENT CROSS SECTIONS



## NON-DRIVABLE WATER BAR DETAIL



# STATE OF WASHINGTON <br> DEPARTMENT OF NATURAL RESOURCES <br> <br> RUE BEE ROCK SOURCE DEVELOPMENT PLAN <br> <br> RUE BEE ROCK SOURCE DEVELOPMENT PLAN <br> <br> B-1321 Pit <br> <br> B-1321 Pit <br> <br> Page 1 of 3 

 <br> <br> 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. Trees shall be cleared to a minimum of $3 / 4$ of the height of the tallest tree adjacent to the pit.
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 $1 / 4: 1$. 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 <br> DEPARTMENT OF NATURAL RESOURCES 

RUE BEE ROCK SOURCE DEVELOPMENT PLAN
B-1321 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.

## B-1321 ROCK PIT DEVELOPMENT PLAN

Page 3 of 3

| $\sqrt{\mid p}$ |  |
| :---: | :---: |
|  | LEGEND <br> Mining Area <br> Existing Road <br> Cross Sections |

## CROSS SECTION PROFILE

Not to Scale
A-A' PROFILE



## INFORMATIONAL BLASTING PLAN

Timber Sale/Project Name: $\qquad$ App./Project No.: $\qquad$

1. Blaster-in-Charge: Name: $\qquad$
Company: $\qquad$
Address: $\qquad$
Telephone: $\qquad$
2. Quarry Name/Location: $\qquad$
3. Total Estimated Cubic Yards in Blast (loose): $\qquad$
4. Hole Spacing: $\qquad$
5. Burden: $\qquad$
6. Hole Diameter: $\qquad$
7. Hole Depth: $\qquad$
8. Sub Drill: $\qquad$
9. Number of Holes: $\qquad$
10. Stemming Depth: $\qquad$
11. Explosive (mfg., name, density, \%, V.O.D.): $\qquad$
12. Type and Size of Primer (if applicable): $\qquad$
13. Total Weight of Primers for Shot: $\qquad$
14. Calculated Powder Factor/Cubic Yard: $\qquad$
15. Number of Delays (in M.S.): $\qquad$

M-126PAC (03/04)

## INFORMATIONAL BLASTING PLAN

Page 2 of 3
16. Number of Holes Fired on Each Delay: $\qquad$
17. Total Amount of Explosives Fired on Each Delay: $\qquad$
18. Type of Blasting Machine: $\qquad$
19. Date, Start Drilling: $\qquad$
20. Date and Time, Start Loading: $\qquad$
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: $\qquad$ Date: $\qquad$
24. Received by: $\qquad$ Date: $\qquad$ Note: Attach copies of manufacturer=s data sheet(s) for explosive and caps. M-126PAC (03/04)

## ROCK ACCOUNTABILITY DETAIL

SALE NAME: $\qquad$

Agreement \#: $\qquad$
Rock Quarry/Pit: $\qquad$

Purchaser: $\qquad$

Contractor: $\qquad$
Truck No: $\qquad$

## DAILY ROCK LOAD RECORD

| DATE | LOAD <br> TIME | ROAD NO. | TYPE OF ROCK | QUANTITY | COMMENTS |
| :--- | :--- | :--- | :--- | :--- | :--- |
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Truck Driver Signature


SUMMARY Road Development Estimate
REGION Pacific Cascade
DISTRICT St Helens

SALE/PROJECT NAME Rue Bee
AGREEMENT NO. 30-106089


| TOTAL (All Roads) | $\mathbf{\$ 3 5 6 , 2 2 5}$ |  |
| ---: | ---: | ---: |
| TOTAL (Minus Optional Rock) | $\$ 356,225$ |  |
| SALE VOLUME MBF | 7595 |  |
| TOTAL $\$ / \mathrm{MBF}$ | $\mathbf{\$ c}$ | 46.90 |
| TOTAL \$/MBF (Minus Optional Rock) | $\$$ | 46.90 |

ROCK SOURCE SUMMARY

SALE/PROJECT NAME Rue Bee CONTRACT \# 30-106089

PIT NAME B-1321 Pit LOCATION S30 T13N R08W

## ASSUMED ROCK SWELL FACTOR LOOSE/COMPACTED 1.25

ASSUMED ROCK DENSITY TONS/CY 1.3

ROCK PIT PREPARATION
Grubbing w/ large excavator
Stripping overburden w/ large excavator Stripping overburden w/ large dozer

DEVELOMPENT AREA REVEGETATION
Grass seeding

MISCELLANEOUS

| $\$ 280.00$ | per hour $x$ | 10 | $\$ 2,800$ |
| :--- | :--- | :--- | :--- |
| $\$ 280.00$ | per hour $x$ | 10 | $\$ 2,800$ |
| $\$ 378.00$ | per hour $x$ | 10 | $\$ 3,780$ |

\$3.64 per pound $x \quad 50 \quad$ \$ 182

MISCELLANEOUS TOTAL \$ 9,562

## SALE/PROJECT NAME Rue Bee

 CONTRACT \# 30-106089
## PRE-HAUL/CONSTRUCTION EQUIPMENT

MOBILIZATION
Grader $\quad \$ 1,000$ each $x \quad 1$ \$ 1,000
Loader $\$ 1,000$ each $x$ 1 \$ 1,000
Dump truck
Dozer, small
Dozer, large
Brusher
Excavator, small
Excavator, large
Roller
Rock drill $\$ 1,000$ each $x$ 1 \$ 1,000
PRE-HAUL/CONSTRUCTION SUBTOTAL \$ 7,600

MOBILIZATION TOTAL \$ 7,600

SUMMARY OF ROAD
SALE/PROJECT NAME Rue Bee
CONTRACT \# 30-106089
ROAD NAME A-Line
Required pre-haul maintenance (stations) 95+10 Distance to B-1321 Pit (miles) 0.55
REQUIRED PRE-HAUL MAINTENANCE

| $\$$ | 1.64 | per CY $x$ | 110 | $\$$ | 181 |
| :--- | ---: | :--- | ---: | ---: | ---: |
| $\$$ | 165.00 | per hour $x$ | 8 round trip haul (miles) | 2.91 | $\$ 1,358$ |

# MISC. MAINTENANCE 

Maintenance grading
Maintenance rolling
ROAD ROCK
REQUIRED
2-INCH MINUS CRUSHED ROCK
Rock haul

## SUMMARY OF ROAD

> SALE/PROJECT NAME Rue Bee CONTRACT \# 30-106089 ROAD NAME A-1500

$$
\begin{aligned}
& \text { Total road length (stations) } 36+30 \\
& \text { Required reconstruction (stations) } 0+79 \\
& \text { Distance to B-1321 Pit (miles) } 2.34 \\
& \text { Required pre-haul maintenance (stations) } 8+65 \\
& \text { Distance to B-1321 Pit (miles) } 2.36 \\
& \text { Required reconstruction (stations) } 14+16 \\
& \text { Distance to B-1321 Pit (miles) } 2.52 \\
& \text { Optional reconstruction (stations) } 12+70 \\
& \text { Distance to B-1321 Pit (miles) } 2.79 \\
& \\
& \\
& \text { REQUIRED PRE-HAUL MAINTENANCE } 0+79 \text { to } 9+44
\end{aligned}
$$

MISC. MAINTENANCE
Maintenance grading
Maintenance rolling

ROAD ROCK
REQUIRED
2-INCH MINUS CRUSHED ROCK
Rock haul
Spread \& compact rock
CLEARING \& GRUBBING
Clearing \& grubbing
EXCAVATION AND FILL
Reconstruction
Shape \& compact subgrade
MISC. MAINTENANCE
Grass seeding

ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock

CLEARING \& GRUBBING
Clearing \& grubbing

EXCAVATION AND FILL
Reconstruction
Turnaround
Shape \& compact subgrade

MISC. MAINTENANCE
Grass seeding
ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock

| $\$$ | 18.03 | per station $x$ | 8.65 | $\$$ |
| :--- | :--- | :--- | :--- | :--- |
| $\$$ | 14.39 | per station $x$ | 8.65 | $\$$ |


| $\$$ | 1.64 | per CY $x$ | 40 | $\$$ | 66 |
| :--- | ---: | :--- | :--- | ---: | ---: |
| $\$$ | 165.00 | per hour $x$ | 1.6 round trip haul (miles) | 4.9 | $\$$ |
| $\$$ | 3.06 | per CY $x$ | 40 | $\$$ | 122 |

REQUIRED PRE-HAUL MAINTENANCE SUBTOTAL \$ 739

REQUIRED RECONSTRUCTION 0+00 to 0+79 \& 9+44 to 23+60

| \$ | 128.80 | per station x | 14.95 |  | \$ | 1,926 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 202.50 | per station x | 14.95 |  | \$ | 3,027 |
| \$ | 36.03 | per station x | 14.95 |  | \$ | 539 |
| \$ | 3.64 | per pound x | 41 |  | \$ | 150 |
| \$ | 5.87 | per CYx | 658 |  | \$ | 3,859 |
| \$ | 165.00 | per hour $x$ | 45.9 round trip haul (miles) | 5.31 | \$ | 7,568 |
| \$ | 3.06 | per CYx | 658 |  | \$ | 2,011 |

OPTIONAL RECONSTRUCTION $23+60$ to $36+30$

| \$ | 95.20 per station x | 12.70 |  |  | 1,209 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 138.00 per station x | 12.70 |  | \$ | 1,753 |
| \$ | 186.00 each x | 1 |  | \$ | 186 |
| \$ | 23.99 per station $x$ | 12.70 |  | \$ | 305 |
| \$ | 3.34 per pound x | 35 |  | \$ | 117 |
| \$ | 5.87 per CY x | 561 |  | \$ | 3,292 |
| \$ | 165.00 perhour $x$ | 42 round trip haul (miles) | 5.82 | \$ | 6,928 |
| \$ | 2.04 per CYx | 561 |  | \$ | 1,142 |
|  |  | OPTIONAL RECONSTRUCTION SUBTOTAL |  | \$ | 14,932 |

SUMMARY OF ROAD


SUMMARY OF ROAD

| SALE/PROJECT NAME Rue Bee CONTRACT \# 30-106089 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Required reconstruction (stations) 19+31 |  |  |  |  |  |  |
| Distance to B-1321 Pit (miles) 2.52 |  |  |  |  |  |  |
| REQUIRED RECONSTRUCTION |  |  |  |  |  |  |
| \$ | 128.80 | per station x | 19.31 |  | \$ | 2,487 |
| \$ | 202.50 | per station x | 19.31 |  | \$ | 3,910 |
| \$ | 284.00 | each $x$ | 1 |  | \$ | 284 |
| \$ | 284.00 | each $x$ | 3 |  | \$ | 852 |
| \$ | 284.00 | each $x$ | 2 |  | \$ | 568 |
| \$ | 36.03 | per station x | 19.31 |  | \$ | 696 |
| \$ | 3.64 | per pound x | 53 |  | \$ | 194 |
| \$ | 3,301.40 | per acre $x$ | 0.1 |  | \$ | 330 |
| \$ | 5.87 | per CY x | 1512 |  | \$ | 8,870 |
| \$ | 165.00 | per hour x | 107.0 round trip haul (miles) | 5.41 |  | 17,648 |
| \$ | 3.06 | perCY x | 1512 |  | \$ | 4,622 |
| \$ | 10.25 | perCY x | 16 |  | \$ | 164 |
| \$ | 20.89 | per foot $x$ | 120 |  | \$ | 2,507 |
| \$ | 28.26 | per foot $x$ | 60 |  | \$ | 1,696 |
| \$ | 114.00 | each $x$ | 1 |  | \$ | 114 |
| \$ | 28.50 | each $x$ | 10 |  | \$ | 285 |



SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee <br> CONTRACT \# 30-106089 <br> ROAD NAME B-Line

## Required pre-haul maintenance (stations) 219+11

 Distance to B-1321 Pit (miles) 0.84REQUIRED PRE-HAUL MAINTENANCE
MISC. MAINTENANCE
Maintenance grading
Maintenance rolling
ROAD ROCK
REQUIRED
2-INCH MINUS CRUSHED ROCK
Rock haul

Maintenance grading
$\$ \quad 18.03$ perstation $x \quad 219.11$ \$ 3,951
$\$ \quad 14.39$ perstation $x \quad 219.11 \quad$ \$ 3,154

ROAD ROCK
2-INCH MINUS CRUSHED ROCK
Rock haul

| $\$$ | 1.64 | per CY X | 260 |  | $\$ 28$ |
| :--- | ---: | :--- | ---: | ---: | ---: |
| $\$$ | 165.00 | perhour X | 35 round trip haul (miles) | 5.83 | $\$$ |
| 5,720 |  |  |  |  |  |

SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee

CONTRACT \# 30-106089
ROAD NAME B-200

> Required pre-haul maintenance (stations) 17+19

Distance to B-1321 Pit (miles) 4.02

REQUIRED PRE-HAUL MAINTENANCE

## MISC. MAINTENANCE

Brushing
Maintenance grading
Maintenance rolling

ROAD ROCK
REQUIRED
2-INCH MINUS CRUSHED ROCK
Rock haul

| $\$$ | 1.64 | per CY $x$ | 30 | $\$$ | 49 |
| :--- | ---: | :--- | ---: | ---: | ---: |
| $\$$ | 165.00 | per hour $x$ | 5.5 round trip haul (miles) | 8.36 | $\$$ |

SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee <br> CONTRACT \# 30-106089 <br> ROAD NAME B-210

| SUMMARY OF ROAD |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SALE/PROJECT NAME Rue Bee |  |  |  |  |  |
| CONTRACT \# 30-106089 |  |  |  |  |  |
| ROAD NAME B-210 |  |  |  |  |  |
| Total road length (stations) 29+85 |  |  |  |  |  |
| Required reconstruction (stations) $21+86$ |  |  |  |  |  |
| Distance to B-1321 Pit (miles) 4.34 |  |  |  |  |  |
| Optional reconstruction (stations) 7+99 |  |  |  |  |  |
| Distance to B-1321 Pit (miles) 4.75 |  |  |  |  |  |
| REQUIRED RECONSTRUCTION 0+00 to 21+86 |  |  |  |  |  |
|  | 128.80 per station x | 21.86 |  | \$ | 2,816 |
|  | 202.50 per station $x$ | 21.86 |  | \$ | 4,427 |
| \$ | 284.00 each $x$ | 1 |  | \$ | 284 |
| \$ | 36.03 per station $x$ | 21.86 |  | \$ | 788 |
|  | 3.64 per pound $x$ | 60 |  | \$ | 219 |
| \$ | 5.87 per CY x | 934 |  | \$ | 5,477 |
| \$ | 165.00 per hour $x$ | 100.5 round trip haul (miles) | 9.10 | \$ | 16,590 |
| \$ | 3.06 per CY x | 934 |  | \$ | 2,854 |
| \$ | 10.25 per CYx | 2 |  | \$ | 21 |
|  | 20.89 per foot $x$ | 30 |  | \$ | 627 |
|  | 28.50 each x | 2 |  | \$ | 57 |
|  |  | REQUIRED RECONSTRUCTION SUBTOTAL |  | \$ | 34,158 |
| OPTIONAL RECONSTRUCTION $21+86$ to 29+85 |  |  |  |  |  |
| \$ | 95.20 per station x | 7.99 |  | \$ | 761 |
| \$ | 138.00 per station $x$ | 7.99 |  | \$ | 1,103 |
| \$ | 186.00 each $x$ | 1 |  | \$ | 186 |
|  | 186.00 each $x$ | 1 |  | \$ | 186 |
|  | 23.99 per station $x$ | 7.99 |  | \$ | 192 |
| \$ | 3.34 per pound $x$ | 22 |  | \$ | 74 |
| \$ | 5.87 per CY x | 405 |  | \$ | 2,378 |
| \$ | 165.00 per hour $x$ | 46 round trip haul (miles) | 9.65 | \$ | 7,566 |
| \$ | 2.04 per CY X | 405 |  | \$ | 825 |

REQUIRED RECONSTRUCTION SUBTOTAL \$ 34,158

OPTIONAL RECONSTRUCTION 21+86 to 29+85

## CLEARING \& GRUBBING

Clearing \& grubbing
EXCAVATION AND FILL
Reconstruction
Landing
Turnaround
Shape \& compact subgrade
MISC. MAINTENANCE
Grass seeding
ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock

SUMMARY OF ROAD

# SALE/PROJECT NAME Rue Bee CONTRACT \# 30-106089 ROAD NAME B-211 

# Required Abandonment (stations) 6+47 

## REQUIRED ABANDONMENT

# ROAD DEACTIVATION \& ABANDONMENT 

Light abandonment
\$ $\quad 143.50$ per station $x \quad 6.47$
Grass seeding

SUMMARY OF ROAD


SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee

CONTRACT \# 30-106089
ROAD NAME B-213

Optional reconstruction (stations) 3+16
Distance to B-1321 Pit (miles) 4.89

OPTIONAL RECONSTRUCTION

CLEARING \& GRUBBING
Clearing \& grubbing

EXCAVATION AND FILL
Reconstruction
Landing
Turnaround
Shape \& compact subgrade
MISC. MAINTENANCE
Grass seeding
ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock
$\begin{array}{llll}\text { \$ } & 128.80 & \text { per station } x & 3.16\end{array}$

| \$ | 202.50 | per station x | 3.16 | \$ | 640 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 284.00 | each $x$ | 1 | \$ | 284 |
| \$ | 284.00 | each $x$ | 1 | \$ | 284 |
| \$ | 36.03 | per station x | 3.16 | \$ | 114 |

$\begin{array}{llll}\$ 3.64 & \text { per pound } x & 9 & \$\end{array}$

| $\$$ | 5.87 | per CY $x$ | 202 |  | 1,188 |
| :--- | ---: | :--- | ---: | ---: | ---: |
| $\$$ | 165.00 | per hourx | 23.3 round trip haul (miles) | 9.84 | $\$$ |
| $\$$ | 3.06 | per CY $x$ | 202 |  | $\$$ |
| $\$$ |  | 619 |  |  |  |

SUMMARY OF ROAD

SALE/PROJECT NAME Rue Bee
CONTRACT \# 30-106089
ROAD NAME B-214

Optional reconstruction (stations) $2+30$
Distance to B-1321 Pit (miles) 4.75

OPTIONAL RECONSTRUCTION

CLEARING \& GRUBBING
Clearing \& grubbing

EXCAVATION AND FILL
Reconstruction
Landing
Turnaround
Shape \& compact subgrade
MISC. MAINTENANCE
Grass seeding
ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock
$\begin{array}{llll}\text { \$ } & 128.80 \text { per station } x & 2.30 & \text { \$ } 296\end{array}$
\$ 202.50 per station $x \quad 2.30$
.30 \$ 466
\$ 284.00 each $x \quad 1 \quad \$ 284$

| $\$ 284.00$ each $x$ | 1 | $\$$ | 284 |
| :--- | :--- | :--- | :--- |


| $\$ 36.03$ | per station $x$ | 2.30 | $\$$ | 83 |
| :--- | :--- | :--- | :--- | :--- |

$\begin{array}{llll}\text { \$ } & 3.64 \text { per pound } x & 6 & \$\end{array}$

| $\$$ | 5.87 | per CY $x$ | 166 |  | $\$$ |
| :--- | ---: | :--- | ---: | ---: | ---: |
| $\$$ | 165.00 | per hour | 18.6 round trip haul (miles) | 9.54 | $\$$ |
| $\$$ | 3.06 | per CY $x$ | 166 |  | $\$$ |
| $\$$ |  | 509 |  |  |  |

SUMMARY OF ROAD

# SALE/PROJECT NAME Rue Bee <br> CONTRACT \# 30-106089 <br> ROAD NAME B-215 



```
SALE/PROJECT NAME Rue Bee
    CONTRACT # 30-106089
    ROAD NAME B-400
```

Total road length (stations) 30+96
Required Pre-Haul Maintenance (stations) 20+66 Distance to B-1321 Pit (miles) 2.25
Optional reconstruction (stations) 9+80
Distance to B-1321 Pit (miles) 2.64
Abandonment (stations) 0+50

REQUIRED PRE-HAUL MAINTENANCE $0+00$ to $20+66$

MISC. MAINTENANCE
Maintenance grading
Maintenance rolling

ROAD ROCK
REQUIRED
2-INCH MINUS CRUSHED ROCK
Rock haul

CLEARING \& GRUBBING
Clearing \& grubbing
EXCAVATION AND FILL
Reconstruction
Landing
Turnaround
Shape \& compact subgrade

MISC. MAINTENANCE
Grass seeding

ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock
Place culvert rock

CULVERTS AND FLUMES
18" Polyethylene, double wall
Culvert marker

ROAD DEACTIVATION \& ABANDONMENT
Light abandonment
Grass seeding

| $\$$ | 18.03 | per station $x$ | 20.66 | $\$$ |
| :--- | :--- | :--- | :--- | :--- |
| $\$$ | 14.39 | per station $x$ | 20.66 | $\$$ |


| $\$$ | 1.64 | per CY $x$ | 30 | $\$$ | 49.33 |
| :--- | ---: | :--- | ---: | ---: | ---: |
| $\$$ | 165.00 | per hour $x$ | 3 | round trip haul (miles) | 4.90 |

OPTIONAL RECONSTRUCTION 20+66 to 30+96


SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee

CONTRACT \# 30-106089
ROAD NAME B-430

Optional reconstruction (stations) 6+21
Distance to B-1321 Pit (miles) 2.64

OPTIONAL RECONSTRUCTION

CLEARING \& GRUBBING
Clearing \& grubbing

EXCAVATION AND FILL
Reconstruction
Landing
Turnaround
Shape \& compact subgrade
MISC. MAINTENANCE
Grass seeding
ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
Spread \& compact rock
$\begin{array}{llll}\$ & 6.21 & \text { per station } x & \$ 800\end{array}$

| $\$$ | 202.50 | per station $x$ | 6.21 | $\$$ |
| :--- | ---: | :--- | ---: | ---: |
| $\$$ | 284.00 | each $x$ | 1 | $\$$ |
| $\$$ | 284.00 | each $x$ | 1 | 284 |
| $\$$ | 36.03 | per station $x$ | 6.21 | $\$$ |
| 284 |  |  |  |  |

\$ 3.64 per pound $x \quad 17 \quad$ \$ 62

| $\$$ | 5.87 | per CY $x$ | 331 | $\$$ |
| :--- | ---: | :--- | ---: | :--- |
| $\$$ | 165.00 | per hour | 23.4 round trip haul (miles) | 5.41 |
| $\$$ | 3.06 | per CY $x$ | 331 | 3,858 |
| $\$$ | $\$$ | 1,011 |  |  |

SUMMARY OF ROAD

CLEARING \& GRUBBING
Clearing \& grubbing

EXCAVATION AND FILL
Reconstruction
Turnout
Landing
Turnaround
Shape \& compact subgrade

MISC. MAINTENANCE
Grass seeding
Straw mulching

ROAD ROCK
REQUIRED
SELECT PIT RUN
Rock haul
2-INCH MINUS CRUSHED ROCK
Rock haul
Spread \& compact rock
Place culvert rock

CULVERTS AND FLUMES
18" Polyethylene, double wall
Culvert marker

SALE/PROJECT NAME Rue Bee
CONTRACT \# 30-106089
ROAD NAME B-500


SUMMARY OF ROAD

|  |  | E/PROJECT NA CONTRA ROAD NA | $\begin{aligned} & \text { Rue Bee } \\ & 30-106089 \\ & \text { B-550 } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Optional reconstruction (stations) 10+09 |  |  |  |  |  |  |
| OPTIONAL RECONSTRUCTION |  |  |  |  |  |  |
| \$ | 128.80 | per station $x$ | 10.09 |  | \$ | 1,300 |
| \$ | 202.50 | per station $x$ | 10.09 |  | \$ | 2,043 |
| \$ | 284.00 | each $x$ | 2 |  | \$ | 568 |
| \$ | 284.00 | each $x$ | 1 |  | \$ | 284 |
| \$ | 36.03 | per station x | 10.09 |  | \$ | 364 |
| \$ | 3.64 | per pound $x$ | 28 |  | \$ | 101 |
| \$ | 5.87 | per CYx | 807 |  | \$ | 4,736 |
| \$ | 165.00 | per hour $x$ | 49.1 round trip haul (miles) | 4.41 | \$ | 8,101 |
| \$ | 3.06 | per CYx | 803 |  | \$ | 2,456 |
| \$ | 10.25 | per CYx | 4 |  | \$ | 41 |
| \$ | 20.89 | per foot $x$ | 70 |  | \$ | 1,463 |
| \$ | 28.50 | each $x$ | 4 |  | \$ | 114 |

SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee <br> CONTRACT \# 30-106089 <br> ROAD NAME B-560

| Optional construction (stations) 6+25 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance to B-1321 Pit (miles) 2.11 |  |  |  |  |  |  |
| OPTIONAL CONSTRUCTION |  |  |  |  |  |  |
| \$ | 128.80 | per station x | 6.25 |  | \$ | 805 |
| \$ | 405.00 | per station $x$ | 6.25 |  | \$ | 2,531 |
| \$ | 284.00 | each $x$ | 1 |  | \$ | 284 |
| \$ | 284.00 | each $x$ | 1 |  | \$ | 284 |
| \$ | 36.03 | per station $x$ | 6.25 |  | \$ | 225 |
| \$ | 3.64 | per pound $x$ | 17 |  | \$ | 63 |
| \$ | 5.87 | per CY $x$ | 561 |  | \$ | 3,294 |
| \$ | 165.00 | per hour $x$ | 33.7 round trip haul (miles) | 4.34 | \$ | 5,566 |
| \$ | 3.06 | per CY $x$ | 561 |  | \$ | 1,716 |
| \$ | 10.25 | per CY $x$ | 4 |  | \$ | 41 |
| \$ | 20.89 | per foot $x$ | 60 |  | \$ | 1,254 |
| \$ | 28.50 | each $x$ | 4 |  | \$ | 114 |

SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee

CONTRACT \# 30-106089
ROAD NAME B-1320

> Required pre-haul maintenance (stations) $46+10$
> Distance to B-1321 Pit (miles) 0.23

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE<br>Maintenance grading<br>Maintenance rolling<br>ROAD ROCK<br>REQUIRED<br>2-INCH MINUS CRUSHED ROCK<br>Rock haul

| $\$$ | 18.03 | per station $x$ | 46.10 | $\$$ |
| :--- | :--- | :--- | :--- | :--- |
| $\$$ | 14.39 | per station $x$ | 46.10 | $\$$ |
| $\$$ | 664 |  |  |  |


| $\$$ | 1.64 | per CY $x$ | 70 |  | $\$$ |
| :--- | ---: | :--- | :--- | :--- | :--- |
| $\$$ | 165.00 | per hour $x$ | 3.0 round trip haul (miles) | 1.34 | $\$$ |

SUMMARY OF ROAD

## SALE/PROJECT NAME Rue Bee

CONTRACT \# 30-106089
ROAD NAME B-1321

> Required pre-haul maintenance (stations) $12+25$
> Distance to B-1321 Pit (miles) 0.00

REQUIRED PRE-HAUL MAINTENANCE

MISC. MAINTENANCE
Maintenance grading
Maintenance rolling

ROAD ROCK
REQUIRED
2-INCH MINUS CRUSHED ROCK
Rock haul

| $\$$ | 18.03 | per station $x$ | 12.25 | $\$$ |
| :--- | :--- | :--- | :--- | :--- |
| \$ | 14.39 | per station $x$ | 12.25 | $\$$ |

$\begin{array}{lrllll}\$ & 1.64 & \text { per CY } x & 20 & \$ & 33 \\ \$ & 165.4 & \text { perher }\end{array}$

## WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

## FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Pacific Cascade

Timber Sale Name: Rue Bee
Application Number: 30- 106089

Excise Tax Applicable Activities

Construction: $\quad 1,089 \quad$ linear feet
Road to be constructed (optional and required) but not abandoned
Reconstruction: $15913 \quad$ linear feet
Road to be reconstructed (optional and required) but not abandoned
Abandonment:
697
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: 41906 linear feet
Existing road to receive maintenance work (optional and required) prior to haul

## Excise Tax Exempt Activities

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

Temporary Reconstruction:
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 contact. 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



| ] Ground Harvest | $\sim$ ~ Right of Way Tags | $\bigcirc$ | Streams |
| :---: | :---: | :---: | :---: |
| $\rightarrow$ Cable Harvest | Existing Roads | $\square$ | Stream Type |
| Harvest Units | $\Longleftrightarrow$ Required Pre-Haul Maintenance | * | Stream Type Break |
| N Timing Restriction | $\Longrightarrow$ Required Reconstruction | (1) | Landing - Proposed |
|  | --- Optional Construction | 参 | Leave Tree Area <1/4-acre |
| Wemearian Mgt Zone | $\leadsto$ Optional Reconstruction |  |  |
| ~~~ Sale Boundary Tags |  |  |  |



| $\sim$ Ground Harvest | ~ ~ Right of Way Tags | $\bigcirc$ | Streams |
| :---: | :---: | :---: | :---: |
| $\rightarrow$ Cable Harvest | Existing Roads | $\square$ | Stream Type |
| Harvest Units | $\Longleftrightarrow$ Required Pre-Haul Maintenance | * | Stream Type Break |
|  | $\#$ Required Reconstruction | (1) | Landing - Proposed |
| E'er Riparian Mgt Zone | --- Optional Construction | 4 | Leave Tree Area <1/4-acre |
| ~ ~ Sale Boundary Tags | - Optional Reconstruction |  | Survey Monument |
| Timber Type Change | ---- Old Grades/Trails |  |  |



| 1 Ground Harvest | $\Longleftarrow$ Existing Roads | $>$ | Streams |
| :---: | :---: | :---: | :---: |
| $\longrightarrow$ Cable Harvest | $\Longrightarrow$ Required Pre-Haul Maintenance | $\square$ | Stream Type |
| Harvest Units | $\rightleftharpoons$ Required Reconstruction | * | Stream Type Break |
|  | --- Optional Construction | $\bigcirc$ | Landing - Proposed |
| Evo Riparian Mgt Zone | $\rightarrow$ Optional Reconstruction | 参 | Leave Tree Area <1/4-acre |
| ~~~Sale Boundary Tags $\qquad$ Timber Type Change | ---- Old Grades/Trails | - | Survey Monument |

## - Streams

$\square$ Stream Type

* Stream Type Break
(-) Landing - Proposed
( Leave Tree Area < $1 / 4$-acre
- Survey Monument


## LOGGING PLAN MAP



## All'State Unless Otherwise Noted

$\frac{500}{4 \sqrt{2}+1,000}$ Feet
$123^{\circ} 43.7^{\prime}$ W
$123^{\circ} 43.5^{\prime} \mathrm{W}$
—— Timber Type Change
$\Longrightarrow$ Existing Roads
$\Longleftrightarrow$ Required Pre-Haul Maintenance
—-- Optional Construction
$\rightarrow$ Optional Reconstruction
0000 Required Abandonment

- Streams
$\square \quad$ Stream Type
* Stream Type Break
(-) Landing - Proposed
( Leave Tree Area < $1 / 4$-acre


## LOGGING PLAN MAP



