WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

TIMBER NOTICE OF SALE

***SALE NAME**: BRISKAET* ***AGREEMENT NO**: 30-100214*

AUCTION: October 29, 2020 starting at 10:00 a.m., Pacific Cascade Region Office, Castle Rock, WA **COUNTY:** Pacific

SALE LOCATION: Sale located approximately 12 miles Southeast of Menlo, WA

PRODUCTS SOLD AND SALE AREA: All timber, except leave trees bound by yellow "Leave Tree Area" tags, leave trees marked with blue paint all timber existing 7 years prior to the day of sale, bounded by the following; Unit 1, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging, reprod and the HM 2700, MC 8400 and MC 8450 roads. Unit 2, white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging. The HM 2600 road. Unit 3, white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging and the HM 2600 road. Unit 4, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging. Unit 5, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging and reprod. Unit 6, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging. Units 7 (ROW) and 8 (ROW) are bound with orange "Right-of-Way" tags, orange flagging and orange paint.

All forest products above located on part(s) of Sections 28 and 29 all in Township 13 North, Range 6 West, W.M., containing 150 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: PwC-SFIFM-513)

ESTIMATED SALE VOLUMES AND QUALITY:

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade 1P	2P	3P	SM	1S	2S	3S	4S	UT
Douglas fir	17	6	5,997						2,756	2,435	748	58
Hemlock	19		90						55	27	8	
Red alder	14		87						5	22	37	23
Spruce	22		37						29	5	2	1
Sale Total			6,211									

MINIMUM BID: $2,447,000.00 **BID METHOD:** Sealed Bids

PERFORMANCE SECURITY: $100,000.00 **SALE TYPE:** Lump Sum

EXPIRATION DATE: October 31, 2022 **ALLOCATION:** Export Restricted

BID DEPOSIT: $244,700.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable assist systems, cable and ground based harvest. This sale is estimated to be 75% ground based and 25% cable harvest. Ground-based harvesting equipment shall be restricted to slopes of 40% and less, and restricted during saturated soil conditions. Cable assist harvest systems will only be allowed to operate in areas with Contract Administrator as approved written harvest plan.

Timber harvest of Unit 5, Unit 6, 7 (ROW) and Unit 8 (ROW) will only be allowed between 6/1 and 9/1.See clause H-140 for further harvest requirements. Ground Based Yarding will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

ROADS: 57.20 stations of optional construction. 20.30 stations of optional reconstruction. 459.25 stations of required prehaul maintenance. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the P & E Extension Quarry (Sec 29 T13N R06 W W.M) Rock for construction and pre-haul maintenance used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense subject to written approval from Contract Administrator.

Purchaser shall provide 10 hours of rock exploration in Squally Jim (Sec 28 T13N R06W W.M). See Road Plan (6-13) for additional information. Road construction will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator. The hauling of forest products will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

ACREAGE DETERMINATION

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

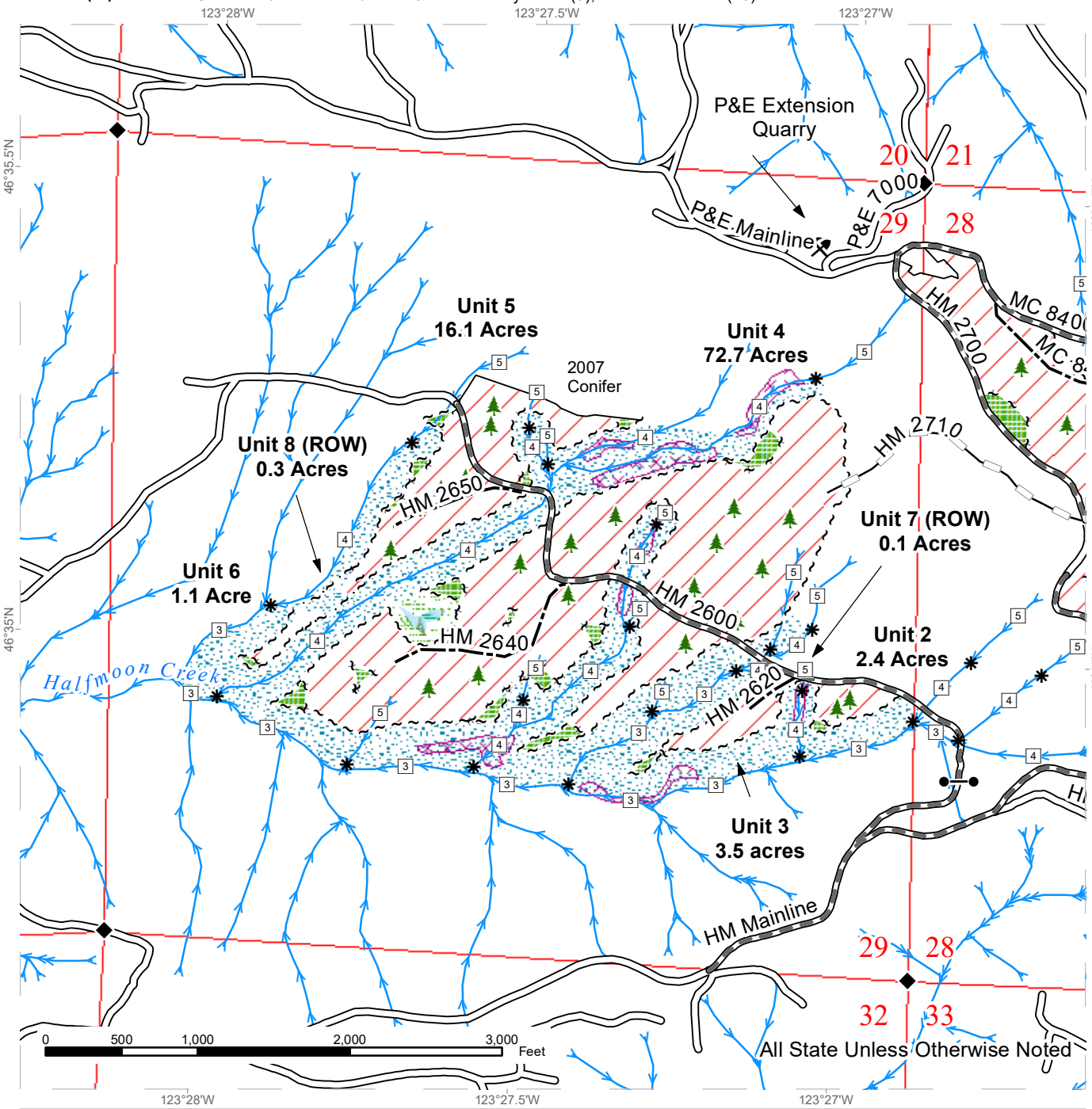
FEES: $105,587.00 is due on day of sale. $9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: This sale has approximately 1,979 MBF of high quality DF 2 saw, 941 MBF high quality DF 3 saw, see cruise for details. See driving map for gate locations. PCP 1-1 gate keys may be obtained from the Pacific Cascade Region office

TIMBER SALE MAP

SALE NAME: BRISKAET
AGREEMENT #: 30-100214
TOWNSHIP(S): T13R6W
TRUST(S): Charitable/Educational/Penal & Reformatory Instit. (6), Scientific School (10)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 840-2120



Variable Retention Harvest	Sale Boundary Tags	Streams
Leave Tree Area	Leave Tree Tags	Stream Type
Riparian Mgt Zone	Right of Way Tags	Stream Type Break
Forested Wetland	Timber Type Change	Survey Monument
Wetland Mgt Zone	Existing Roads	Gate (PCP1-1)
Potentially Unstable Slopes	Required Pre-Haul Maintenance	Leave Tree
	Optional Construction	Rock Pit
	Optional Reconstruction	

N

Prepared By: tkee490

Modification Date: tkee490 2/19/2020

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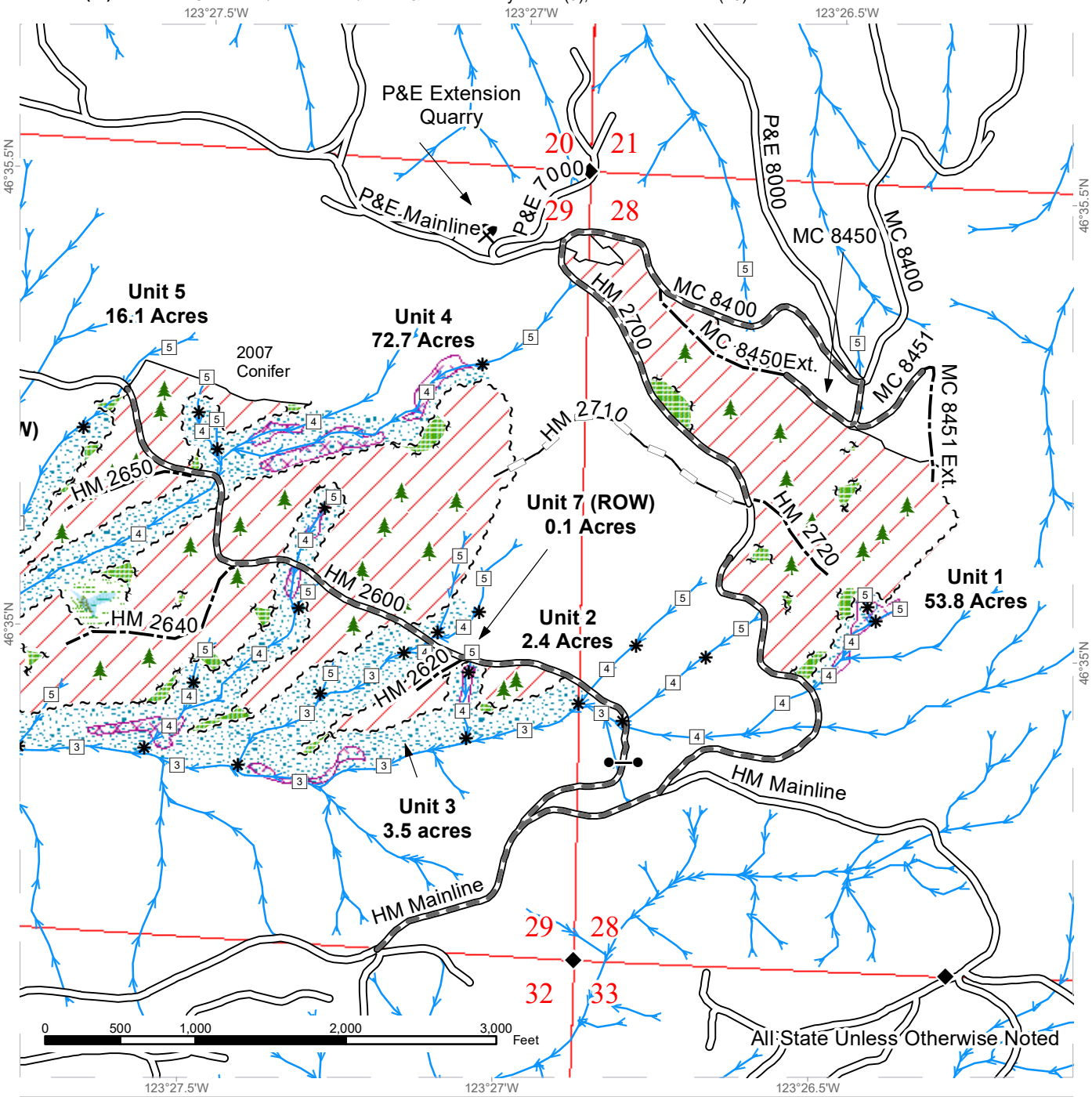

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Prepared By: tkee490

Modification Date: tkee490 2/19/2020

DRIVING MAP

SALE NAME: BRISKAET
AGREEMENT#: 30-100214
TOWNSHIP(S): T13R6W
TRUST(S): Charitable/Educational/Penal & Reformatory Instit. (6), Scientific School (10)

REGION: Pacific Cascade Region
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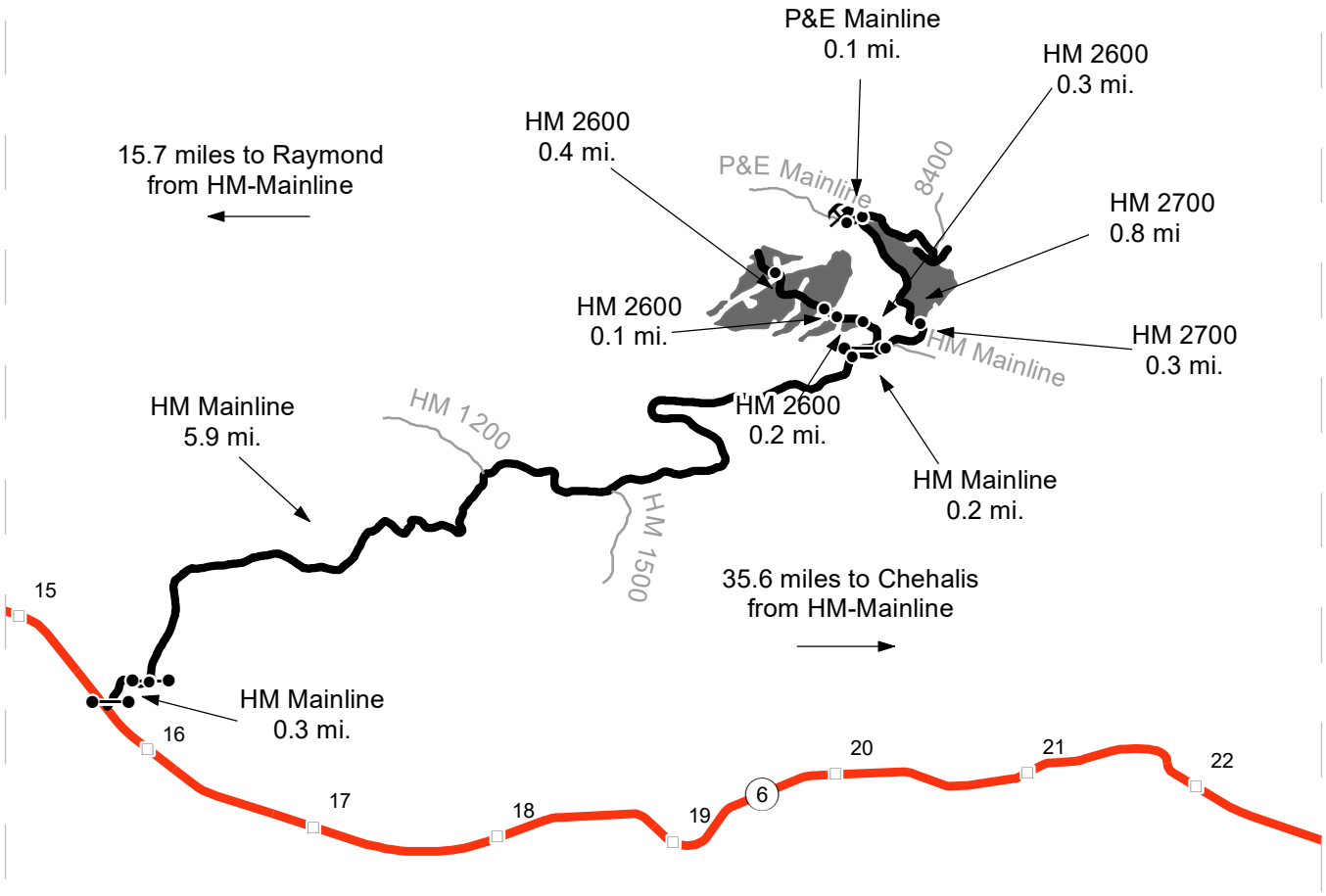

Map may not be to scale

- Timber Sale Unit
- Haul Route
- Other Road
- Highway
- Milepost Markers
- Distance Indicator
- Gate
- Rock Pit

DRIVING DIRECTIONS:

Units: Between MM 15 and 16 on Highway 6, turn onto the Halfmoon(HM) Mainline at "Globe Farm". Go through unlocked farm gate and continue for 0.3 miles to second unlocked farm gate. Drive 5.9 miles and turn onto the the HM-2600. Continue on the HM 2600 for 0.3 miles to Unit 2. Continue on the HM 2600 for 0.2 miles to Unit 3 and Unit 7(ROW). Continue on the HM 2600 for 0.1 miles to Unit 4. Continue on HM 2600 for 0.4 miles to Unit 5, 6 and Unit 8 (ROW). From the HM Mainline and HM 2600 continue on the HM Mainline for 0.2 miles to the HM 2700. Continue on the HM 2700 for 0.3 miles to Unit 1.
Rock Quarry: From Unit 1 continue on the HM 2700 0.8 miles to the P+E Mainline. Continue on the P+E Mainline 0.1 miles to P+E Extension Quarry.

N

Prepared By: tkee490

Modification Date: tkee490 12/5/2019

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

Export Restricted Lump Sum AGREEMENT NO. 30-0100214

SALE NAME: BRISKAET

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 October 29, 2020 and the sale was confirmed on _____. 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 bound by yellow "Leave Tree Area" tags, leave trees marked with blue paint all timber existing 7 years prior to the day of sale, bounded by the following; Unit 1, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging, reprod and the HM 2700, MC 8400 and MC 8450 roads. Unit 2, white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging. The HM 2600 road. Unit 3, white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging and the HM 2600 road. Unit 4, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging. Unit 5, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging and reprod. Unit 6, bound by white "Timber Sale Boundary" tags with pink "Timber Harvest Boundary" flagging. Units 7 (ROW) and 8 (ROW) are bound with orange "Right-of-Way" tags, orange flagging and orange paint.

All forest products above located on approximately 150 acres on part(s) of Sections 28, and 29 all in Township 13 North, Range 6 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, 2022.

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 $997.01 per acre per annum for the acres on which an operating release has not been issued for harvest units.

f. In no event will the extension charge be less than $200.00.

g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

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

G-060 Exclusion of Warranties

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

a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.

b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."

c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.

d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.

e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.

f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.

g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.

h. Items contained in any other documents prepared for or by the State.

G-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, 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® (SFI) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative program Standard under certificate number: PwC-SFIFM-513.

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® program Standard. Purchaser shall designate in writing the name(s) of the individual(s) who will be on-site and provide proof of their successful completion of an approved training program prior to active operations.

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;

2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and

3. Includes, but is not limited to natural disasters such as earthquakes, volcanic eruptions, landslides, and floods.

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

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

Nothing contained in clauses G-120 and G-121 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or

negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials. Authorization to haul does not warrant that Purchaser built roads are free from material defect and the State may require additional work, at Purchasers expense regardless of cost, to remedy deficiencies at any time.

G-140 Indemnity

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

G-150 Insurance

Purchaser shall, at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in a breach and/or termination of the contract at State's option. State may suspend Purchaser operations until required insurance has been secured.

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

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

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

2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-

payment of premium, the State shall be given 10 days advance notice of cancellation.

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

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

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

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

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

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

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

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products

completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

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

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

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

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

G-160 Agents

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

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in

writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.

G-170 Assignment and Delegation

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

G-180 Modifications

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

G-190 Contract Complete

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

G-200 Notice

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

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

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

G-210 Violation of Contract

a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.

b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.

c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.

d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

G-220 State Suspends Operation

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

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

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

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

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.

b. The Region Manager will issue a written decision on Purchaser's request within ten business days.

c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.

d. Unless otherwise agreed, a conference will be held by the Deputy Supervisor - Uplands within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Deputy Supervisor - Uplands will issue a decision within a reasonable time of being presented with both Parties' positions.

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

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

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; Halfmoon Mainline, HM-2600, HM-2620, HM-2640, HM-2650, HM-2700, HM-2710, HM-2720, MC-8400, MC-8450,

MC-8450 Ext., M-8451, M-8451 Ext. P&E Mainline (STA 457+00 to 462+00). The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference

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

G-340 Preservation of Markers

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

G-360 Road Use Reservation

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

G-370 Blocking Roads

Purchaser shall not block the HM-2600, HM-2700, MC-8400 and P&E Mainline (STA 457+00 to 462+00), 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 between the State and Melvin C. & Betty June Wilson. Dated 10/08/1966
Expires: Indefinitely

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 $161,486.00. The total contract price consists of a $0.00 contract bid price plus $161,486.00 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-010 Cutting and Yarding Schedule

Ground Based Yarding will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

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 'Trespass and Unauthorized Activity' clause. Purchaser is required to leave all cut or damaged reserve trees on site.

H-016 Skid Trail Requirements

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

Purchaser shall comply with the following during the yarding operation:

a. A skid trail will not exceed 20 feet in width, including rub trees.

b. Skid trails shall not cover more than 5 percent of the total acreage on one unit.

c. Location of the skid trails must be marked by Purchaser and approved by the Contract Administrator.

d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.

e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.

f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.

g. Purchaser will not have more than two skid trails open to active skidding at any one time. All other skid trails used for skidding timber will be closed.

h. Once a skid trail is closed, Purchaser will not reopen a skid trail unless approved in writing by the Contract Administrator.

i. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

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

H-017 Preventing Excessive Soil Disturbance

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

H-018 Temporary Stream Crossings

A temporary stream crossing is required to access Unit 5.

Purchaser shall comply with the following during the yarding operation:

a. Adhere to the approved Hydraulic Permit Application (HPA) or Forest Practice Application (FPA) with approved hydraulic project work, if required, amend a current FPA or obtain a new FPA prior to commencing any new stream crossing construction.

b. Location of the temporary stream crossing must be approved by the Contract Administrator.

c. A temporary stream crossing shall not exceed 20 feet in width, including rub trees.

d. Purchaser shall suspend operations during periods of wet weather when a high potential for sediment delivery into typed waters may occur.

e. Temporary stream crossings shall be removed at the time of completion of yarding as required by the Contract Administrator.

The stream crossing in Unit 5 shall have a culvert to pass flow (minimum 18 inch diameter) installed in the watercourse prior to building up the crossing with logs and fill material and must have a written plan approved by the CA for the crossing location and design.

Purchaser shall not deviate from the requirements set forth in this clause without prior written approval from 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-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable systems, including cable assist harvest systems, shovels, and tracked skidders.. 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-130 Hauling Schedule

The hauling of forest products will not be permitted on all roads from November 1 to April 30 all units unless authorized in writing by the Contract Administrator.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

Track mounted machines with hydraulic boom and grapple will be allowed.

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

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

Long butts remaining on the sale must be dispersed as directed by the Contract Administrator.

Ground based yarding equipment will not be permitted on sustained slopes over 40%.

Cable assist operations will not be permitted on slopes over 80%.

Cable-assist will only be allowed in areas where a written harvest plan has been provided to the CA and the CA has provided written approval for cable-assist logging to occur.

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.

Timber harvest of Unit 5, Unit 6, 7 and Unit 8(ROW) will only be allowed between 6/1 and 9/1.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

No yarding will be permitted through or over areas identified to be potentially unstable on the FPA Slope Stability Form and Maps.

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.

H-230 Tops and Limbs Outside the Sale Boundary

Tops and limbs outside the sale boundary as a result of Purchaser's operation shall be removed concurrently with the yarding operation unless otherwise directed by the Contract Administrator.

H-240 Lop and Scatter

The tops of all felled trees shall be lopped and slash scattered away from leave trees .

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 2/13/2020 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on HM-2620, HM-2640, HM-2650, HM-2710, HM-2720, MC-8450, MC-8450 Ext., MC-8451, MC-8451 Ext. 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 other 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.

S-010 Fire Hazardous Conditions

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

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

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

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-100 Stream Cleanout

Slash or debris which enters 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 (DOE). 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 (contact information below).
-National Response Center (contact information below).
-Appropriate Department of Ecology (DOE) regional office (contact information below).
-DNR Contract Administrator

DOE - Northwest Region: 1-425-649-7000
(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties)

DOE - Southwest Region: 1-360-407-6300
(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)

DOE - Central Region: 1-509-575-2490
(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties)

DOE - Eastern Region: 1-509-329-3400
(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties)

Department of Emergency Management 24-hour Number: 1-800-258-5990

National Response Center: 1-800-424-8802

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	_____ Eric Wisch Pacific Cascade Region Manager
_____ Print Name	
Date: _____ Address:	Date: _____

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

STATE OF _____)
)
COUNTY OF _____)

On this _____ day of _____, 20___, before me personally appeared _____
_____ to me known to be the _____ of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that (he/she was) (they were) authorized to execute said instrument.

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

_____
Notary Public in and for the State of

_____

My appointment expires _____

PRE-CRUISE NARRATIVE

Sale Name: Briskaet	Region: **Pacific Cascade**
Agreement #: 30-100214	District: Lewis
Contact Forester:Tyler Kaech Phone / Location: Menlo/360-749-3144	County(s): Choose a county, Pacific
Alternate Contact:Roy Franklin Phone / Location: Menlo/360-520-1971	Other information: Click here to enter text.

Type of Sale: Lump Sum	
Harvest System: Ground based Click here to enter text.	75%
Harvest System: Ground based Click here to enter text.	25%

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	Sec. 28 / T13N / R06W	10	58.8	2	3			53.8	GPS (Garmin)
2	Sec. 29 / T13N/ R06W	6	6.5	4	0.1			2.4	GPS (Garmin)
3	Sec 29 / T13N / R06W	6	16.8	13	0.3			3.5	GPS (Garmin)
4	Sec 29 / T13N / R06W	6,10	120.7	43	3.5	1.5		72.7	GPS (Garmin)
5	Sec 29 / T13N / R06W	6,10	30.1	12	1	1		16.1	GPS (Garmin)
6	Sec 29 / T13N / R06W	6	8.2	7	0.1			1.1	GPS (Garmin)
7(ROW)	Sec 29 / T13N / R06W	6	1.1	1				0.1	GPS (Garmin)
8(ROW)	Sec 29 / T13N / R06W	6	1.3	1				0.3	GPS (Garmin)
TOTAL ACRES			243.5	83	8	2.5		150	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)

Revised 03/15/2010 (FRCD)

1	Variable retention harvest. Boundaries are marked with white "Timber Sale Boundary" tags and pink "Timber Harvest Boundary"		Leave trees are marked in clumps only.
2	Variable retention harvest. Boundaries are marked with white "Timber Sale Boundary" tags and pink "Timber Harvest Boundary"		Leave trees are marked in clumps only.
3	Variable retention harvest. Boundaries are marked with white "Timber Sale Boundary" tags and pink "Timber Harvest Boundary"		Leave trees are marked in clumps only.
4	Variable retention harvest. Boundaries are marked with white "Timber Sale Boundary" tags and pink "Timber Harvest Boundary"		Leave trees are marked in clumps only.
5	Variable retention harvest. Boundaries are marked with white "Timber Sale Boundary" tags and pink "Timber Harvest Boundary"		Leave trees are marked in clumps only.
6	Variable retention harvest. Boundaries are marked with white "Timber Sale Boundary" tags and pink "Timber Harvest Boundary"		Leave trees are marked in clumps only.
7 (ROW)	ROW removal; Boundaries are marked with orange "Right of Way" tags		n/a
8 (ROW)	ROW removal; Boundaries are marked with orange "Right of Way" tags		n/a

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	1900	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue 5.5 miles to HM-2700 Continue 0.3 miles to Unit 1.	Maps on TSDC
2	80	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC

3	120	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC
4	2500	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC
5	550	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC
6	35	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC
7 (ROW)	5	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC
8 (ROW)	10	0.3 miles west of MM16 on Highway 6, turn right on to the HM-Mainline. There are two farm gates without locks on the HM-Mainline at the highway and MM 0.5. Continue for 5 miles to HM 2600. Continue on HM-2600 to Unit 2,3,4,5,6,7(ROW),8(ROW).	Maps on TSDC
TOTAL MBF	5200		

REMARKS:

Prepared By: Tyler Kaech Date: 7/24/2019	Title: Frances Forester	CC:

Cruise Narrative

Sale Name: Briskaet	**Region:** Pacific Cascade
App. #: 30-100214	**District:** Lewis
Lead Cruiser: DPClark	**Completion date:** 1-15-20
Other Cruisers: ACChaney	

Unit acreage specifications:

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	53.8	YES	
2	2.4	YES	
3	3.6	YES	Unit 3 and ROW 7 combined
4	72.7	YES	
5	16..1	YES	
6	1.4	YES	Unit 6 and ROW 8 combined
Total	150	YES	

Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/ half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (Cru./Tally)	Total number of plots
1	VP	27.78/40	16’	208’	1:2	54
2	VP	27.78/40	16’	150’	Cruise All	5
3	VP	27.78/40	16’	150’	Cruise All	6
4	VP	27.78/40	16’	208’	1:2	74
5	VP	27.78/40	16’	208’	3:2	17
6	VP	27.78/40	16’	104’	1:1	5

Sale/Cruise Description:

Minor species cruise intensity:	Cruised on appropriate plots.					
Minimum cruise spec:	40% 0f Form- Factor at 16 feet D.O.B or 5 inch Top, and merchantable top.					
Avg. ring count by sp:	**DF** =	6	**WH** =	NA	**SS** =	NA
Leave/take tree description:	Blue ring					
Sort Description:	**SM** - Special Mill **HA**– Logs meeting the following criteria: Surface characteristics for a high quality A sort will have sound tight knots not to exceed 1 ½” in diameter, numbering not more than an average of one per foot of log length. May include logs with not more than two larger knots. Knots and knot indicators ½” in diameter and smaller shall not be a determining factor. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log. (Min dia 8”.) **HB** – Logs meeting the following criteria: Surface characteristics for a B sort will have sound tight knots not to exceed 1 ½” in diameter. May include logs with not more than two larger knots up to 2 ½” in diameter. Logs will have a					

	growth ring count of 6 or more rings per inch in the outer third to end of the log. (min dia 8”.) **R** – Logs meeting the following criteria: Gross diameter of 12 inches or greater, excessive knots greater than 2 ½ inches with recovery less than 65% of the net scale. **D -** Domestic

Field observations:

Briskaet is a low elevation timber sale located on the south slope of the P and E ridge. Good haul roads access the sale and only a few short spurs need to be constructed. The ground is gently sloped and most of the sale can be machine harvested. The sale is broken up into 6 subunits and 2 ROWs. For the purpose of the cruise, the ROW’s are combined with adjacent units. The timber is almost entirely composed of managed DF. There is a small component of RA, and a few scattered WH and SS. All of the units were pre-commercially thinned several years ago, and part of units 4 and 5 were commercially thinned approximately 13 years ago. Stocking is consistent and the trees are uniform. Logging damage is minimal. Storm damage is minimal. There are Schwienitzii butt rot mushrooms present. Mortality pockets are minimal. Most defect is from spike knots or accelerated growth. Log quality is moderate.

Grants: 6, 10 **Prepared by:** DPClark **Title:** Timber Cruiser

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T13N R06W S10 Ty00U1
THRU
T13N R06W S10 Ty00U6

Project: **BRISKAET**

Acres **150.00**

Page **1**
Date **1/14/2020**
Time **11:14:56AM**

Spp	S T	So Grt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU CU		100.0	342											3	7		0.00	33.8
DF		HB 2S	33	1.5	13,397	13,192	1,979			71	29	0	0	4	95	38	14	275	1.67	47.9
DF		HB 3S	15	1.8	6,387	6,274	941		100					4	96	39	10	135	0.87	46.4
DF		D 2S	13	7.2	5,580	5,178	777			66	34	3	2	12	83	36	14	253	1.69	20.5
DF		D 3S	25	4.1	10,391	9,960	1,494	27	73			0	1	29	70	37	8	89	0.64	112.1
DF		D 4S	13	.7	5,021	4,986	748	94	6			26	25	20	29	26	5	30	0.30	165.6
DF		D UT	1		389	389	58	6	20	24	50	50	24	6	20	24	12	120	1.04	3.2
DF	**Totals**		97	3.7	41,508	39,979	5,997	19	35	32	15	4	4	13	79	30	8	93	0.76	429.6
WH		CU CU															6		0.00	1.2
WH		D 2S	61	2.3	374	366	55			100				26	74	38	13	232	1.54	1.6
WH		D 3S	30	3.0	186	180	27	30	70					27	73	38	9	108	0.81	1.7
WH		D 4S	9		51	51	8	100					20		80	34	5	37	0.40	1.4
WH	**Totals**		1	2.3	611	597	90	18	21	61			2	24	74	29	9	102	0.96	5.8
SS		CU CU														1	12		0.00	.2
SS		D 2S	78	4.5	204	195	29			31	69	8		22	69	33	16	337	2.54	.6
SS		D 3S	14		35	35	5		100				12		88	36	8	81	0.73	.4
SS		D 4S	6		15	15	2	83	17			27	73			22	6	30	0.40	.5
SS		D UT	2		3	3	0		100			100				17	10	60	1.26	.0
SS	**Totals**		1	3.6	257	248	37	5	16	25	54	9	6	17	67	27	11	143	1.40	1.7
RA		CU CU														2	9		0.00	2.2
RA		D UT	26		156	156	23	8	64	29		74	26			18	9	49	0.71	3.2
RA		D 2S	6	4.5	37	35	5			100					100	36	13	210	1.78	.2
RA		D 3S	25	7.7	157	145	22		100				40		60	34	11	128	1.01	1.1
RA		D 4S	10		58	58	9		100				64		36	32	8	66	0.59	.9
RA		D 4S	33	1.1	189	187	28	100				7	29	29	35	31	5	37	0.37	5.0
RA	**Totals**		1	2.7	597	581	87	34	52	14		22	33	9	36	23	8	46	0.57	12.6
Totals				3.7	42,973	41,405	6,211	19	35	32	14	5	4	13	78	30	8	92	0.76	449.7

TC PSTATS

PROJECT STATISTICS

PROJECT BRISKAET

DATE 1/14/2020

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
13N	06	10	BRISKAET	00U1	THR	150.00	161	826	S	W
13N	06W	10	BRISKAET	00U6						

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	161	826	5.1		
CRUISE	72	328	4.6	28,090	1.2
DBH COUNT					
REFOREST					
COUNT	89	475	5.3		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	301	179.1	16.6	83	66.0	268.6	41,508	39,979	10,018	9,937
R ALDER	15	5.4	14.4	60	1.6	6.1	597	581	166	166
WHEMLOCK	5	2.1	18.9	84	1.0	4.1	611	597	164	164
S SPRUCE	7	.7	22.4	71	0.4	1.9	257	248	66	66
TOTAL	*328*	*187.3*	*16.6*	*82*	*68.9*	*280.7*	*42,973*	*41,405*	*10,413*	*10,333*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	57.6	3.4	322	333	345			
R ALDER	44.8	12.0	106	121	135			
WHEMLOCK	36.6	18.2	242	296	350			
S SPRUCE	48.8	19.9	371	463	555			
TOTAL	*59.5*	*3.3*	*315*	*326*	*336*	*141*	*72*	*35*

CL 68.1	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	51.6	3.0	79	82	84			
R ALDER	48.8	13.0	30	35	39			
WHEMLOCK	24.2	12.0	70	80	89			
S SPRUCE	50.3	20.5	100	125	151			
TOTAL	*53.7*	*3.0*	*78*	*81*	*83*	*115*	*59*	*29*

CL 68.1	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	60.0	4.7	171	179	188			
R ALDER	404.7	31.9	4	5	7			
WHEMLOCK	754.6	59.4	1	2	3			
S SPRUCE	685.6	54.0	0	1	1			
TOTAL	*56.1*	*4.4*	*179*	*187*	*196*	*126*	*64*	*31*

CL 68.1	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	42.3	3.3	260	269	278			
R ALDER	379.9	29.9	4	6	8			
WHEMLOCK	751.7	59.2	2	4	7			
S SPRUCE	718.9	56.6	1	2	3			
TOTAL	*39.3*	*3.1*	*272*	*281*	*289*	*62*	*31*	*15*

CL 68.1	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	44.8	3.5	38,567	39,979	41,390			
R ALDER	382.4	30.1	406	581	756			
WHEMLOCK	749.9	59.1	244	597	950			
S SPRUCE	673.1	53.0	116	248	379			

TC PSTATS

PROJECT STATISTICS

PROJECT BRISKAET

DATE 1/14/2020

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
13N	06	10	BRISKAET	00U1	THR	150.00	161	826	S	W
13N	06W	10	BRISKAET	00U6						

CL 68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	7	10
TOTAL	*42.0*	*3.3*	*40,036*	*41,405*	*42,773*	*70*	*36*	*18*

CL 68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	42.6	3.4	9,604	9,937	10,270			
R ALDER	377.5	29.7	117	166	216			
WHEMLOCK	751.3	59.2	67	164	261			
S SPRUCE	682.5	53.7	30	66	101			
TOTAL	*39.9*	*3.1*	*10,008*	*10,333*	*10,658*	*64*	*32*	*16*

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BRISKAET

Date 1/14/2020

Time 11:14:56AM

T13N R06W S10 T00U1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
13N	06W	10	BRISKAET	00U1	53.80	54	98	S	W

T13N R06W S10 T00U1

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU														0	6		0.00	41.0
DF		HB	2S	20	2.0	6,796	6,659	358			95	5	3			97	37	13	229	1.62	29.0
DF		HB	3S	23	1.7	7,658	7,525	405		100						100	40	10	140	0.97	53.6
DF		DM	2S	7	6.3	2,344	2,195	118			86	14			20	80	37	13	231	1.67	9.5
DF		DM	3S	30	1.5	9,746	9,597	516	41	59					20	80	36	8	78	0.62	122.7
DF		DM	4S	18	.4	6,093	6,072	327	100				17	22	32	29	28	5	31	0.28	197.9
DF		DM	UT	2		424	424	23			62	38	38	62			18	16	176	2.03	2.4
DF	**Totals**			92	1.8	33,061	32,471	1,747	31	41	26	2	4	5	13	78	30	7	71	0.64	456.2
WH		CU	CU															6		0.00	3.4
WH		DM	2S	61	2.3	1,044	1,019	55			100				26	74	38	13	232	1.54	4.4
WH		DM	3S	30	3.0	519	503	27	30	70					27	73	38	9	108	0.81	4.7
WH		DM	4S	9		142	142	8	100					20		80	34	5	37	0.40	3.8
WH	**Totals**			5	2.3	1,705	1,665	90	18	21	61			2	24	74	29	9	102	0.96	16.3
SS		CU	CU														1	12		0.00	.5
SS		DM	2S	78	4.5	568	543	29			31	69	8		22	69	33	16	337	2.54	1.6
SS		DM	3S	14		98	98	5		100				12		88	36	8	81	0.73	1.2
SS		DM	4S	6		42	42	2	83	17			27	73			22	6	30	0.40	1.4
SS		DM	UT	2		8	8	0		100			100				17	10	60	1.26	.1
SS	**Totals**			2	3.6	716	690	37	5	16	25	54	9	6	17	67	27	11	143	1.40	4.8
RA		DM	UT	13		58	58	3	12		88		100				13	9	40	0.71	1.5
RA		DM	2S	22	4.5	102	98	5			100					100	36	13	210	1.78	.5
RA		DM	3S	26		114	114	6		100						100	36	11	160	1.12	.7
RA		DM	4S	13		58	58	3		100						100	36	8	80	0.64	.7
RA		DM	4S	26		112	112	6	100					12	88		34	5	38	0.42	2.9
RA	**Totals**			1	1.0	445	440	24	27	39	34		13	3	22	61	30	8	70	0.70	6.3
Type Totals					1.8	35,926	35,266	1,897	30	39	28	3	4	5	14	77	30	7	73	0.66	483.6

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BRISKAET

Date 1/14/2020

Time 11:14:56AM

T13N R06W S10 T00U2 **T13N R06W S10 T00U2**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
13N	06W	10	BRISKAET	00U2	2.40	5	20	S	W

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU															5		0.00	21.4
DF		HB	2S	28	3.4	10,099	9,760	23			85	15				100	39	13	244	1.61	40.1
DF		DM	2S	19	7.0	7,064	6,573	16			78	22				100	40	14	260	1.74	25.3
DF		DM	3S	41	1.9	14,384	14,110	34	19	81				1	9	90	38	8	98	0.69	143.7
DF		DM	4S	12		3,834	3,834	9	98	2			37	15	13	34	26	5	29	0.28	132.3
DF	**Totals**			100	3.1	35,381	34,277	82	19	34	39	8	4	2	5	88	32	8	94	0.79	362.8
Type Totals					3.1	35,381	34,277	82	19	34	39	8	4	2	5	88	32	8	94	0.79	362.8

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BRISKAET

Date 1/14/2020

Time 11:14:56AM

T13N R06W S10 T00U3 **T13N R06W S10 T00U3**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
13N	06W	10	BRISKAET	00U3	3.60	6	26	S	W

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU															5		0.00	8.2
DF		HB	2S	38	4.3	14,832	14,193	51			100					100	39	13	253	1.70	56.2
DF		HB	3S	7	5.9	2,910	2,737	10		100						100	40	9	103	0.74	26.6
DF		DM	2S	5	12.6	2,070	1,809	7			100					100	40	13	208	1.58	8.7
DF		DM	3S	37	6.3	14,630	13,712	49	11	89					11	89	37	9	98	0.71	139.8
DF		DM	4S	13		4,485	4,485	16	100				32	21	17	30	26	5	29	0.28	153.5
DF	**Totals**			100	5.1	38,927	36,936	133	16	40	43		4	3	6	87	32	8	94	0.77	393.0
Type Totals					5.1	38,927	36,936	133	16	40	43		4	3	6	87	32	8	94	0.77	393.0

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BRISKAET

Date 1/14/2020

Time 11:14:56AM

T13N R06W S10 T00U4 **T13N R06W S10 T00U4**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
13N	06W	10	BRISKAET	00U4	72.70	74	124	S	W

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU		100.0	706											5	8		0.00	36.2
DF		HB	2S	39	.8	17,339	17,198	1,250			64	36			6	94	38	14	295	1.70	58.3
DF		HB	3S	12	.8	5,543	5,500	400		100					11	89	39	10	135	0.81	40.7
DF		DM	2S	16	6.9	7,607	7,083	515			63	37	5	3	14	79	35	14	248	1.65	28.6
DF		DM	3S	22	4.7	9,990	9,518	692	21	79			0	2	38	59	37	9	97	0.67	98.3
DF		DM	4S	9	1.0	4,313	4,268	310	88	12			34	25	9	32	25	6	30	0.33	142.2
DF		DM	UT	2		490	490	36	10	33		57	57		10	33	27	11	99	0.80	4.9
DF	**Totals**			99	4.2	45,987	44,057	3,203	13	31	35	20	5	3	15	77	30	9	108	0.84	409.2
RA		CU	CU														2	9		0.00	4.5
RA		DM	UT	41		279	279	20	7	73	20		69	31			19	9	50	0.72	5.5
RA		DM	3S	26	10.7	194	173	13		100				44		56	35	11	125	1.00	1.4
RA		DM	4S	33		219	219	16	100					19	19	62	36	5	44	0.38	5.0
RA	**Totals**			1	3.0	692	671	49	35	56	8		29	30	6	35	21	8	41	0.56	16.5
Type Totals					4.2	46,679	44,728	3,252	13	32	35	20	5	4	15	76	30	9	105	0.84	425.7

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BRISKAET

Date 1/14/2020

Time 11:14:56AM

T13N R06W S10 T00U5

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
13N	06W	10	BRISKAET	00U5	16.10	17	47	S	W

T13N R06W S10 T00U5

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU														1	9		0.00	9.5
DF		HB	2S	36	3.4	18,096	17,485	282			61	39		3		97	38	14	272	1.61	64.3
DF		HB	3S	15	5.0	7,486	7,114	115		100						100	39	9	122	0.79	58.3
DF		DM	2S	15	9.0	7,613	6,926	112			50	50				100	39	15	313	1.94	22.2
DF		DM	3S	23	8.3	12,124	11,114	179	20	80					25	75	37	8	92	0.60	121.4
DF		DM	4S	11	.7	4,974	4,941	80	92	8			31	37	14	19	24	6	29	0.31	169.4
DF	**Totals**			98	5.4	50,294	47,580	766	14	34	30	22	3	5	7	85	32	9	107	0.80	445.0
RA		DM	3S	21	9.1	213	193	3		100				100			30	10	100	0.89	1.9
RA		DM	4S	37		342	342	6		100				100			30	8	60	0.57	5.7
RA		DM	4S	42	4.8	401	382	6	100				30	70			22	5	27	0.32	14.2
RA	**Totals**			2	4.0	955	917	15	42	58			12	88			25	7	42	0.46	21.8
Type Totals					5.4	51,249	48,497	781	15	35	29	21	3	7	7	83	32	9	104	0.79	466.8

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BRISKAET

Date 1/14/2020

Time 11:14:56AM

T13N R06W S10 T00U6 **T13N R06W S10 T00U6**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
13N	06W	10	BRISKAET	00U6	1.40	5	13	S	W

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-40	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		HB	2S	21	2.1	10,322	10,107	14			73	27				100	39	13	242	1.43	41.8
DF		HB	3S	18		8,617	8,617	12		100						100	38	10	156	0.88	55.4
DF		DM	2S	15	10.0	7,827	7,047	10			100					100	40	14	262	1.57	26.9
DF		DM	3S	36	8.1	18,308	16,823	24	23	77					29	71	37	8	88	0.59	190.6
DF		DM	4S	10	6.1	4,559	4,283	6	100				58	9	19	14	22	5	24	0.27	180.7
DF	**Totals**			100	5.6	49,633	46,877	66	17	46	31	6	5	1	12	82	32	8	95	0.70	495.3
Type Totals					5.6	49,633	46,877	66	17	46	31	6	5	1	12	82	32	8	95	0.70	495.3

TC TSTATS

STATISTICS

PROJECT BRISKAET

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	06W	10	BRISKAET	00U1	53.80	54	268	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	54	268	5.0		
CRUISE	23	98	4.3	12,454	.8
DBH COUNT					
REFOREST COUNT	31	147	4.7		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	82	219.9	14.7	77	67.7	259.8	33,061	32,471	8,800	8,800
WHEMLOCK	5	5.9	18.9	84	2.7	11.5	1,705	1,665	457	457
S SPRUCE	7	2.0	22.4	71	1.1	5.4	716	690	183	183
R ALDER	4	3.6	15.1	55	1.2	4.5	445	440	129	129
TOTAL	*98*	*231.5*	*14.9*	*76*	*72.8*	*281.3*	*35,926*	*35,266*	*9,569*	*9,569*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	60.1	6.6	198	212	226			
WHEMLOCK	36.6	18.2	242	296	350			
S SPRUCE	48.8	19.9	371	463	555			
R ALDER	54.0	30.9	111	160	209			
TOTAL	*64.0*	*6.5*	*217*	*232*	*247*	*164*	*83*	*41*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	55.8	6.2	54	57	61			
WHEMLOCK	24.2	12.0	70	80	89			
S SPRUCE	50.3	20.5	100	125	151			
R ALDER	57.3	32.8	32	47	62			
TOTAL	*61.1*	*6.2*	*59*	*63*	*67*	*149*	*76*	*37*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	57.7	7.8	203	220	237			
WHEMLOCK	432.0	58.7	2	6	9			
S SPRUCE	391.0	53.2	1	2	3			
R ALDER	376.7	51.2	2	4	6			
TOTAL	*51.8*	*7.0*	*215*	*231*	*248*	*107*	*55*	*27*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.7	5.3	246	260	274			
WHEMLOCK	430.3	58.5	5	12	18			
S SPRUCE	410.8	55.8	2	5	8			
R ALDER	376.7	51.2	2	5	7			
TOTAL	*33.5*	*4.6*	*269*	*281*	*294*	*45*	*23*	*11*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.1	5.2	30,789	32,471	34,153			
WHEMLOCK	429.2	58.4	693	1,665	2,636			
S SPRUCE	383.5	52.1	330	690	1,050			
R ALDER	394.5	53.6	204	440	676			
TOTAL	*34.6*	*4.7*	*33,609*	*35,266*	*36,923*	*48*	*24*	*12*

TC TSTATS

STATISTICS

PROJECT **BRISKAET**

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	**06W**	**10**	**BRISKAET**	**00U1**	53.80	54	268	S	W

CL:	68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	7	10

CL:	68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR		38.0	5.2	8,346	8,800	9,254			
WHEMLOCK		430.0	58.5	190	457	724			
S SPRUCE		389.1	52.9	86	183	279			
R ALDER		393.9	53.6	60	129	199			
TOTAL		*34.4*	*4.7*	*9,122*	*9,569*	*10,016*	*47*	*24*	*12*

TC TSTATS

STATISTICS

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PROJECT **BRISKAET**

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	06W	10	BRISKAET	00U2	2.40	5	20	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	5	20	4.0		
CRUISE	5	20	4.0	341	5.9
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	20	142.0	17.3	94	55.5	230.7	35,381	34,277	9,087	9,087
TOTAL	*20*	*142.0*	*17.3*	*94*	*55.5*	*230.7*	*35,381*	*34,277*	*9,087*	*9,087*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	63.8	14.6	276	324	371			
TOTAL	*63.8*	*14.6*	*276*	*324*	*371*	*171*	*87*	*43*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	54.8	12.6	73	84	94			
TOTAL	*54.8*	*12.6*	*73*	*84*	*94*	*126*	*65*	*32*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.6	19.2	115	142	169			
TOTAL	*38.6*	*19.2*	*115*	*142*	*169*	*74*	*38*	*18*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	18.3	9.1	210	231	252			
TOTAL	*18.3*	*9.1*	*210*	*231*	*252*	*17*	*8*	*4*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	19.8	9.8	30,909	34,277	37,645			
TOTAL	*19.8*	*9.8*	*30,909*	*34,277*	*37,645*	*19*	*10*	*5*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	19.7	9.8	8,196	9,087	9,978			
TOTAL	*19.7*	*9.8*	*8,196*	*9,087*	*9,978*	*19*	*10*	*5*

TC TSTATS

STATISTICS

PROJECT **BRISKAET**

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	06W	10	BRISKAET	00U3	3.60	6	26	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	6	26	4.3		
CRUISE	6	26	4.3	552	4.7
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	26	153.5	17.3	89	60.3	250.7	38,927	36,936	9,842	9,842
TOTAL	*26*	*153.5*	*17.3*	*89*	*60.3*	*250.7*	*38,927*	*36,936*	*9,842*	*9,842*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	47.3	9.5	268	296	324			
TOTAL	*47.3*	*9.5*	*268*	*296*	*324*	*93*	*48*	*23*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	42.1	8.4	71	77	84			
TOTAL	*42.1*	*8.4*	*71*	*77*	*84*	*74*	*38*	*18*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	42.8	19.1	124	153	183			
TOTAL	*42.8*	*19.1*	*124*	*153*	*183*	*87*	*45*	*22*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	19.0	8.4	230	251	272			
TOTAL	*19.0*	*8.4*	*230*	*251*	*272*	*17*	*9*	*4*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	16.3	7.3	34,249	36,936	39,623			
TOTAL	*16.3*	*7.3*	*34,249*	*36,936*	*39,623*	*13*	*6*	*3*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	16.8	7.5	9,105	9,842	10,578			
TOTAL	*16.8*	*7.5*	*9,105*	*9,842*	*10,578*	*13*	*7*	*3*

TC TSTATS

STATISTICS

PROJECT **BRISKAET**

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	06W	10	BRISKAET	00U4	72.70	74	391	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	74	391	5.3		
CRUISE	26	124	4.8	11,588	1.1
DBH COUNT					
REFOREST COUNT	48	267	5.6		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	117	153.4	18.1	87	64.4	274.0	45,987	44,057	10,641	10,475
R ALDER	7	6.0	14.8	64	1.9	7.2	692	671	192	192
TOTAL	*124*	*159.4*	*18.0*	*86*	*66.3*	*281.1*	*46,679*	*44,728*	*10,833*	*10,667*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	52.1	4.9	378	398	418			
R ALDER	27.8	11.3	104	117	130			
TOTAL	*55.6*	*5.1*	*362*	*382*	*401*	*123*	*63*	*31*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	48.2	4.6	89	94	98			
R ALDER	29.2	11.9	30	34	38			
TOTAL	*51.2*	*4.7*	*86*	*90*	*94*	*105*	*53*	*26*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	45.0	5.2	145	153	161			
R ALDER	319.7	37.1	4	6	8			
TOTAL	*41.5*	*4.8*	*152*	*159*	*167*	*69*	*35*	*17*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	37.7	4.4	262	274	286			
R ALDER	323.1	37.5	4	7	10			
TOTAL	*35.2*	*4.1*	*270*	*281*	*293*	*49*	*25*	*12*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.4	4.5	42,094	44,057	46,019			
R ALDER	315.1	36.6	425	671	916			
TOTAL	*36.6*	*4.3*	*42,826*	*44,728*	*46,630*	*54*	*27*	*13*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.1	4.4	10,011	10,475	10,938			
R ALDER	312.0	36.2	123	192	262			
TOTAL	*36.1*	*4.2*	*10,219*	*10,667*	*11,115*	*52*	*27*	*13*

TC TSTATS

STATISTICS

PROJECT **BRISKAET**

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	06W	10	BRISKAET	00U5	16.10	17	95	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	17	95	5.6		
CRUISE	9	47	5.2	2,902	1.6
DBH COUNT					
REFOREST COUNT	8	48	6.0		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	43	169.4	17.5	89	67.6	282.9	50,294	47,580	11,358	11,358
R ALDER	4	10.9	12.3	57	2.6	9.0	955	917	249	249
TOTAL	*47*	*180.3*	*17.2*	*87*	*70.3*	*292.0*	*51,249*	*48,497*	*11,607*	*11,607*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	37.3	6.1	412	439	466			
R ALDER	25.3	14.5	75	88	100			
TOTAL	*46.4*	*7.2*	*375*	*404*	*434*	*86*	*44*	*22*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	34.5	5.7	98	104	110			
R ALDER	30.7	17.6	20	24	28			
TOTAL	*43.4*	*6.8*	*90*	*96*	*103*	*75*	*38*	*19*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	47.4	11.8	149	169	189			
R ALDER	412.3	103.0		11	22			
TOTAL	*43.9*	*11.0*	*160*	*180*	*200*	*82*	*42*	*20*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	36.4	9.1	257	283	309			
R ALDER	412.3	103.0		9	18			
TOTAL	*31.8*	*7.9*	*269*	*292*	*315*	*43*	*22*	*11*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.3	9.6	43,023	47,580	52,138			
R ALDER	412.3	103.0		917	1,861			
TOTAL	*34.6*	*8.6*	*44,305*	*48,497*	*52,690*	*51*	*26*	*13*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	37.3	9.3	10,299	11,358	12,417			
R ALDER	412.3	103.0		249	506			
TOTAL	*33.3*	*8.3*	*10,640*	*11,607*	*12,573*	*47*	*24*	*12*

TC TSTATS

STATISTICS

PROJECT BRISKAET

DATE 1/14/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
13N	06W	10	BRISKAET	00U6	1.40	5	26	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	5	26	5.2		
CRUISE	3	13	4.3	253	5.1
DBH COUNT					
REFOREST COUNT	2	13	6.5		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	13	180.7	16.6	93	66.7	272.0	49,633	46,877	11,085	11,085
TOTAL	*13*	*180.7*	*16.6*	*93*	*66.7*	*272.0*	*49,633*	*46,877*	*11,085*	*11,085*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	33.7	10.2	299	333	367			
TOTAL	*33.7*	*10.2*	*299*	*333*	*367*	*50*	*25*	*12*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	34.0	10.2	71	79	87			
TOTAL	*34.0*	*10.2*	*71*	*79*	*87*	*50*	*26*	*13*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	29.6	14.7	154	181	207			
TOTAL	*29.6*	*14.7*	*154*	*181*	*207*	*43*	*22*	*11*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	36.7	18.2	222	272	321			
TOTAL	*36.7*	*18.2*	*222*	*272*	*321*	*66*	*34*	*17*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	38.3	19.0	37,964	46,877	55,789			
TOTAL	*38.3*	*19.0*	*37,964*	*46,877*	*55,789*	*72*	*37*	*18*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR	37.9	18.8	8,999	11,085	13,170			
TOTAL	*37.9*	*18.8*	*8,999*	*11,085*	*13,170*	*71*	*36*	*18*

TC PSPCTLTCM

Species Summary - Trees, Logs, Tons, CCF, MBF

T13N R06W S10 Ty00U	53.8
T13N R06W S10 Ty00U	2.4
T13N R06W S10 Ty00U	1.4

Project **BRISKAET**
Acres **150.00**

Page No **1**
Date: **1/14/2020**
Time **11:14:57AM**

Species	S T	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
DOUG FIR		26,858	59,361	42,825	55.50	25.11	0.75	15,026	14,906	6,226	5,997
WHEMLOCK		320	692	786	76.78	35.52	0.96	246	246	92	90
R ALDER		806	1,557	686	30.96	16.02	0.58	250	250	90	87
S SPRUCE		106	234	256	92.64	41.96	1.40	98	98	39	37
Totals		28,090	61,844	44,553	55.18	25.06	0.75	15,620	15,499	6,446	6,211

Wood Type Species	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
C	27,285	60,287	43,867	55.89	25.30	0.75	15,370	15,250	6,356	6,123
H	806	1,557	686	30.96	16.02	0.58	250	250	90	87
Totals	28,090	61,844	44,553	55.18	25.06	0.75	15,620	15,499	6,446	6,211

Forest Practices Application/Notification

Notice of Decision

FPA/N No: 2937901

Effective Date: 7/30/2020

Expiration Date: 7/30/2023

Shut Down Zone 651 N

EARR Tax Credit: ☒ Eligible ☐ Non-eligible

Reference: Briskaet TBS; 30-100214

Decision

☐ **Notification Accepted**	Operations shall not begin before the effective date.
☒ **Approved**	This Forest Practices Application is subject to the conditions listed below.
☐ **Disapproved**	This Forest Practices Application is disapproved for the reasons listed below.
☐ **Closed**	Applicant has withdrawn the FPA/N.

FPA/N Classification

☐ Class II ☑ Class III ☐ Class IVG ☐ Class IVS

Number of Years Granted on Multi-Year Request

☐ 4 years ☐ 5 years

Conditions on Approval/Reasons for Disapproval

Notify the Department of Natural Resources two business days before beginning operations. Call 360-577-2025 or email (pcforestpractices@dnr.wa.gov and the Forest Practices Forester) and provide the application number and legal description for your activity.

** Corrected effective date.

Issued By: Alex Lilla

Region: Pacific Cascade Region

Title: Forest Practices Forester

Date: 7/30/2020

Copies to: ☐ Landowner, Timber Owner and Operator

Issued in person: ☒ Landowner ☒ Timber Owner ☒ Operator

By:

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

You must file your appeal at all three addresses below:

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

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

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

Transfer of Forest Practices Application/Notification (WAC 222-20-010)
Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website: http://www.dnr.wa.gov/businesspermits/forestpractices. 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 affidavit of mailing:

On this day Click here to enter a date , I placed in the United States mail at Castle Rock, WA, postage paid, a true and accurate copy of this document. Notice of Decision FPA #Click or tap here to enter text.

(Printed Name) *(Signature)*

BRISKAET

OVERVIEW ROAD PLAN MAP

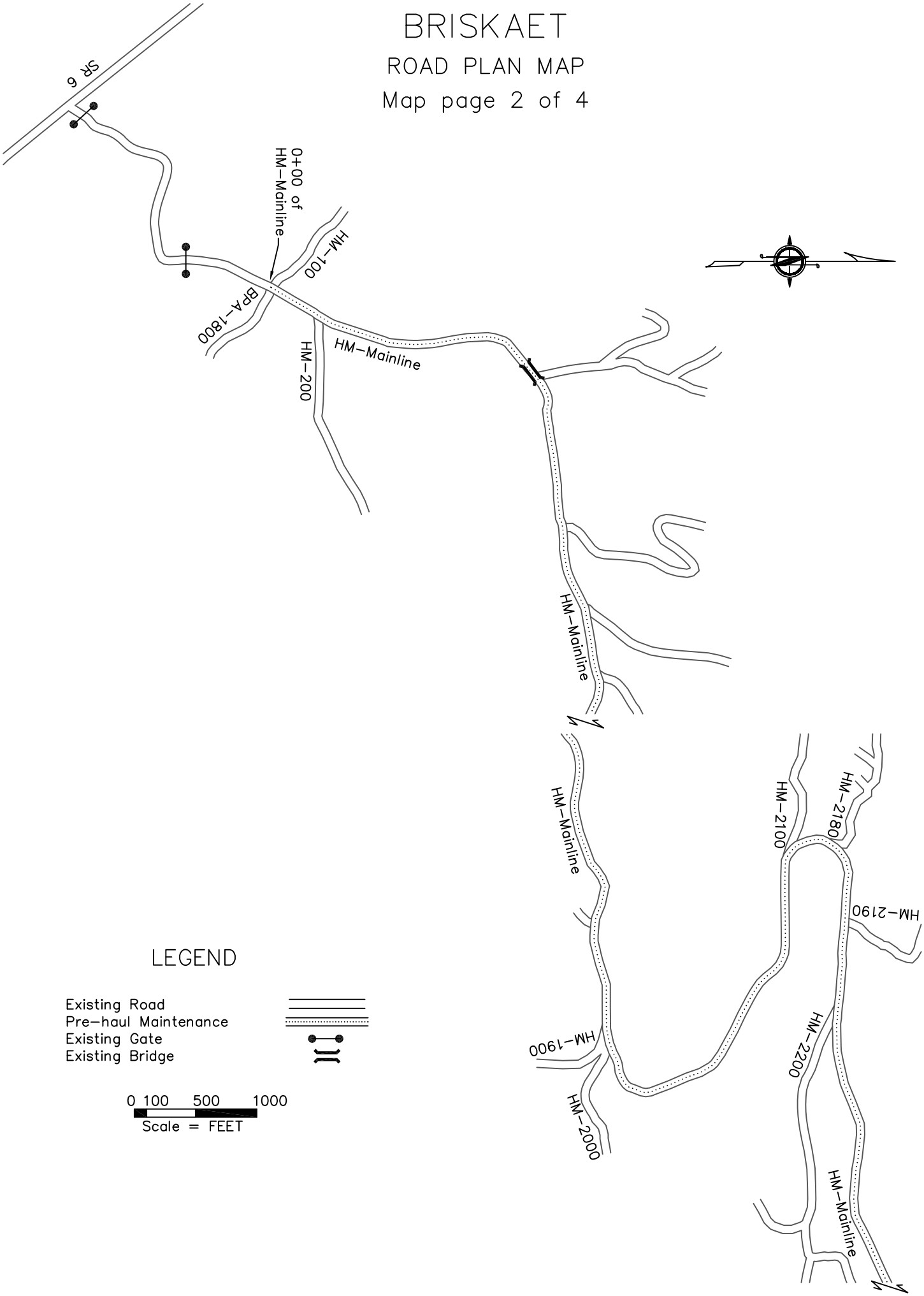
Map page 1 of 4

Not to Scale

BRISKAET

ROAD PLAN MAP

Map page 2 of 4

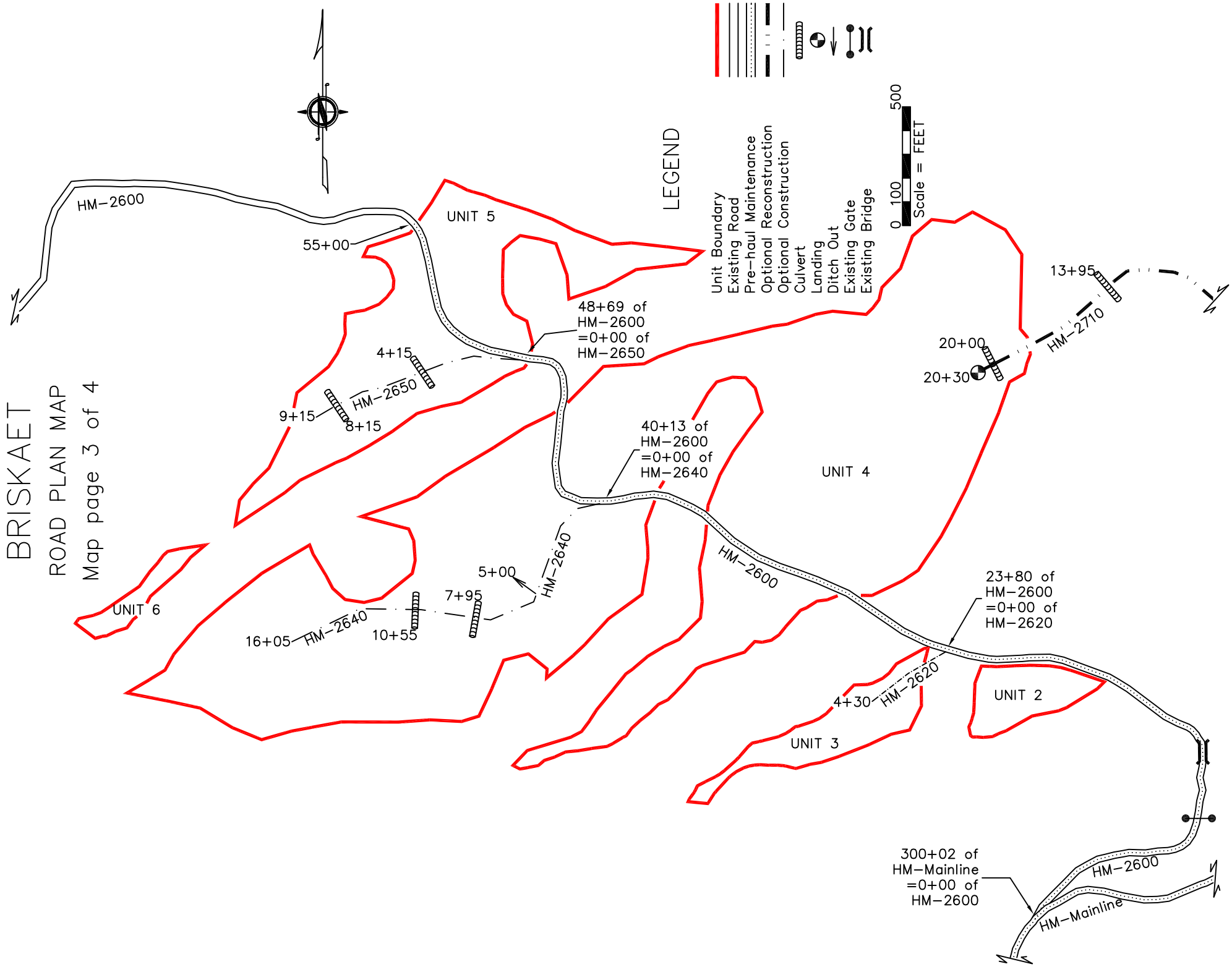


LEGEND

Existing Road
Pre-haul Maintenance
Existing Gate
Existing Bridge

0 100 500 1000
Scale = FEET

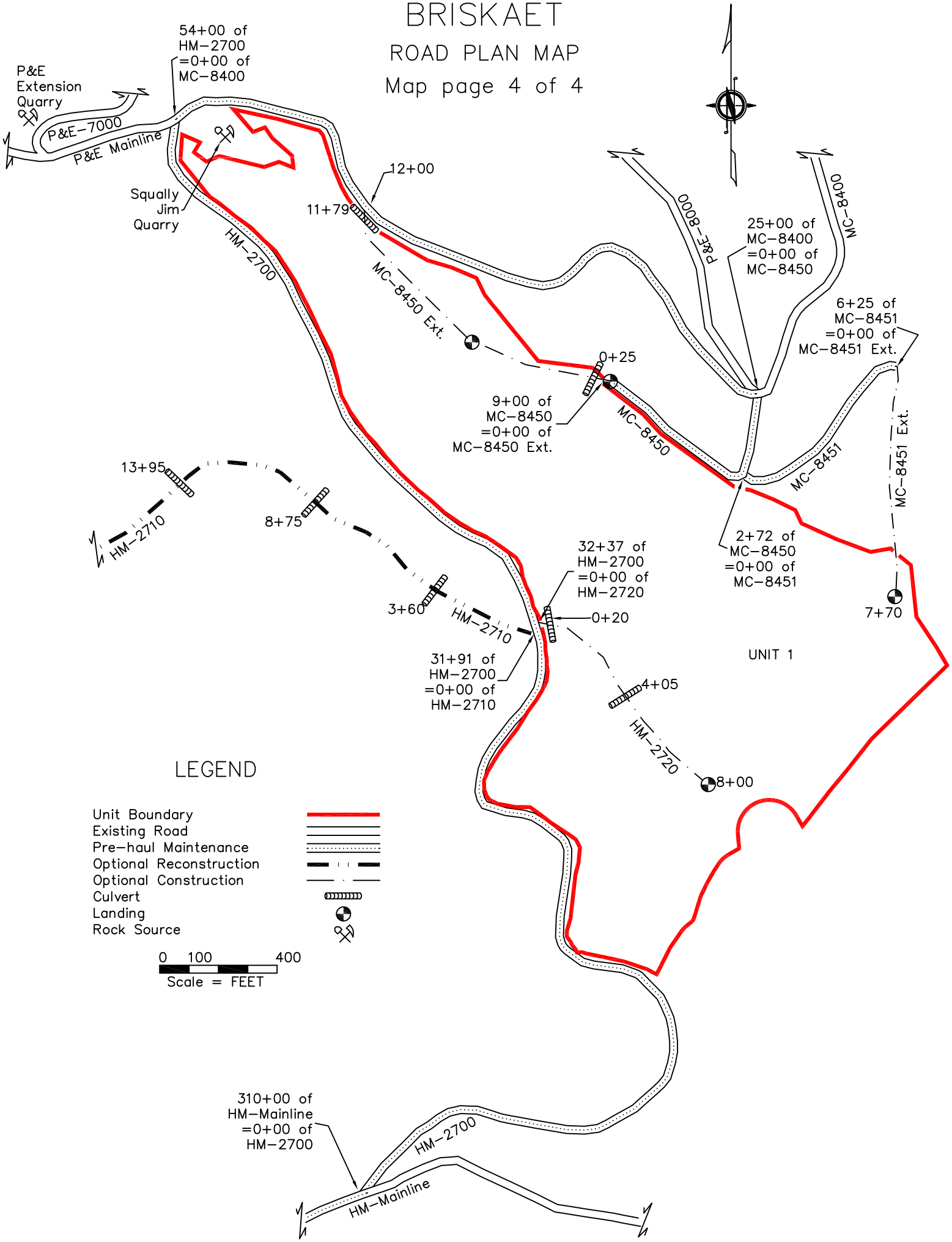
BRISKAET
ROAD PLAN MAP
Map page 3 of 4



BRISKAET

ROAD PLAN MAP

Map page 4 of 4



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

BRISKAET TIMBER SALE ROAD PLAN
PACIFIC COUNTY
LEWIS DISTRICT
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-100214 STAFF ENGINEER: CHRIS WERNER

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.

Road	Stations	Type
MC-8400	0+00 to 25+00	Prehaul Maintenance
MC-8450	0+00 to 9+00	Prehaul Maintenance
MC-8451	0+00 to 6+25	Prehaul Maintenance
HM-2700	0+00 to 54+00	Prehaul Maintenance
HM-2600	0+00 to 55+00	Prehaul Maintenance
HM-Mainline	0+00 to 310+00	Prehaul Maintenance

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	Stations	Type
MC-8450 Ext	0+00 to 12+00	Construction
MC-8451 Ext	0+00 to 7+70	Construction
HM-2620	0+00 to 4+30	Construction
HM-2640	0+00 to 16+05	Construction
HM-2650	0+00 to 9+15	Construction
HM-2710	0+00 to 20+30	Reconstruction
HM-2720	0+00 to 8+00	Construction

0-4 CONSTRUCTION

Construction includes, but is not limited to clearing, grubbing, right-of-way debris disposal, excavation and/or embankment to subgrade, ditch construction, ditch-out construction, landing construction, turout and turnaround construction, acquisition and installation of drainage structures; acquisition, processing, application of rock and grass seeding.

0-5 RECONSTRUCTION

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

Road	Stations	Requirements
HM-2710	0+00 to 20+30	Brush, desod, grade, shape, and compact road. Install Culverts per CULVERT LIST. Apply rock and compact per ROCK LIST.

0-6 PRE-HAUL MAINTENANCE

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

Road	Stations	Requirements
MC-8400	0+00 to 25+00	Grade, shape and compact road. Apply spot rock per ROCK LIST.
MC-8450	0+00 to 9+00	Grade, shape and compact road. Apply spot rock per ROCK LIST.
MC-8451	0+00 to 6+25	Grade, shape and compact road. Apply spot rock per ROCK LIST.
HM-2700	0+00 to 54+00	Grade, shape and compact road. Apply spot rock per ROCK LIST.
HM-2600	0+00 to 55+00	Grade, shape and compact road. Apply spot rock per ROCK LIST.
HM-Mainline	0+00 to 310+00	Grade, shape and compact road. Apply spot rock per ROCK LIST.

0-7 POST-HAUL MAINTENANCE

This project includes post-haul road maintenance listed in Clause 9-5 POST-HAUL MAINTENANCE.

0-12 DEVELOP ROCK SOURCE

Purchaser shall develop an existing rock source. Rock source development will involve stripping and removing overburden, drilling and shooting and manufacturing rock per quantities and sizes specified in the ROCK LIST. 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, unless controlled by construction stakes.

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	A	B	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.

1-7 TEMPORARY ROAD CLOSURE

Purchaser shall notify the Contract Administrator a minimum of 5 business days before the closure of any road. Construction may not close any road for more than 21 consecutive.

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:

- Road construction and Reconstruction marked with wooden stakes, orange flagging, orange paint and RP's.
- Prehaul maintenance marked with orange paint.

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.

1-20 COMPLETE BY DATE

Purchaser shall complete road work before the start of timber haul.

1-21 HAUL APPROVAL

Purchaser shall not use roads under this road plan for any hauling 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 5 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:

- Subgrade construction
- Rock 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. Restrictions for hauling forest products are specified in Contract Clause H-130 HAULING SCHEDULE.

Road	Stations	Activity	Closure Period
All Roads	All Stations	All Road Work	November 1 to April 30

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING SCHEDULE or Contract Clause H-130 HAULING SCHEDULE, Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract Administrator for the maintenance plan, and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

1-29 SEDIMENT RESTRICTION

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

1-30 CLOSURE TO PREVENT DAMAGE

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

- Wheel track rutting exceeds 6 inches on pit run roads.
- Wheel track rutting exceeds 4 inches on crushed rock roads.
- Wheel track rutting exceeds 4 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 AND ASPHALT SURFACE RESTRICTION

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

If tracked equipment is used on bridge or asphalt surfaces, Purchaser shall immediately cease all road construction and hauling operations. Purchaser shall remove any dirt, rock, or other material tracked or spilled on the bridge or asphalt surface(s) and have surface(s) evaluated by the 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 Contract Administrator.

Purchaser shall have bridges load rated by a Registered Professional Engineer licensed in the State of Washington. All load rating reports, calculations, or drawings must be stamped by the licensed engineer and submitted to the Contract Administrator prior to allowing any work to continue. All damage to the bridge from transporting equipment will be repaired at the Purchaser's expense.

Purchaser shall have asphalt surfaces reviewed by a third party, specializing in asphalt construction and repair. The third party's scope of the damage and repairs must be agreed upon between the Purchaser and the Contract Administrator. Damage to the asphalt from transporting equipment will be repaired at the Purchaser's expense.

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. Purchaser shall request a SNOW PLOWING AGREEMENT each time plowing occurs. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

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

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

SECTION 2 – MAINTENANCE

2-1 GENERAL ROAD MAINTENANCE

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

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

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

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

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

2-4 PASSAGE OF LIGHT VEHICLES

Purchaser shall maintain road(s) in a condition that will allow the passage of light administrative vehicles.

2-5 MAINTENANCE GRADING – EXISTING ROAD

Purchaser shall use a grader to shape the existing surfaces before rock application. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-1 BRUSHING

On the following road(s), Purchaser shall cut vegetative material up to 3 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by 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.

Road	Stations
HM-2710	0+00 to 20+30

3-2 BRUSHING RESTRICTION

Pulling, digging, pushing over, and other non-cutting methods used for vegetation removal may not be used for brushing. Purchaser shall submit a detailed list of equipment and methods to be used during brushing, for approval by the Contract Administrator before starting work. Excavator buckets, log loaders and similar equipment may not be used for brushing unless otherwise approved in writing by the Contract Administrator.

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 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 unless approved by the Contract Administrator.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Purchaser shall remove stumps using a hydraulic mounted excavator unless authorized in writing by the Contract Administrator. Stumps over 24 inches diameter must be split. Stumps over 40 inches must be quartered. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps outside of the clearing limits or as directed by the Contract Administrator and in compliance with all other clauses in this road plan. Stumps must be positioned upright, with root wads in contact with the forest floor on stable locations.

3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clause G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA that is larger than one cubic foot in volume within the clearing limits.

3-21 DISPOSAL COMPLETION

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

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located within the cleared right-of-way or in natural openings as designated by the Contract Administrator.

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 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.

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 clearing limits, or in natural openings as directed by the Contract Administrator. 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 more than 1000 feet beyond completed construction unless approved in writing by the Contract Administrator. 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.

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 15 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.
-

4-4 SWITCHBACK STANDARDS

A switchback is defined as a curved segment of road between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees. Purchaser shall follow these standards for switchbacks:

- Maximum adverse grades for switchbacks is 10% of the curve radius.
- Maximum favorable grades for switchbacks is 12%.
- Maximum transition grades entering and leaving switchbacks is a 5% grade change.

Transition grades required to meet switchback grade limitations must be constructed on the tangents preceding and departing from the switchbacks

4-5 CUT SLOPE RATIO

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

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

4-6 EMBANKMENT SLOPE RATIO

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

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

4-7 SHAPING CUT AND FILL SLOPE

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

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

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

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

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

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

4-21 TURNOUTS

Purchaser shall construct turnouts intervisible with a maximum distance of 1,000 feet between turnouts. Locations may be adjusted to fit the final subgrade alignment and sight distances. Locations are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

4-22 TURNAROUNDS

Turnarounds must be no larger than 40 feet long and 40 feet wide. Locations are subject to written approval by the Contract Administrator.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

Purchaser shall construct and 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 scattered outside the grubbing limits.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Purchaser shall construct ditchouts at locations listed on the CULVERT LIST. 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. Locations may not be changed without written approval from the Contract Administrator.

4-35 WASTE MATERIAL DEFINITION

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

4-36 DISPOSAL OF WASTE MATERIAL

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

4-37 WASTE AREA LOCATION

Purchaser shall deposit waste material in 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 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- Within a riparian management zone.
- 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.
- Outside the clearing limits.

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 with a minimum of 175 horsepower.

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.

4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed and reconstructed subgrades deeper than 5 feet at the road shoulder in accordance with the COMPACTION LIST by routing equipment over the entire width except ditch.

4-62 DRY WEATHER COMPACTION

At any time of year, 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.

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.

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the CULVERT LIST that are not installed will become the 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 and the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings".

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. 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. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 2 feet wide and 4 feet long.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock. 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. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the ROCK LIST shall 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 7 calendar days before starting any operations in the listed locations.

Source	Location	Rock Type
P&E Extension Quarry	Sec 29 T13R06W	SEE ROCK LIST

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 7 days before starting any operations in the rock source.

Source	Rock Type
P&E Extension Quarry	SEE ROCK LIST

6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications:

- Pit walls may not be undermined or over steepened. The maximum slope of the walls must be consistent with recognized engineering standards for the type of material being excavated in accordance with the following table:

Material	Maximum Slope Ratio (Horiz. :Vert.)	Maximum Slope Percent
Sand	2:1	50
Gravel	1.5:1	67
Common Earth	1:1	100
Fractured Rock	0.5:1	200
Solid Rock	0:1	vertical

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.

6-13 ROCK EXPLORATION

Purchaser shall provide rock drill with operator for 10 hours of exploration of rock at the following site.

Site	Location
Squally Jim	Sec 28 T13R06W

6-14 DRILL AND SHOOT

Rock drilling and shooting must meet the following specifications:

- Purchaser shall submit an informational drilling and shooting plan to the Contract Administrator 7 working days before any drilling.
- Purchaser shall block access roads and trails before blasting operations.

6-20 ROCK CRUSHING OPERATIONS

Rock crushing operations must conform to the following specifications:

- Operations and placement of oversize material must be conducted in or near the rock source site, as approved in writing by the Contract Administrator.

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 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.

6-32 2 ½-INCH MINUS CRUSHED ROCK

% Passing 2 ½" square sieve	100%
% Passing 1 ¼" 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.

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.

6-43 QUARRY SPALLS

% Passing 8" square sieve	100%
% Passing 3" square sieve	40% maximum
% Passing 3/4" square sieve	10% maximum

Rock may not contain more than 5 percent vegetative debris or trash. All percentages are by weight.

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST 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 ROCK, LANDING ROCK and QUARRY SPALL ROCK is on a cubic yard truck measure basis. The 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.

6-65 ROCK STOCKPILE LOCATION

Purchaser shall stockpile rock as listed below and in accordance with the Clause 6-67 ROCK STOCKPILE SPECIFICATIONS**.**

Rock Source	Rock Type	Quantity (c.y.)	Stockpile Location
P&E Extension Quarry	2 ½ INCH Crushed Rock	1,300 yds	P&E Extension Quary

6-67 ROCK STOCKPILE SPECIFICATIONS

Rock stockpiles listed in Clause 6-65 ROCK STOCKPILE LOCATION must meet the following specifications:

Before placing aggregates upon the stockpile site, the site must be cleared of vegetation, trees, stumps, brush, rocks, or other debris and the ground leveled to a smooth, firm, uniform surface.

When completed, the stockpile must be neat and regular in shape. The stockpile height is limited to a maximum of 24 feet. Stockpiles in excess of 200 cubic yards must be built up in layers of not more than 4 feet deep. Stockpile layers must be constructed by trucks, clamshells, or other methods approved in writing by the Contract Administrator. Each layer must be completed over the entire area of the pile before depositing aggregates in the next layer. The aggregates may not be dumped so that they run down and over the lower layers in the stockpile.

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for subgrade compaction 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 will 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.

6-76 DRY WEATHER ROCK COMPACTION

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

SECTION 7 – STRUCTURES

7-5 STRUCTURE DEBRIS

Purchaser shall not allow debris from the installation or removal of structures to enter any stream.

7-70 GATE CLOSURE

On the following road(s), Purchaser shall keep gates closed and locked except during periods of haul. All gates must be closed at termination of use.

Road	Station
HM-Maniline	ALL GATES

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 4-inch layer of straw to all exposed soils at culvert installations**.** Soils must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

8-15 REVEGETATION

Purchaser shall spread grass seed on all exposed soils resulting from road work activities. Cover all exposed soils using manual dispersal. Other methods of covering must be approved in writing by the Contract Administrator. Required seed not spread by the termination of this contract will become the property of the state.

Road	Location	Qty (lbs)*	Type
MC-8450 Ext	0+00 to 12+00	22	Grass Seed
MC-8451 Ext	0+00 to 7+70	14	Grass Seed
HM-2620	0+00 to 4+30	8	Grass Seed
HM-2640	0+00 to 16+05	30	Grass Seed
HM-2650	0+00 to 9+15	17	Grass Seed
HM-2710	0+00 to 20+30	37	Grass Seed
HM-2720	0+00 to 8+00	12	Grass Seed

*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.

8-18 PROTECTION FOR SEED

Purchaser shall provide a protective cover for seed on all exposed soils within 50 feet of streams or wetlands. The protective cover may consist of straw. Seed must be covered before the first anticipated storm event. The protective cover requirement may be waived in writing by the Contract Administrator if Purchaser is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50% coverage) of 3-inch tall grass by October 31.

8-19 ASSURANCE FOR SEEDED AREA

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

8-25 GRASS SEED

Purchaser shall evenly spread the seed mixture listed below on all exposed soil at a rate of 40 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
Perennial Rye	35-45
Red Fescue	30-40
Highland Bent	5-15
White Clover	10-20
Inert and Other Crop	0.5

SECTION 9 – POST-HAUL ROAD WORK

9-5 POST-HAUL MAINTENANCE

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

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

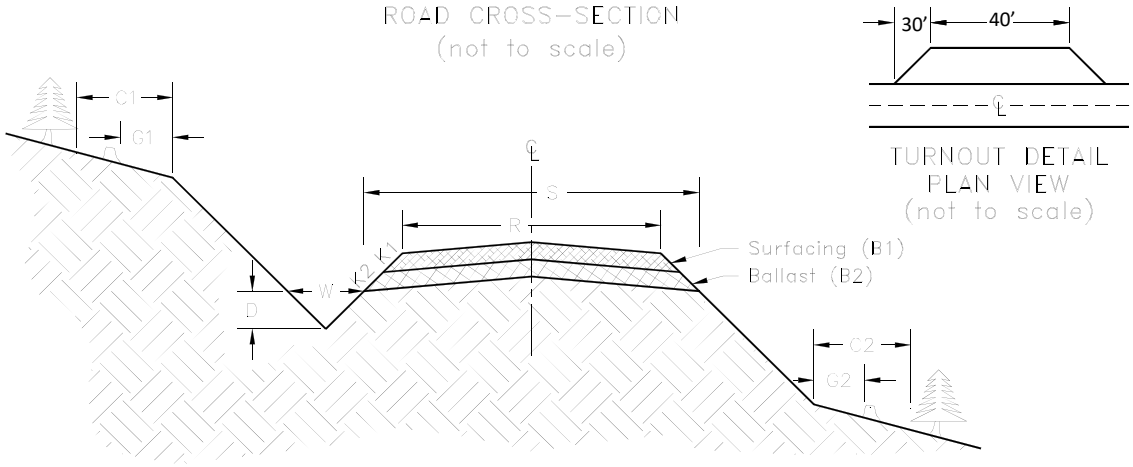
10-17 CORRUGATED PLASTIC CULVERT

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.

TYPICAL SECTION SHEET



Road Number	From Station	To Station	Tolerance Class	Subgrade Width	Road Width	Ditch Width	Ditch Depth	Crown in. @ CL	Grubbing Limits		Clearing Limits	
				S	R	W	D		G1	G2	C1	C2
MC-8400	0+00	25+00	A	16'	12'	3'	1'	4"				
MC-8450	0+00	9+00	A	16'	12'	3'	1'	4"				
MC-8451	0+00	6+25	A	16'	12'	3'	1'	4"				
HM-2700	0+00	54+00	A	16'	12'	3'	1'	4"				
HM-2600	0+00	55+00	A	16'	12'	3'	1'	4"				
HM-Mainline	0+00	310+00	A	16'	12'	3'	1'	4"				
*MC-8450 Ext	0+00	12+00	C	16'	12'	3'	1'	4"	5'	5'	10'	10'
*MC-8451 Ext	0+00	7+70	C	16'	12'	3'	1'	4"	5'	5'	10'	10'
*HM-2620	0+00	4+30	C	16'	12'	3'	1'	4"	5'	5'	10'	10'
*HM-2640	0+00	16+05	C	16'	12'	3'	1'	4"	5'	5'	10'	10'
*HM-2650	0+00	9+15	C	16'	12'	3'	1'	4"	5'	5'	10'	10'
*HM-2710	0+00	20+30	C	15'	12'	3'	1'	4"	5'	5'	10'	10'
*HM-2720	0+00	8+00	C	16'	12'	3'	1'	4"	5'	5'	10'	10'

* Optional Construction – If roads are built then ROCK is REQUIRED per the ROCK LIST.

ROCK LIST
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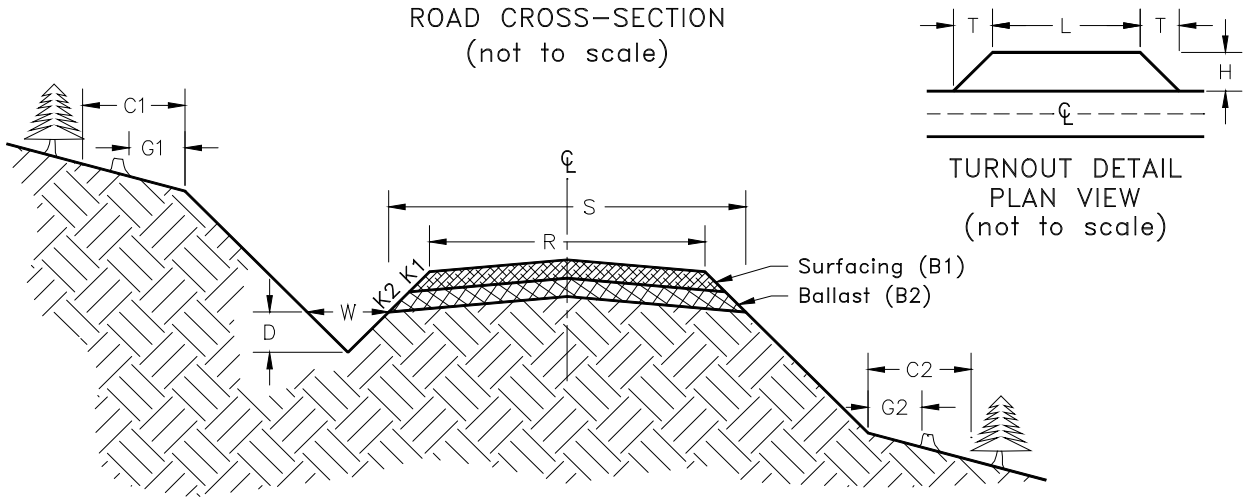
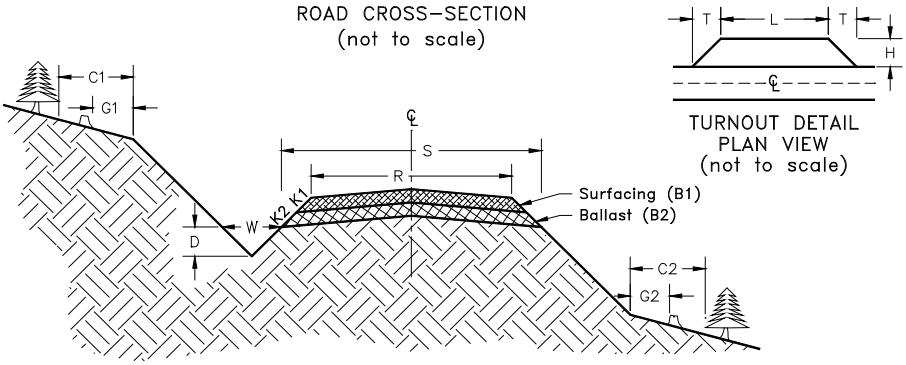


BALLAST

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source
			K2	B2	SELECT PIT RUN (SPR)			
MC-8450 Ext	0+00	12+00	1 ½ : 1	15”	81	12.00	970	P&E Extension Quarry
MC-8451 Ext	0+00	7+70	1 ½ : 1	15”	81	7.70	625	P&E Extension Quarry
HM-2620	0+00	4+30	1 ½ : 1	15”	81	4.30	350	P&E Extension Quarry
HM-2640	0+00	16+05	1 ½ : 1	15”	81	16.05	1300	P&E Extension Quarry
HM-2650	0+00	9+15	1 ½ : 1	15”	81	9.15	740	P&E Extension Quarry
HM-2710	0+00	20+30	1 ½ : 1	9”	46	20.30	935	P&E Extension Quarry
HM-2720	0+00	8+00	1 ½ : 1	15”	81	8.00	650	P&E Extension Quarry
LANDINGS					50	8	400	P&E Extension Quarry
TURNOUTS					50	5	250	P&E Extension Quarry
TURNAROUNDS					50	6	300	P&E Extension Quarry
INTERSECTIONS					50	7	350	P&E Extension Quarry

SPR BALLAST TOTAL **_6,870_** Cubic Yards

ROCK LIST
(Page 2 of 2)



SURFACE

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Total	Rock Source
			K1	B1				
MC-8400	0+00	25+00	1 ½ : 1	100 Yds^3 SPOT ROCK				P&E Extension Quarry
MC-8450	0+00	9+00	1 ½ : 1	50 Yds^3 SPOT ROCK				P&E Extension Quarry
MC-8451	0+00	6+25	1 ½ : 1	50 Yds^3 SPOT ROCK				P&E Extension Quarry
HM-2700	0+00	54+00	1 ½ : 1	100 Yds^3 SPOT ROCK				P&E Extension Quarry
HM-2600	0+00	55+00	1 ½ : 1	150 Yds^3 SPOT ROCK				P&E Extension Quarry
HM-Mainline	0+00	310+00	1 ½ : 1	250 Yds^3 SPOT ROCK				P&E Extension Quarry
STOCKPILE	1,300 Yds^3 STOCKPILE							P&E Extension Quarry

2 ½ INCH CRUSHED SURFACE TOTAL _2,000_ Cubic Yards

QUARRY SPALLS

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Total	Rock Source
			K1	B1				
CULVERTS					1	12	12	P&E Extension Quarry

QUARRY SPALLS TOTAL __12___ Cubic Yards

CULVERT LIST

Road Number	Location	Culvert Dia.	Culvert Gauge	Length (ft) Culvert	Length (ft) Downspt	Length (ft) Flume	Riprap (C.Y.) Inlet	Riprap (C.Y.) Outlet	Riprap (C.Y.) Type	Backfill Material	Placement Method
MC-8450 Ext	0+25	18"		40			.5	.5	QS	NT	ZDH
MC-8450 Ext	11+79	18"		40			.5	.5	QS	NT	ZDH
HM-2640	5+00	DOR									
HM-2640	7+95	18"		30			.5	.5	QS	NT	ZDH
HM-2640	10+55	18"		40			.5	.5	QS	NT	ZDH
HM-2650	4+15	18"		30			.5	.5	QS	NT	ZDH
HM-2650	8+15	18"		30			.5	.5	QS	NT	ZDH
HM-2710	3+60	18"		30			.5	.5	QS	NT	ZDH
HM-2710	8+75	18"		30			.5	.5	QS	NT	ZDH
HM-2710	13+95	18"		30			.5	.5	QS	NT	ZDH
HM-2710	20+00	18"		30			.5	.5	QS	NT	ZDH
HM-2720	0+20	18"		40			.5	.5	QS	NT	ZDH
HM-2720	4+05	18"		30			.5	.5	QS	NT	ZDH
Skid Road	TBD	18"		30						NT	

Key:

QS - Quarry Spalls
NT - Native (bank run)
SL - Select Fill
ZDH - Zero Drop Height
LL - Light Loose Riprap
DOR - Ditchout Right

COMPACTION LIST

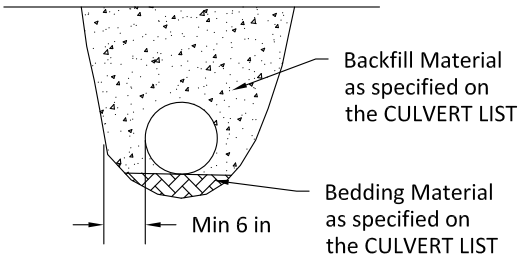
Road	From Station	To Station	Type	Max Depth Per Lift (inches)	Equipment Type	Equipment Weight (lbs)	Minimum Number of Passes	Maximum Operating Speed (mph)
ALL ROADS	ALL STATIONS		Pre-haul Surface		Vibratory Smooth Drum	20000	4	5
ALL ROADS	ALL STATIONS		Subgrade/Rock	8”	Vibratory Smooth Drum	20000	4	5
WASTE AREAS AND EMBANKMENTS				24”	Vibratory Smooth Drum	20000	4	5

INSTALLATION REQUIREMENTS:

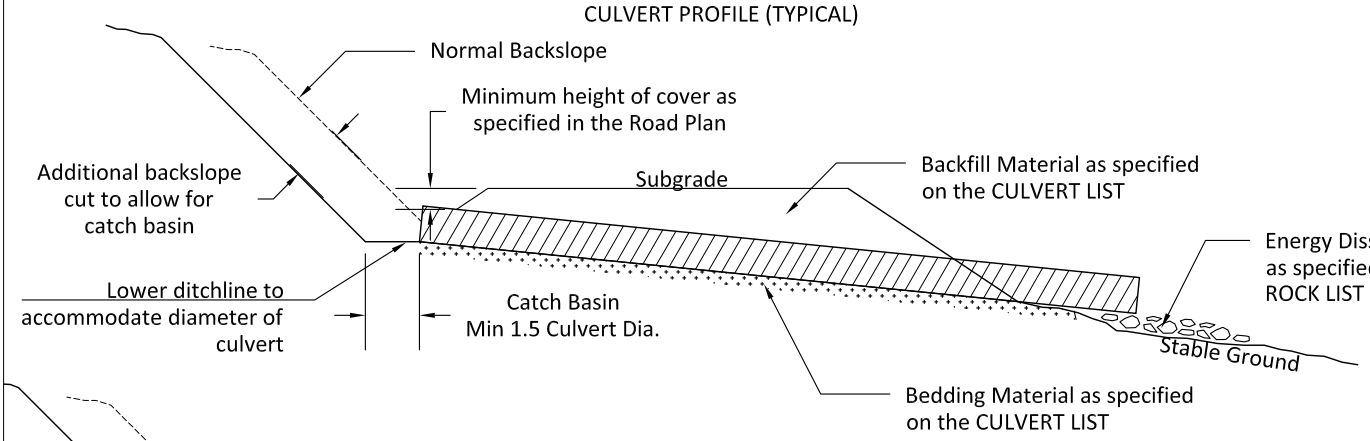
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly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

ALL DRAWINGS ARE NOT TO SCALE

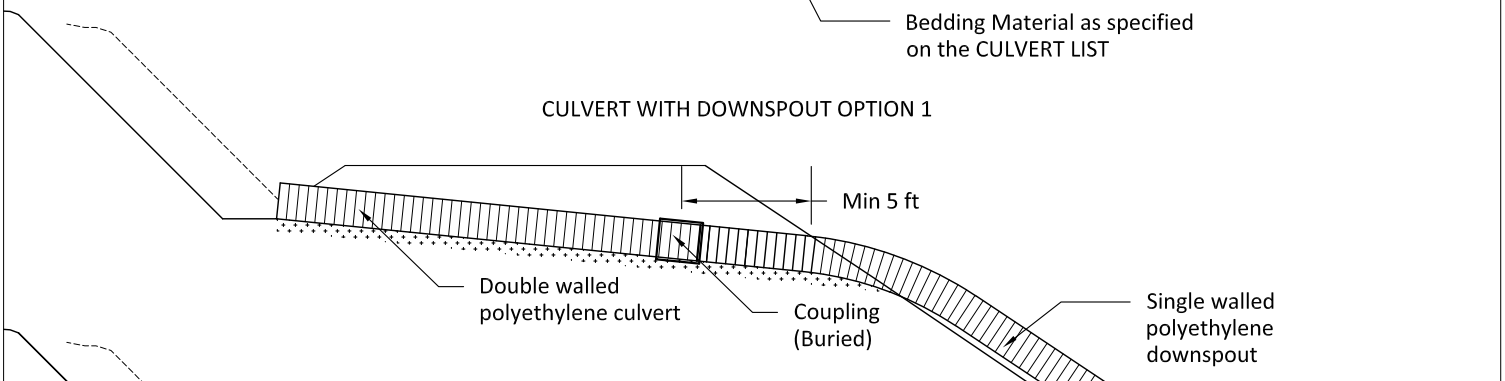
CROSS SECTION



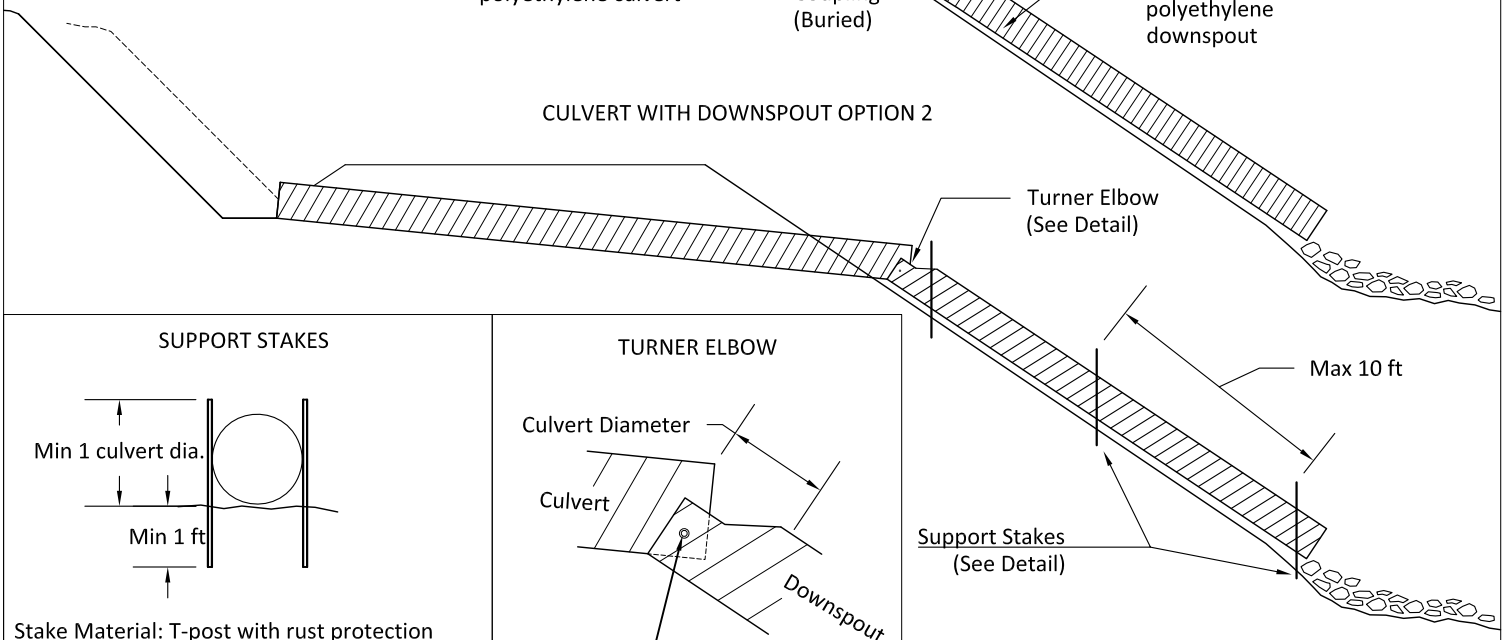
CULVERT PROFILE (TYPICAL)



CULVERT WITH DOWNSPOUT OPTION 1



CULVERT WITH DOWNSPOUT OPTION 2



SUPPORT STAKES

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

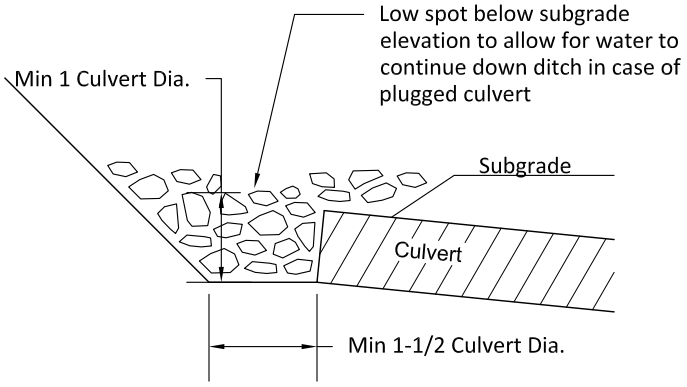
TURNER ELBOW

Bolted with $\frac{5}{8}$" galvanized bolts and washers (both sides)

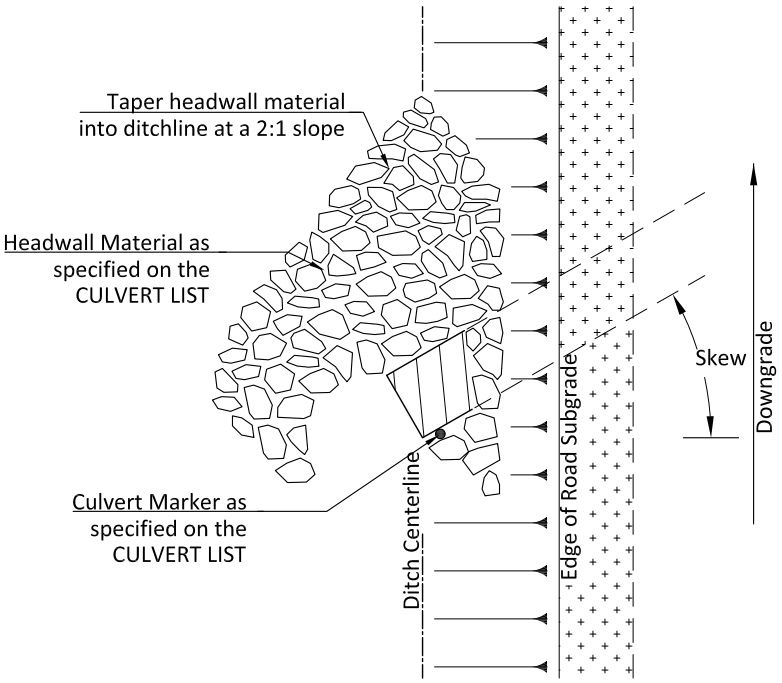
Downspout must be 6 inches larger in diameter than the culvert.

HEADWALLS

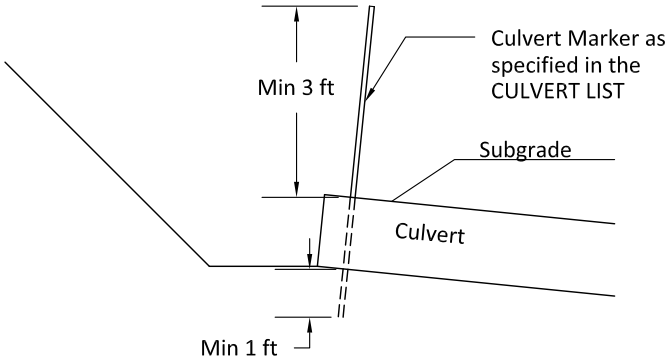
Section View



Plan View

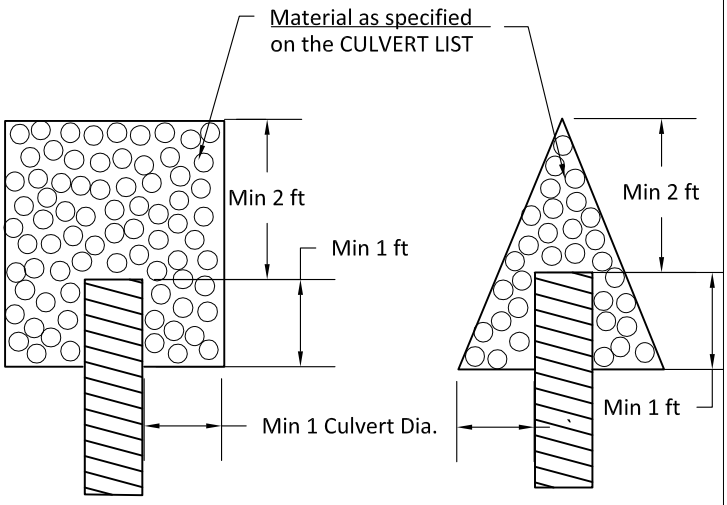


CULVERT MARKERS



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

ENERGY DISSIPATERS



Level

Side Hill

Min Energy Dissipater Depth: 1 Culvert Dia.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS
Page 1 of 2

Cuts and Fills

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

Surface

- Grade, shape, and compact 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

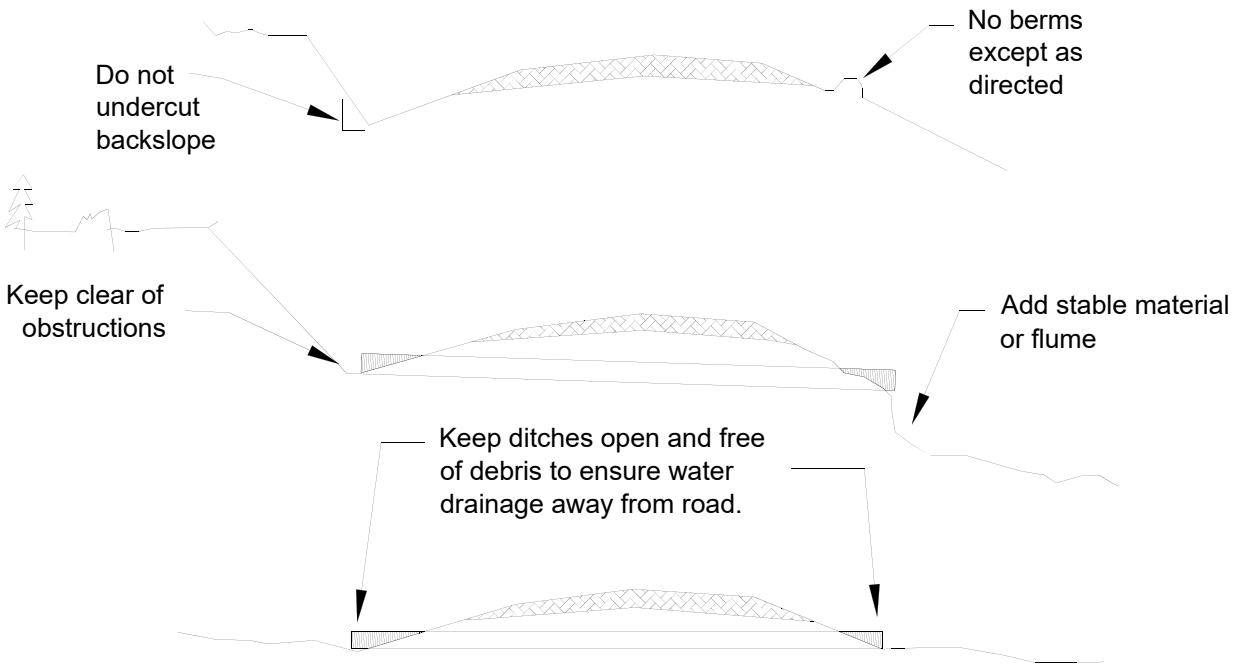
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

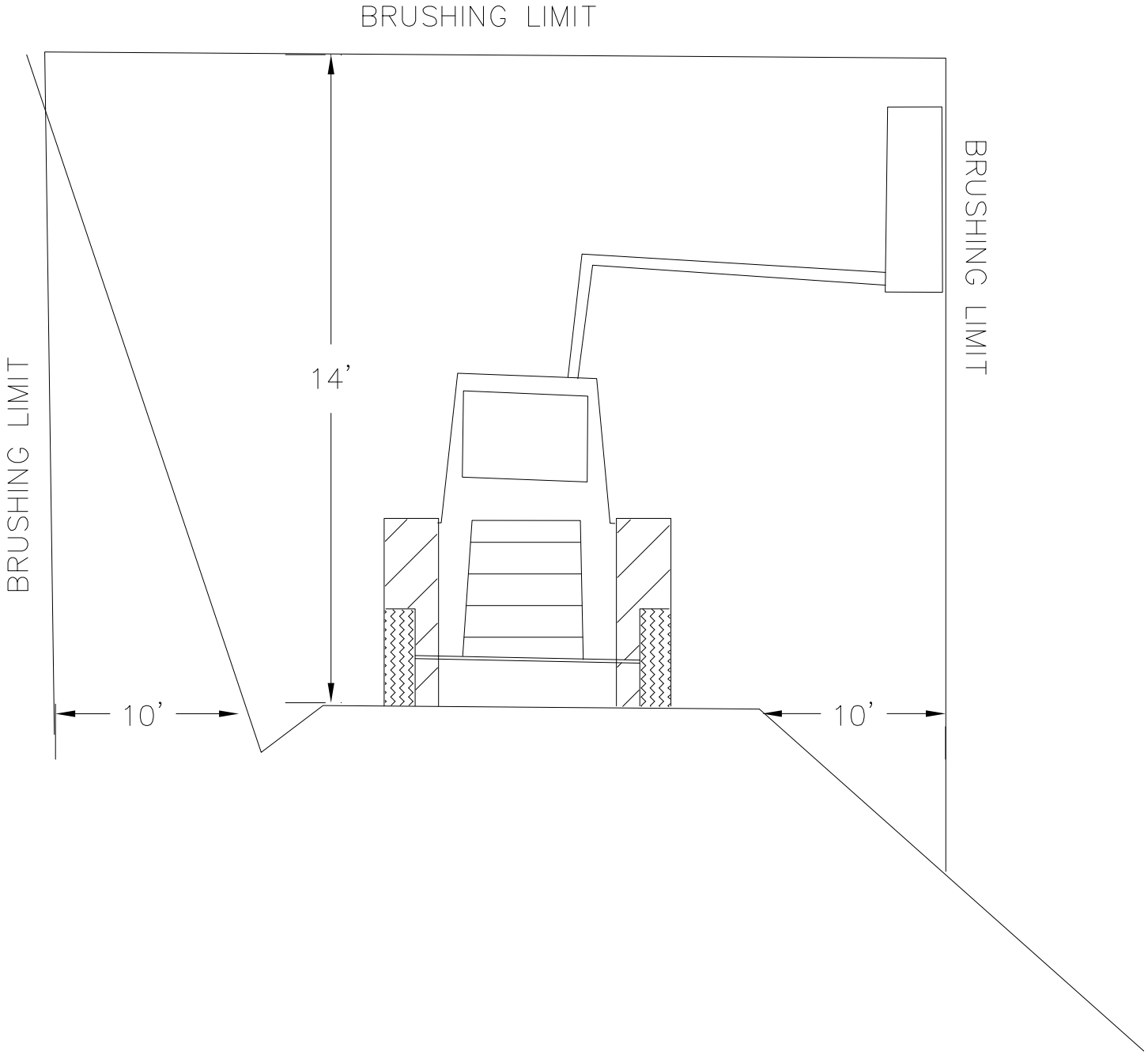
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

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



BRUSHING SECTION DETAIL



ROCK ACCOUNTABILITY DETAIL

SALE NAME: _____ Purchaser:_____

Agreement #: _____ Contractor:_____

Rock Quarry/Pit:_____ Truck No:_____

DAILY ROCK LOAD RECORD					
DATE	LOAD TIME	ROAD NO.	TYPE OF ROCK	QUANTITY	COMMENTS

Truck Driver Signature _____

SIGNATURE DATE

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PACIFIC CASCADE REGION

P&E EXTENSION QUARRY DEVELOPMENT PLAN

NE ¼, NE ¼, Section 29, Township 13 North, Range 06 West, W.M.

(Page 1 of 2)

1. Mining shall be in Area A.

2. Root wads and organic debris larger than one cubic foot in volume shall be separated from overburden material and piled in the designated waste area.

3. At the end of operations, quarry 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.

4. At the completion of rock source operations, Purchaser shall ask Contract Administrator for written approval of final rock source condition and compliance with the terms of this plan.

5. The pit area shall be worked and left in a condition that future operations may proceed in an orderly manner.

6. Upon completion of operations, the site shall be cleared of all temporary structures, equipment and rubbish, and shall be left in a neat and presentable condition.

Date of update 8/19/19 C.W.

P&E Extension Quarry Plan
NE 1/4 Sec. 29, T13N, R06W, W.M.

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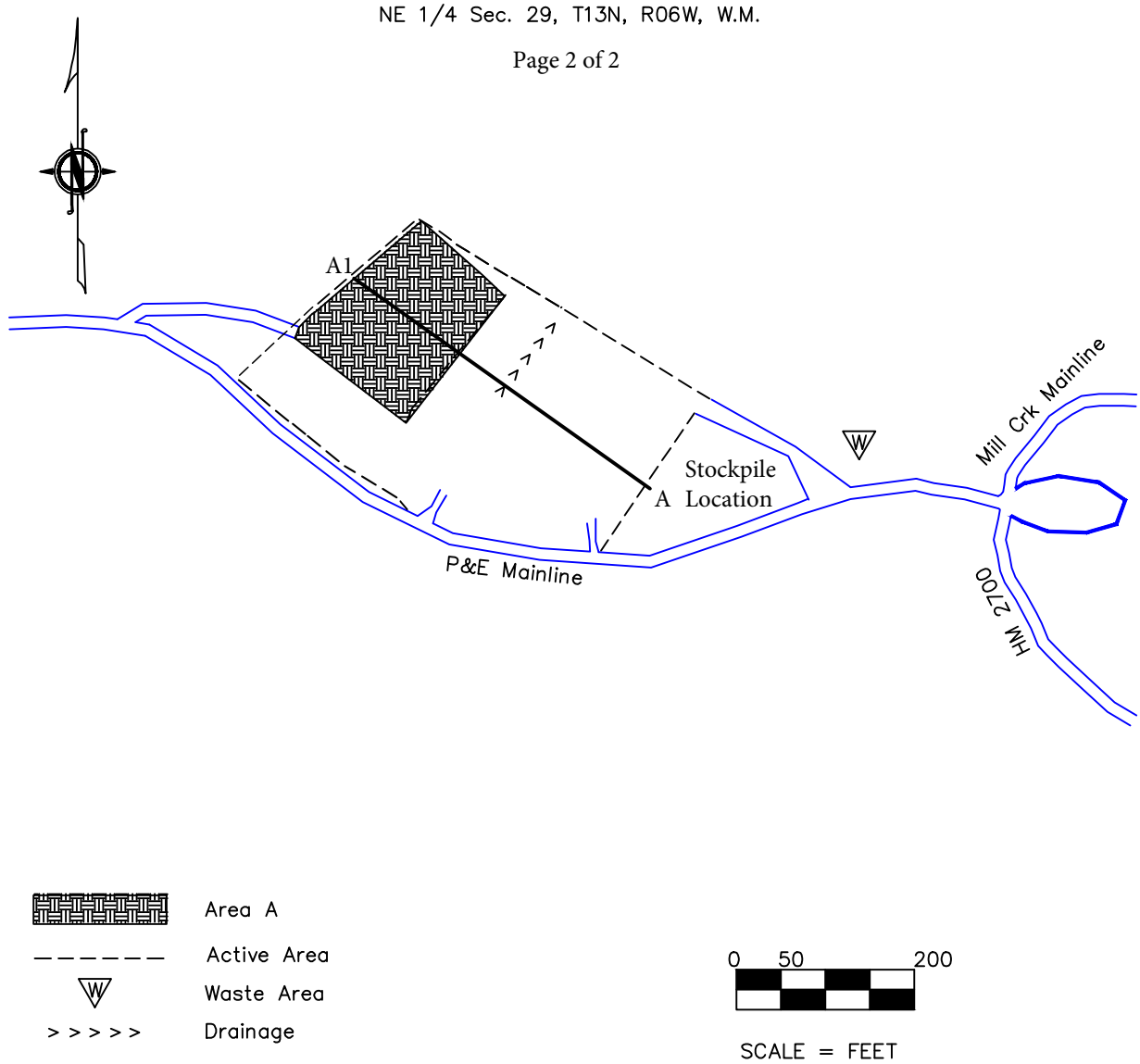
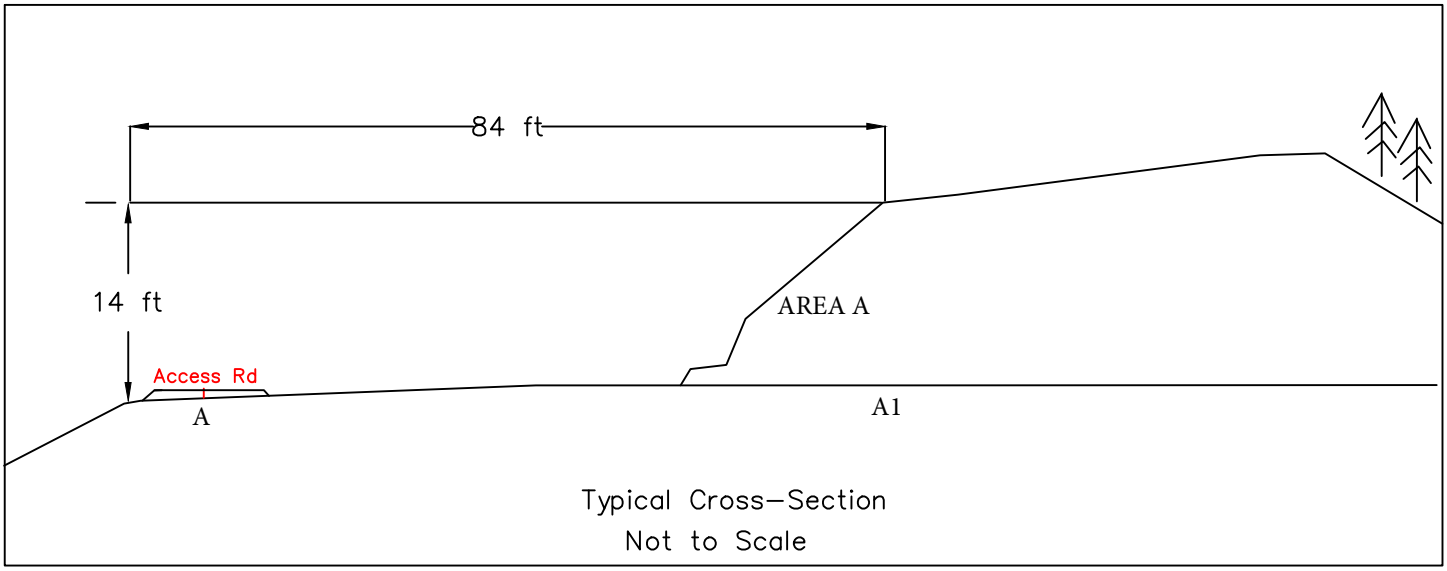




DEPARTMENT OF NATURAL RESOURCES

SUMMARY - Road Development Costs

REGION: PACIFIC CASCADE

DISTRICT: LEWIS

SALE/PROJECT NAME: Briskaet

CONTRACT NUMBER: 30-100214

LEGAL DESCRIPTION: Sec 28 & 29 T13R06W

ROAD NUMBER:

Required: MC-8400, MC-8450, MC-8451, HM-2700, HM-2600, HM-Mainline

Optional: MC-8450 Ext, MC-8451 Ext, HM-2620, HM-2640, HM-2650, HM-2710, HM-2720

ROAD STANDARD:	Construction	Reconstruction	Pre-haul maintenance
NUMBER OF STATIONS:	57.20	20.30	459.25
SIDESLOPE:	25%	20%	20%
CLEARING AND GRUBBING:	$6,857	$2,434	
EXCAVATION AND FILL:	$13,900	$4,933	
MISC. MAINTENANCE:	$420	$0	$3,674
ROCK TOTALS:			
Required:	$78,328	$13,486	$27,784
Optional:	$0	$0	$0
Total:	$78,328	$13,486	$27,784
CULVERTS AND FLUMES:	$7,850	$3,000	$0
EXPLORATION	$0	$0	$4,000
GENERAL EXPENSES:	$9,662	$2,147	$3,191
MOBILIZATION:	$2,662	$2,662	$2,662
TOTAL COSTS:	$119,679	$28,661	$41,311
COST PER STATION:	$2,092	$1,412	$90

ROAD DEACTIVATION AND ABANDONMENT COSTS: $0

TOTAL (All Roads) = **$189,650**

TOTAL w/o Optional Rock (All Roads) = **$189,650**

SALE VOLUME MBF = **6,211**

TOTAL COST PER MBF = **$30.53**

TOTAL COST PER MBF w/o Optional Rock = **$30.53**

Compiled by: Chris Werner

Date: 08/19/19

Plans to be furnished by:

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - CONSTRUCTION

SALE NAME: Briskaet CONTRACT NUMBER: 30-100214 Road No. 0 Stations: 57.2 Date: 08/19/19

I. CLEARING AND GRUBBING:

Flat Rate -	% Side Slope	MBF/ac	Disposal Factor	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
MC-8450 Ext	25	25.0	1.20	2.22	$45	1.00	12.00	$1,439
MC-8451 Ext	25	25.0	1.20	2.22	$45	1.00	7.70	$923
HM-2620	25	25.0	1.20	2.22	$45	1.00	4.30	$515
HM-2640	25	25.0	1.20	2.22	$45	1.00	16.05	$1,924
HM-2650	25	25.0	1.20	2.22	$45	1.00	9.15	$1,097
HM-2720	25	25.0	1.20	2.22	$45	1.00	8.00	$959

II Total Stations= 57.20

Required Stations= Required Clear and Grub Sub-total=
Optional Stations= 57.20 Optional Clear and Grub Sub-total= $6,857
Total Stations = 57.20 Clear and Grub TOTAL = $ 6,857.14

Flat Rate -	% Side Slope	Exc. Type Fact.	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
MC-8450 Ext	25	1.2	2.25	$90	1.00	12.00	$2,916
MC-8451 Ext	25	1.2	2.25	$90	1.00	7.70	$1,871
HM-2620	25	1.2	2.25	$90	1.00	4.30	$1,045
HM-2640	25	1.2	2.25	$90	1.00	16.05	$3,900
HM-2650	25	1.2	2.25	$90	1.00	9.15	$2,223
HM-2720	25	1.2	2.25	$90	1.00	8.00	$1,944
							$0
							$0
							$0
							$0

Total Stations=

IV. CULVERTS AND FLUMES:

*End Haul, Over Haul, Large Fills/Cuts

	Estimated Vol. (cy)	No. of Equip. Days	Cost/day	Sub Total
End Haul/ Over Haul				$0
Large Fills/ Cuts				$0

Required Stations= Required Excavation Sub-total=
Optional Stations= Optional Excavation Sub-total= $13,900
Excavation TOTAL = $ 13,899.60

Required

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CULVERTS	5		18	30	$25.00	$3,750
	4		18	40	$25.00	$4,000
						$0
						$0
						$0
						$0
Bands & Gaskets	4				$25.00	$100

Required Culvert Subtotal = $7,850

Optional

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CPP			18	30	$18.00	$0
						$0
						$0
V						$0
						$0
						$0
Bands & Gaskets						$0

Optional Culvert Subtotal = $0

Culvert Total = $7,850

V

Description	Type	Width	Length	Cost/ft.	Sub-total
					$0
					$0
					$0

Structure Total = $0

Required		
Pounds	$/lb	Sub-total
140	$3.00	$420

Optional		
Pounds	$/lb	Sub-total
	$3.00	$0

Grass Seeding Total = $420

III. BALLAST AND SURFACING :

Required Rock

Ballast source:	P&E Extension Quarry
Surface source:	P&E Extension Quarry
Landing source	P&E Extension Quarry
Culvert source	P&E Extension Quarry
Riprap source :	P&E Extension Quarry
Stockpile source:	P&E Extension Quarry
R.T. Miles =	5.0
Ave. Speed =	19
Delay (Hrs.)=	0.2
Cost / Hour =	$100.00
CY / Load =	10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot	$3.00		$3.00	$3.00	
Dig and load	$1.00		$1.00	$1.00	
Crushing					
Purchase					
Haul *	$4.63		$4.63	$4.63	
Spread	$1.00		$1.00	$1.00	
Compact	$1.00		$1.00		
Strip	$2.00		$2.00	$2.00	
Reclamation					
Use tax	$0.08		$0.08	$0.08	
TOTAL ($/cy)	$13.64	$0.00	$13.64	$12.56	$0.00

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast	SPR	4,635
Surfacing	2" minus	
Landings	SPR	350
Culverts	Quarry Spalls	8
TO/TA/INTER	SPR	750
Stockpile		

Ballast	4635	Cu. yds @	$13.64	/cu. yd =	$63,223
Surfacing	0	Cu. yds @	$0.00	/cu. yd =	$0
Landings	350	Cu. yds @	$13.64	/cu. yd =	$4,774
Culverts	8	Cu. yds @	$12.56	/cu. yd =	$100
SPR	750	Cu. yds @	$13.64	/cu. yd =	$10,230
Stockpile	0	Cu. yds @	$0.00	/cu. yd =	$0

Total Rock= 5,743 Required Rock total = $78,328

Optional Rock

Ballast source:	
Surface source:	
Landing source	
Culvert source	
Riprap source :	
Stockpile source:	
R.T. Miles =	3.5
Ave. Speed =	19
Delay (Hrs.)=	0.2
Cost / Hour =	$90.00
CY / Load =	10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot					
Dig and load	$2.50		$2.50	$3.00	
Crushing					
Purchase					
Haul *	$3.46		$3.46	$3.46	
Spread	$2.00		$2.00	$2.00	
Compact	$1.50		$1.50		
Strip	$1.00		$1.00		
Reclamation					
Use tax					
TOTAL ($/cy)	$10.46	$0.00	$10.46	$8.46	$0.00

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast		
Surfacing		
Landings		
Culverts		
Turn Arounds		
Stockpile		

Ballast	0	Cu. yds @	$10.46	/cu. yd =	$0
Surfacing	0	Cu. yds @	$0.00	/cu. yd =	$0
Landings	0	Cu. yds @	$10.46	/cu. yd =	$0
Culverts	0.0	Cu. yds @	$8.46	/cu. yd =	$0.00
Turn Arounds	0	Cu. yds @	$10.46	/cu. yd =	$0
Stockpile	0	Cu. yds @	$0.00	/cu. yd =	$0

Total Rock= 0 Optional Rock total = $0

Rock Total= $78,328

Required Construction= $ 8,270.00
Optional Construction= $ 20,756.74
Required Rock= $78,328
Optional Rock= $0

Required Sub-total= $ 86,598.18
Optiona Sub-total= $ 20,756.74
Sub-TOTAL = $107,355

VI. GENERAL EXPENSES:

Overhead & General Exp. Add 9% $9,662

VII. MOBILIZATION:

Total Mobilization = $7,985 Mobilization sub-total = $2,661.67

SHEET TOTAL = $119,679

By: Chris Werner

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - RE-CONSTRUCTION

SALE NAME: Briskaet CONTRACT NUMBER: 30-100214 Road No. 0 Stations: 20.30 Date: 08/19/19

I. CLEARING AND GRUBBING:

Flat Rate -	% Side Slope	MBF/ac	Disposal Factor	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
HM-2710	25	25.0	1.20	2.22	$45	1.00	20.30	$2,434

Total Stations= 20.30

Required Stations= Required Clear and Grub Sub-total=
Optional Stations= Optional Clear and Grub Sub-total= 2,434
Clear and Grub TOTAL = $2,434

II. EXCAVATION:

Flat Rate -	% Side Slope	Exc. Type Fact.	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
HM-2710	25	1.2	2.25	$90	1.00	20.30	$4,933

Total Stations= 20.30

*End Haul, Over Haul, Large Fills/Cuts

	Estimated Vol. (cy)	No. of Equip. Days	Cost/day	Sub Total
End Haul/ Over Haul				$0
Large Fills/ Cuts				$0

Required Stations= Required Excavation Sub-total=
Optional Stations= Optional Excavation Sub-total= 4,933
Excavation TOTAL = $4,933

IV. CULVERTS AND FLUMES:

Required

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CULVERTS	4		18	30	$25.00	$3,000
Bands & Gaskets					$20.00	

Required Culvert Subtotal = $3,000

Optional

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
						$0
						$0
						$0
						$0
						$0
						$0
Bands & Gaskets						$0

Optional Culvert Subtotal = $0

Culvert Total = $3,000

V. STRUCTURES

Description	Type	Width	Length	Cost/ft.	Sub-total
					$0
					$0
					$0

Structure Total = $0

VI. GRASS SEEDING

Required

Pounds	$/lb	Sub-total
	$2.00	$0

Optional

Pounds	$/lb	Sub-total
	$2.00	$0

Grass Seeding Total = $0

III. BALLAST AND SURFACING :

Required Rock

Ballast source: P&E Extension Quarry
Surface source: P&E Extension Quarry
Landing source P&E Extension Quarry
Culvert source P&E Extension Quarry
Riprap source : P&E Extension Quarry
Stockpile source: P&E Extension Quarry

R.T. Miles = 5.0
Ave. Speed = 19
Delay (Hrs.)= 0.2
Cost / Hour = $100.00
CY / Load = 10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot	$3.00		$3.00	$3.00	
Dig and load	$1.00		$1.00	$1.00	
Crushing					
Purchase					
Haul *	$4.63		$4.63	$4.63	
Spread	$1.00		$1.00	$1.00	
Compact	$1.00		$1.00		
Strip	$2.00		$2.00	$2.00	
Reclamation					
Use tax	$0.08		$0.08	$0.08	
TOTAL ($/cy)	$13.64	$0.00	$13.64	$12.56	$0.00

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast	SPR	935
Surfacing	2 1/2" minus	
Landings	SPR	50
Culverts	Quarry Spalls	4
TO/TA/INTER	SPR	150
Stockpile		

Total Rock= 1,139

Ballast	935	Cu. yds @	$13.64	/cu. yd =	$12,754
Surfacing	0	Cu. yds @	$0.00	/cu. yd =	$0
Landings	50	Cu. yds @	$13.64	/cu. yd =	$682
Culverts	4	Cu. yds @	$12.56	/cu. yd =	$50
SPR	150	Cu. yds @	$0.00	/cu. yd =	$0
Stockpile	0	Cu. yds @	$0.00	/cu. yd =	$0

Required Rock total = $13,486

Optional Rock

Ballast source:
Surface source:
Landing source
Culvert source
Riprap source :
Stockpile source:

R.T. Miles = 6.0
Ave. Speed = 19
Delay (Hrs.)= 0.2
Cost / Hour = $90.00
CY / Load = 10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot					
Dig and load	$2.00			$3.00	
Crushing					
Purchase					
Haul *	$4.37	$4.37	$4.37	$4.37	$4.37
Spread	$2.00			$2.00	
Compact	$1.50				
Strip					
Reclamation					
Use tax	$0.08	$0.08	$0.08	$0.08	$0.08
TOTAL ($/cy)	$10.66	$4.72	$4.72	$10.12	$4.72

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast		
Surfacing		
Landings		
Culverts		
Riprap		
Stockpile		

Total Rock= 0

Ballast	0	Cu. yds @	$10.66	/cu. yd =	$0
Surfacing	0	Cu. yds @	$4.72	/cu. yd =	$0
Landings	0	Cu. yds @	$4.72	/cu. yd =	$0
Culverts	0	Cu. yds @	$10.12	/cu. yd =	$0
Riprap	0	Cu. yds @	$4.72	/cu. yd =	$0
Stockpile	0	Cu. yds @	$4.72	/cu. yd =	$0

Optional Rock total = $0

Rock Total= $13,486

Required Re-Construction= $3,000
Optional Re-Construction= $7,366
Required Rock= $13,486
Optional Rock= $0

Required Sub-total= $16,486
Optional Sub-total= $7,366
Sub-TOTAL = $23,852

VI. GENERAL EXPENSES:

Overhead & General Exp. Add 9% $2,147

VII. MOBILIZATION:

Total Mobilization = $7,985 Mobilization sub-total = $2,661.67

SHEET TOTAL = $28,661

By: Chris Werner

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - PRE-HAUL MAINTENANCE

SALE NAME: Briskaet CONTRACT NUMBER: 30-100214

Total stations Pre-Haul Maintenance = 459.25

I. MISC. MAINTENANCE ITEMS:

	Cost/ Station	Total Stations	Sub Total
mechanical brushing ($/sta) =	25.00		$0
hand brushing =			$0
ditch cleaning ($/sta) =	55.00		$0
Sediment Traps (ea.) =	60.00		$0
grading ($/sta) =	6.00	459.25	$2,756
compacting ($/sta) =	2.00	459.25	$919

Misc TOTAL = $3,674

III. BALLAST AND SURFACING :

Ballast source:
Surface/Stockpile Source P&E Extension Quarry
Riprap source :

Description	cu.yds/sta x stations =	cubic yards
		0
Surfacing (2 1/2"-)		700
Stockpile (2 1/2"-)		1,300

UNIT COSTS	Ballast	Surfacing	Stockpile
Drill & Shoot		$3.00	$3.00
Dig and load		$2.00	$2.00
Crushing		$5.00	$5.00
Purchase			
Haul *		$5.68	
Spread		$1.50	
Compact		$1.00	
Strip			
Reclamation			
Use tax	$0.08	$0.08	$0.08
TOTAL ($/cy)	$0.00	$19.63	$10.80

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

R.T. Miles =	7.0						
Ave. Speed =	19		0	Cu. yds @	$0.00	/cu. yd =	$0
Delay (Hrs.)=	0.2	Surfacing (2 1/2"-)	700	Cu. yds @	$19.63	/cu. yd =	$13,744
Cost / Hour =	$100.00	Stockpile	1300	Cu. yds @	$10.80	/cu. yd =	$14,040
CY / Load =	10						

Rock total = $27,784

IV. CULVERTS AND FLUMES:

Description	Qty.	Gauge	Diameter (in.)	No/Length (ft)	Installed Cost/ft	Sub-total
CPP			18	30	$20.00	$0
						$0
						$0
						$0
						$0
Bands & Gaskets						$0

Culvert total = $0

V. STRUCTURES

Description	Type	Cost	Sub-total
	ROCK DRILL EXPLORATION	$4,000	$4,000

Sub-TOTAL = $35,458

VI. GENERAL EXPENSES: Overhead & General Exp. Add 9% $3,191

VII. MOBILIZATION: Total Mobilization = $7,985 Mobilization sub-total = $2,661.67

Road No. 0
Standard: Pre-haul maintenance
Stations: 459.25

SHEET TOTAL = $41,311

By: Chris Werner Sheet 4 of 5 Date: 08/19/19

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - MOBILIZATION

VII. MOBILIZATION:	Description	$ per Move	# of Moves	Sub-total
	Dump Trucks	100	3	$300
* Move in costs	Grader	160	1	$160
are averaged over	Compactor	450	1	$450
all three sheets.	Excavator	450	2	$900
	Dozer (D8)	450	1	$450
	Front end loader	450	1	$450
	Rock crusher	$4,000	1	$4,000
	Drill	$1,000	1	$1,000
	Dozer (D5)	$275	1	$275

Construction Mobilization sub-total =	$2,661.67	
Reconstruction Mobilization sub-total =	$2,661.67	
Pre-haul Mobilization sub-total =	$2,661.67	
Total Mobilization =		$7,985

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Pacific Cascade

Timber Sale Name: Briskaet TBS

Application Number: 30- 100214

EXCISE TAX APPLICABLE ACTIVITIES

Construction: 5,720 **linear feet**
Road to be constructed (optional and required) but not abandoned

Reconstruction: 2,030 **linear feet**
Road to be reconstructed (optional and required) but not abandoned

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

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

Pre-Haul Maintenance: 45,925 **linear feet**
Existing road to receive maintenance work (optional and required) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

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

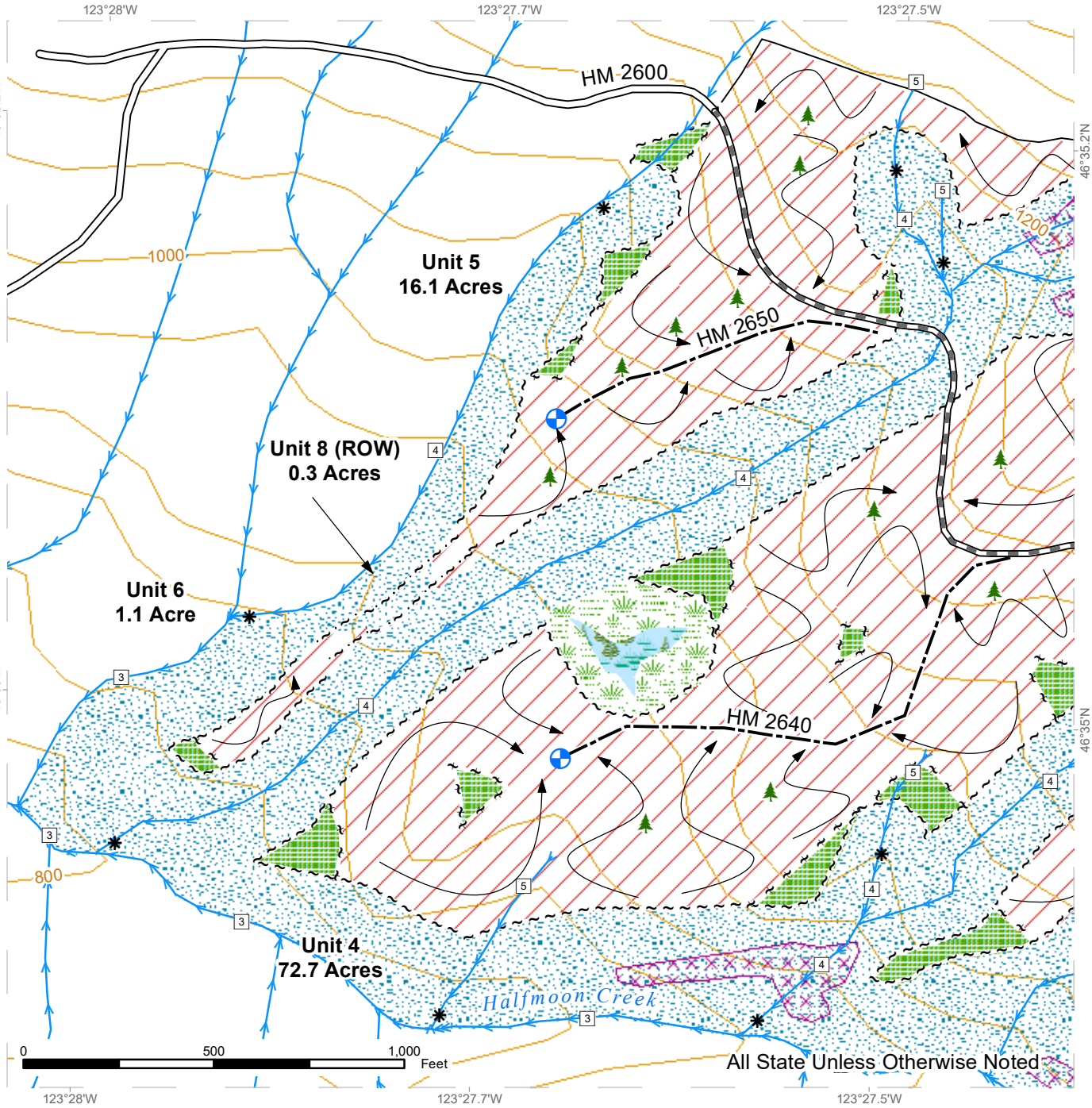
Temporary Reconstruction: **linear feet**
Roads to be reconstructed (optional and required) and then abandoned

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale 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

SALE NAME: BRISKAET
AGREEMENT#: 30-100214
TOWNSHIP(S): T13R6W
TRUST(S): Charitable/Educational/Penal & Reformatory Instit. (6), Scientific School (10)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 840-2120



Ground Harvest	Existing Roads	Streams
Cable Harvest	Required Pre-Haul Maintenance	Stream Type
Sale Boundary Tags	Optional Construction	Stream Type Break
Timber Type Change		Landing - Proposed
Leave Tree Tags		Leave Tree
Right of Way Tags		

N

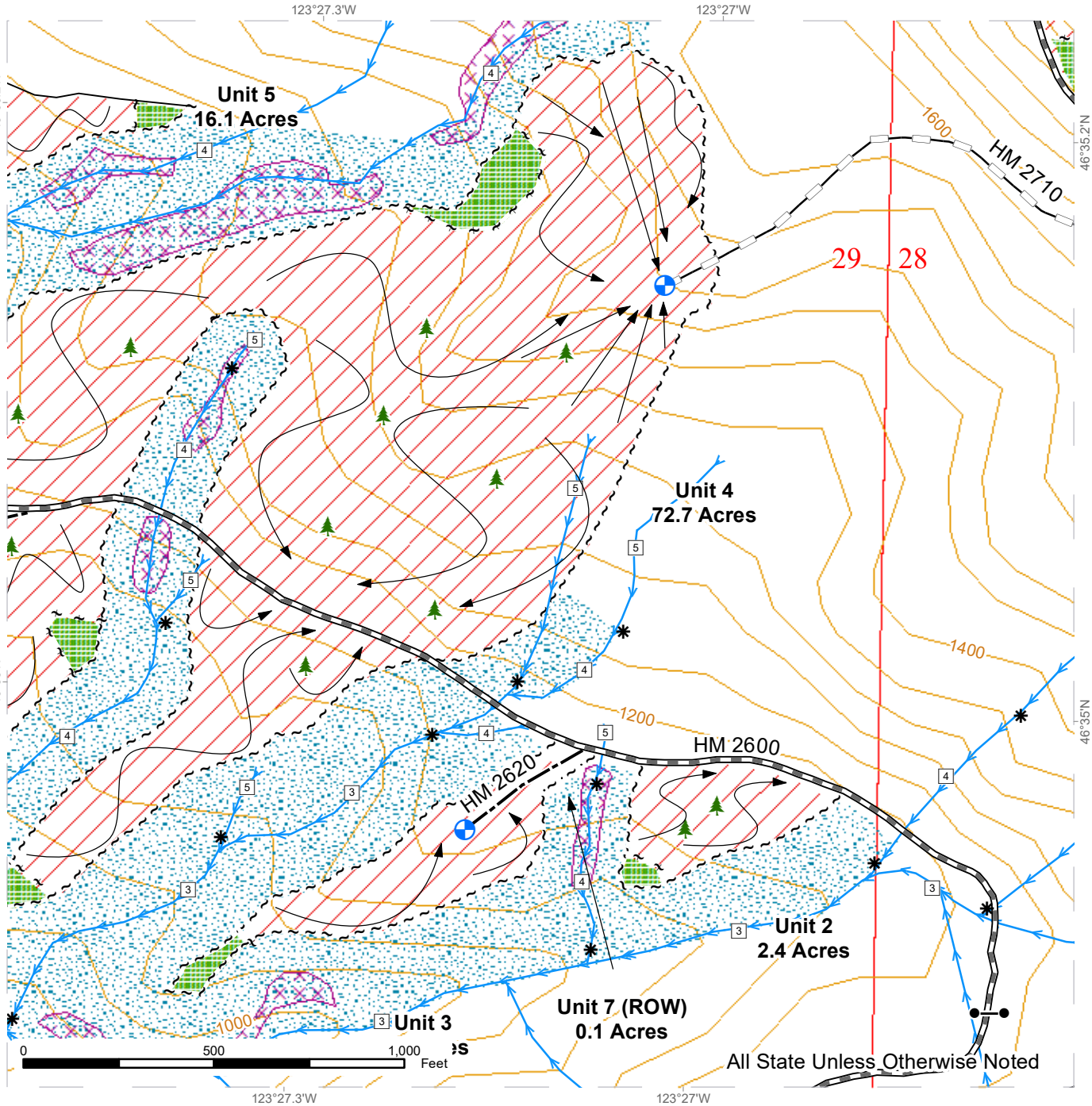
Prepared By: tkee490

Modification Date: tkee490 2/19/2020

LOGGING PLAN MAP

SALE NAME: BRISKAET
AGREEMENT#: 30-100214
TOWNSHIP(S): T13R6W
TRUST(S): Charitable/Educational/Penal & Reformatory Instit. (6), Scientific School (10)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 840-2120



Ground Harvest
Cable Harvest
Sale Boundary Tags
Timber Type Change
Leave Tree Tags
Right of Way Tags
Required Pre-Haul Maintenance
Optional Construction
Optional Reconstruction
Streams
Stream Type
Stream Type Break
Gate (PCP1-1)
Landing - Proposed
Leave Tree

N

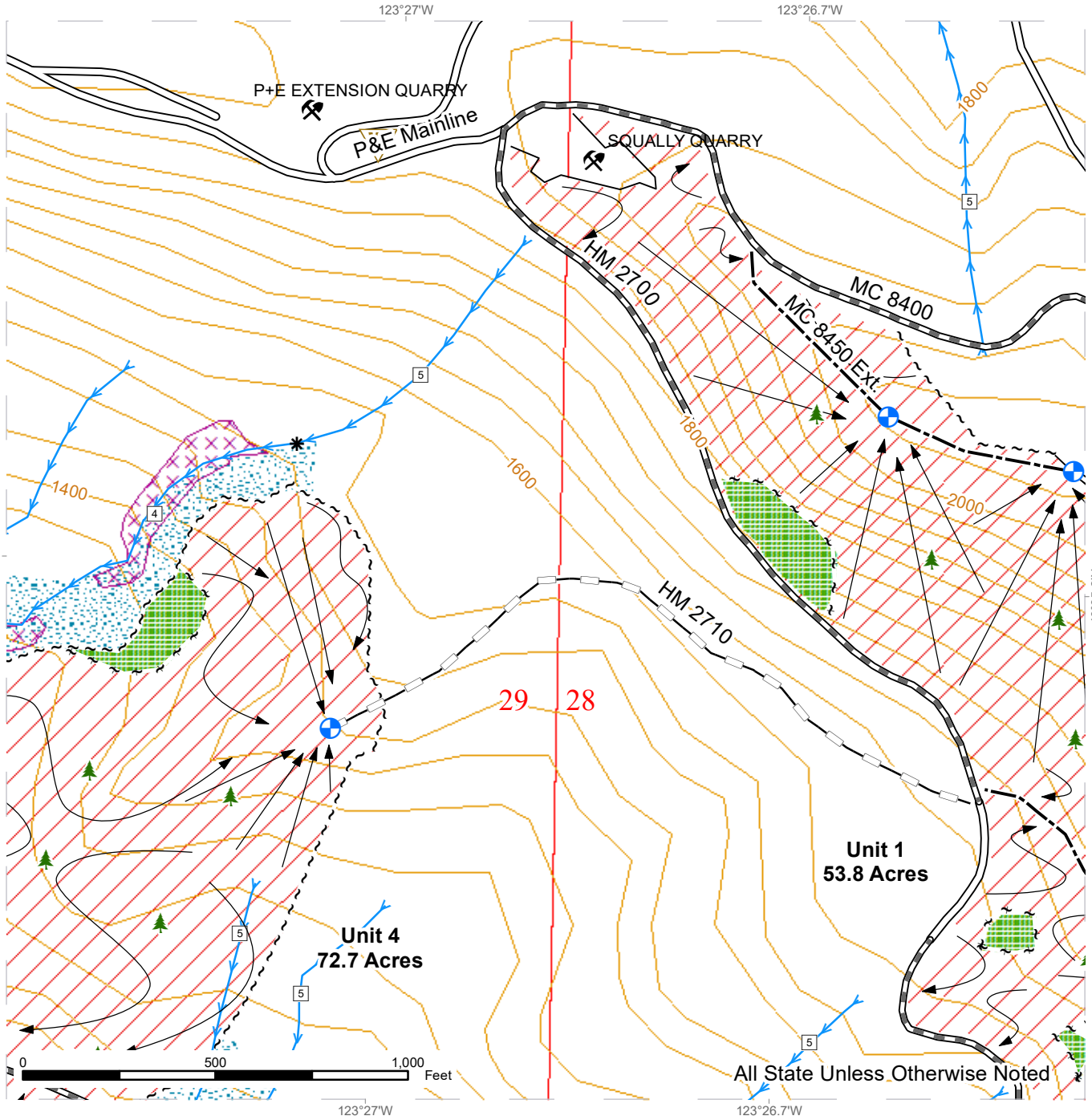
Prepared By: tkee490

Modification Date: tkee490 2/19/2020

LOGGING PLAN MAP

SALE NAME: BRISKAET
AGREEMENT#: 30-100214
TOWNSHIP(S): T13R6W
TRUST(S): Charitable/Educational/Penal & Reformatory Instit. (6), Scientific School (10)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 840-2120



Ground Harvest	Existing Roads	Streams
Cable Harvest	Required Pre-Haul Maintenance	Stream Type
Sale Boundary Tags	Optional Construction	Stream Type Break
Timber Type Change	Optional Reconstruction	Landing - Proposed
Leave Tree Tags		Leave Tree
		Rock Pit
		Waste Area

N

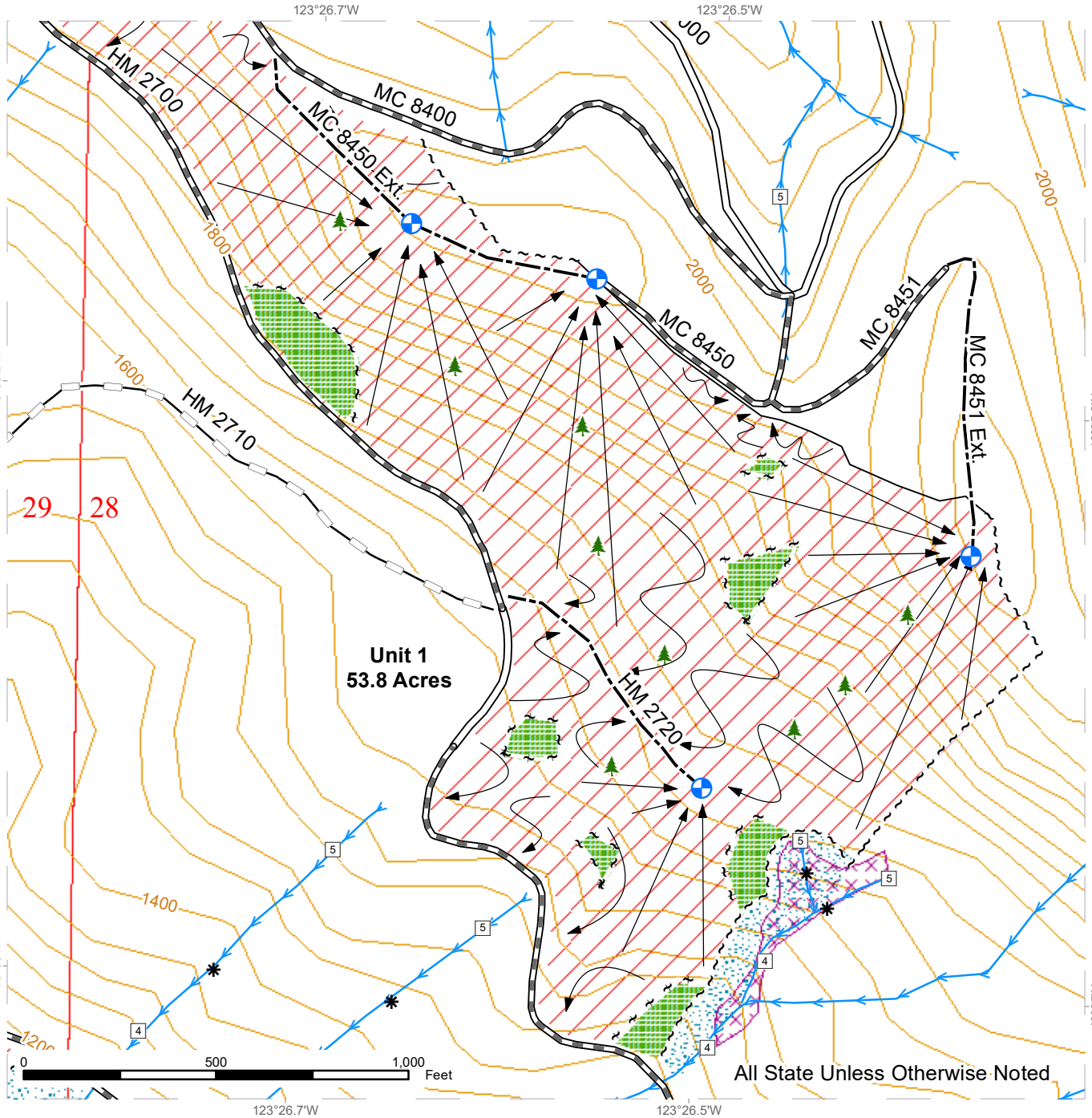
Prepared By: tkee490

Modification Date: tkee490 2/19/2020

LOGGING PLAN MAP

SALE NAME: BRISKAET
AGREEMENT#: 30-100214
TOWNSHIP(S): T13R6W
TRUST(S): Charitable/Educational/Penal & Reformatory Instit. (6), Scientific School (10)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 840-2120



Ground Harvest	Existing Roads	Streams
Cable Harvest	Required Pre-Haul Maintenance	Stream Type
Sale Boundary Tags	Optional Construction	Stream Type Break
Timber Type Change	Optional Reconstruction	Landing - Proposed
Leave Tree Tags		Leave Tree

N

Prepared By: tkee490

Modification Date: tkee490 2/19/2020

55-000453

EASEMENT

The grantor Melvin C. and Betty June Wilson of Curtis, Washington for and in consideration of One Dollar ($1.00) and other valuable consideration, in hand paid, receipt thereof is hereby acknowledged, grants and conveys to the State of Washington Department of Natural Resources, grantee, its successors and assigns, a non-exclusive permanent easement over and across the following described lands in ~~Lewis~~ Pacific County, State of Washington, to wit: Lot 15 and the W½ of Lot 16 in Section 3, Township 12 North, Range 7 West, Willamette Meridian that existing road 40 feet in width, having 20 feet on either side of the centerline approximately as shown in red on the plat marked Exhibit A, attached hereto and by this reference made a part hereof.

The rights granted hereinabove shall be subject to the following terms and conditions:

1. The easement is conveyed for the sole purpose of constructing and/or maintaining a road to provide access to and from lands presently owned or hereinafter acquired by the grantee, or controlled by the grantee, for land management and administration activities, including but not limited to valuable material removal operations.

2. The grantor reserves to itself, its successors and assigns, the right to use, at its own risk, the roadway in any manner which does not unreasonably interfere with the use of said road by the grantee, its assigns, successors, agents, contractors, employees, or licensees. Said road users will, however, contribute their pro rata share to the maintenance costs caused by their usage so that such maintenance will leave the road in as good a condition as existed at the time of commencement of said use.

3. The grantee shall be responsible for maintaining the road at its own expense during those periods the road is being used solely by the grantee. Such maintenance shall leave the road in as good a condition as existed at the time of commencement of said use.

4. The grantee shall save and hold harmless the grantor from every claim, damage, or expense of any kind arising out of the occupancy and use of the road by the grantee, its assigns, contractors, employees, licensees, or agents of the grantee.

5. The grantee shall require its contractors to obtain and maintain, during the term of road use, liability insurance covering all motor vehicles and other operations hereunder, with the limits of not less than $100,000.00 personal injury and $50,000.00 property damage.

6. The grantee shall keep the existing gates at the entrance and exit of the road closed to prevent the escape of the grantor's cattle. If it so elects, the grantee may replace said gates with cattleguards at its own expense.

IN WITNESS WHEREOF, the grantor has hereunto set its hand and seal this 8 day of October, 1966.

Melvin C. Wilson (SEAL)
Betty June Wilson (SEAL)

On this day personally appeared before me ~~[illegible]~~ M. C. Wilson & Betty June Wilson to me known to be the individual_ described in and who executed the within and foregoing instrument and acknowledged the same as their free and voluntary act and conveyance for the uses and purposes therein mentioned.

Given under my hand and official seal this 8 day of October, 1966

Notary Public in and for the State of Washington, residing at Centralia

VERNA JACOBSON
PACIFIC COUNTY AUDITOR

1967 FEB 10 AM 9:09
RECEIVED

M-158
5/1/61

BOOK 204 PAGE 729

EXHIBIT "A"

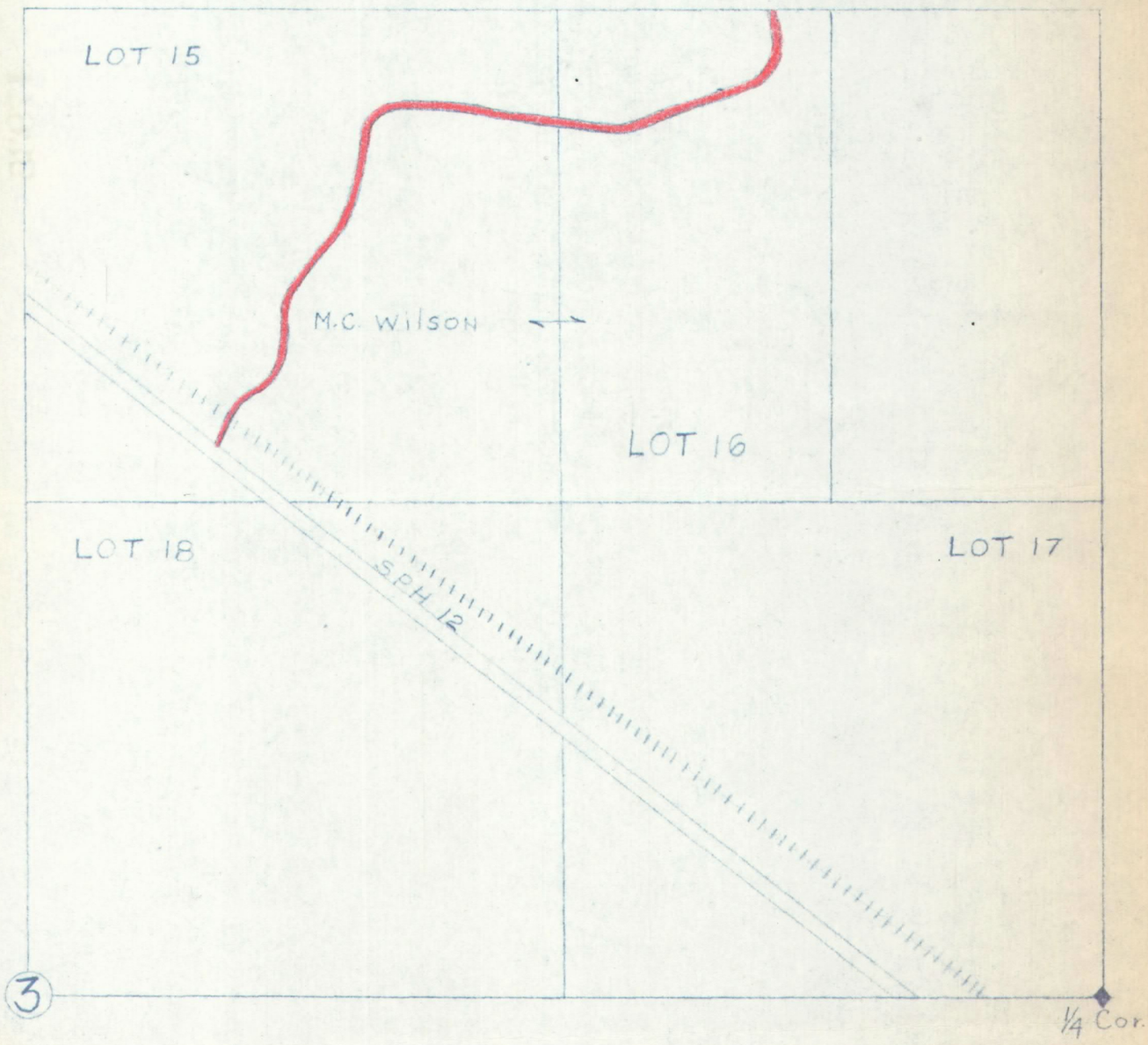
S. F. No. 6369—6-62—2M. 74146.

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
BERT L. COLE, Commissioner of Public Lands

Application No. ..... County Pacific

Name of Sale ..... District Willapa

TOWNSHIP 12 NORTH, RANGE 7 (E.) (W.) W.M.



SCALE: 7" = 1 Mile

Drawn By: Don Pless

Date: 9-22-66

LEGEND

BOOK 204 PAGE 730