



TIMBER NOTICE OF SALE

SALE NAME: GREAT DIVIDE

AGREEMENT NO: 30-102769

AUCTION: March 30, 2023 starting at 10:00 a.m., **COUNTY:** Pacific
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 16 miles east of Naselle

**PRODUCTS SOLD
AND SALE AREA:**

All timber, except leave trees marked with blue paint, trees bound by yellow "Leave Tree Area" tags, all down timber existing 5 years prior to day of sale and all timber greater than 60 inches diameter bounded by the following:

Unit 1: White "Timber Sale Boundary" tags and pink flagging and 5973 road.

Unit 2: White "Timber Sale Boundary" tags and pink flagging, 5973 road and a timber type change.

Unit 3: White "Timber Sale Boundary" tags and pink flagging, 5973I road, and reprod.

Unit 4: White "Timber Sale Boundary" tags and pink flagging and 5973 road.

All forest products above located on part(s) of Sections 17 and 18 all in Township 11 North, Range 7 West, W.M., containing 78 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	25	7	2,763				32		2,273	395	38	25
Hemlock	19		1,937				61	42	1,237	482	90	25
Red alder	18		166					8	80	38	22	18
Redcedar	17		140							120	19	1
Sale Total			5,006									

MINIMUM BID: \$760,000.00

BID METHOD: Sealed Bids

**PERFORMANCE
SECURITY:**

\$100,000.00

SALE TYPE: Lump Sum

EXPIRATION DATE: October 31, 2025

ALLOCATION: Export Restricted

BID DEPOSIT: \$76,000.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable-Assist, Cable, and Ground based equipment. This sale is estimated to be 95% cable/cable assist harvest systems and 5% ground based harvest systems. Ground based yarding equipment will not be permitted on sustained slopes over 45%. Cable assist equipment will not be permitted on sustained slopes over 70%. For additional harvesting restrictions see Clause H-140 in the contract.



TIMBER NOTICE OF SALE

ROADS: 2.61 stations of required reconstruction. 15.15 stations of optional construction. 380.78 stations of required prehaul maintenance. 8.47 stations of abandonment, if built. Rock used in accordance with the quantities in the ROCK LIST under this contract may be obtained at no cost to the Purchaser from ditch cleaning on 5973 & 5973I Roads or 5973 waste area located at station 120+30. See Road Plan 6-2 for additional details. 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. See Road Plan 6-5 for more details. Road construction will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator, this includes pre-haul maintenance, abandonment and bridge work.

Marbled Murrelet timing restrictions are applied to 4900 and 5973I roads. Any road work, right-of-way timber falling and yarding, rock pit operations, or heavy equipment operation is not allowed from two hours before official sunset to two hours after official sunrise from April 1 through August 31. This restriction does not apply to hauling timber, rock or equipment. See Road Plan 1-27 and Contract Clause H-142 for additional information. 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 delineation. Cruise was completed using variable plot cruise methods.

FEES: \$85,102.00 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 contains approximately; 810 MBF of HQ 2 Saw DF and 32 MBF of HQ 3 Saw DF. See Cruise for additional information.

See Road Plan 11-3 for SUBMITTALS requirements for Bridge Technical Specifications.

Purchaser shall provide and install one 15' x 45' precast bridge. See Road Plan 0-13, Section 7 – Structures and Section 11 Bridge Technical Specifications.

Purchaser is responsible for costs associated with traffic control for bridge installation. See Road Plan 7-2 for additional information.

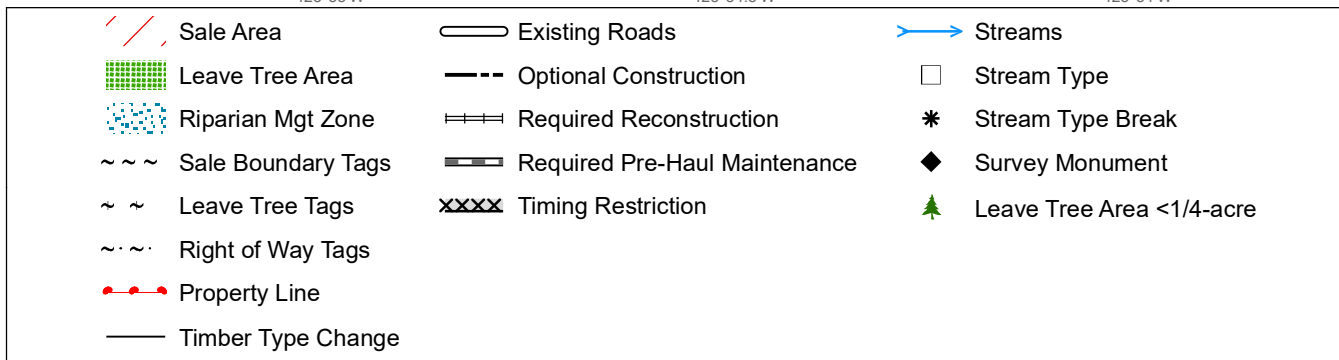
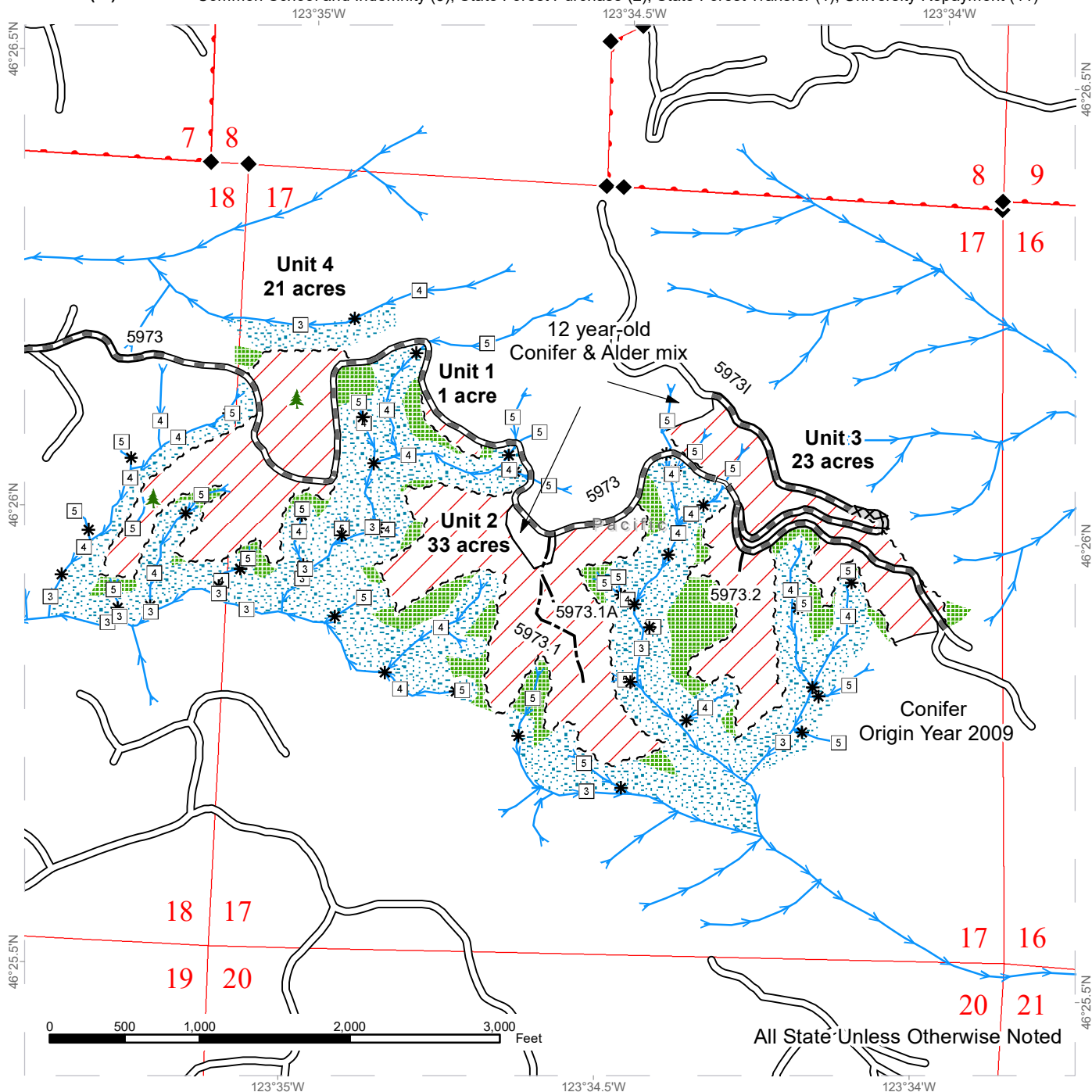
Gate on 5973 road at station 14+70 shall be kept closed and locked except during periods of haul. See Road Plan 7-70 for additional information.

Pacific County Haul Permits are required. See Clause G-396 for additional information.

TIMBER SALE MAP

SALE NAME: GREAT DIVIDE
AGREEMENT #: 30-102769
TOWNSHIP(S): T11R7W
TRUST(S): Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 640-1760



DRIVING MAP

SALE NAME: GREAT DIVIDE

AGREEMENT#: 30-102769

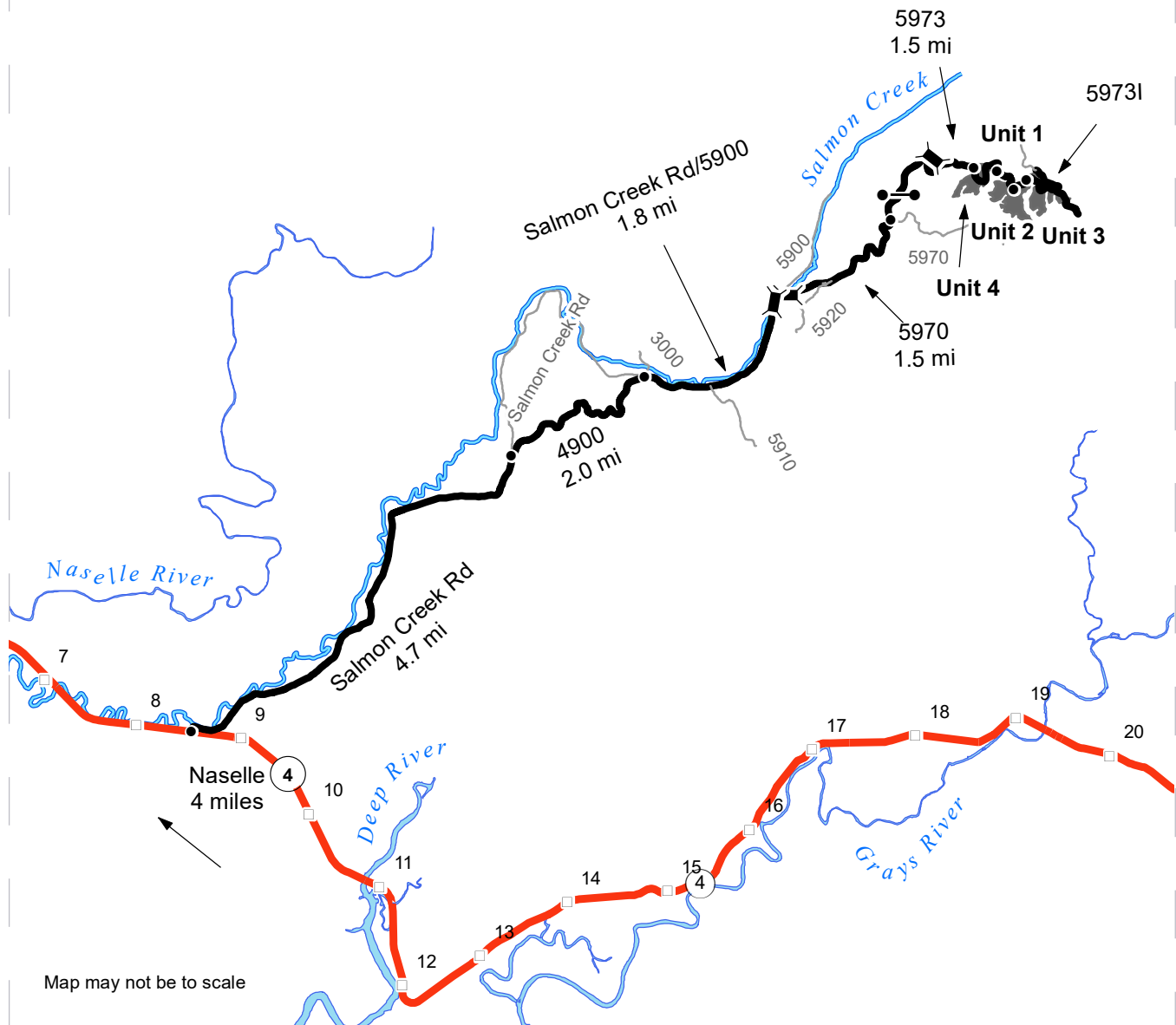
TOWNSHIP(S): T11R7W

TRUST(S): Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1), University Repayment (41)

REGION: Pacific Cascade Region

COUNTY(S): Pacific

ELEVATION RGE: 640-1760



Timber Sale Unit

Haul Route

Other Routes

Bridge

Distance Indicator

Gate (PCP 1-1)

Milepost Markers

SR 4

DRIVING DIRECTIONS:

From SR4, between mileposts 8 & 9, turn onto Salmon Creek Road.

Follow for 4.7 miles.

Turn northeast (right) onto the 4900 road.

Follow for 2.0 miles until you connect back with Salmon Creek Road/5900.

Continue east (right onto Salmon Creek Rd/ 5900 and follow for 1.8 miles.

Turn northeast (right) onto the 5970 road.

Follow for 1.5 miles and turn left onto the 5973.

Follow the 5973 for 1.5 miles until Unit 4.

Continue on the 5973 for 0.5 mile to Unit 1.

Continue on the 5973 for 0.25 mile to Unit 2.

Continue on the 5973 for 0.16 mile for Unit 3.



**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

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

Export Restricted Lump Sum AGREEMENT NO. 30-0102769

SALE NAME: GREAT DIVIDE

**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 March 30, 2023 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 marked with blue paint, trees bound by yellow "Leave Tree Area" tags, all down timber existing 5 years prior to day of sale and all timber greater than 60 inches diameter bounded by the following:

Unit 1: White "Timber Sale Boundary" tags and pink flagging and 5973 road.

Unit 2: White "Timber Sale Boundary" tags and pink flagging, 5973 road and a timber type change.

Unit 3: White "Timber Sale Boundary" tags and pink flagging, 5973I road, and reprod.

Unit 4: White "Timber Sale Boundary" tags and pink flagging and 5973 road.

All forest products above located on approximately 78 acres on part(s) of Sections 17, and 18 all in Township 11 North, Range 7 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, 2025.

G-040 Contract Term Adjustment - No Payment

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

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

G-051 Contract Term Extension - Payment

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

- a. A written request for extension of the contract term must be received prior to the expiration date of the contract.
- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.

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

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

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

All payments, except the initial deposit, will be deducted from the total contract price to determine the unpaid portion of the contract.

- e. Payment of \$1,444.59 per acre per annum for the acres on which an operating release has not been issued for all 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 Operations

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

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

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

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

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

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

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

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

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

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; 4900, 5900, 5970, 5973, 5973.1,

5973.1A, 5973.2, 5973I. 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-396 Public Hauling Permit

The hauling of forest products, rock or equipment may require a state, county, or city hauling permit. Purchaser is responsible for obtaining any necessary permit and any costs associated with extra maintenance or repair levied by the permitting agency. Purchaser must provide the Contract Administrator with a copy of the executed permit.

G-430 Open Fires

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

G-450 Encumbrances

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

Lease, including the terms and provisions thereof,
For: Minor Forest Products
In Favor of: DNR- Pacific Cascade Region
Disclosed by Application No.: 35-CP0002

Granted: 1/1/1993

Expires: Indefinite

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 \$130,156.00. The total contract price consists of a \$0.00 contract bid price plus \$130,156.00 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 \$0.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section H: Harvesting Operations

H-013 Reserve Tree Damage Definition

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

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

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

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

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

H-017 Preventing Excessive Soil Disturbance

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

H-035 Fall Trees Into Sale Area

Trees shall be felled into the sale area unless otherwise approved by the Contract Administrator.

H-051 Branding and Painting

Purchaser shall provide a State of Washington registered log brand, acceptable to the State, unless the State agrees to furnish the brand. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

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

H-080 Snags Not to be Felled

Snags not required to be felled for safety reasons may be left standing. Snags felled for safety reasons shall not be removed and must remain where felled.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable systems, cable assist and shovels. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-126 Tailholds on State Land

If Purchaser tailholds on State land, methods to minimize damage to live trees outside the sale area shall be employed and must be approved in writing by the Contract Administrator.

H-130 Hauling Schedule

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

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- A. Active Haul Routes will be posted with CB channels by Purchaser.
- B. Ground based yarding equipment shall only operate during dry soil conditions.
- C. Shovels must be large enough to pick up one end of the largest log 35 feet from machine.
- D. Ground based yarding equipment will not be permitted on sustained slopes over 45 percent.
- E. Cable assist operations will not be permitted on slopes over 70 percent.
- F. Long butts remaining on the sale must be dispersed as directed by the Contract Administrator.

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:

- A. No Yarding will be permitted through or over areas identified to be potentially unstable on the FPA Slope Stability Form and all maps.

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

H-142 Wildlife Timing Restrictions

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

STA 90+60 to STA 100+00 of the 4900, STA 11+80 to STA 15+30 of the 5973I, and the northern boundary of Unit 3.

Timing restrictions are described as no operation of heavy equipment within the critical nesting season. Restriction apply one hour before official sunrise to two hours after official sunrise, and from one hour before official sunset to one hour after official sunset April 1 to August 31. Heavy equipment is identified as felling, yarding, and loading equipment for logging, any road work, right-of-way timber falling and yarding, rock pit operation, or heavy equipment operation. This restriction does not apply to hauling timber, rock, or equipment.

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-240 Lop and Scatter

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

H-250 Additional Falling Requirements

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

Section C: Construction and Maintenance**C-040 Road Plan**

Road construction and associated work provisions of the Road Plan for this sale, dated 6/22/2022 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on 5973, 5973.1, 5973.1A, 5973.2 and 5973I roads. All work shall be completed to the specifications detailed in the Road Plan.

C-060 Designated Road Maintainer

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

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

C-140 Water Bars

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

Section S: Site Preparation and Protection**S-001 Emergency Response Plan**

An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, valid contact numbers and procedures for medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or

unlawful activity on or in the vicinity of the sale area. The Contract Administrator and the State shall be promptly notified whenever an incident occurs requiring an emergency response.

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

S-010 Fire Hazardous Conditions

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

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

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

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-040 Noxious Weed Control

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-100 Stream Cleanout

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

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

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

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

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

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

d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (ECY). It is the responsibility of the Purchaser to have all emergency contact information readily available and a means of remote communication for purposes of quick notification. In

the event of a spill covered in part a., the Purchaser is responsible for immediately notifying all the following:

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

S-131 Refuse Disposal

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

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

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

D-041 Reserve Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-013, Reserve Tree Damage Definition, and when the Contract Administrator determines that a suitable replacement for a damaged reserve tree is not possible, the damaged trees result in substantial injury to the State. The value of the damaged reserve trees at the time of the breach is not readily ascertainable. Therefore, the Purchaser agrees to pay the State as liquidated damages at the rate of \$1,000.00 per tree for all damaged reserve trees that are not replaced in all harvest units.

SIGNATURES

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

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser

Print Name

Date: _____
Address: _____

Eric Wisch
Pacific Cascade Region Manager

Date: _____

DRAFT

DRAFT

DRAFT

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: Great Divide	Region: Pacific Cascade
Agreement #: 30-102769	District: St. Helens District; Naselle Unit
Contact Forester: Mike Henrie Phone / Location: (360) 751-0075	County(s): Pacific
Alternate Contact: Padraic Callahan Phone / Location: (360) 749-0685	Other information:

Type of Sale: Lump Sum	
Harvest System: Downhill Cable	2%
Harvest System: Uphill Cable	93%
Harvest System: Ground based	5%

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	17 11N07W	02	6	3	1	1	0	1	GPS (Garmin)
2	17 11N07W	02	86	43	9	1	0	33	GPS (Garmin)
3	17 11N07W	02 & 04	66	27	8	8	0	23	GPS (Garmin)
4	18 11N07W	02	60	30	5	4	0	21	GPS (Garmin)
TOTAL ACRES			218	103	23	14	0	78	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit#	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Leave Trees are marked with White "Timber Sale Boundary" tags and pink flagging or with a band of blue paint.	None	80 Leave Trees

2	Leave Trees are marked with White "Timber Sale Boundary" tags and pink flagging or with a band of blue paint.	None	365 Leave Trees
3	Leave Trees are marked with White "Timber Sale Boundary" tags and pink flagging or with a band of blue paint.	None	438 Leave Trees
4	Leave Trees are marked with White "Timber Sale Boundary" tags and pink flagging or with a band of blue paint.	None	248 Leave Trees

OTHER PRE-CRUISE INFORMATION:

Unit#	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	500 MBF	Gate on 5973 with PCP 1-1 lock	See Logging Plan Maps.
2	4000 MBF	Gate on 5973 with PCP 1-1 lock	See Logging Plan Maps.
3	1000 MBF	Gate on 5973 with PCP 1-1 lock	See Logging Plan Maps.
4	1500 MBF	Gate on 5973 with PCP 1-1 lock	See Logging Plan Maps.
TOTAL MBF	7000 MBF		

REMARKS:

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Prepared By: Courtney Trotter Date: 6/1/2021	Title: Forester 2	CC:
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Timber Sale Cruise Report GREAT DIVIDE

Sale Name: GREAT DIVIDE

Sale Type: LUMP SUM

Region: PACIFIC CASC

District: ST.HELENS

Lead Cruiser: DPClark

Other Cruisers: BEWarnstadt

Cruise Narrative:

Location: The Great Divide Timber Sale is located approximately 7.5 gravel miles and 4.7 paved miles up Salmon Creek from Highway 4 just 4 miles east of Naselle. Units lie on variable southern slopes.

Cruise Design: All units are cruised using variable radius plots with a measure to count ratio of 1:1. Conifer logs are scaled preferring 40' lengths. Hardwood logs are scaled preferring 30' lengths. Software used is TRISS.

Timber Quality: DF log quality is dominated by High B and regular domestic. First logs are cleaning up and have only dead knots. Boles are mostly straight but some do show a history of ramicorn branching and storm damage. WH logs are straight and mostly clean. There are some live first log branches. RA first logs are clean and straight, and some RA second logs will make saw logs. RC logs have moderate defect. A trace amount of SS is present but not represented in the data.

Stand Conditions: Stands are well stocked with even aged 85 years old mixed conifers. There are patches of RA in the draws. There are also scattered RA and RC mixed in through out the stand. Stocking is heavy on the ridges, lighter in the draws, and there are a few patches of blowdown along the edges. There are a few root disease mortality pockets, no trees observed with stem decay conks, stand health is overall good. Trees are still growing. Brush cover is patchy. Fern cover is continuous, thinning on the ridges.

Logging: There may be some creative ways to get machines in on some of this ground in good weather, but, most of this sale will require a cable yarding system.

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade						
				All	Spec Mill	1 Saw	2 Saw	3 Saw	4 Saw	Utility
DF	25.2	7.1	85	2,763	32		2,273	395	38	24
WH	18.8			1,937	61	42	1,237	482	90	25
RA	17.7			166		8	80	38	22	19
RC	17.1			140				120	19	1
ALL	20.6	7.3	85	5,005	94	50	3,590	1,035	168	68

Timber Sale Notice Weight (tons)

Sp	Tons by Grade						
	All	Spec Mill	1 Saw	2 Saw	3 Saw	4 Saw	Utility
DF	17,641	191		13,729	3,216	357	148

Sp	Tons by Grade						
	All	Spec Mill	1 Saw	2 Saw	3 Saw	4 Saw	Utility
WH	14,951	373	257	8,800	4,320	944	258
RC	1,266				1,116	142	8
RA	1,235		43	527	269	237	159
ALL	35,092	564	300	23,055	8,920	1,679	573

Timber Sale Overall Cruise Statistics (Cut + Leave Trees)

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
332.9	3.9	192.1	2.2	64,172	4.5

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
GREAT DIVIDE U1	B1: VR, 1 BAF (54.44) Measure All, Sighting Ht = 4.5 ft	1.0	2.8	2	2	0
GREAT DIVIDE U2	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	33.0	42.7	36	17	1
GREAT DIVIDE U3	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	23.0	39.0	28	17	0
GREAT DIVIDE U4	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	21.0	29.7	19	11	0
All		78.0	114.2	85	47	1

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	17.6	38	19,636	18,755	4.5	8,830.4	1,462.9
DF	LIVE	2 SAW	HQ-B	17.5	39	10,590	10,386	1.9	4,898.2	810.1
DF	LIVE	3 SAW	Domestic	9.4	36	4,832	4,659	3.6	2,975.0	363.4
DF	LIVE	3 SAW	HQ-B	10.6	40	424	408	3.7	240.6	31.8
DF	LIVE	4 SAW	Domestic	6.3	29	503	490	2.5	356.9	38.2
DF	LIVE	CULL	Cull	12.2	5	806	0	100.0	0.0	0.0
DF	LIVE	SPECIAL MILL	HQ-A	21.1	40	415	415	0.0	191.3	32.4
DF	LIVE	UTILITY	Pulp	7.1	15	306	302	1.1	148.2	23.6
RA	LIVE	1 SAW	Domestic	16.5	24	101	101	0.0	43.4	7.9
RA	LIVE	2 SAW	Domestic	14.0	29	1,076	1,026	4.6	526.5	80.1
RA	LIVE	3 SAW	Domestic	10.7	30	508	484	4.8	268.8	37.7
RA	LIVE	4 SAW	Domestic	7.7	29	310	281	9.4	236.5	21.9

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
RA	LIVE	CULL	Cull	10.1	8	145	0	100.0	0.0	0.0
RA	LIVE	UTILITY	Pulp	7.1	23	245	241	1.6	159.3	18.8
RC	LIVE	3 SAW	Domestic	10.8	36	1,659	1,540	7.2	1,116.1	120.1
RC	LIVE	4 SAW	Domestic	5.4	22	271	237	12.4	142.0	18.5
RC	LIVE	CULL	Cull	11.0	10	103	0	100.0	0.0	0.0
RC	LIVE	UTILITY	Pulp	5.4	15	15	15	0.0	7.8	1.1
WH	LIVE	1 SAW	Domestic	24.6	40	562	540	3.8	257.0	42.2
WH	LIVE	2 SAW	Domestic	15.5	38	16,369	15,856	3.1	8,799.7	1,236.8
WH	LIVE	3 SAW	Domestic	9.2	37	6,375	6,184	3.0	4,319.6	482.3
WH	LIVE	4 SAW	Domestic	6.0	27	1,193	1,147	3.8	944.0	89.5
WH	LIVE	CULL	Cull	9.0	4	322	0	100.0	0.0	0.0
WH	LIVE	SPECIAL MILL	HQ-A	18.5	40	799	786	1.6	372.6	61.3
WH	LIVE	UTILITY	Pulp	5.9	19	328	318	3.0	257.8	24.8

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Pulp	5.7	15	116	2.3	67.0	9.0
DF	5 - 7	LIVE	Cull	5.9	4	0	100.0	0.0	0.0
DF	5 - 7	LIVE	Domestic	6.6	33	1,047	2.0	763.9	81.7
DF	8 - 11	LIVE	Pulp	9.3	14	30	1.8	21.8	2.4
DF	8 - 11	LIVE	Domestic	9.7	36	3,514	3.3	2,294.8	274.1
DF	8 - 11	LIVE	Cull	9.8	6	0	100.0	0.0	0.0
DF	8 - 11	LIVE	HQ-B	10.8	40	408	3.7	240.6	31.8
DF	12 - 15	LIVE	Cull	13.5	7	0	100.0	0.0	0.0
DF	12 - 15	LIVE	Domestic	13.7	39	4,109	3.9	2,321.0	320.5
DF	12 - 15	LIVE	Pulp	13.7	13	84	0.0	34.8	6.5
DF	12 - 15	LIVE	HQ-B	13.9	39	2,213	2.6	1,210.4	172.6
DF	16 - 19	LIVE	Pulp	16.5	12	26	0.0	9.7	2.0
DF	16 - 19	LIVE	Domestic	17.9	37	5,112	5.7	2,413.7	398.8
DF	16 - 19	LIVE	HQ-B	17.9	38	3,733	1.7	1,817.6	291.2
DF	16 - 19	LIVE	Cull	18.2	6	0	100.0	0.0	0.0
DF	16 - 19	LIVE	HQ-A	19.6	40	261	0.0	127.4	20.4
DF	20+	LIVE	Pulp	22.5	16	47	0.0	14.9	3.6
DF	20+	LIVE	Cull	22.8	6	0	100.0	0.0	0.0
DF	20+	LIVE	HQ-B	23.3	39	4,440	1.8	1,870.2	346.3
DF	20+	LIVE	Domestic	23.7	37	10,122	4.2	4,368.9	789.5
DF	20+	LIVE	HQ-A	27.2	40	154	0.0	63.9	12.0

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
RA	5 - 7	LIVE	Domestic	5.6	32	80	10.3	78.0	6.2
RA	5 - 7	LIVE	Pulp	5.9	25	136	0.0	98.5	10.6
RA	5 - 7	LIVE	Cull	6.2	5	0	100.0	0.0	0.0
RA	8 - 11	LIVE	Pulp	8.1	19	28	12.3	31.1	2.2
RA	8 - 11	LIVE	Domestic	10.0	29	684	6.1	427.3	53.4
RA	12 - 15	LIVE	Domestic	13.6	29	858	4.8	452.4	66.9
RA	12 - 15	LIVE	Cull	14.7	10	0	100.0	0.0	0.0
RA	16 - 19	LIVE	Cull	17.0	16	0	100.0	0.0	0.0
RA	16 - 19	LIVE	Domestic	17.7	26	270	2.4	117.4	21.0
RA	16 - 19	LIVE	Pulp	19.8	16	77	0.0	29.7	6.0
RC	5 - 7	LIVE	Pulp	5.4	15	15	0.0	7.8	1.1
RC	5 - 7	LIVE	Domestic	5.6	23	322	9.7	213.8	25.1
RC	5 - 7	LIVE	Cull	6.4	17	0	100.0	0.0	0.0
RC	8 - 11	LIVE	Cull	9.1	7	0	100.0	0.0	0.0
RC	8 - 11	LIVE	Domestic	9.8	39	742	5.1	567.5	57.9
RC	12 - 15	LIVE	Cull	12.7	3	0	100.0	0.0	0.0
RC	12 - 15	LIVE	Domestic	13.9	32	444	7.8	312.5	34.6
RC	16 - 19	LIVE	Cull	17.5	5	0	100.0	0.0	0.0
RC	16 - 19	LIVE	Domestic	18.7	29	210	6.8	98.7	16.4
RC	20+	LIVE	Domestic	20.4	40	60	30.0	65.6	4.7
RC	20+	LIVE	Cull	21.3	15	0	100.0	0.0	0.0
WH	5 - 7	LIVE	Pulp	5.4	17	216	2.4	165.5	16.8
WH	5 - 7	LIVE	Cull	5.7	3	0	100.0	0.0	0.0
WH	5 - 7	LIVE	Domestic	6.2	31	2,249	3.2	1,834.7	175.4
WH	8 - 11	LIVE	Pulp	8.9	21	102	4.3	92.3	8.0
WH	8 - 11	LIVE	Domestic	10.0	36	4,819	2.9	3,282.4	375.9
WH	8 - 11	LIVE	Cull	10.4	6	0	100.0	0.0	0.0
WH	12 - 15	LIVE	Cull	12.7	4	0	100.0	0.0	0.0
WH	12 - 15	LIVE	Domestic	13.7	39	6,615	2.3	4,101.3	516.0
WH	16 - 19	LIVE	Domestic	17.3	38	6,905	2.5	3,584.0	538.6
WH	16 - 19	LIVE	Cull	17.6	5	0	100.0	0.0	0.0
WH	16 - 19	LIVE	HQ-A	17.7	40	508	2.4	247.5	39.6
WH	20+	LIVE	HQ-A	20.7	40	278	0.0	125.1	21.7
WH	20+	LIVE	Domestic	21.9	36	3,139	6.5	1,517.7	244.9
WH	20+	LIVE	Cull	22.4	5	0	100.0	0.0	0.0

Cruise Unit Report GREAT DIVIDE U1

Unit Sale Notice Volume (MBF): GREAT DIVIDE U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	27.0	8.0	82	67	55	11	1	0
WH	15.0			6		5	1	
ALL	23.5	8.0	82	73	55	16	2	0

Unit Cruise Design: GREAT DIVIDE U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (54.44) Measure All, Sighting Ht = 4.5 ft	1.0	2.8	2	2	0

Unit Cruise Summary: GREAT DIVIDE U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	11	12	6.0	1
WH	1	2	1.0	0
ALL	12	14	7.0	1

Unit Cruise Statistics (Cut + Leave Trees): GREAT DIVIDE U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	326.6	23.6	16.7	203.5	15.3	4.6	66,463	28.1	17.3
WH	54.4	141.4	100.0	113.3	0.0	0.0	6,166	141.4	100.0
ALL	381.1	0.0	0.0	190.6	20.6	6.0	72,629	20.6	6.0

Unit Summary: GREAT DIVIDE U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	11	ALL	27.0	109	140	71,764	66,463	7.4	82.2	326.6	62.9	66.5
WH	LIVE	CUT	1	ALL	15.0	70	87	6,432	6,166	4.1	44.4	54.4	14.1	6.2
ALL	LIVE	CUT	12	ALL	23.5	95	121	78,196	72,629	7.1	126.6	381.1	76.9	72.6
ALL	ALL	ALL	12	ALL	23.5	95	121	78,196	72,629	7.1	126.6	381.1	76.9	72.6

Cruise Unit Report GREAT DIVIDE U2

Unit Sale Notice Volume (MBF): GREAT DIVIDE U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade					
				All	1 Saw	2 Saw	3 Saw	4 Saw	Utility
DF	23.9	6.0	85	1,175		992	164	14	5
WH	17.4			509	22	317	136	26	8
RA	18.3			116	8	59	18	16	15
RC	22.0			40			38	1	
ALL	20.7	6.0	85	1,838	30	1,368	356	58	27

Unit Cruise Design: GREAT DIVIDE U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (54.44) Measure/Count Plots, Sighting Ht = 4.5 ft	33.0	42.7	36	17	1

Unit Cruise Summary: GREAT DIVIDE U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	49	104	2.9	1
WH	22	62	1.7	0
RA	12	19	0.5	0
RC	6	10	0.3	0
ALL	89	195	5.4	1

Unit Cruise Statistics (Cut + Leave Trees): GREAT DIVIDE U2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	157.3	65.6	10.9	226.3	25.2	3.6	35,590	70.3	11.5
WH	93.8	100.7	16.8	164.4	33.0	7.0	15,414	106.0	18.2
RA	28.7	178.2	29.7	122.2	21.6	6.2	3,510	179.5	30.4
RC	15.1	163.5	27.3	79.1	28.2	11.5	1,197	165.9	29.6
ALL	294.9	45.7	7.6	188.9	37.1	3.9	55,710	58.9	8.6

Unit Summary: GREAT DIVIDE U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	49	ALL	23.9	96	126	36,848	35,590	3.4	50.5	157.3	32.2	1,174.5
RA	LIVE	CUT	12	ALL	18.3	66	87	4,013	3,510	12.5	15.7	28.7	6.7	115.8
RC	LIVE	CUT	6	ALL	22.0	62	98	1,480	1,197	19.1	5.7	15.1	3.2	39.5
WH	LIVE	CUT	22	ALL	17.4	67	86	16,181	15,414	4.7	56.8	93.8	22.5	508.6
ALL	LIVE	CUT	89	ALL	20.5	78	103	58,522	55,710	4.8	128.7	294.9	64.6	1,838.4
ALL	ALL	ALL	89	ALL	20.5	78	103	58,522	55,710	4.8	128.7	294.9	64.6	1,838.4

Cruise Unit Report GREAT DIVIDE U3

Unit Sale Notice Volume (MBF): GREAT DIVIDE U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade					
				All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	25.1	8.0	82	930	32	709	158	17	14
WH	17.4			322		186	109	19	8
RC	15.0			91			74	16	1
RA	14.6			13			9	4	
ALL	19.7	8.0	82	1,356	32	895	350	56	23

Unit Cruise Design: GREAT DIVIDE U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (54.44) Measure/Count Plots, Sighting Ht = 4.5 ft	23.0	39.0	28	17	0

Unit Cruise Summary: GREAT DIVIDE U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	63	104	3.7	1
WH	29	47	1.7	0
RC	19	27	1.0	0
RA	2	3	0.1	0
ALL	113	181	6.5	1

Unit Cruise Statistics (Cut + Leave Trees): GREAT DIVIDE U3

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	202.2	48.0	9.1	200.0	23.6	3.0	40,433	53.5	9.5
WH	91.4	100.0	18.9	153.3	38.7	7.2	14,012	107.3	20.2
RC	52.5	114.6	21.7	75.3	42.0	9.6	3,951	122.1	23.7
RA	5.8	388.5	73.4	93.0	86.5	61.1	543	398.0	95.5
ALL	351.9	32.7	6.2	167.5	40.4	3.8	58,939	52.0	7.3

Unit Summary: GREAT DIVIDE U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	63	ALL	25.1	102	131	43,740	40,433	7.6	58.8	202.2	40.4	930.0
RA	LIVE	CUT	2	ALL	14.6	58	73	574	543	5.4	5.0	5.8	1.5	12.5
RC	LIVE	CUT	19	ALL	15.0	38	54	4,361	3,951	9.4	42.8	52.5	13.6	90.9
WH	LIVE	CUT	29	ALL	17.4	71	89	14,950	14,012	6.3	55.3	91.4	21.9	322.3
ALL	LIVE	CUT	113	ALL	20.0	73	95	63,625	58,939	7.4	161.9	351.9	77.3	1,355.6
ALL	ALL	ALL	113	ALL	20.0	73	95	63,625	58,939	7.4	161.9	351.9	77.3	1,355.6

Cruise Unit Report GREAT DIVIDE U4

Unit Sale Notice Volume (MBF): GREAT DIVIDE U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade						
				All	Spec Mill	1 Saw	2 Saw	3 Saw	4 Saw	Utility
WH	19.8			1,100	61	20	734	232	43	9
DF	27.8	8.0	88	592			518	63	6	5
RA	17.1			38			21	11	2	4
RC	17.3			9				8	1	
ALL	21.2	8.0	88	1,739	61	20	1,273	314	53	18

Unit Cruise Design: GREAT DIVIDE U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (54.44) Measure/Count Plots, Sighting Ht = 4.5 ft	21.0	29.7	19	11	0

Unit Cruise Summary: GREAT DIVIDE U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	40	82	4.3	0
DF	21	40	2.1	1
RA	4	4	0.2	0
RC	2	3	0.2	0
ALL	67	129	6.8	1

Unit Cruise Statistics (Cut + Leave Trees): GREAT DIVIDE U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WH	235.0	54.1	12.4	222.9	23.2	3.7	52,372	58.9	12.9
DF	114.6	80.6	18.5	245.8	23.5	5.1	28,167	83.9	19.2
RA	11.5	435.9	100.0	158.0	24.5	12.2	1,811	436.6	100.7
RC	8.6	237.3	54.4	52.2	45.0	31.8	448	241.5	63.1
ALL	369.6	27.6	6.3	224.0	28.2	3.4	82,798	39.5	7.2

Unit Summary: GREAT DIVIDE U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	21	ALL	27.8	117	150	30,099	28,167	6.4	27.2	114.6	21.7	591.5
RA	LIVE	CUT	4	ALL	17.1	73	90	1,923	1,811	5.9	7.2	11.5	2.8	38.0
RC	LIVE	CUT	2	ALL	17.3	52	67	505	448	11.2	5.3	8.6	2.1	9.4
WH	LIVE	CUT	40	ALL	19.8	92	119	54,266	52,372	3.5	109.9	235.0	52.8	1,099.8
ALL	LIVE	CUT	67	ALL	21.3	95	121	86,792	82,798	4.6	149.6	369.6	79.4	1,738.8
ALL	ALL	ALL	67	ALL	21.3	95	121	86,792	82,798	4.6	149.6	369.6	79.4	1,738.8



Forest Practices Application/Notification
Notice of Decision

FPA/N No: 2940816
Effective Date: 10/05/2022
Expiration Date: 10/05/2025
Shut Down Zone: 651N
EARR Tax Credit: ☒ Eligible ☐ Non-eligible
Reference: 17,18-11-07W 30-102769
Great Divide Timber Sale

Decision

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

FPA/N Classification

☐ Class II ☒ Class III ☐ Class IVG ☐ Class IVS

Number of Years Granted on Multi-Year Request

☐ 4 years ☐ 5 years

Conditions on Approval/Reasons for Disapproval

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.

NOTE: Forest practice activities located within 0.25 miles of an occupied marbled murrelet site are subject to disturbance avoidance timing restrictions per WACs 222-24-030, 222-30-050, 222-30-060, 222-30-065, 222-30-070, and 222-30-100. (April 1 to August 31)

Issued By: Lisa Kaino

Region: Pacific Cascade

Title: Forest Practices Forester

Date: 10/05/2022

Copies to: ☐ Landowner, ☐ Timber Owner ☐ Operator

Issued in person: ☒ Landowner ☒ Timber Owner ☒ Operator

By: Jacqui Spahr 

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	Physical Address 1125 Washington Street, SE Olympia, WA 98504	Physical Address 601 Bond Road Castle Rock WA 98611
Mailing address Post Office Box 40903 Olympia, WA 98504-0903	Mailing Address Post Office Box 40100 Olympia, WA 98504-0100	Mailing Address Post Office 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 <https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and>. **Notify DNR of new Operators within 48 hours.**

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

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

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

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

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

DNR Affidavit of Mailing

On this day _____ 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 # _____.

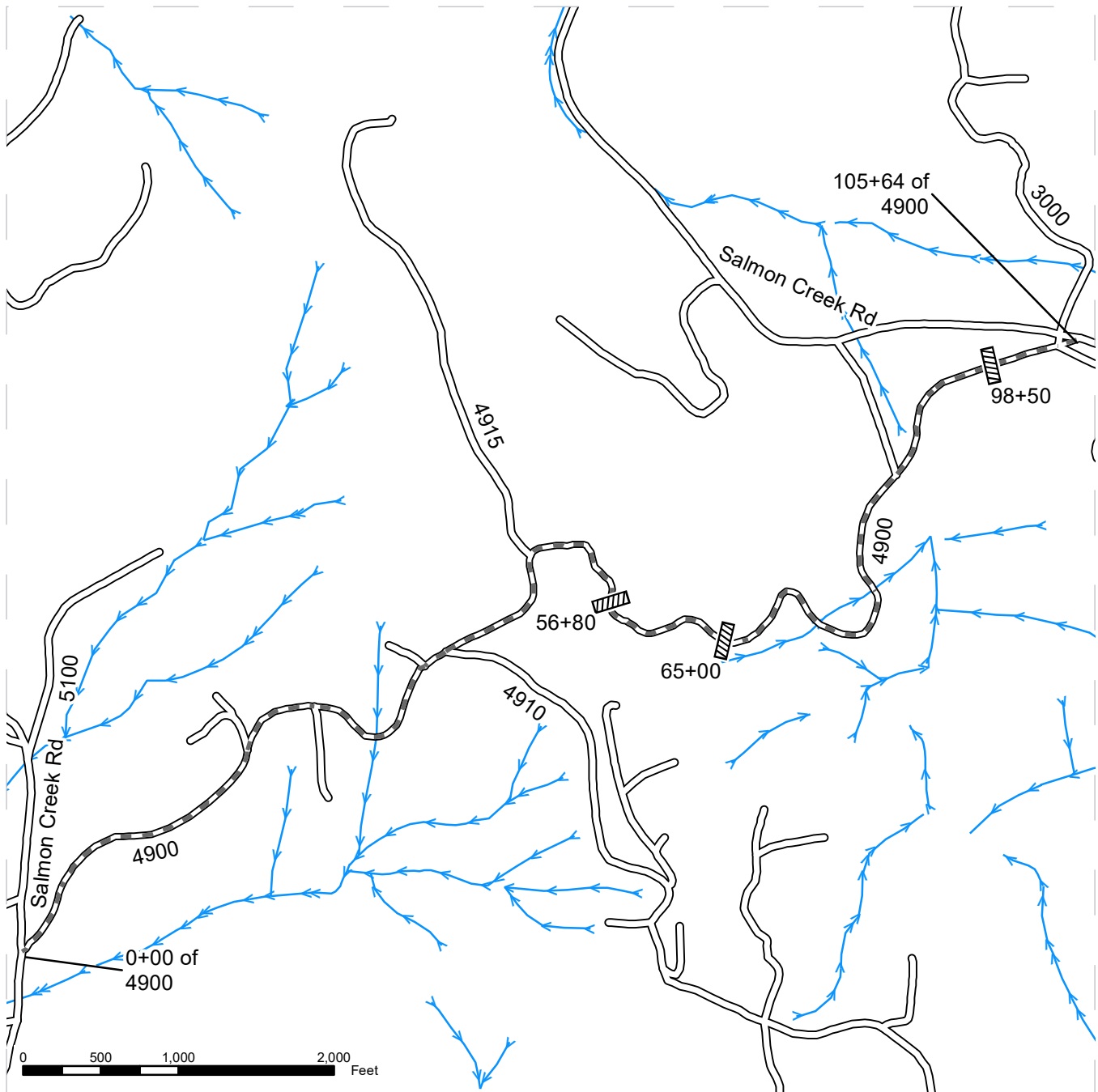
(Printed Name)

(Signature)

ROAD PLAN MAP

SALE NAME: GREAT DIVIDE
AGREEMENT#: 30-102769
TOWNSHIP(S): T07R04E, T06R04E
TRUST(S): State Forest Transfer(1), State Forest Purchase (2), Common School and Indemnity(3), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 640-1760

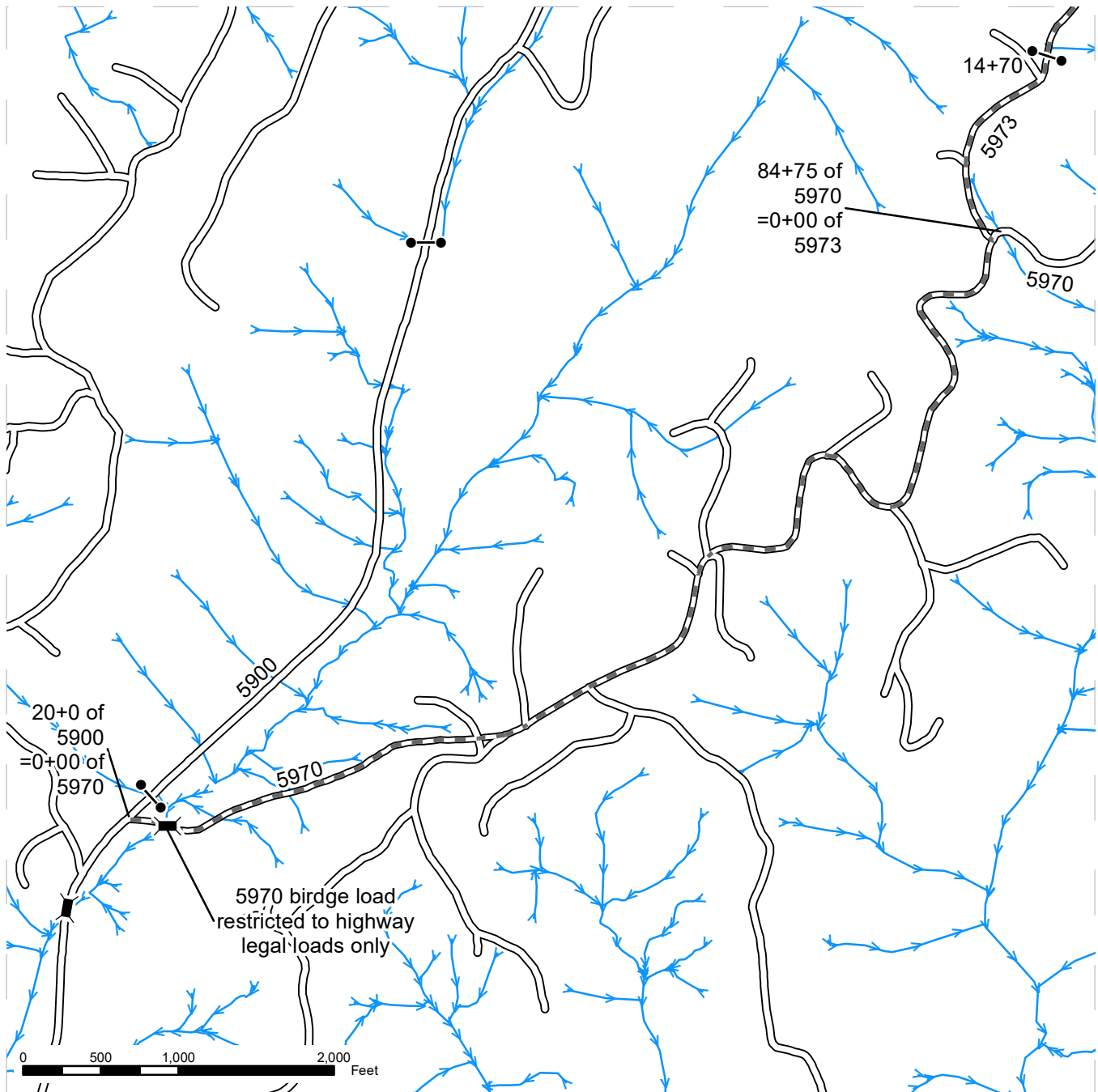


- | | |
|-------------------------------|---------|
| Existing Roads | Culvert |
| Required Pre-Haul Maintenance | Streams |

ROAD PLAN MAP

SALE NAME: GREAT DIVIDE
AGREEMENT#: 30-102769
TOWNSHIP(S): T07R04E, T06R04E
TRUST(S): State Forest Transfer(1), State Forest Purchase (2), Common School and Indemnity(3), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 640-1760



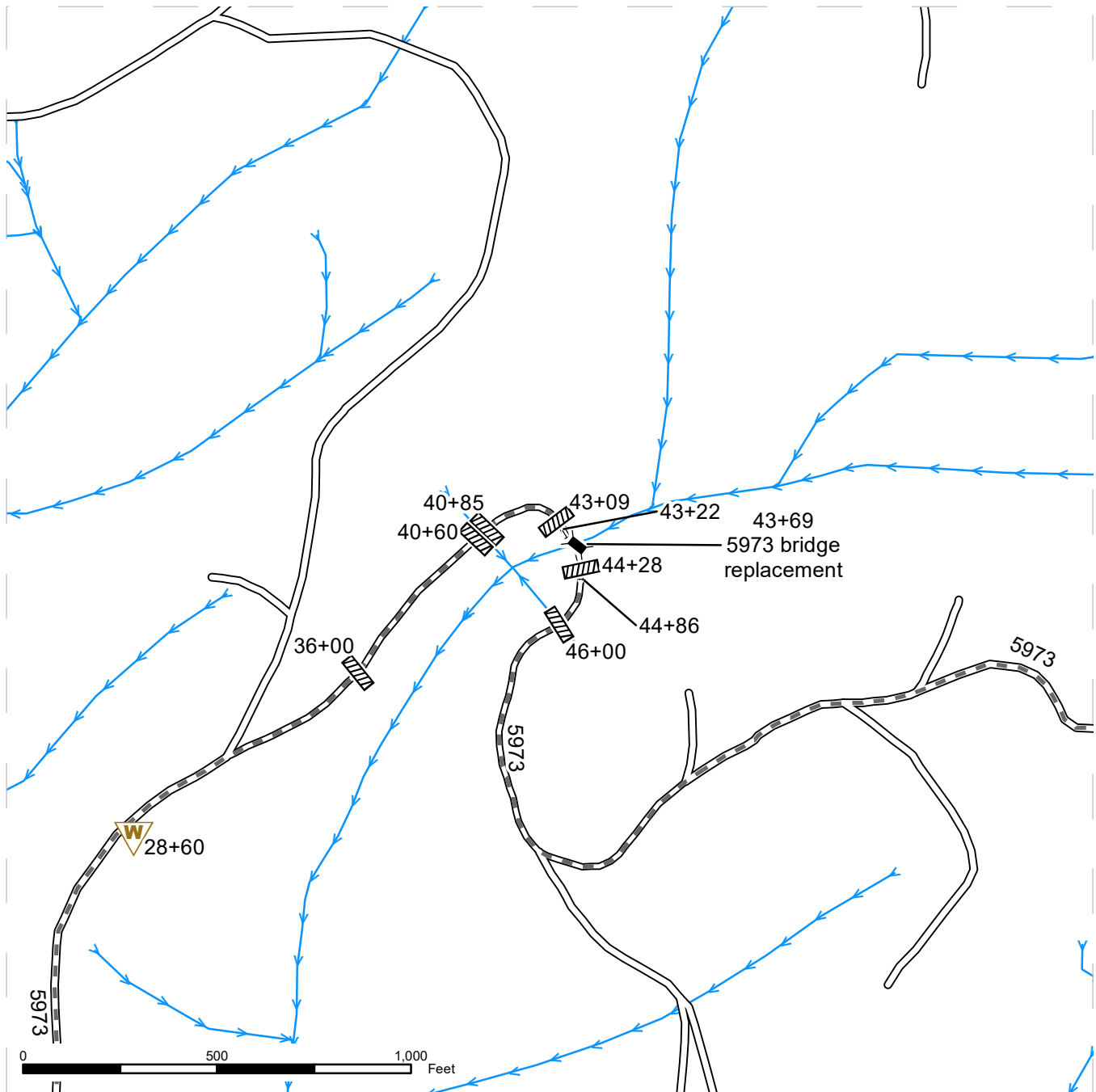
- | | |
|-------------------------------|----------------|
| Existing Roads | Bridge |
| Required Pre-Haul Maintenance | Gate (PCP 1-1) |
| | Streams |



ROAD PLAN MAP

SALE NAME: GREAT DIVIDE
AGREEMENT#: 30-102769
TOWNSHIP(S): T07R04E, T06R04E
TRUST(S): State Forest Transfer(1), State Forest Purchase (2), Common School and Indemnity(3), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 640-1760



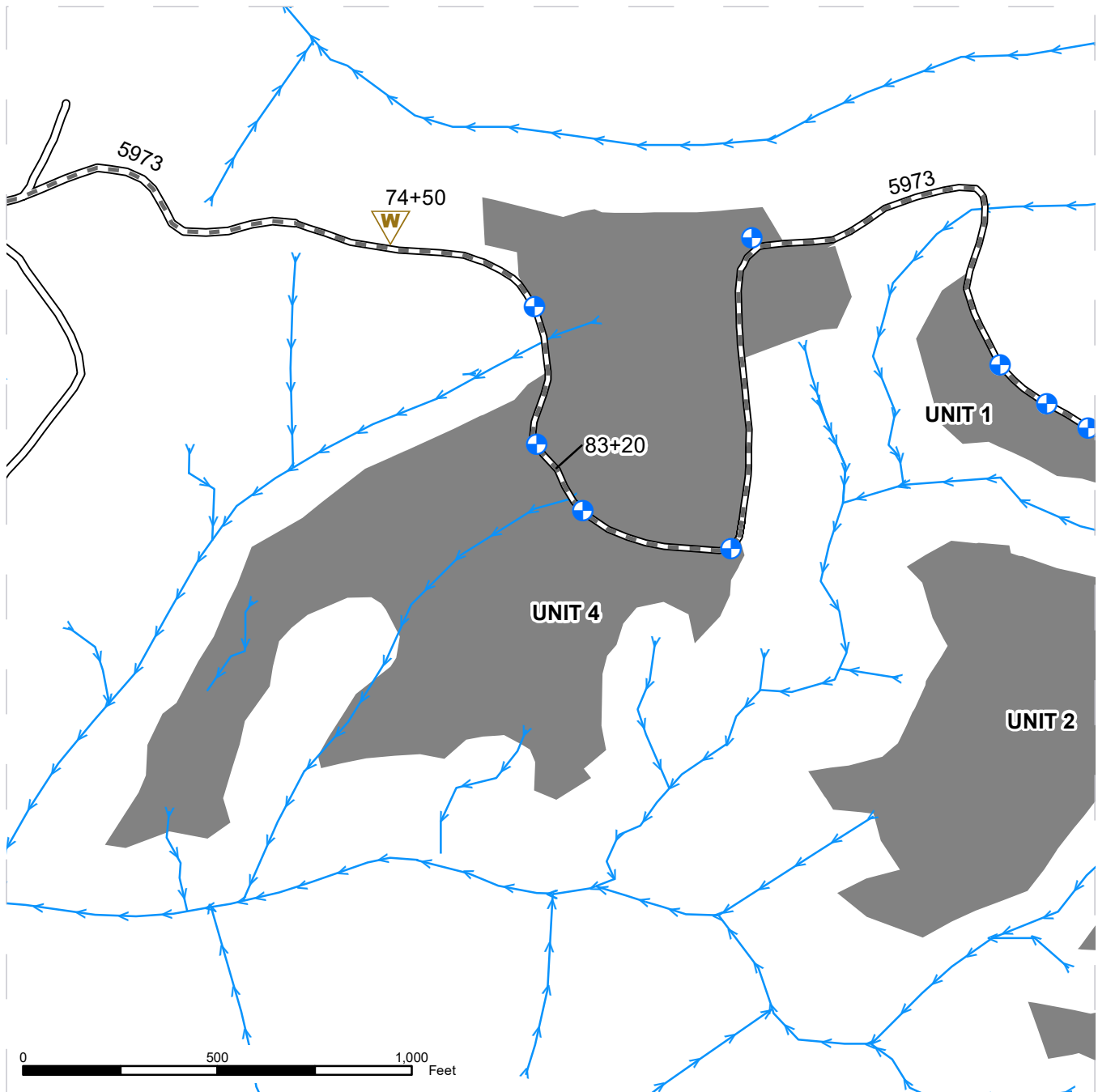
- | | |
|-------------------------------|------------|
| Existing Roads | Bridge |
| Required Pre-Haul Maintenance | Culvert |
| Required Reconstruction | Waste Area |
| | Streams |



ROAD PLAN MAP

SALE NAME: GREAT DIVIDE
AGREEMENT#: 30-102769
TOWNSHIP(S): T07R04E, T06R04E
TRUST(S): State Forest Transfer(1), State Forest Purchase (2), Common School and Indemnity(3), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 640-1760



Existing Roads
Required Pre-Haul Maintenance

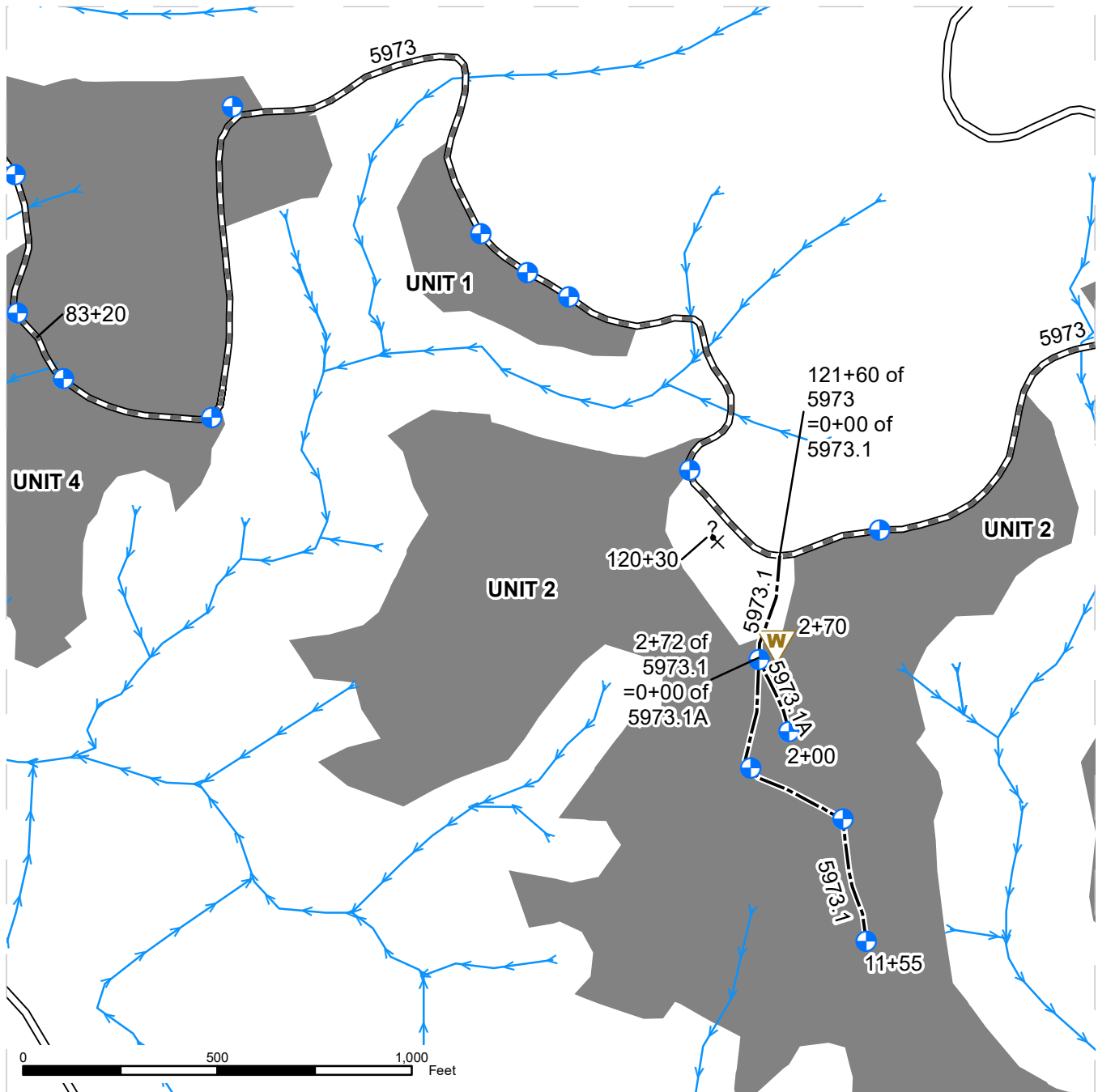
Landing - Proposed
Waste Area

Harvest Unit
Streams

ROAD PLAN MAP

SALE NAME: GREAT DIVIDE
AGREEMENT#: 30-102769
TOWNSHIP(S): T07R04E, T06R04E
TRUST(S): State Forest Transfer(1), State Forest Purchase (2), Common School and Indemnity(3), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 640-1760

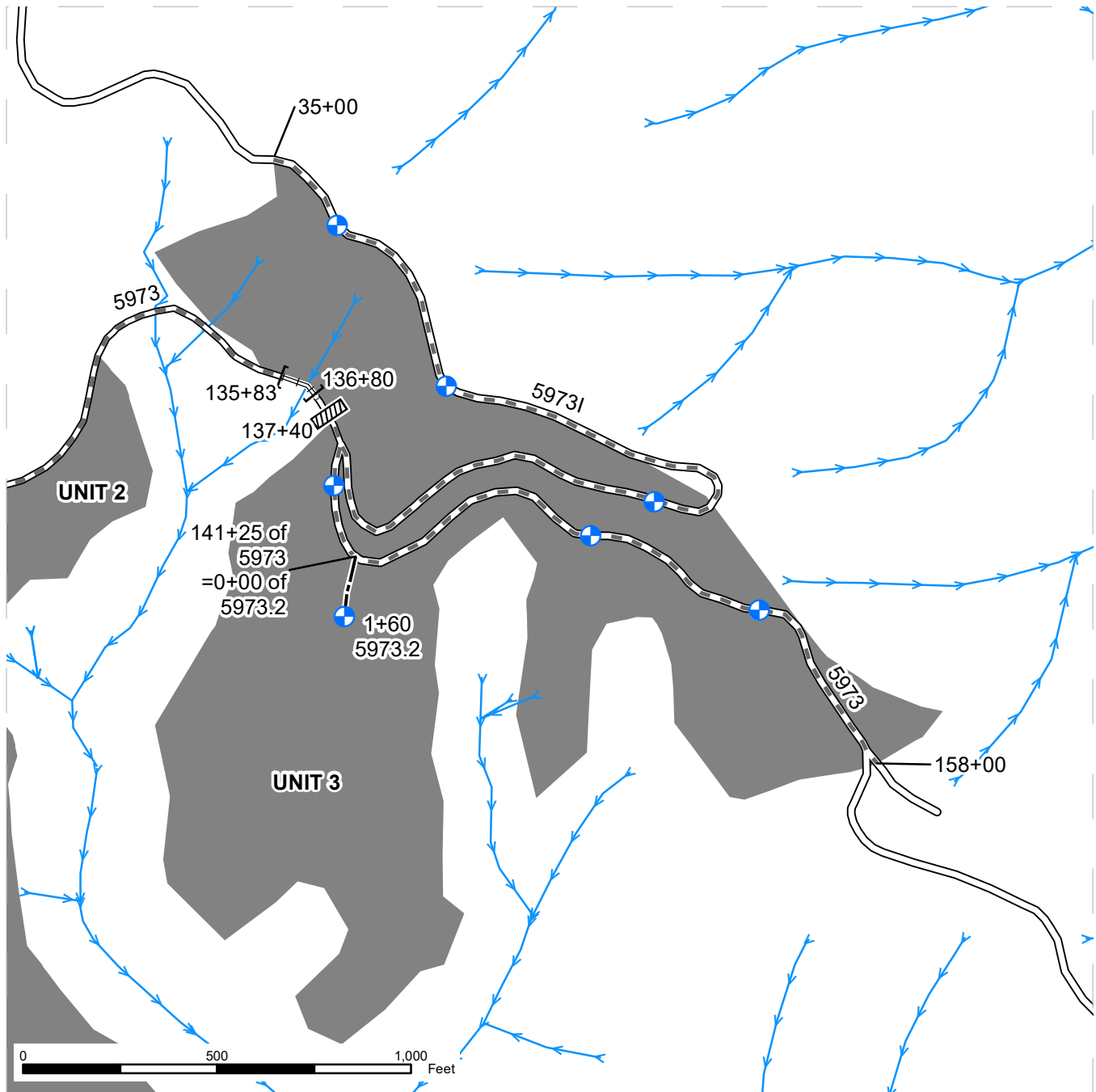


- | | | |
|-------------------------------|-----------------------|--------------|
| Existing Roads | Landing - Proposed | Harvest Unit |
| Required Pre-Haul Maintenance | Potential Rock Source | Streams |
| Optional Construction | Waste Area | |

ROAD PLAN MAP

SALE NAME: GREAT DIVIDE
AGREEMENT#: 30-102769
TOWNSHIP(S): T07R04E, T06R04E
TRUST(S): State Forest Transfer(1), State Forest Purchase (2), Common School and Indemnity(3), University Repayment (41)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 640-1760



- | | | |
|-------------------------------|--------------------|--------------|
| Existing Roads | End Haul | Harvest Unit |
| Required Pre-Haul Maintenance | Culvert | Streams |
| Required Reconstruction | Landing - Proposed | |
| Optional Construction | | |



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

GREAT DIVIDE TIMBER SALE ROAD PLAN
PACIFIC COUNTY
ST HELENS DISTRICT
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-102769

STAFF ENGINEER: OLIVIA CANTWELL

DRAWN & COMPILED BY: ALICIA COMPTON

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

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

0-2 REQUIRED ROADS

The specified work on the following roads is required.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
4900	0+00 to 105+64	Pre-haul Maintenance
5970	0+00 to 84+75	Pre-haul Maintenance
5973	0+00 to 43+22 44+86 to 135+83 136+80 to 158+00	Pre-haul Maintenance
5973	43+22 to 44+86	Reconstruction
5973	135+83 to 136+80	Reconstruction
5973I	0+00 to 35+00	Pre-haul 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.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
5973.1	0+00 to 11+55	Construction
5973.1A	0+00 to 2+00	Construction
5973.2	0+00 to 1+60	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; turnout, turnaround and landing construction; acquisition and installation of drainage structures; compaction of subgrade and embankment; acquisition, manufacture, and application of rock; acquisition and application of erosion control.

0-5 RECONSTRUCTION

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
5973	43+22 to 44+86	Bridge replacement, culvert installation, acquisition and application of rock
5973	135+83 to 136+80	Construct keyed embankment

0-6 PRE-HAUL MAINTENANCE

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
4900	0+00 to 105+64	Brush, grade, clean culverts and ditches, install culverts, apply rock.
5970	0+00 to 84+75	Brush, grade
5973	0+00 to 43+22 44+86 to 135+83 136+80 to 158+00	Brush, grade, clean culverts and ditches, install culverts, apply rock
5973I	0+00 to 35+00	Brush, grade, clean culverts and ditches

0-10 ABANDONMENT

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

0-13 STRUCTURES

Purchaser shall provide and install one 15' x 45' precast concrete bridge. Requirements for these structures are listed in Section 7 STRUCTURES and Section 11 BRIDGE TECHNICAL SPECIFICATIONS.

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 or design data (plan, profile, and cross-sections).

1-4 ROAD TOLERANCES

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

<u>Tolerance Class</u>	<u>A</u>	<u>B</u>	<u>C</u>
Road and Subgrade Width (feet)	+1.5	+1.5	+2.0
Subgrade Elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	0.5	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 3 business days before the closure of any road.

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:

- Orange paint and stakes for pre-haul maintenance
- Orange paint, stakes and reference points for construction
- Orange paint, stakes, benchmarks and reference points for Bridge work

1-16 CONSTRUCTION STAKES SET BY STATE

Purchaser shall perform work on the following road(s) in accordance with the construction stakes and reference points set in the field for grade and alignment.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
5973	135+83 to 136+80	Slope stakes and reference points
5973.1	0+00 to 2+05	Slope stakes

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 without written approval from the Contract Administrator.

1-22 WORK NOTIFICATIONS

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

1-23 ROAD WORK PHASE APPROVAL

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

- Drainage installation and subgrade compaction
- Rock compaction
- Abandonment
- MSE wall construction
- Bridge installation

1-25 ACTIVITY TIMING RESTRICTION

On the following road(s), the operation of road construction equipment is not allowed on weekends or state recognized holidays, unless authorized in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
5973	Bridge work

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

<u>Road</u>	<u>Activity</u>	<u>Closure Period</u>
All	Construction, pre-haul maintenance, abandonment, and bridge work	October 1 to April 30

1-26 OPERATING DURING CLOSURE PERIOD

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

1-27 TIMING RESTRICTION FOR MARBLED MURRELET

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

<u>Road</u>
4900
5973I

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 or native surface roads.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

1-32 BRIDGE OR ASPHALT SURFACE RESTRICTION

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

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

1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contract Administrator upon request. 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 roads in a condition that will allow the passage of light administrative vehicles.

2-5 MAINTENANCE GRADING – EXISTING ROAD

On the following road(s), Purchaser shall use a grader to shape the existing surface before timber haul or rock placement. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
4900	0+00 to 105+64	Only gravel sections
5970	0+00 to 84+75	
5973	0+00 to 43+22 44+86 to 135+83 136+80 to 158+00	
5973I	0+00 to 35+00	

2-6 CLEANING CULVERTS

On the following road(s), Purchaser shall clean the inlets and outlets of all culverts before timber haul or rock placement.

<u>Road</u>	<u>Stations</u>
4900	1+43, 5+70, 20+40, 28+00, 79+30
5973	66+60, 99+50 to 135+83 136+80 to 158+00
5973I	0+00 to 35+00

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

On the following road(s), Purchaser shall clean ditches, headwalls, and catchbasins. Work must be completed before timber haul or rock placement and must be done in accordance with the TYPICAL SECTION SHEET. Pulling ditch material across the road or mixing in with the road surface is not allowed.

<u>Road</u>	<u>Stations</u>
4900	5+70 to 8+10, 29+75 to 33+70, 79+30 to 80+60
5973	39+25 to 39+35, 99+50 to 135+83 136+80 to 158+00
5973I	0+00 to 35+00

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 ROADSIDE 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.

<u>Road</u>	<u>Stations</u>
4900	0+00 to 105+64
5970	0+00 to 84+75
5973	0+00 to 135+83 136+80 to 158+00
5973I	0+00 to 35+00

3-2 BRUSHING RESTRICTION

Pulling, digging, pushing over, and other non-cutting methods used for vegetation removal may not be used for brushing.

3-5 CLEARING

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

3-8 PROHIBITED DECKING AREAS

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

- Within the grubbing limits.
- Within 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 CA.

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. Stumps over 24 inches diameter must be split. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps outside of the grubbing limits in compliance with all other clauses in this road plan. Stumps must be positioned on stable locations.

3-14 STUMPS WITHIN DESIGNATED WASTE AREAS

Purchaser is not required to remove stumps within waste areas if they are cut flush with the ground.

3-20 ORGANIC DEBRIS DEFINITION

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

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 before timber haul.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

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

<u>Road</u>	<u>Disposal Location</u>	<u>Requirements</u>
5973.1	2+70	Pile organic debris no closer than 10 feet from standing timber or earthen waste and no higher than 10 feet

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

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

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris outside of the grubbing limits unless otherwise detailed in this road plan. Where natural openings are unavailable or restrictive, alternate debris disposal methods are subject to the written approval of the Contract Administrator.

3-30 EXCLUSION OF DOZER BLADES

Purchaser shall not use dozer blades for the piling of organic debris.

3-32 END HAULING ORGANIC DEBRIS

On the following road(s), and on slopes greater than 45%, Purchaser shall end haul or push organic debris to the designated waste areas specified in Clause 3-22

DESIGNATED WASTE AREA FOR ORGANIC DEBRIS.

<u>Road</u>	<u>Stations</u>
5973	135+83 to 136+80

SECTION 4 – EXCAVATION**4-1 EXCAVATOR CONSTRUCTION**

On the following roads, Purchaser shall use a track mounted hydraulic excavator for construction work, unless authorized in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
5973	135+83 to 136+80

4-2 PIONEERING

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

- Drainage must be provided on all uncompleted construction.
- Road pioneering operations may not undercut the final cut slope or restrict drainage.

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment except as designed:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 14 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 8% in 100 feet.
- Maximum grade change for crest vertical curves is 6% in 100 feet.

4-5 CUT SLOPE RATIO

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

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

4-6 EMBANKMENT SLOPE RATIO

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

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

4-7 SHAPING CUT AND FILL SLOPE

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

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

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

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

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

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

4-11 KEYED EMBANKMENT

On the following road, Purchaser shall key embankments into the native slope in accordance with the EMBANKMENT KEY DETAIL.

<u>Road</u>	<u>Stations</u>
5973	135+83 to 136+80

4-12 FULL BENCH CONSTRUCTION

On the following road, and where side slopes exceed 45%, Purchaser shall use full bench construction for the entire subgrade width. Purchaser shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION.

<u>Road</u>	<u>Full Bench Location</u>	<u>Comments</u>
5973	135+83 to 136+80	Shift road into the hill as indicated by construction stakes

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. Minimum dimensions are shown on the ROCK LIST.

4-22 TURNAROUNDS

Optional turnarounds must be no larger than 30 feet long and 30 feet wide. Locations are subject to written approval by the Contract Administrator.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

Purchaser shall construct 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

On the following roads, 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 or end hauled to the location specified in Clause 4-37 WASTE AREA LOCATION.

<u>Road</u>	<u>Stations</u>
4900	0+00 to 105+64
5970	0+00 to 84+75

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-35 WASTE MATERIAL DEFINITION

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

4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to 45% if the waste material is compacted and free of organic debris. On side slopes greater than 55%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37 WASTE AREA LOCATION.

4-37 WASTE AREA LOCATION

Purchaser shall deposit waste material in the listed designated areas. Additional waste areas may also be identified or approved by the Contract Administrator. The amount of material allowed in a waste area is as listed.

<u>Road</u>	<u>Waste Area Location</u>	<u>Volume</u>
5973.1	2+70	6500 cy
5973	28+60	2000 cy
5973	74+50	2000 cy

4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas:

- Within 25 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- On side slopes steeper than 45%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Within the operational area for cable landings.
- Against standing timber.

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.

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. A plate compactor must be used for areas specifically requiring keyed embankment construction and for embankment and waste area segments too narrow to accommodate equipment. Waste material may be placed by end-dumping or sidecasting until sufficiently wide enough to support the equipment.

4-61 SUBGRADE COMPACTION

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

4-62 DRY WEATHER COMPACTION

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

SECTION 5 – DRAINAGE

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.

5-7 USED CULVERT MATERIAL

On the following road, Purchaser may install used culverts. All other roads must have new culverts installed. Purchaser shall obtain approval from the Contract Administrator for the quality of the used culverts before installation. Culverts must meet the specifications in Clauses 10-17 through 10-22.

<u>Road</u>
5973.1

5-10 CULVERT MARKER INSTALLATION

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

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the CULVERT LIST that are not installed will become 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. Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations. Culverts shall be banded using lengths of no less than 10 feet, and no more than one length less than 15 feet.

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. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

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.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT LIST. 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. No placement by end dumping or dropping of rock is allowed.

5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be waterbarred by October 1. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 200 feet.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following source(s) on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock source(s), a joint operating plan must be developed. All parties shall follow this plan. Purchaser shall notify the Contract Administrator a minimum of 3 business days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
5973 Ditch Cleaning	129+55 to 158+00	Select Pit Run
5973I Ditch Cleaning	0+00 to 35+00	Select Pit Run
5973 Waste Area	120+30	Select Pit Run

6-5 ROCK FROM COMMERCIAL SOURCE

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

6-22 FRACTURE REQUIREMENT FOR ROCK

A minimum of 90% by visual inspection of coarse aggregate must have at least one fractured face. Coarse aggregate is the material greater than 1/4-inch in size.

6-23 ROCK GRADATION TYPES

Purchaser shall provide or manufacture rock in accordance with the types and amounts listed in the ROCK LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles.

6-26 5/8-INCH MINUS CRUSHED ROCK

% Passing 5/8" square sieve	99 - 100%
% Passing 1/2" square sieve	95 - 100%
% Passing U.S. #4 sieve	45 - 66%
% Passing U.S. #40 sieve	10 - 25%
% Passing U.S. #200 sieve	7% max.

6-28 1 1/4-INCH MINUS CRUSHED ROCK

% Passing 1 1/4" square sieve	100%
% Passing 5/8" square sieve	50 - 80%
% Passing U.S. #4 sieve	30 - 50%
% Passing U.S. #40 sieve	3 - 18%
% Passing U.S. #200 sieve	5%

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

6-33 3-INCH MINUS CRUSHED ROCK

% Passing 3" square sieve	100%
% Passing 2" square sieve	65 - 95%
% Passing 3/4" square sieve	28 - 70%
% Passing U.S. #4 sieve	10 - 35%
% Passing U.S. #200 sieve	0 - 10%

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

6-41 SELECT PIT RUN ROCK

No more than 50 percent of the rock may be larger than 6 inches in any dimension and no rock may be larger than 12 inches in any dimension. Select Pit Run rock may not contain 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.

6-50 LIGHT LOOSE RIP RAP

Light loose rip rap must consist of angular, hard, sound, and durable stone. It must be free from segregation, seams, cracks, and other defects tending to destroy its resistance to weather. Light loose rip rap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

<u>Quantity</u>	<u>Approximate Size Range</u>
20% to 90%	500 lbs. to 1 ton (18"- 28")
15% to 80%	50 lbs. to 500 lbs. (8"- 18")
10% to 20%	3 inch to 50 lbs. (3"- 8")

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

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

6-57 ROCK MEASUREMENT BY TRUCK SCALE

Measurement of the landing rock, culvert backfill, energy dissipaters, and all MSE wall rock is on scaled truck weight. Purchaser shall provide scaled weight using a commercial scale. Purchaser shall provide the Contract Administrator with all scale sheets.

6-70 APPROVAL BEFORE ROCK APPLICATION

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

6-71 ROCK APPLICATION

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

6-73 ROCK FOR WIDENED PORTIONS

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

6-75 OPTIONAL ROCK EXCEPTION

On the following roads, Purchaser may provide and place less rock than shown on the ROCK LIST, when approved in writing by the Contract Administrator.

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

<u>Road</u>	<u>Stations</u>
5973.1	2+70 to 11+55
5973.1A	0+00 to 2+00
5973.2	0+00 to 1+60

SECTION 7 – STRUCTURES**7-2 TRAFFIC CONTROL**

On the following road, Purchaser shall notify the Contract Administrator minimum of 14 days before closure of road(s). The period of closure shall be limited to a single closure, not to exceed 30 consecutive calendar days. The road shall be considered open to traffic when all work below the road surfacing elevation is completed and the project site is passable to highway vehicles.

Purchaser shall provide all signs and barricades necessary for the protection of traffic. All costs associated with traffic control shall be the responsibility of the Purchaser. All construction warning signs shall conform to the standards established in the latest edition of the MUTCD standards except as modified here.

<u>Road</u>	<u>Stations</u>	<u>Comment</u>
5973	43+49 to 43+94	Closure for bridge installation

7-3 TEMPORARY EQUIPMENT CROSSING

On the following road, Purchaser shall construct temporary equipment crossing according to TEMPORARY EQUIPMENT CROSSING DETAIL. Log acquisition and installation shall be approved by the Contract Administrator. Upon completion of the in-stream work, all materials used for the temporary crossing shall be removed. Removal of logs shall be accomplished in a manner that avoids damage to the natural streambed and bank vegetation. Apply grass seed concurrently with crossing removal in accordance with Section 8 EROSION CONTROL. Cover, concurrently with abandonment, all exposed soils within 50 feet of the stream with a 4-inch deep layer of straw.

7-4 STREAM PROTECTION

- A. Disturbance of the streambed, banks, and riparian vegetation shall be limited to that necessary to construct the project. Project activities shall not degrade water quality downstream to the detriment of fish life.
- B. Equipment working in and around streams shall be free of external petroleum-based products or leaks. Equipment shall be checked daily for leaks and any necessary repairs shall be completed at an upland location prior to use in or near the water.
- C. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities. Fresh or un-cured concrete or concrete by-products shall not be allowed to enter the stream at any time during the project. All forms used for concrete shall be completely sealed to prevent the possibility of fresh concrete getting into the stream.
- D. Temporary Erosion and Sediment Control BMPs shall be used as needed to prevent sediment delivery to downstream waters. If construction activities cause sediment delivery downstream, construction shall stop until the sediment delivery issue has been resolved.
- E. Upon completion of the in-stream work, all materials used for the temporary bypass, temporary silt fences, check dams or other temporary in-stream structures shall be removed and the stream returned to pre-project conditions or better.

7-5 STRUCTURE DEBRIS

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

7-6 STREAM CROSSING INSTALLATION

Purchaser shall install stream crossing structures in accordance with the manufacturer's requirements, and the FPA, and the 5973 ROAD BRIDGE DETAIL.

7-7 BANK PROTECTION FOR STREAM CROSSING STRUCTURES

Purchaser must construct bank protection in accordance with the 5973 ROAD BRIDGE DETAIL.

7-10 REMOVAL OF EXISTING STRUCTURE

Purchaser shall remove the following existing bridge superstructure and substructure. All portions of the existing bridge components shall, upon removal, become the property of Purchaser and must be removed from state land.

<u>Road</u>	<u>Stations</u>
5973	43+69

7-15 PRE-DESIGN WORK MEETING

Prior to any design work occurring, a pre-work conference call shall occur to review the Road Plan requirements for the design and manufacture of the structure.

7-17 STRUCTURE ACCEPTANCE

The Region Engineer, or designee, will inspect the structure upon delivery. Acceptance will be issued if the structure meets all specifications and certifications. Structures that are not accepted may not be installed.

7-18 INSTALLATION PRODUCTION SCHEDULE

Purchaser shall provide the Contract Administrator, or their designee, with a written production schedule showing projected completion dates of the following items before starting construction of structure. Production schedule shall include, but is not limited to:

- Excavation
- Placement of riprap bedding
- Placement of substructure and structure components
- Backfill compaction, rock application and compaction

7-19 INSTALLATION STAGE ACCEPTANCE

The Purchaser shall ensure that all materials and procedures used during construction comply with the design. Purchaser shall obtain written approval from the Contract Administrator or their designee, after verification by the Region Engineer or designee, for each stage of construction listed in Clause 7-18 INSTALLATION PRODUCTION SCHEDULE, before starting construction on the next stage. Purchaser shall notify the Contract Administrator in writing when each construction stage is complete.

7-30 BRIDGE MAINTENANCE

Purchaser shall conduct bridge maintenance as listed. Purchaser shall remove all old bridge material from state land before the termination of the contract.

<u>Road</u>	<u>Station</u>	<u>Requirements</u>
5973	43+69	Replace wood running planks

7-31 BRIDGE DECK REPAIR

Purchaser shall repair bridge decks using three 3"x12" running planks per wheel track. All deck material must be No. 2 or better Douglas fir. The running planks must be installed with a minimum 3-foot stagger.

7-32 BRIDGE DECK FASTENING (WOOD BRIDGE)

The running planks must be fastened to every second cross tie with 10-inch ring shanks, spiral threaded spikes, or lag bolts.

7-45 PURCHASER SUPPLIED BRIDGE

Purchaser shall supply and install a bridge and associated components in accordance with Sections 7 and 11 of this road plan. Refer to 5973 ROAD BRIDGE DETAIL for details.

7-70 GATE CLOSURE

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

<u>Road</u>	<u>Station</u>
5973	14+70

SECTION 8 – EROSION CONTROL**8-1 SEDIMENT CONTROL STRUCTURES**

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

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 4-inch layer of straw to all exposed soils within 50 feet of a stream or wetland. Soils may not sit exposed during any rain event.

8-7 ROAD SHOULDER BERM INSTALLATION

On the following road, Purchaser shall construct berms on the road shoulders as shown on the ROAD SURFACE SHOULDER BERM DETAIL.

<u>Road</u>	<u>Stations</u>	<u>Remarks</u>
5973	135+83 to 136+80	Right side only

8-15 REVEGETATION

On the following roads, Purchaser shall spread grass seed on all exposed soils resulting from road work activities using manual dispersion. 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.

<u>Road</u>	<u>Location</u>	<u>Qty (lbs)*</u>
5973.1	0+00 to 11+55	30
5973.1	Abandonment	27
5973.1A	0+00 to 2+00	5
5973.2	Abandonment	4
Waste Areas		40

*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.

8-19 ASSURANCE FOR SEEDED AREA

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

8-25 GRASS SEED

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

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

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

SECTION 9 – POST-HAUL ROAD WORK**9-3 CULVERT MATERIAL REMOVED FROM STATE LAND**

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

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

9-21 ROAD ABANDONMENT

Purchaser shall abandon the following roads before the termination of this contract.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
5973.1	2+70 to 11+55	Light
5973.2	0+40 to 1+60	Light

9-22 LIGHT ABANDONMENT

- Block roads with earthen barricades in accordance with the attached EARTHEN BARRICADE DETAIL.
- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 200 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Remove ditch cross drain culverts and leave the resulting trench open.
- Slope all trench walls and approach embankments no steeper than 2:1.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.
- Cover, concurrently with abandonment, all exposed soils within 50 feet of any live stream, with a 4-inch deep layer of straw.

SECTION 10 MATERIALS

10-17 CORRUGATED PLASTIC CULVERT

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

10-20 FLUME AND DOWNSPOUT

Downspouts and flumes must meet the AASHTO specification designated for the culvert. Plastic downspouts and flumes must be Type C – corrugated single walled pipe.

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.

SECTION 11 BRIDGE TECHNICAL SPECIFICATIONS

11-1 PRODUCT DESCRIPTION

Quantity	Item
(1)	Precast Concrete Bridge
(2)	Precast Concrete Abutment Sills
(8)	Sole Plates, Elastomeric Pads, Bearing Plates MSE Wall Materials

11-2 APPLICABLE SPECIFICATIONS AND CODES

The clauses within Section 11 Bridge Technical Specifications are to be used in conjunction with the indicated section of the following:

AASHTO – American Association of State Highway and Transportation Officials.
LRFD – AASHTO LRFD Bridge Design Specifications, Current Edition
ASTM – American Society of Testing and Materials.
AISC – American Institute of Steel Construction
WSDOT – Washington State Dept. of Transportation

11-3 SUBMITTALS

Purchaser is responsible for providing the submittals listed below to the Region Engineer. The Purchaser shall submit one PDF copy (or 2 paper copies) of manufacturer product data sheets and testing results demonstrating technical compliance outlined in Section 11 Bridge Technical Specifications for all materials and finished products to be used and incorporated into the final product.

Specific submittals include, but are not limited to:

- A. Design Engineer Qualifications (11-9)
- B. Design Calculations and Drawings for bridge, foundation, and MSE walls (11-11)
- C. Concrete Testing Results (11-4)
- D. Proof of concrete precaster PCI Certification (11-8)
- E. Final Stamped Engineering Plans for bridge and foundation.

Purchaser shall schedule submittals to allow sufficient time for Region Engineer to review, comment on, or approve, and for revisions to take place. Submittals will be accepted or rejected within 10 working days of receipt. Delays in work because of the possibility of rejection, revision, and resubmittal of documents are deemed a risk of the Purchaser and shall not be the basis for claims of additional compensation.

Submittals shall be sent to:

Department of Natural Resources
Attn.: Region Engineer
PO Box 280
Castle Rock, WA 98611
360-480-5017
jerry.mizar@dnr.wa.gov

11-4 CONCRETE TEST METHODS

Acceptance testing shall be provided by the Purchaser and performed by a certified testing laboratory. All costs incurred for the purpose of concrete testing shall be the responsibility of the Purchaser. Test methods shall be as follows:

AASHTO T 22-10	Compressive Strength of Cylindrical Concrete Specimens
AASHTO T 23-08	Making and Curing Concrete Test Specimens in the Field
AASHTO T 119-10	Slump of Hydraulic Cement Concrete
AASHTO T 152-10	Air Content of Freshly Mixed Concrete by the Pressure Method
AASHTO T 309-10	Temperature of Freshly Mixed Portland Cement Concrete

11-5 ELASTOMERIC BEARING PADS

Elastomeric bearing pads shall be designed in full accordance with AASHTO LRFD Bridge Design Specifications. The temperature shall be site specific and shall be obtained from the Tables in AASHTO Article 3.12.2.2.

11-6 CONCRETE SAMPLING AND TESTING FREQUENCY – PRECAST

Sampling and testing shall be performed on all precast concrete pieces. Purchaser shall provide the Contract Administrator with a testing report certifying that all pre-cast concrete products meet the requirements of this Contract. Certification shall be submitted to the Contract Administrator before placement and payment of the pre-cast concrete products, unless this requirement is waived in writing by the Contract Administrator. All costs for concrete sampling and testing shall be the responsibility of the Purchaser.

11-7 CONCRETE FINISH

On all exposed surfaces, Purchaser shall remove all bolts, lips, and edgings where form members have met and fill in all form tie holes.

Slab Top Surfaces- Transverse Broom

All Other Top Surfaces- Smooth Float

All Other Surfaces- Smooth Form Finish

11-8 PRECAST CONCRETE FABRICATOR QUALIFICATIONS

- A. Concrete bridge fabricator shall be certified under the Precast/Prestressed Concrete Institute's (PCI) Plant Certification Program at a level equivalent or higher than B1 – Precast Bridge Products (No Prestressed Reinforcement).
- B. Concrete sill fabricator shall be certified under the Precast/Prestressed Concrete Institute's (PCI) Plant Certification Program at a level equivalent or higher than B1 – Precast Bridge Products (No Prestressed Reinforcement).

11-9 PURCHASER'S DESIGN ENGINEER

All design work shall be completed by (or under the direct supervision of) a Professional Engineer, licensed in the State of Washington, in the branch of Civil or Structural Engineering. The design engineer shall have a minimum of five years of experience in bridge and MSE wall design. Any change to the Design Engineer shall be made in writing and include documentation of qualifications.

11-10 DESIGN METHOD

All design work shall be in conformance with the current edition of the AASHTO LRFD Bridge Design Specifications and all subsequent interim specifications. Design details not covered by the AASHTO Specifications shall be in accordance with normally accepted structural design standards.

11-11 DESIGN SUBMITTAL

Prior to fabrication of the structure, the Purchaser shall provide to Region Engineer for review and comment, complete calculations and design drawings for all necessary elements of a clear span bridge including, but not limited to superstructure, bridge rail, foundation and end-walls. Design submittals shall be provided to the Region Engineer in accordance with Clause 11-3 Submittals. Purchaser shall be responsible for ensuring that all materials and procedures used during fabrication comply with the design.

Complete calculation and design drawings shall include, but not be limited to:

- A. DESIGN CALCULATIONS: Complete design calculations shall be signed and sealed by the Purchaser's Design Engineer. Design calculations shall be legible and fully annotated to facilitate review by the Region Engineer. Purchaser's Design engineer shall explain all formulae and terms and cite all references.

B. DESIGN DRAWINGS – REINFORCED CONCRETE SUPERSTRUCTURE

1. Show Bridge/Project Name.
2. Show Design code and ASSHTO edition.
3. Show Live Load, Overloads, Dead Load, plus an allowance for a future additional 35psf wearing surface.
4. Show allowable design fatigue cycles.
5. Show location and dimension of all bent bars. Include bar lists.
6. When applicable to the type of superstructure, include:
 - a) Deck joint details, tie-rod details including torque specifications, slab attachment, and keyway installation details.
7. Show plan view locations of girders, diaphragms, bearing lines.
8. Show Girder Details (Elevation and Typical Sections):
 - a) Include all information needed by the girder fabricator to build the basic girder, except reference may be made to the written specifications. Needed information includes but is not limited to the following:
 - a. Diaphragms and backwalls, girder lifting loop locations, any other insert and blockout locations, bearing pads, reinforcing steel embedded both in the girder and the curb or parapet, and concrete surface finish.
 - b. Girder elevation view showing girder dimensions.
 - c. Concrete Specification Requirements including:
 - i. Minimum compressive strength at 28 days.
 - ii. Maximum water/cement ratio.
 - iii. Type and specification of concrete to be utilized.
 - iv. Amount of entrained air in percent.
 - v. Minimum stripping strength.
 - vi. Allowable slump.
 - vii. Allowable temperature at pour.
 - b) Show elastomeric bearing pad details.
 - c) Add Steel Reinforced Beam Notes including the following specific requirements:
 - a. Location, size, and placement locations of all reinforcing steel, including minimum required cover over reinforcing steel.
 - b. Mild reinforcing steel grades.
 - c. Allowable fabrication tolerances.
 - d. State that the design is for reinforced concrete.
 - e. State where and how the girders are to be supported during transport to the job and require girder lifting cables to make an angle greater than 45 degrees with the top of the girder.

9. Show construction sequence for placing girders, diaphragms, deck, barriers.
10. Show bridge deck geometry, materials, connection details.
11. Show bridge rail geometry, materials, and connection details.
12. Show any provisions or details for existing or future utilities.
13. Show hardware specification requirements.
14. State grout specifications.
15. Show concrete surface finishes.

C. DESIGN DRAWINGS – SUBSTRUCTURE

1. Show location and dimension of all bent bars/reinforcing steel.
2. Give elevations to assist in construction, such as bottom of sills, top of caps (include any steps), tops of endwalls and wingwalls.
3. Call out required and permissible horizontal construction joints.
4. State if elevation views are looking ahead or back on station, etc. and specify the fill and stream sides of vertical elements when helpful to avoid confusion in construction.
5. Show bearing details, except normally elastomeric bearing pad details are placed on the beam sheets. Include details on any grout pad to be used under bearing pads on bridges with excessive grades; show a detailed view that identifies the anticipated clearance between the bottom of the girder and the top of the cap/bearing seat.
6. State Concrete Specification Requirements including:
 - a) Minimum compressive strength at 28 days
 - b) Maximum water/cement ratio
 - c) Type and specification of concrete to be utilized
 - d) Amount of entrained air in percent
 - e) Minimum stripping strength
 - f) Allowable slump
 - g) Allowable temperature at pour

D. DESIGN DRAWINGS – MSE WALL

1. Show facing area dimensions and depth of lifts.
2. Give elevations to assist in construction, such as bottom and top of wall, corners, etc.
3. Specify materials to be used in construction, including backfill material.
4. Show mat size and quantity, including intermediate mats, and top mat configuration.

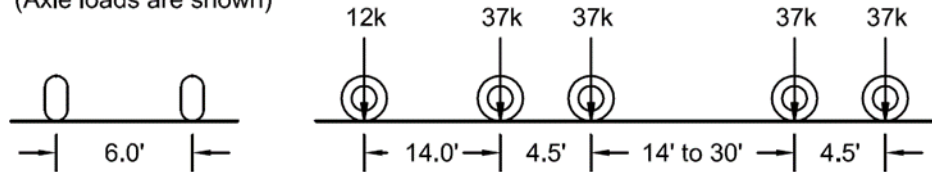
Any omissions to the plans shall be the responsibility of the Purchaser to correct and resubmit a finalized set of plans.

Changes are not allowed in any shop plan after approval unless approved in writing by the Region Engineer or designee.

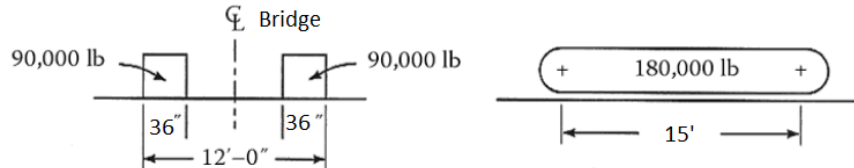
11-12 DESIGN LOADING

Bridge, foundation/substructure, and MSE walls shall be designed to the HL-93 loading and U-80 and L90 State-specified special overload vehicles.

U80 TRUCK LOADING - GVW = 80 TONS
(Axle loads are shown)



L90 Off Highway Log Loader - GVW 90 Tons



11-13 BRIDGE GEOMETRY

A. Span Length

The bridge span length shall be a minimum of 45 feet measured from end to end of the bridge structure.

B. Width

The bridge shall have a minimum width of 14 feet, measured from inside face of curb to inside face of curb.

C. Curb Height

Top of curb shall be a minimum of 18 inches above the highest point of the concrete deck.

D. Bridge Depth

The depth of the bridge structure shall not exceed 48 inches, measured from the highest point of the concrete deck to the bottom of the lowest member.

11-14 BRIDGE DESIGN – CONCRETE SUPERSTRUCTURE AND ASSOCIATED COMPONENTS

The bridge structure shall meet or exceed the following specifications:

- A. All manufactured components of this bridge including, but not limited to, girders, deck, wingwalls, endwalls, and curbs shall be constructed of reinforced concrete with a minimum 28-day compressive strength of 5,000 psi.
- B. LRFD Article 2.5.2.6.2 – Criteria for Deflection shall be required. Vehicle load deflection limit of $L/800$ or less shall apply.
- C. Concrete bridge curbs shall be cast integral to the bridge deck and shall be a minimum height of 18-inches.
- D. Design shall include specifications for:
 - i. Required concrete strength at release and at 28 days.
 - ii. Maximum slump of concrete.
 - iii. Air content of concrete.
 - iv. Reinforcing steel size, grade, and coating if applicable.
- E. Bridge deck shall be continuous full width, with no gaps that allow water and sediment to drain through the bridge deck.
- F. Elastomeric bearing pads shall be designed in full accordance with AASHTO LRFD Bridge Design Specifications for the anticipated extreme temperature range of the girders at the bridge site. The temperature shall be site specific and shall be obtained from Tables in AASHTO Article 3.12.2.2.
- G. The superstructure shall include functional lifting points, capable of supporting the weight of members in which they are attached, and do not interfere with the installation of bridge superstructure, sills or MSE walls.
- H. Endwalls/Backwalls shall be designed such that no displacement of embankment material occurs.

11-15 MSE WALL DESIGN

At the following locations, materials needed for abutments shall be hot-dipped galvanized welded wire wall material (or equivalent), allowing a minimum functional life of 75 years.

<u>Road</u>	<u>Stations</u>	<u>MSE Wall Facing Area</u>
5973	43+49	744 ft ²
5973	43+94	720 ft ²

11-16 MSE WALL CONSTRUCTION

MSE walls shall be installed in accordance with Clause 11-11 and the manufacturer's specifications.

MSE backfill material shall be installed and compacted in accordance with the Design Engineer's requirements.

11-17 BRIDGE DELINEATOR INSTALLATION

Bridge delineators shall consist of one 12" x 12" reflective striped delineator mounted at each end of each curb. Mounting may consist of epoxy and bolt, of other means of attachment approved by the Contract Administrator. Each delineator shall be installed with the reflective striping angled downward toward the center of the bridge, in accordance with the DELINEATOR INSTALL.

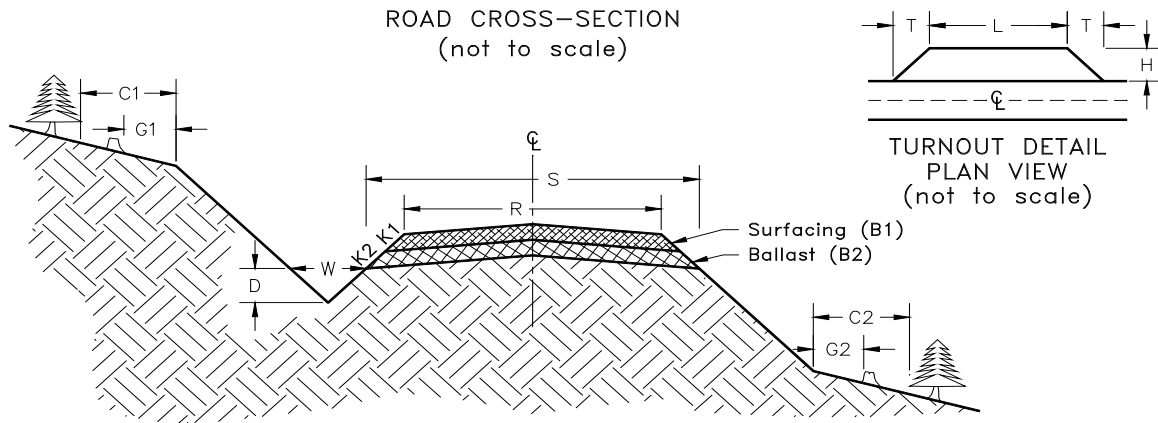
11-18 BRIDGE LOAD RESTRICTIONS

On the following bridges, the listed load restrictions are in place. Purchaser shall not transport loads exceeding the current posted limits over the bridges.

<u>Road</u>	<u>Stations</u>	<u>Load Rating</u>	<u>Load Limits</u>
5970	2+45	Highway Legal Only	66 ton
5973	43+69	N/A	5 ton*

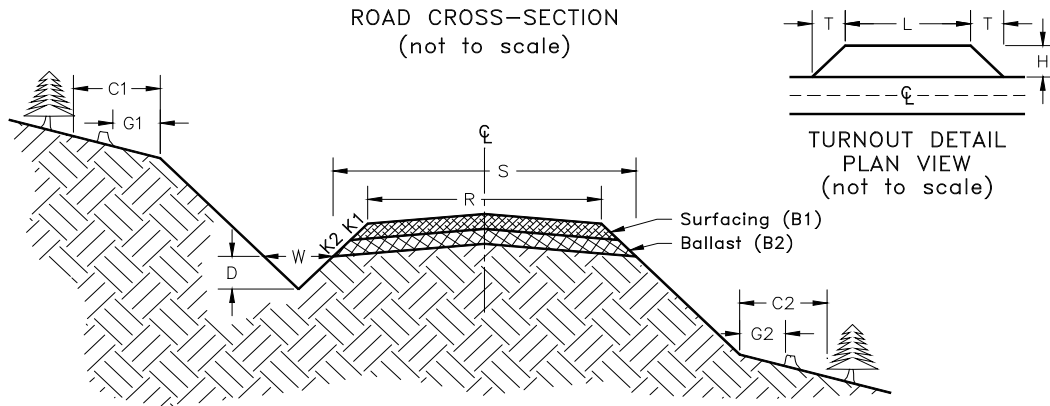
* To facilitate increased loads and access across the existing 5973 bridge, temporary support of the woods side bridge end will be required. Purchaser shall construct temporary shoring in accordance with the document "5973 Bridge: Temporary Support" enclosed in this road plan.

TYPICAL SECTION SHEET



Road Number	From Station	To Station	Tolerance Class	Subgrade Width ft	Road Width ft	Ditch Width ft	Ditch Depth ft	Crown @ CL in	Grubbing Limits ft		Clearing Limits ft	
									G1	G2	C1	C2
4900	0+00	105+64	A	-	16	3	1	4	-	-	-	-
5970	0+00	84+75	A	-	12	3	1	4	-	-	-	-
5973	0+00	43+22	A	-	12	3	1	4	-	-	-	-
5973	43+22	44+86	B	18	14	3	1	4	2	2	5	5
5973	44+86	135+83	A	-	12	3	1	4	-	-	-	-
5973	135+83	136+80	B	18	14	3	1	4	2	2	5	5
5973	136+80	158+00	A	-	-	3	1	4	-	-	-	-
5973I	0+00	35+00	A	-	12	3	1	4	-	-	-	-
5973.1	0+00	11+55	C	16	12	3	1	4	2	2	5	5
5973.1A	0+00	2+00	C	16	12	3	1	4	2	2	5	5
5973.2	0+00	1+60	C	16	12	3	1	4	2	2	5	5

ROCK LIST



Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source	Rock Size
			K1	B1				Commercial	
4900		Culvert Backfill			10	1	10		1 1/4"-
5973		Keyed Embank.	1 1/2:1	4	See Culv List	0.3	20		1 1/4"-
		Bridge Approaches	1 1/2:1	6		0.5	50		1 1/4"-
		Culvert Backfill					90		1 1/4"-
		MSE Wall Facing					500		1 1/4"-
		Sill Bedding					20		5/8"-

REQUIRED 1 1/4"- ROCK: 670 CY

REQUIRED 5/8"- ROCK: 20 CY

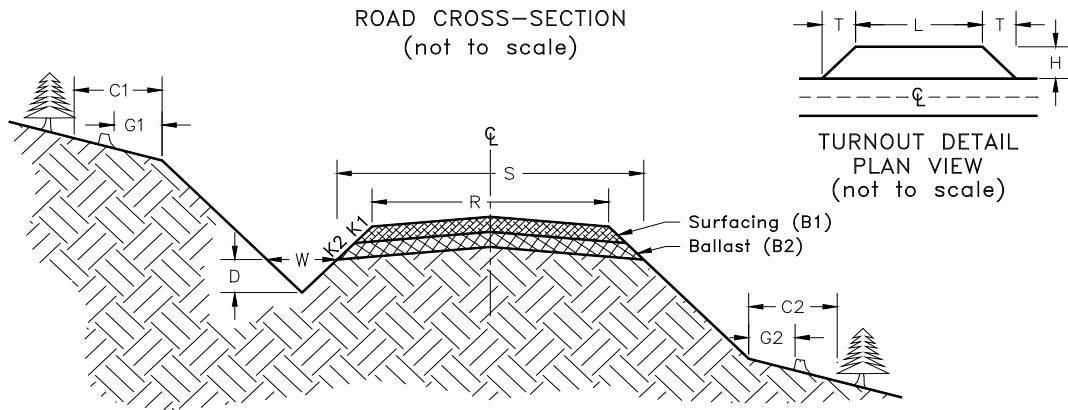
RIPRAP AND QUARRY SPALLS

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source	Rock Size
			K1	B1				Commercial	
5973		Keyed Embank.					130		riprap
		MSE Wall Bedding					200		riprap
4900		Energy Dissipater			See Culv List		2		QS
5973		Energy Dissipater			See Culv List		7		QS
5973.1		Energy Dissipater			1	1	1		QS

REQUIRED RIPRAP: 330 CY

REQUIRED QUARRY SPALLS: 10 CY

ROCK LIST



BALLAST

Road Number		From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source	Rock Size
				K2	B2					
5973		MSE Wall Backfill Bridge Approaches Keyed Embank.		1 1/2:1	12		0.5	600	Commercial	3"-
				1 1/2:1	8		0.3	100	Commercial	3"-
								20	Commercial	3"-
5973.1	*	0+00	11+55	1 1/2:1	15	94	11.55	1086	Commercial, or see Clause 6-2	Pit Run
5973.2	*	0+00	1+60	1 1/2:1	12	104	1.60	167	Commercial, or see Clause 6-2	Pit Run
5973.1A	*	0+00	2+00	1 1/2:1	12	96	2.00	192	Commercial, or see Clause 6-2	Pit Run

*Optional Rock in accordance with 6-75

REQUIRED BALLAST: 720 CY

OPTIONAL BALLAST: 1445 CY

CULVERT LIST

Road Number	Location	Culvert			Armoring (C.Y.)			Backfill	Bedding	Inlet	Remarks
		Dia (In)	Length	Type	Inlet	Outlet	Type	Material	Material	Marker	
4900	56+80	-	-	-	-	1	QS	-	-	-	Replace flume with dissipater rock Flume
4900	65+00	18	20	PD	-	-	-	-	-	-	
4900	98+50	18	30	PD	0.5	0.5	QS	CR	NT	Y	Downspout Downspout Place dissipater rock only
5973	36+00	18	30	PD	0.5	0.5	QS	CR	NT	Y	
5973	40+60	18	20	PD	0.5	-	QS	CR	NT	Y	
5973	40+60	18	20	PSDS	-	0.5	QS	-	-	-	
5973	40+85	24	60	PD	0.5	-	-	CR	NT	Y	
5973	40+85	24	20	PSDS	-	2.5	QS	-	-	-	
5973	43+09	18	30	PD	0.5	0.5	QS	CR	NT	Y	
5973	44+28	18	30	PD	0.5	0.5	QS	CR	NT	Y	
5973	46+00	24	40	PD	0.5	0.5	QS	CR	NT	Y	
5973	83+20	-	-	-	-	2.0	QS	-	-	-	
5973	137+40	18	30	PD	0.5	0.5	QS	CR	NT	Y	

Key:

QS - Quarry Spalls
 NT - Native (bank run)
 CR - Crushed Rock
 PD - Polyethylene Pipe Double Wall
 PSDS - Polyethylene Downspout Single Wall

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)	Maximum Amount of Deflection (inches)
All Roads			Subgrade	12	Vibratory Smooth Drum	14,000	4	3	2
All Roads			Fill	12	Vibratory Smooth Drum	14,000	4	3	2
All Roads			Waste Area	24	Excavation	28,000	-	-	4
All Roads			Pre-haul Surface	6	Vibratory Smooth Drum	14,000	5	3	1
All Roads			Rock	12	Vibratory Smooth Drum	14,000	3	3	1
MSE Wall			Per manufacturer's specifications						

CULVERT AND DRAINAGE SPECIFICATION DETAIL

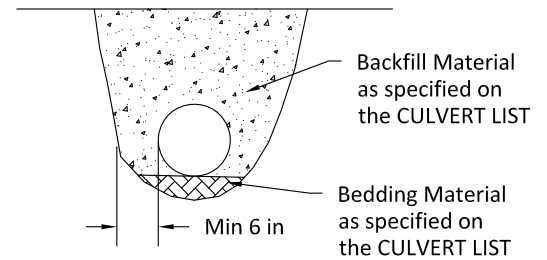
PAGE 1 OF 2

INSTALLATION REQUIREMENTS:

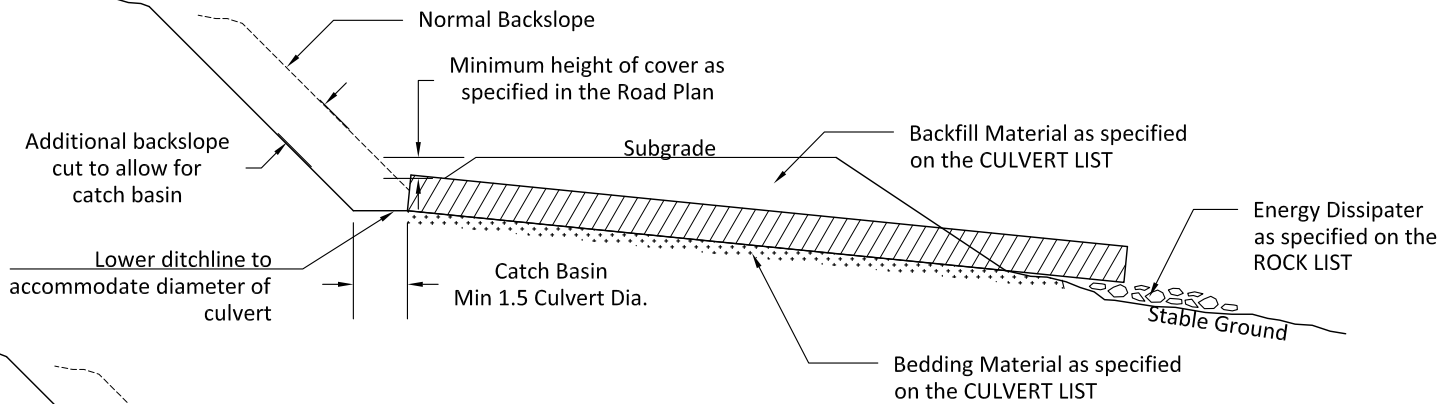
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly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

ALL DRAWINGS ARE NOT TO SCALE

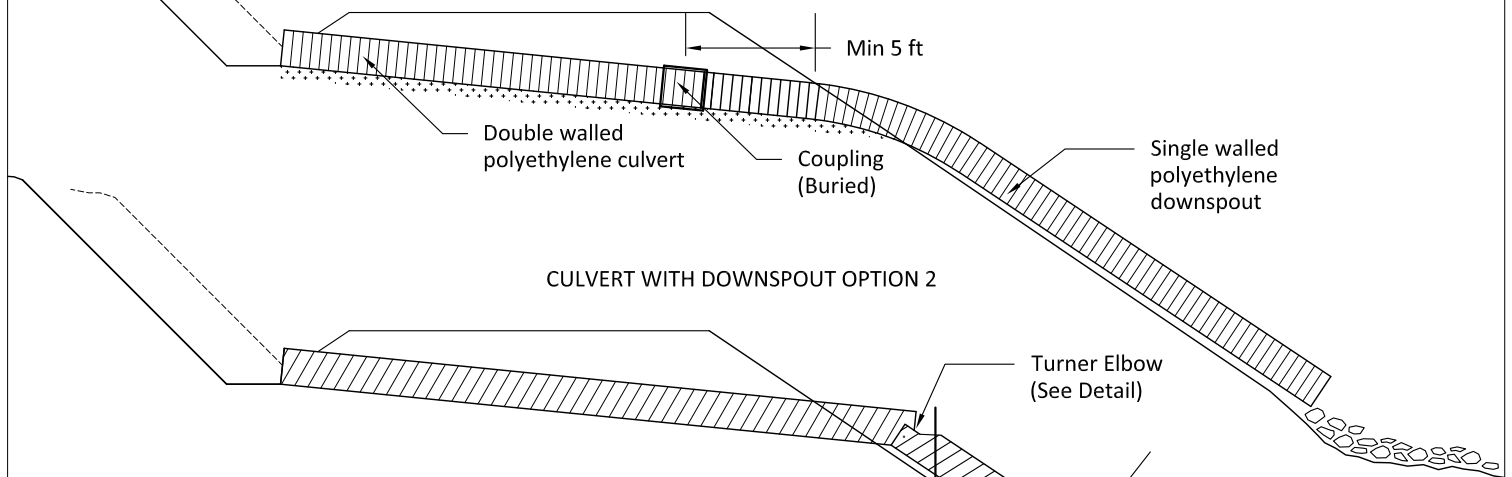
CROSS SECTION



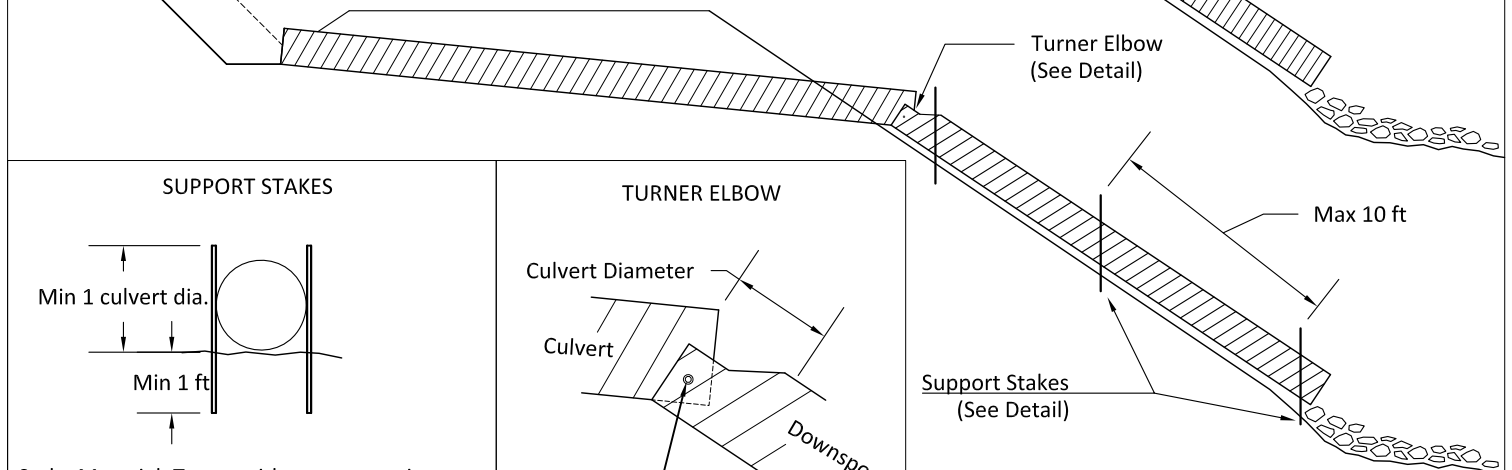
CULVERT PROFILE (TYPICAL)



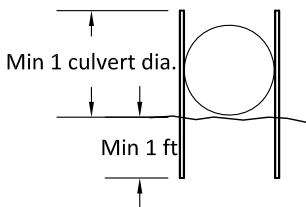
CULVERT WITH DOWNSPOUT OPTION 1



CULVERT WITH DOWNSPOUT OPTION 2

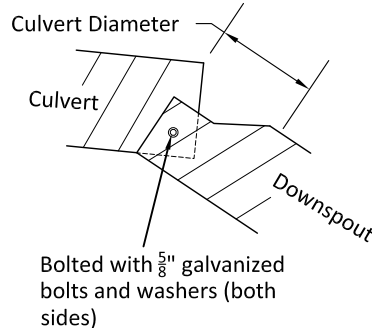


SUPPORT STAKES



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

TURNER ELBOW

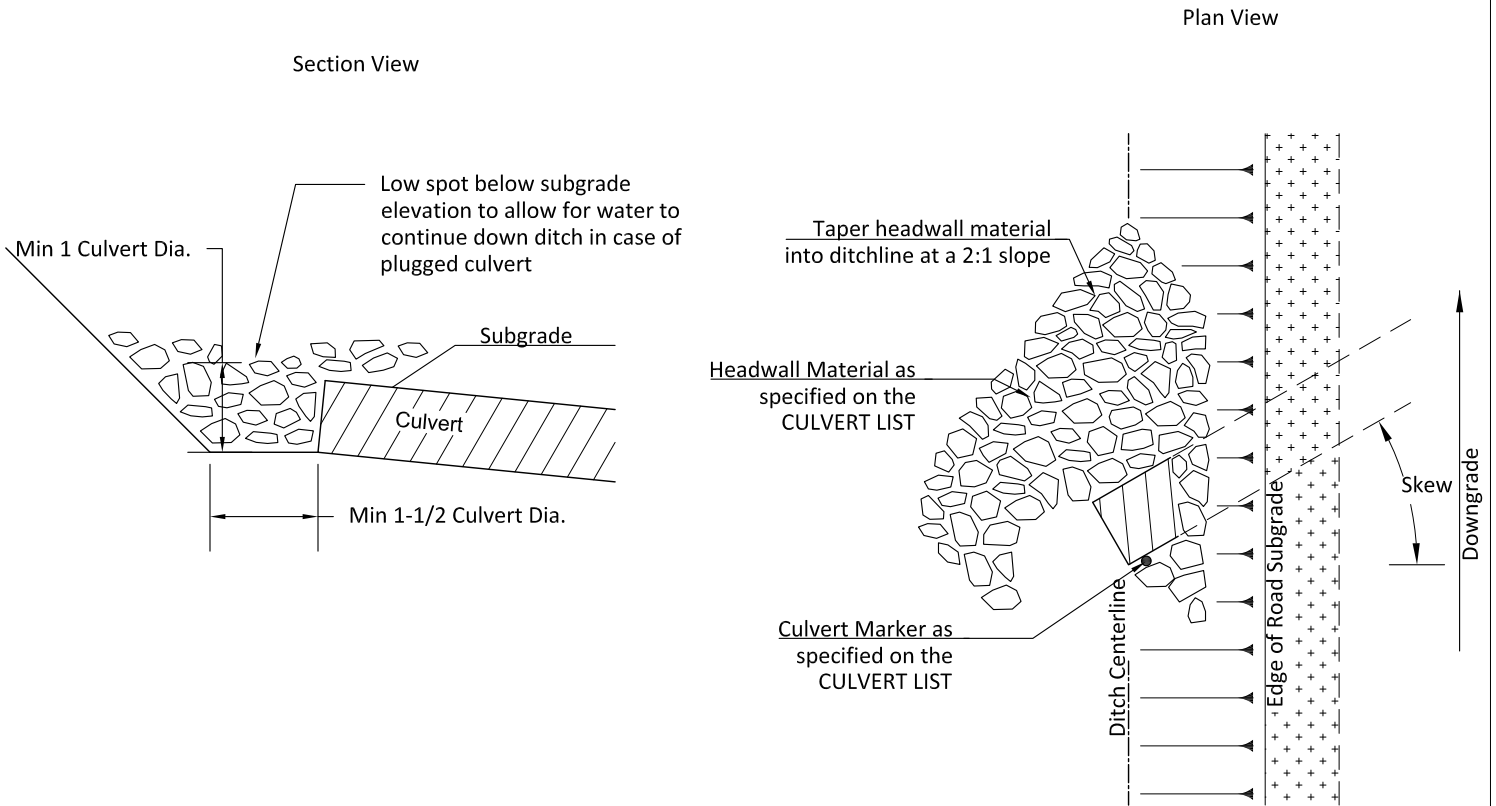


Downspout must be 6 inches larger in diameter than the culvert.

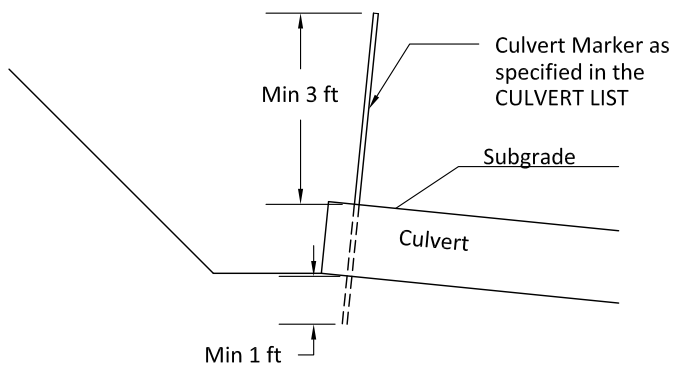
CULVERT AND DRAINAGE SPECIFICATION DETAIL

PAGE 2 OF 2

HEADWALLS

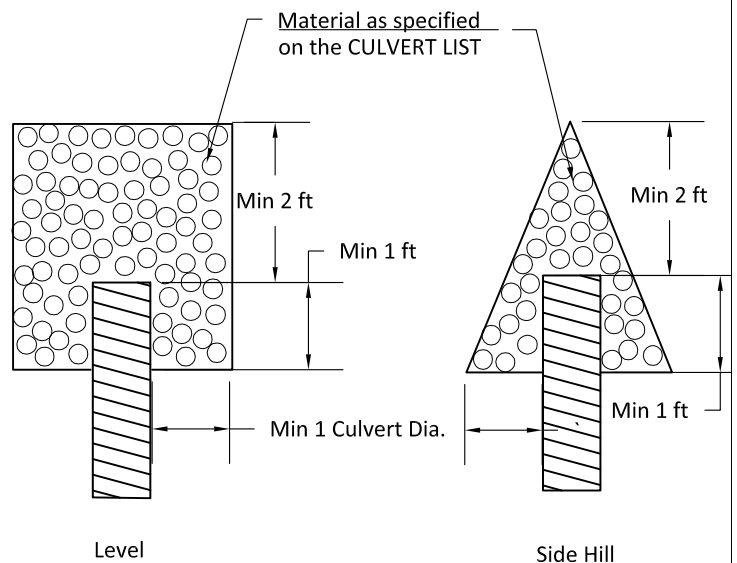


CULVERT MARKERS



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

ENERGY DISSIPATERS



Min Energy Dissipater Depth: 1 Culvert Dia.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides up to 100 cubic yards in volume from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, 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

Preventative Maintenance

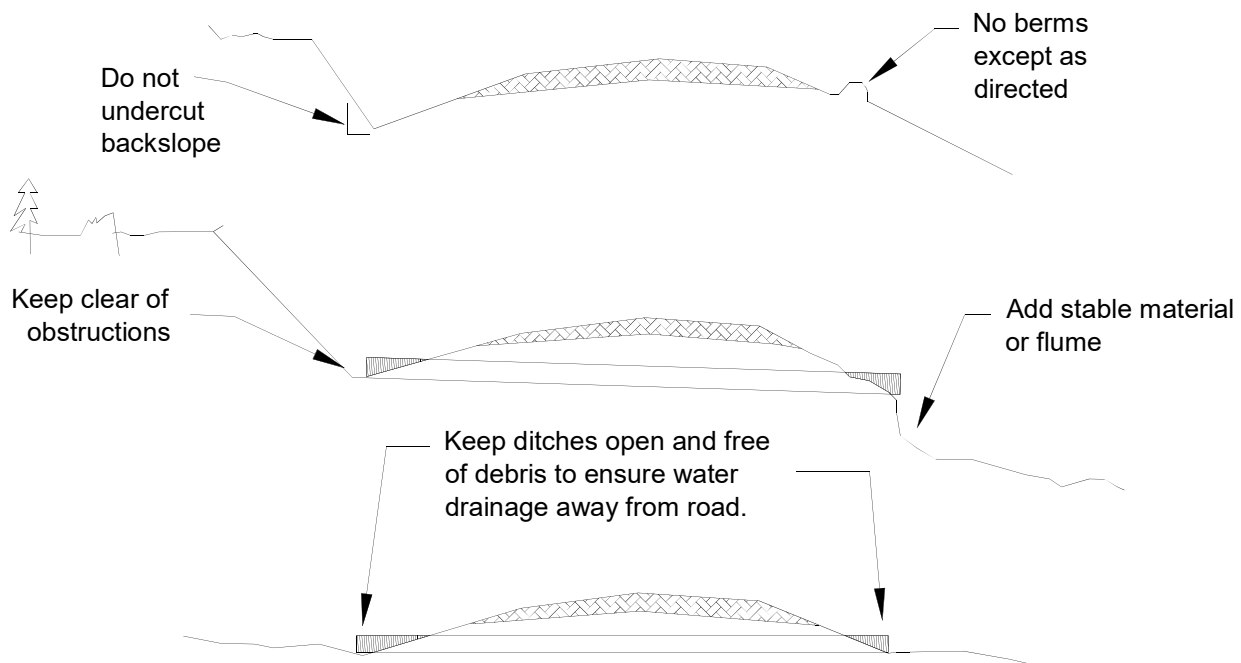
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

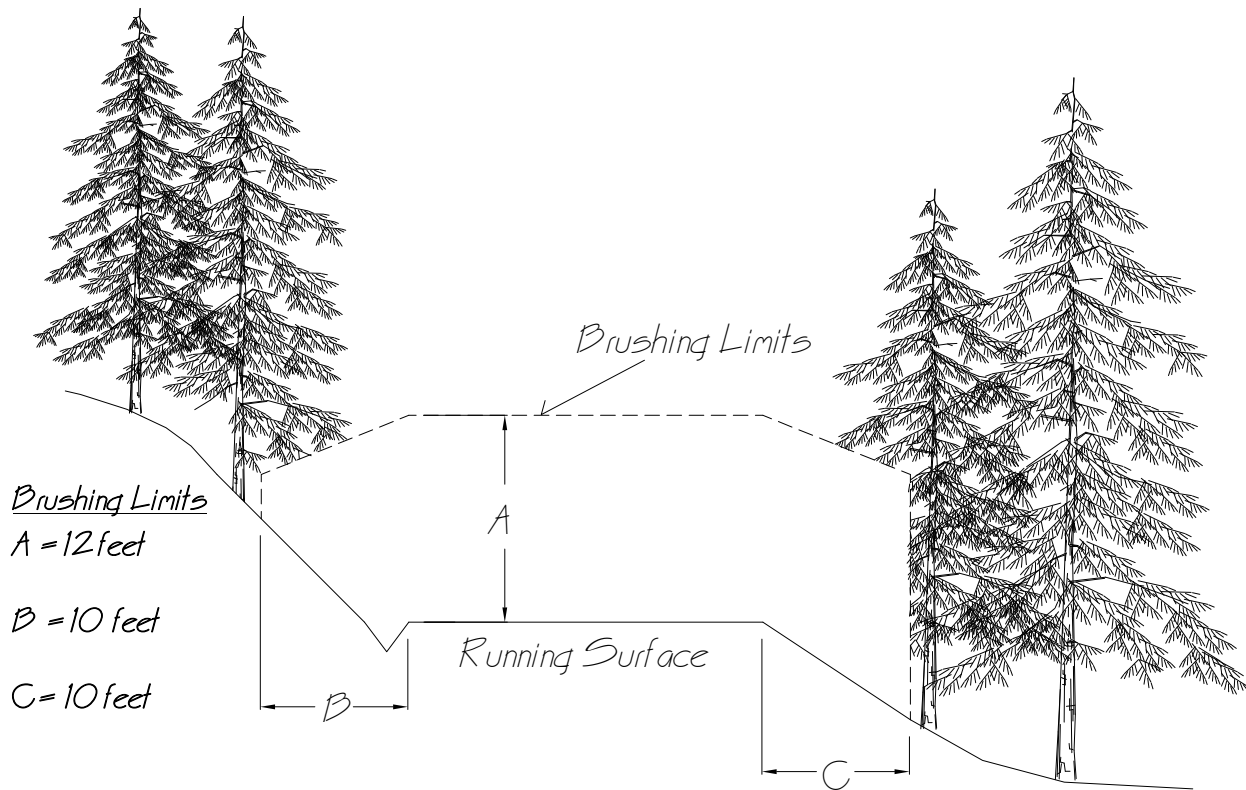
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

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



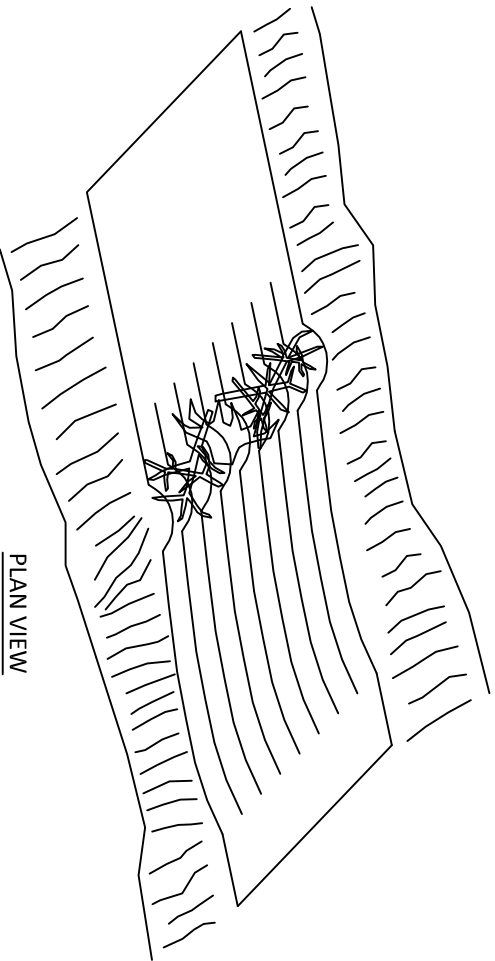
ROADSIDE BRUSHING DETAIL



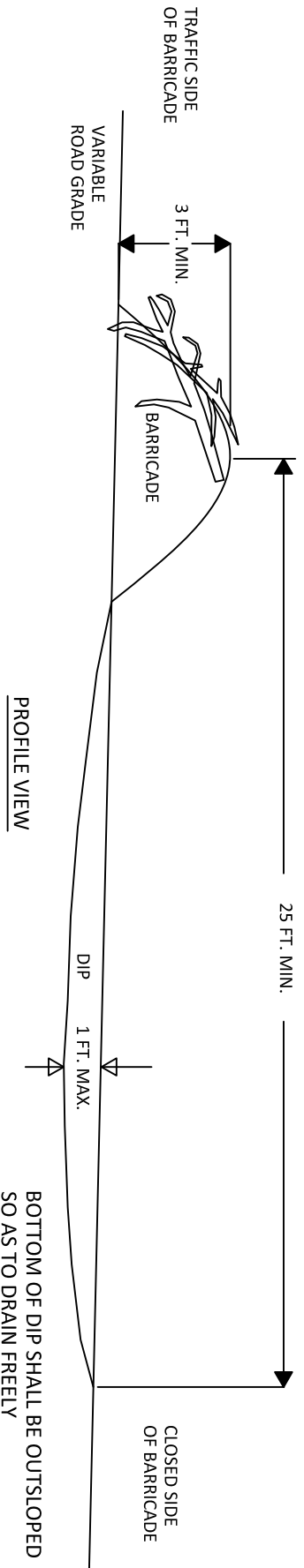
GENERAL NOTES

- 1) Vegetative material, including limbs, up to 4 inches in diameter shall be cut within the brushing limits shown on the drawing above. This includes vegetative material growing on the running surface.
- 2) Vegetative material shall be cut as near flush with the ground as possible, but shall not extend more than 6 inches above the ground.
- 3) Brushing Limit C may be increased on the inside of curves to improve sight distance if approved by the Contract Administrator

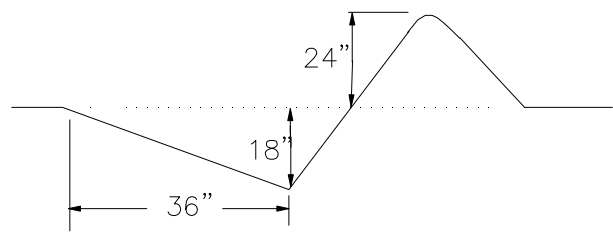
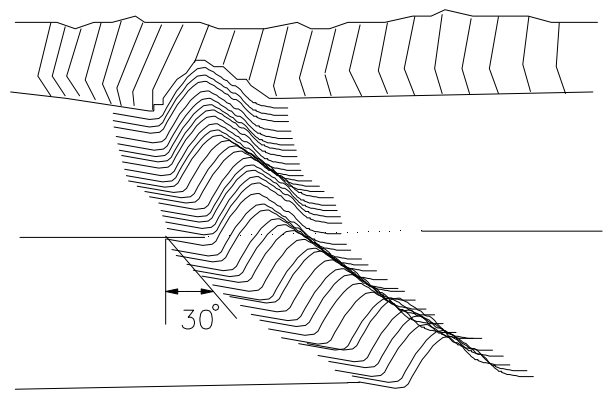
EARTHEN BARRICADE DETAIL



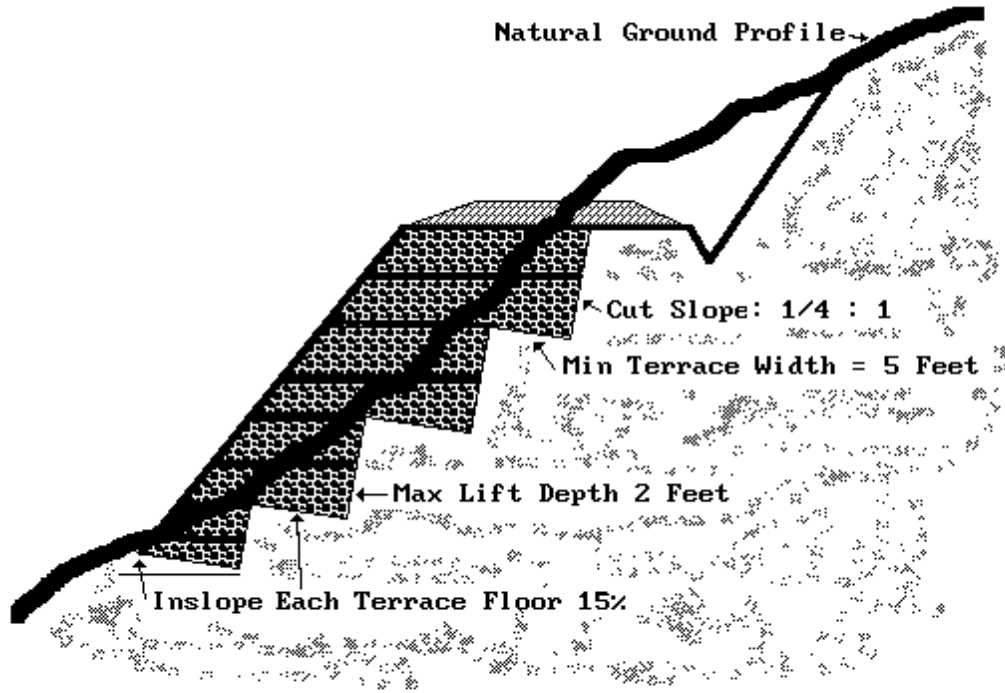
SLASH AND ROOT WADS SHALL BE INCORPORATED INTO THE TRAFFIC SIDE OF THE BARRICADE.



NON-DRIVABLE WATER BAR DETAIL



Embankment Key Detail



Break natural ground with terrace floors.

Embankment slope not to exceed 3/4 : 1

5973 Bridge: Temporary Support

Washington DNR - Pacific Cascades Region

GENERAL NOTES

- 1) Temporary Support is designed to maintain the posted load capacity of the existing bridge. Support is expected to be in service for less than six months.
- 2) Workmanship and materials shall conform to WSDOT "Standard Specifications for Road, Bridge, and Municipal Construction." 2020.
- 3) Provide materials which meet or exceed the following requirements:

Timbers

Douglas-fir Larch No. 2

Plates & Washers ASTM A36 or A572

Lag Screws ASTM A307

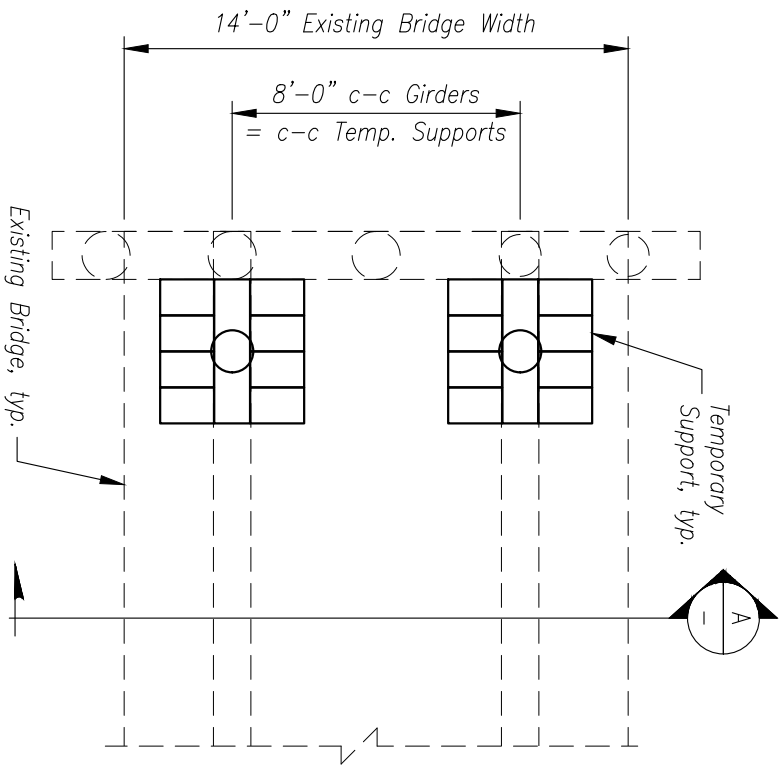
Nails Common or Box
- 4) Welding shall be performed by certified welders according to provisions of AWS D1.1, with the exception that no special inspection shall be required during welding procedures. Use E70 electrodes. All welds not called out shall be 1/4" fillet welds.
- 5) If field conditions differ from what is shown, or if the contractor lacks sufficient detail to construct the supports, consult the Engineer before proceeding with the work.

DRAWING INDEX

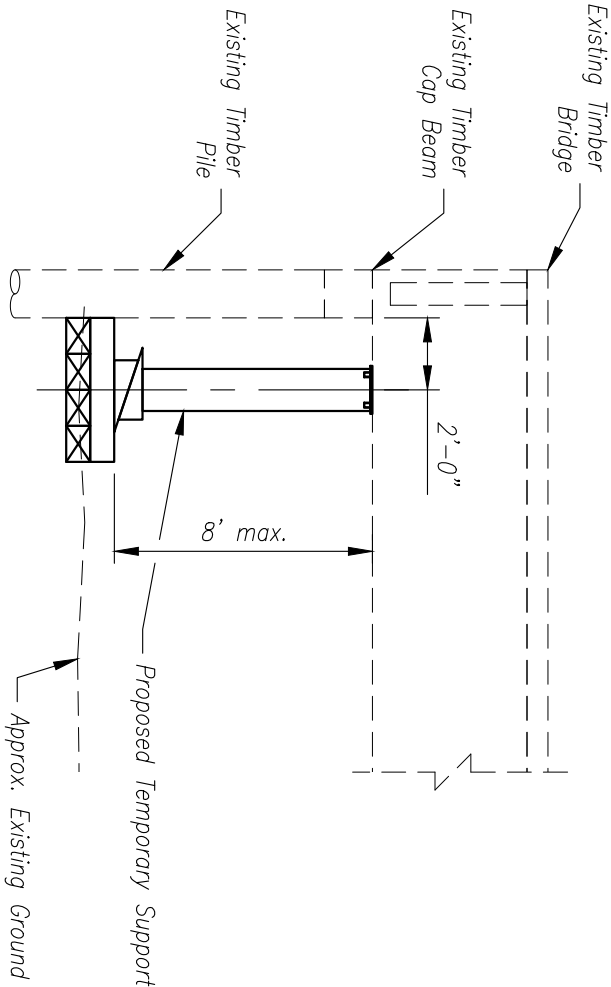
Sheet Number	Sheet Title
1	Title Sheet & General Notes
2	Plan Elevation & Section
3	Support Details

<div><div><div><div>M</div><div>cGee</div><div>Engineering Inc.</div></div><div><div>P.O. Box 1067</div><div>Corvallis, OR 97339</div><div>Phone: (541) 757-1270</div><div>Fax: (541) 758-6585</div></div></div><div><div><div><div>ALEXANDER J. DUNN</div><div>STATE OF WASHINGTON</div><div>REGISTERED PROFESSIONAL ENGINEER</div><div>47523</div></div></div></div></div>					
Near: Naselle, WA		Washington DNR			
Road: 5973		Pacific Cascades Region			
Milepost: 0.8		5973 Bridge: Temporary Support			
Over: Hull Creek Trib.					
TWP: 11N	RNG: 07W	Title Sheet & General Notes			
SEC: 18	1/4: NE				
Latitude: N 46° 26.235'		Designed: A. Dunn	Date: 6/16/2022		
Longitude: W 123° 35.605'		Checked: A. Vesper	Sheet 1 of 3		
Rev	Description	By	Date		

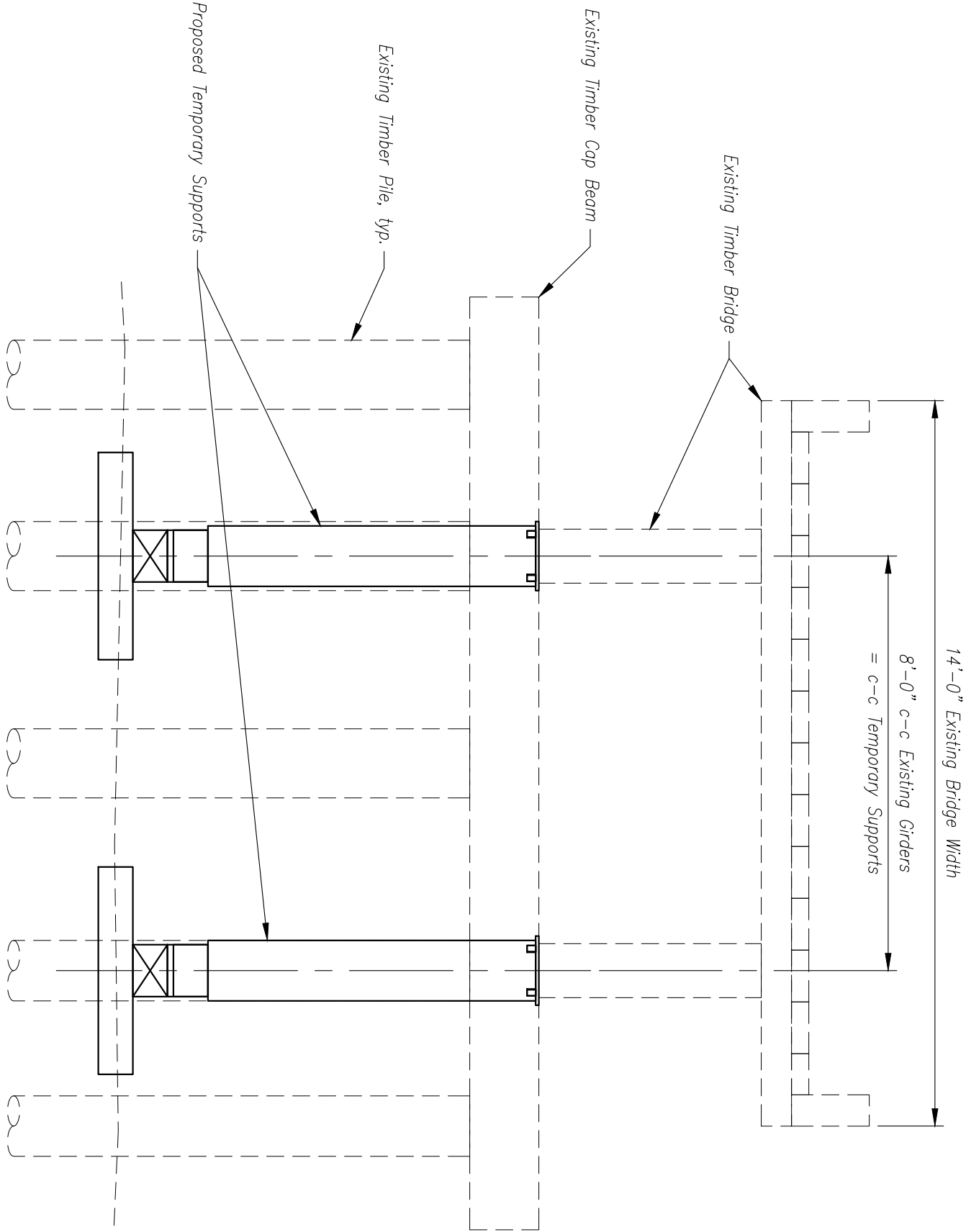
Measures one inch on original drawing.
Adjust scales accordingly.



Plan
Scale: 3/16" = 1'-0"

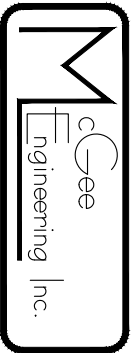


Elevation
Scale: 3/16" = 1'-0"



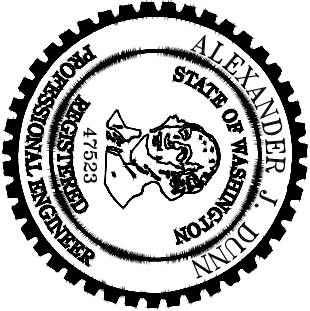
Section
Scale: 3/8" = 1'-0"

Rev	Description	By	Date

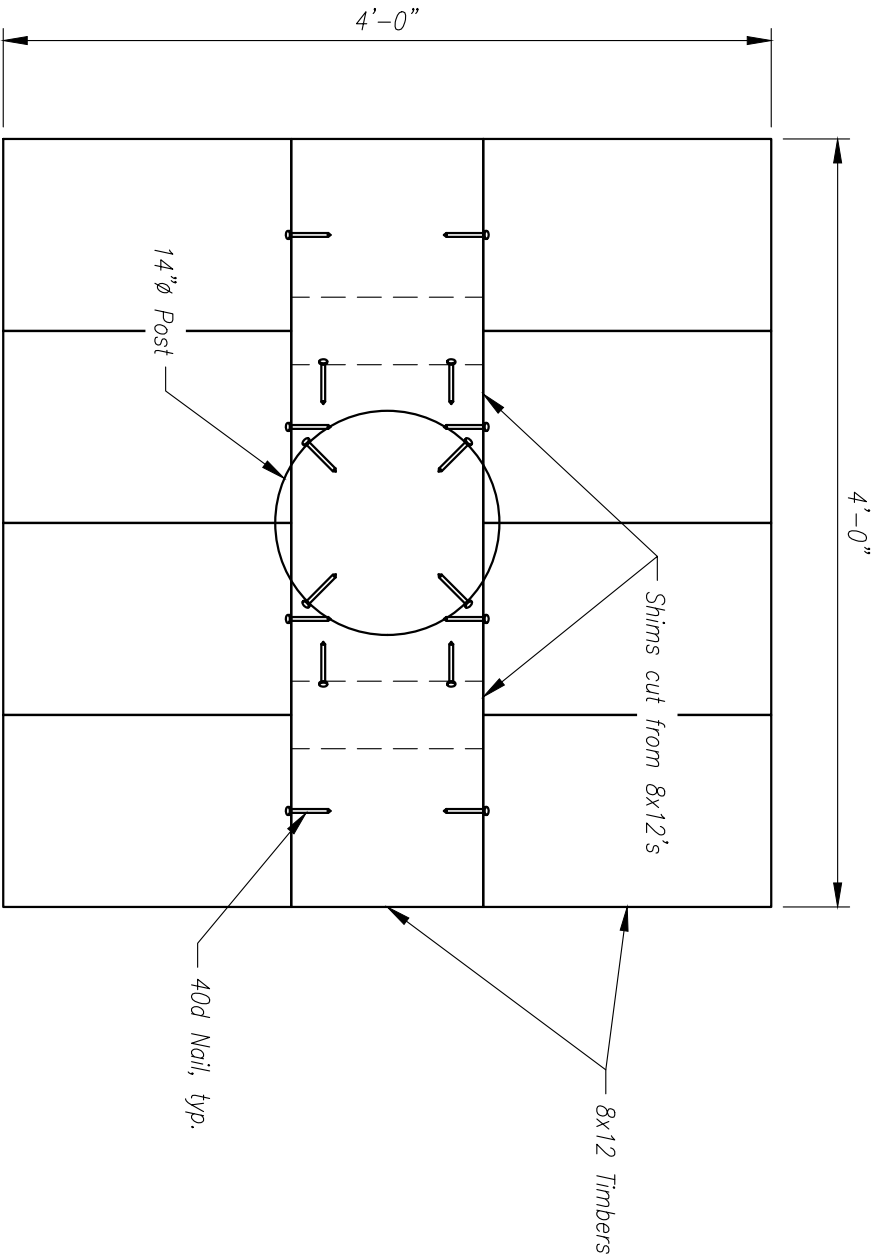


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Corvallis, OR 97339
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Fax: (541) 758-6585

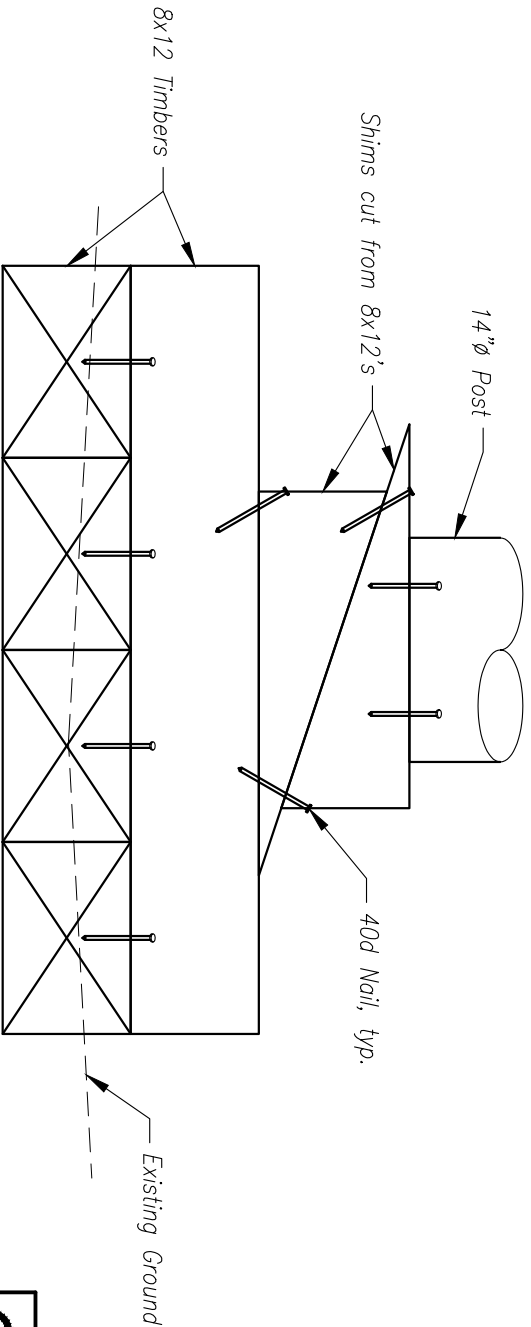
Measures one inch on original drawing.
Adjust scales accordingly.



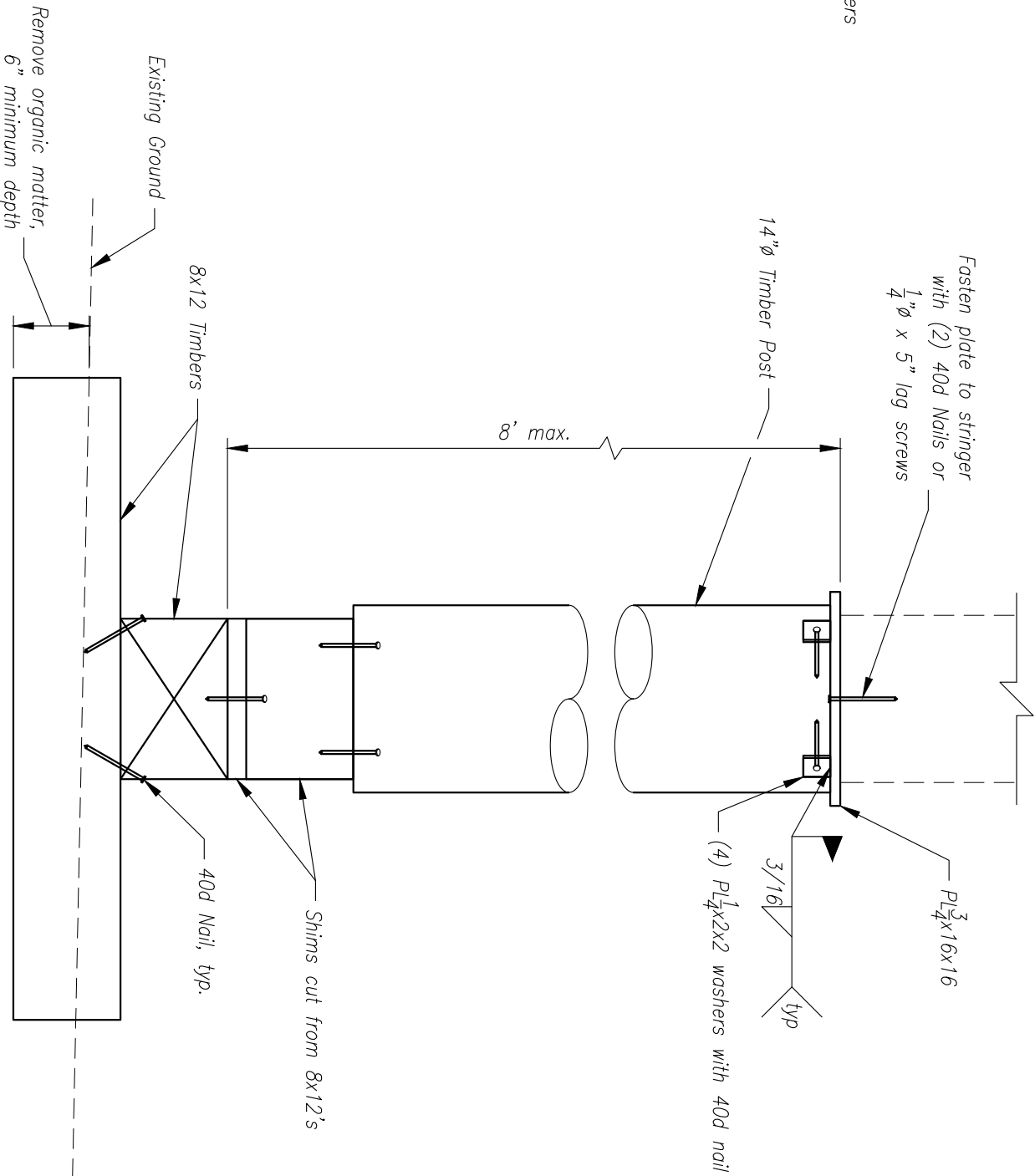
Near: Naselle, WA		Washington DNR	
Road: 5973		Pacific Cascades Region	
Milepost: 0.8		5973 Bridge: Temporary Support	
Over: Hull Creek Trib.			
TWP: 11N	RNG: 07W	Plan Elevation & Section	
SEC: 18	1/4: NE		
Latitude: N 46° 26.235'			
Longitude: W 123° 35.605'	Designed: A. Dunn	Date: 6/16/2022	
	Checked: A. Vesper	Sheet 2 of 3	



Footings Plan
Scale: 1" = 1'-0"



Footings Elevation
Scale: 1" = 1'-0"



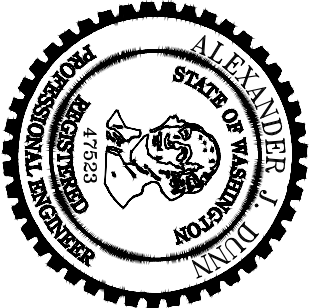
Section
Scale: 1" = 1'-0"

Rev	Description	By	Date



P.O. Box 1067
Corvallis, OR 97339
Phone: (541) 757-1270
Fax: (541) 758-6585

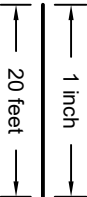
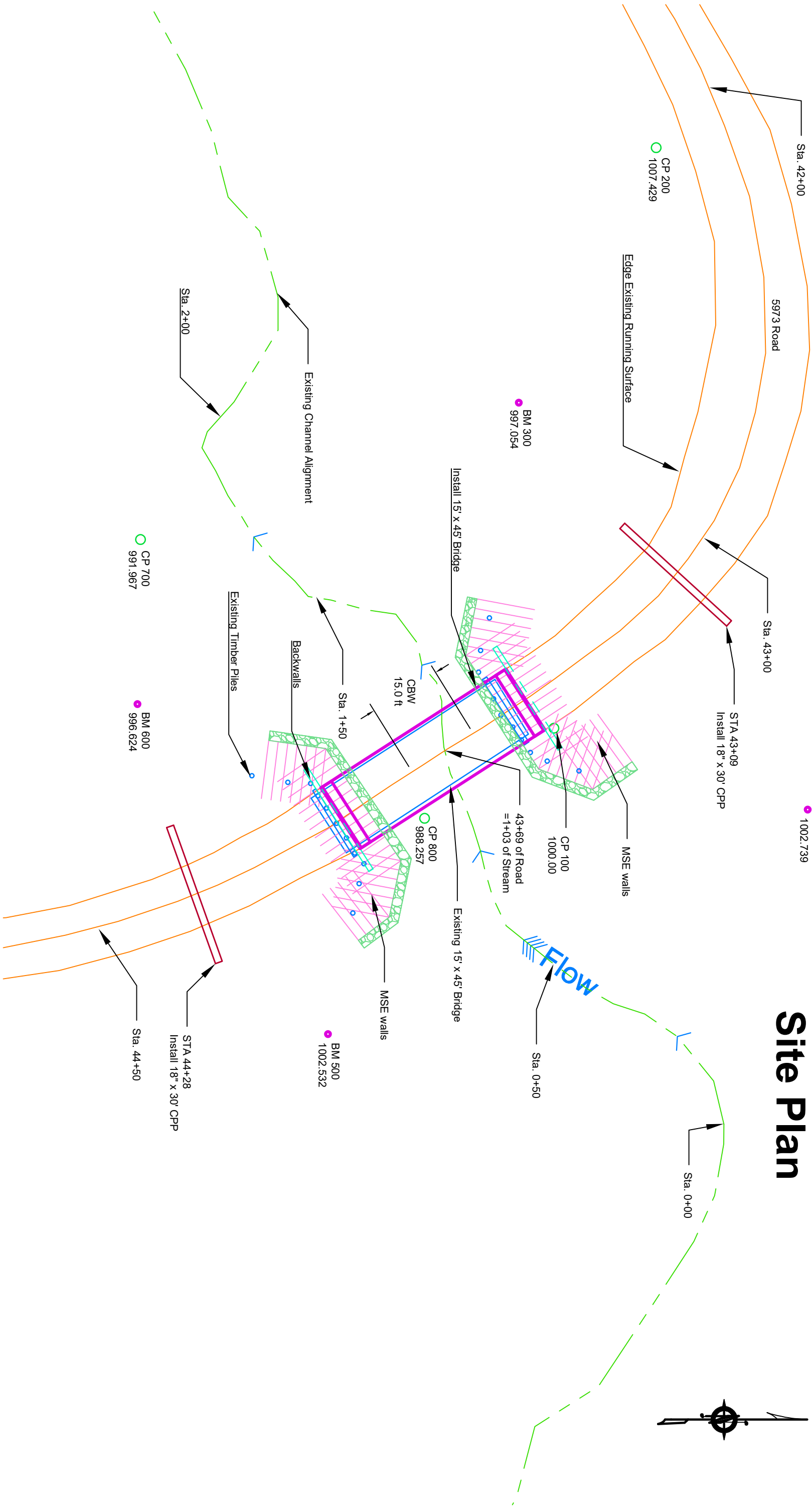
Measures one inch on original drawing.
Adjust scales accordingly.



Near: Naselle, WA		Washington DNR	
Road: 5973		Pacific Cascades Region	
Milepost: 0.8		5973 Bridge: Temporary Support	
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TWP: 11N	RNG: 07W	Support Details	
SEC: 18	1/4: NE		
Latitude: N 46° 26.235'			
Longitude: W 123° 35.605'	Designed: A. Dunn	Date: 6/16/2022	
	Checked: A. Vesper	Sheet 3 of 3	

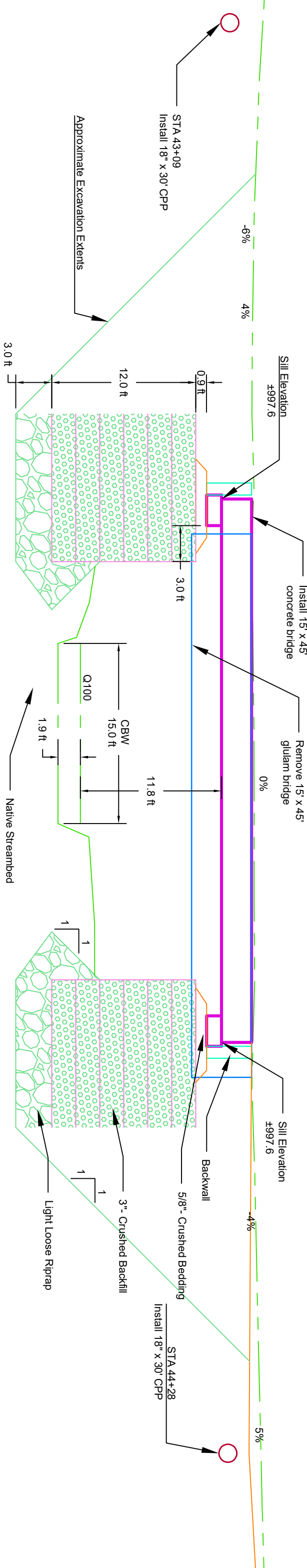
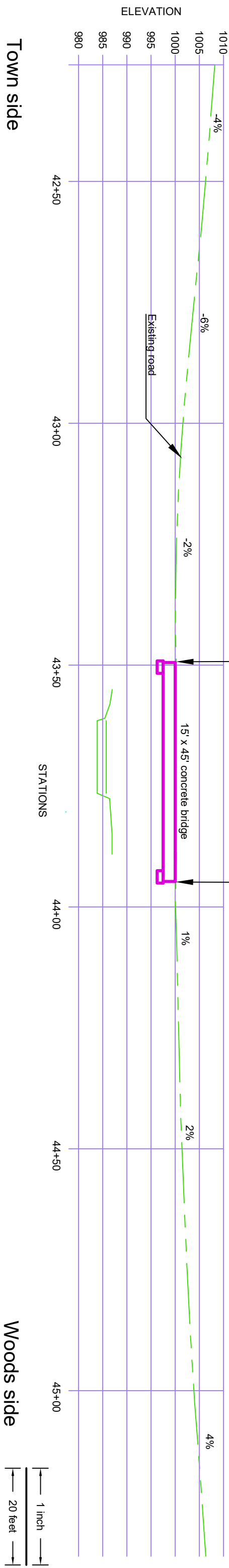
5973 Road 45' Bridge

Site Plan



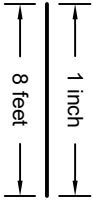
5973 Road 45' Bridge

Road Profile

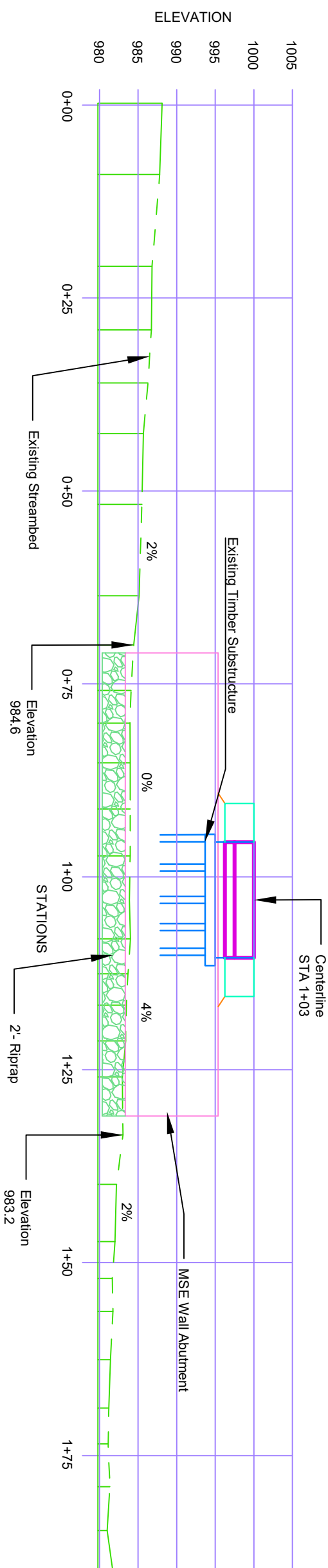


General Notes:

- Rip Rap shall be placed as a base and as protection for the MSE Wall. Rip Rap shall be based at least 3.0' below channel elevation.
- All elevations are relative to local control..



5973 Road 45' Bridge Channel Profile



Woods side
abutment

Top of MSE Wall
Elevation ± 995.4

15' x 45' Concrete Bridge

Backwall

Bottom of MSE Wall
Elevation 983.4

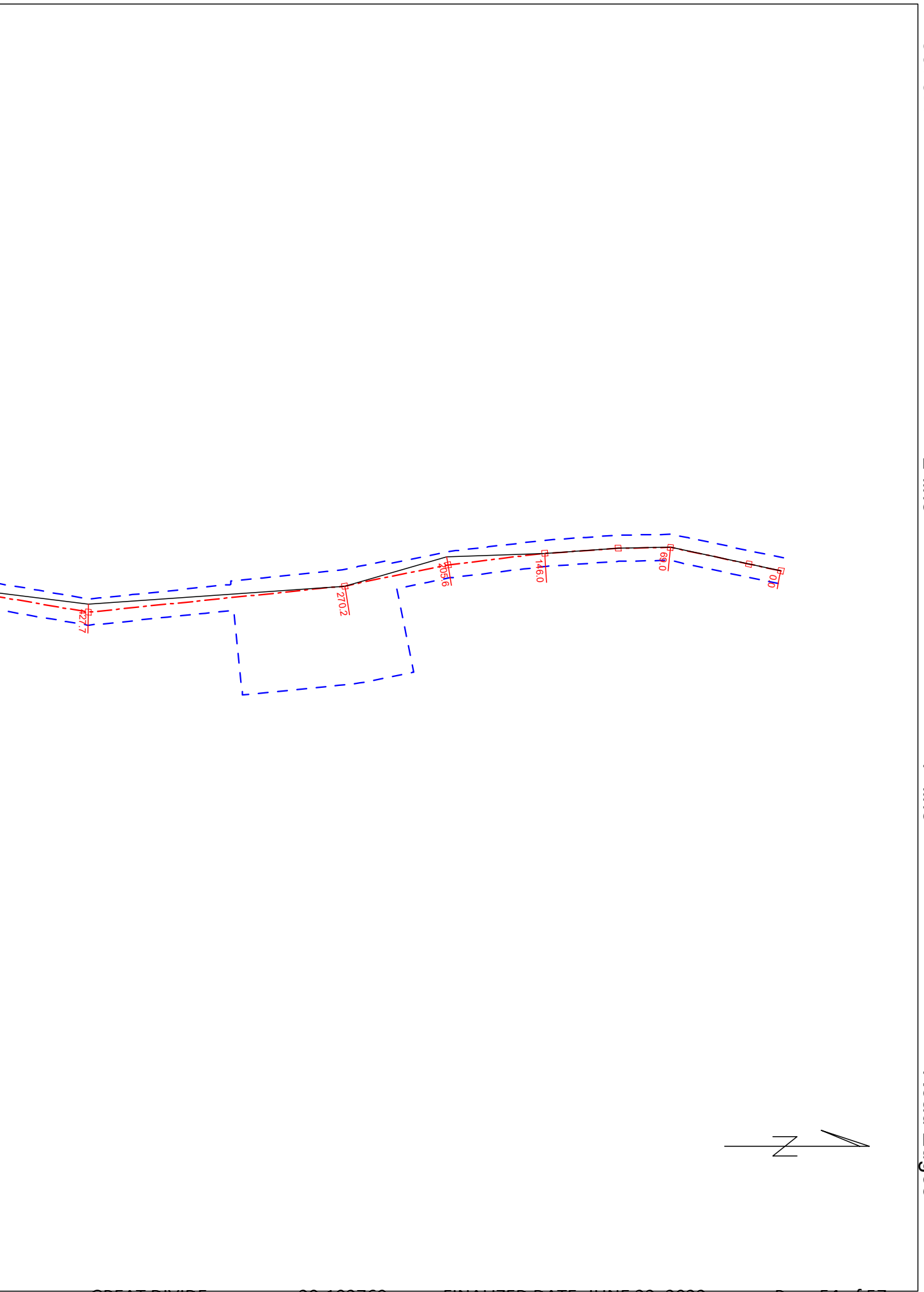
Town side
abutment

Top of MSE Wall
Elevation ± 995.6

15' x 45' Concrete Bridge

ckwal

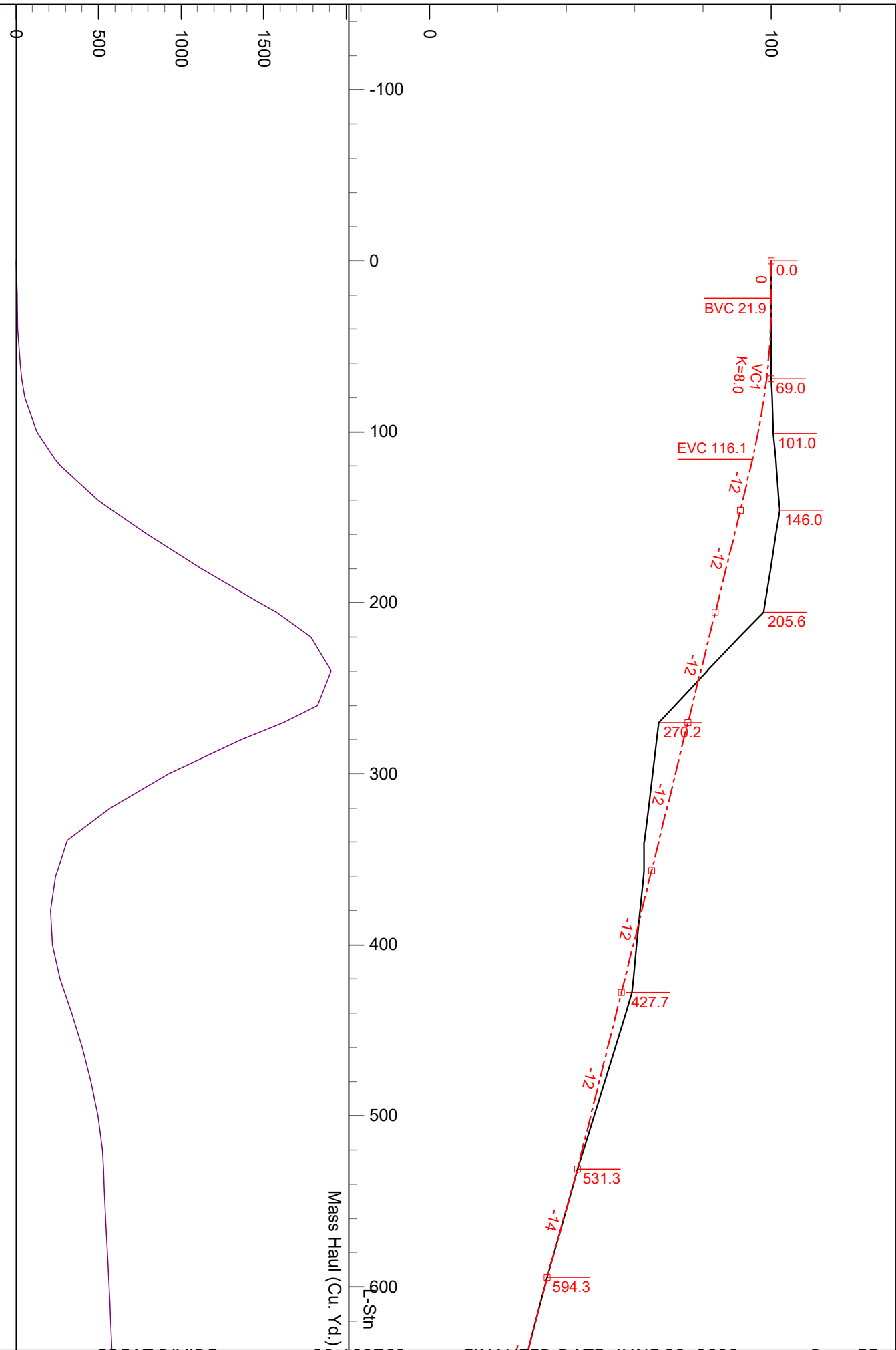
Bottom of MSE Wall
Elevation 983.6

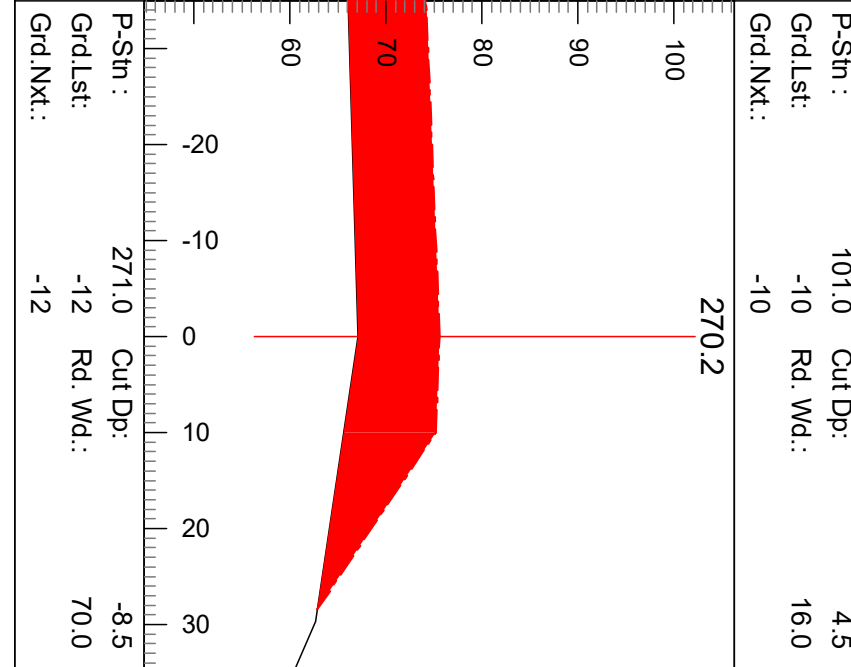
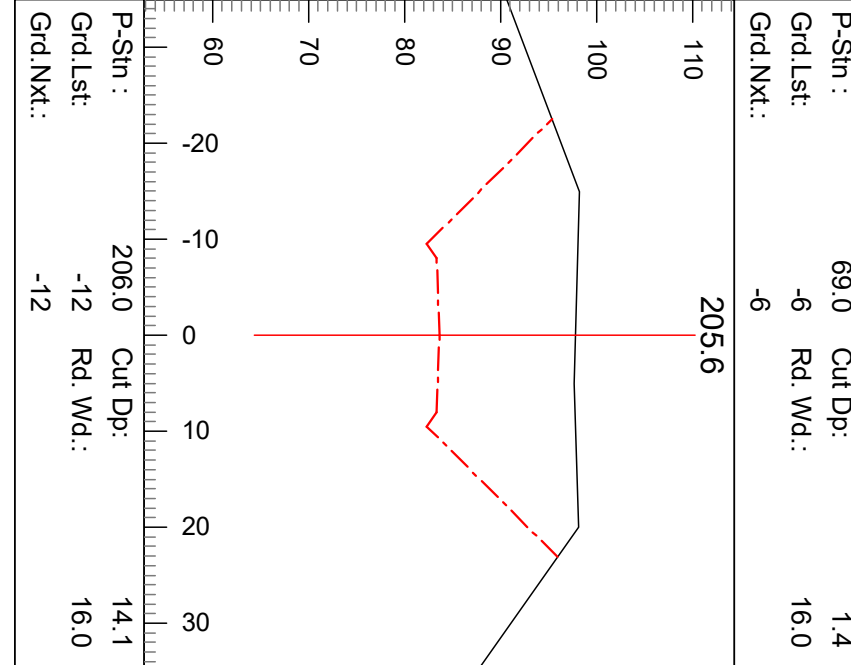
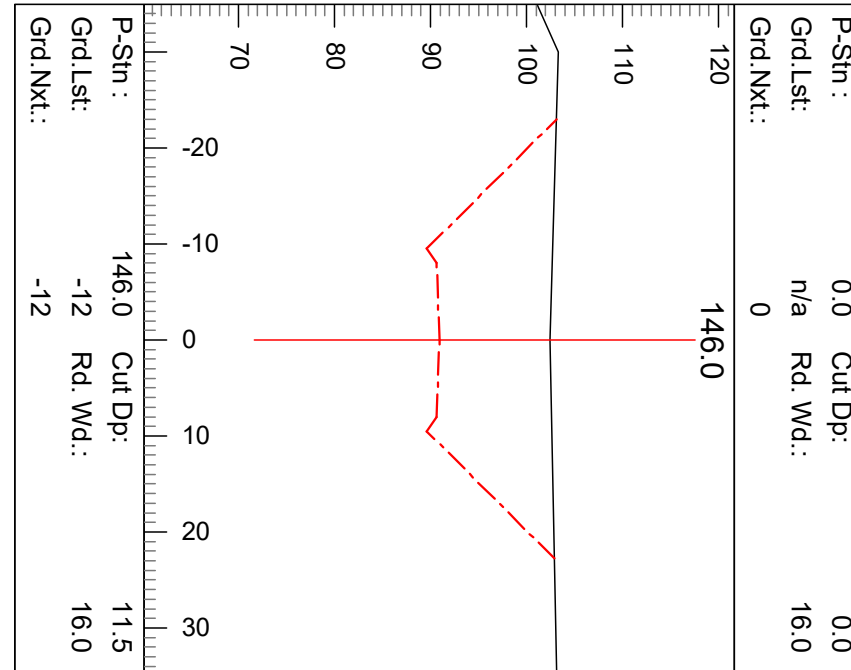
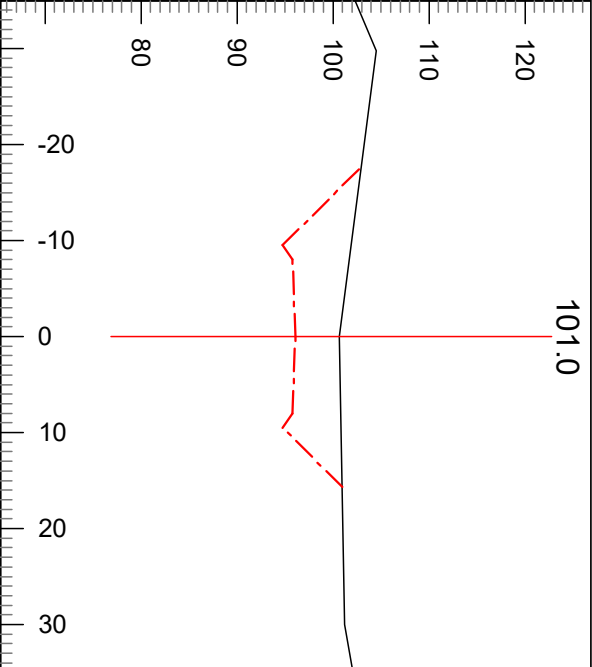
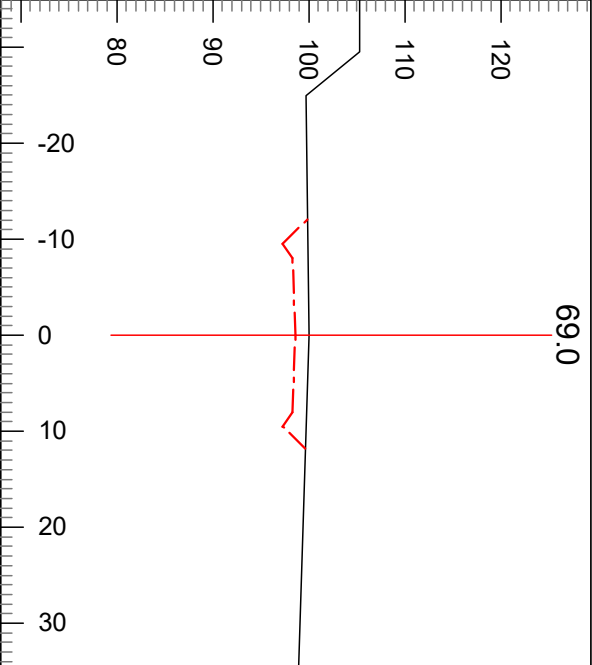
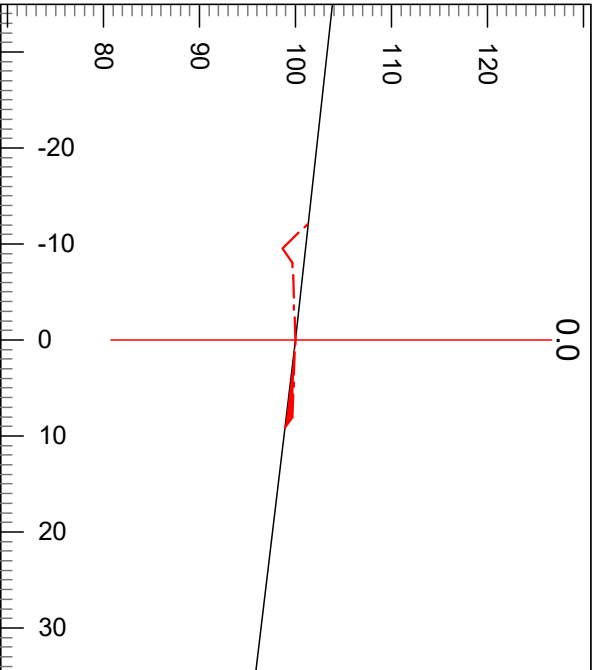


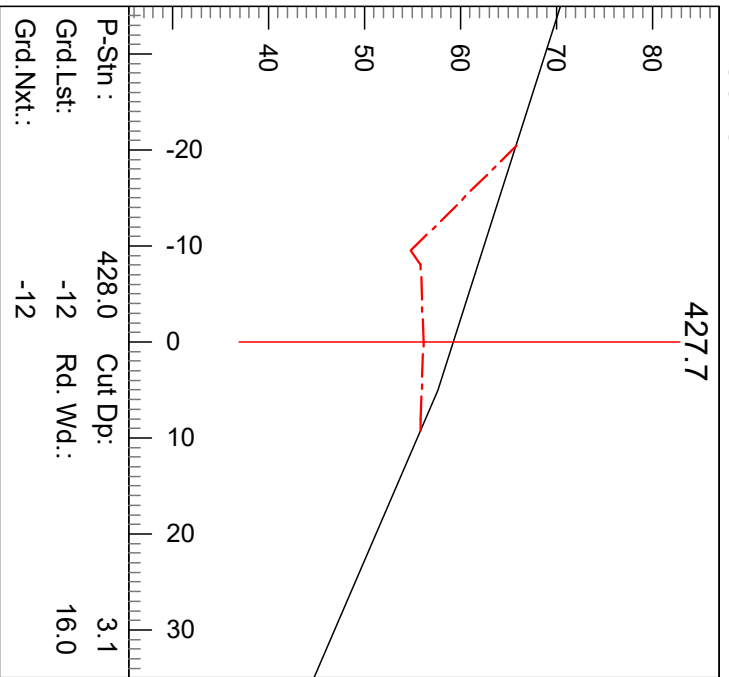
Subgrade
Cut: 1.4 Fill: 0.8

*All volumes are estimates.

Topography







SUMMARY - Road Development Costs

REGION: Pacific Cascade

DISTRICT: St. Helens

SALE/PROJECT NAME: Great Divide

AGREEMENT #: 30-102769

ROAD NUMBERS: Optional: 5973.1, 5973.1A, 5973.2

Required: 4900, 5970, 5973, 5973I

ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	15.15	2.61	380.78
CLEARING & GRUBBING, EXCAVATION AND FILL, MISC.:	\$14,577.73	\$2,130.12	\$40,222.77
ROAD ROCK:			
Optional:	\$6,392.79	\$0.00	\$0.00
Required:	\$0.00	\$77,507.61	\$2,783.66
Total:	\$6,392.79	\$77,507.61	\$2,783.66
STOCKPILE:	-	-	\$0.00
CULVERTS AND FLUMES:	\$0.00	\$1,674.40	\$7,894.40
STRUCTURES:	-	\$175,120.26	\$0.00
MOBILIZATION:	\$3,153.19	\$460.75	\$8,700.25
TOTAL COSTS:	\$24,123.71	\$256,893.14	\$59,601.08
COST PER STATION:	\$1,592	\$98,426	\$157
ROAD DEACTIVATION & ABANDONMENT COSTS:	\$1,688.20	\$0.00	\$0

10% OVERHEAD AND GENERAL EXPENSE =	\$34,061.79
TOTAL (All Roads) =	\$376,367.92
TOTAL (Minus Optional Rock) =	\$369,975.13
SALE VOLUME MBF =	5,005
TOTAL \$/MBF =	\$75.20
TOTAL \$/MBF (Minus Optional Rock) =	\$73.92

Profit and Risk costs are accounted on an individual basis.

Olivia Cantwell

SUMMARY OF ROAD

Sale:	Great Divide		Road:	4900	
Required Pre-Haul Maintenance-	<div>105+64 2.00</div>	stations miles	Required Reconstruction -	<div>0.00</div>	stations miles
Required Abandonment-	<div>0.00</div>	stations miles	Optional Reconstruction -	<div>0.00</div>	stations miles
			Required Construction -	<div>0.00</div>	stations miles
			Optional Construction -	<div>0.00</div>	stations miles

PRE-HAUL MAINTENANCE

EXCAVATION					
Pull and clean ditch-	7.65	stations @	\$53.75	per station	\$411.19
Remove culverts from state lands -	2.00	@	\$412.40	total	\$412.40
MISC.					
Grade and shape existing road surface -	105.64	stations @	\$26.25	per station	\$2,773.05
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$3,596.64

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	50	LF of 18"	\$1,382.00	0	LF of 24"	\$0.00
<u>Culvert Stakes & Markers</u>	2	markers	\$16.00			
TOTAL CULVERTS						\$1,382.00

ROCK									
Culvert Backfill	98+50	10	cy. of	1 1/4"-0"	@	\$28.37	per c.y.=	\$283.70	
Energy Dissipator	65+00, 98+50	2	cy. of	8"-0"	@	\$36.33	per c.y.=	<u>\$72.66</u>	
TOTAL ROCK									\$356.36
SUBTOTAL									\$5,335.00

Optional Rock?	<div>NO</div>	TOTAL	\$5,335.00
COST PER STATION			\$50.50

SUMMARY OF ROAD

Sale:

Great Divide

Road:

5970

Required
Pre-Haul Maintenance-

84+75

stations
miles

Required
Reconstruction -

stations
miles

Required
Construction -

stations
miles

Required Abandonment-

0.00

stations
miles

Optional
Reconstruction -

0.00

miles

Optional
Construction -

0.00

miles

PRE-HAUL MAINTENANCE

CLEARING

Roadside Brushing

1.61 miles @

\$1,140.00 per mile =

\$1,835.40

MISC.

Grade and shape existing road surface -

84.75 stations @

\$26.25 per station

\$2,224.69

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

\$4,060.09

SUBTOTAL

\$4,060.09

Optional Rock?

NO

TOTAL

\$4,060.09

COST PER STATION

\$47.91

SUMMARY OF ROAD

Sale:	Great Divide		Road:	5973	
Required Pre-Haul Maintenance-	<div>155+39</div> <div>2.94</div>	stations miles	Required Reconstruction -	<div></div> <div>0.00</div>	stations miles
Required Abandonment-	<div></div> <div>0.00</div>	stations miles	Optional Reconstruction -	<div></div> <div>0.00</div>	stations miles
			Required Construction -	<div>0+00</div> <div>0.00</div>	stations miles
			Optional Construction -	<div></div> <div>0.00</div>	stations miles

PRE-HAUL MAINTENANCE

CLEARING					
Roadside Brushing	2.94	miles	@	\$1,140.00 per mile =	\$3,351.60
EXCAVATION					
Pull and clean ditch-	57.23	stations	@	\$86.00 per station	\$4,921.78
Remove culverts from state lands -	3.0			507.0 total	507.0
MISC.					
Grade and shape existing road surface -	155.39	stations	@	\$26.25 per station	\$4,078.99
ENDHAUL					
Pull and clean ditch-	3307	cy.	@	\$2.00 per c.y.	\$6,614.00
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$19,473.37

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>					
100	LF of 18"	\$2,764.00	120	LF of 24"	\$3,692.40
		\$2,764.00			\$3,692.40
<u>Culvert Stakes & Markers</u>					
7 markers		\$56.00			
		\$56.00			
TOTAL CULVERTS					\$6,512.40
ROCK					
Culvert Backfill	See Culv List	60	cy. of	1 1/4"-0"	@ \$34.14 per c.y.= \$2,048.40
Energy Dissipator	See Culv List	9	cy. of	8"-0"	@ \$42.10 per c.y.= \$378.90
TOTAL ROCK					\$2,427.30
SUBTOTAL					\$28,413.07
Optional Rock?					\$182.85
TOTAL					\$28,413.07
COST PER STATION					\$182.85

SUMMARY OF ROAD

Sale: Great Divide

Road: **5973I**

Required	
Pre-Haul Maintenance-	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 35+00 </div> stations
	<div style="border-top: 1px solid black; padding-top: 5px; display: inline-block;"> 0.66 </div> miles

Required Reconstruction - stations
0.00 miles

Required Construction - stations
_____ miles

Required Abandonment- stations
0.00 miles

Optional Reconstruction - stations
0.00 miles

Optional Construction - stations
0.00 miles

PRE-HAUL MAINTENANCE

CLEARING

Roadside Brushing	0.66	miles	@	\$1,140.00 per mile =	\$752.40
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EXCAVATION

Pull and clean ditch-	35.00	stations @	\$86.00	per station	\$3,010.00
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MISC.

Grade and shape existing road surface -	35.00	stations @	\$26.25	per station	\$918.75
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ENDHAUL

Pull and clean ditch-	2022	cy. @	\$4.16	per c.y.	<u>\$8,411.52</u>
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TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	\$13,092.67
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SUBTOTAL	\$13,092.67
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Optional Rock?

TOTAL	\$13,092.67
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COST PER STATION	\$374.08
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SUMMARY OF ROAD

Sale:	Great Divide		Road:	5973	
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div>0+97</div><div>0.02</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles
Required Abandonment-	<div><div></div><div>0.00</div></div> stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Optional Construction -	<div><div></div><div>0.00</div></div> stations miles

RECONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	0.97	sta @	\$115.00	per sta	\$111.55
Construct waste areas -	1.00	hours @	\$252.00	per hour	\$252.00

EXCAVATION

Construct shoulder berm	15.00	cy. @	\$2.00	per c.y.	\$30.00
Slope Stabilization Prep.	150	cy. @	\$2.00	per c.y.	\$300.00
Grade and shape subgrade -	0.97	stations @	\$21.00	per station	\$20.37

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	0.97	stations @	\$12.12	per station	\$11.76
Roll ballast and surface rock	0.30	stations @	\$9.09	per station	\$2.73
Remove culverts from state lands -	1.00	@	\$325.04	total	\$325.04
Grass seed and fertilize -	0.80	lbs @	\$9.00	per lbs	\$7.20

ENDHAUL

Slope Stabilization Prep.	150	cy. @	\$2.00	per c.y.	\$300.00
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$1,360.65

ROCK

Culvert Backfill	137+40	10	cy. of	1 1/4"-0"	@	\$36.61	per c.y.=	\$366.10
Slope Stabilization	.36+50 - 136+8	130	cy. of	24"-12"	@	\$90.67	per c.y.=	\$11,787.10
Energy Dissipator	137+40	1	cy. of	8"-0"	@	\$44.57	per c.y.=	\$44.57
Road Ballast at Slope Repair	.35+83 - 136+8	20	cy. of	3"-0"	@	\$33.37	per c.y.=	\$667.40
Road Surfacing at Slope Repair	.35+83 - 136+8	20	cy. of	1 1/4"-0"	@	\$41.61	per c.y.=	\$832.20
TOTAL ROCK								\$13,697.37

SUBTOTAL \$15,058.02

Optional Rock?

NO

TOTAL \$15,058.02
COST PER STATION \$15,523.73

SUMMARY OF ROAD

Sale:	Great Divide		Road:	5973.1	
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles
Required Abandonment-	<div><div>8+85</div><div>0.17</div></div> stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Optional Construction -	<div><div>11+55</div><div>0.22</div></div> stations miles

CONSTRUCTION

CLEARING/GRUBBING					
Scattering Organic Debris	11.55	sta @	\$230.00	per sta	\$2,656.50
Construct waste areas -	4.00	hours @	\$252.00	per hour	\$1,008.00
EXCAVATION					
Road Construction Earthwork	11.55	sta. @	\$140.00	per sta. =	\$1,617.00
Grade and shape subgrade -	11.55	stations @	\$21.00	per station	\$242.55
Full Bench	1900	cy. @	\$2.00	per c.y. =	\$3,800.00
MISC.					
Roll subgrade w/ vibratory roller prior to rocking -	11.55	stations @	\$12.12	per station	\$139.99
Construct turnouts @ sta. -	1.00	@	\$96.93	each	\$96.93
Construct turnaround @ sta. -	1.00	@	\$96.93	each	\$96.93
Construct landing -	1.00	@	\$387.70	each	\$387.70
Grass seed and fertilize -	29.60	lbs @	\$9.00	per lbs	\$266.40
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$10,312.00

ROCK								
Energy Dissipator	5+31	1	cy. of	8"-0"	@	\$27.61	per c.y.=	\$27.61
0+00 to	11+55	1,085	cy. of	Pit Run	@	\$4.27	per c.y.=	\$4,632.95
TOTAL ROCK								\$4,660.56

ABANDONMENT					
Construct waterbar -	11.00	@	\$57.33	each	\$630.63
Construct Spoil Berm -	1.00	@	\$172.00	each	\$172.00
Grass seed and fertilize -	32.40	lbs @	\$9.00	per lbs	\$291.60
Remove culverts from state lands -	1.00	@	\$325.04	total	\$325.04
TOTAL ADDITIONAL REQUIREMENTS					\$1,419.27
SUBTOTAL					\$16,391.83
Optional Rock? <div>YES</div>					TOTAL \$16,391.83
					COST PER STATION \$1,419.21

SUMMARY OF ROAD

Sale:	<u>Great Divide</u>		Road:	<u>5973.1A</u>	
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles
Required Abandonment-	<div><div></div><div>0.00</div></div> stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Optional Construction -	<div><div>2+00</div><div>0.04</div></div> stations miles

CONSTRUCTION

CLEARING/GRUBBING					
Scattering Organic Debris	2.00	sta @	\$230.00	per sta	\$460.00
EXCAVATION					
Road Construction Earthwork	2.00	sta. @	\$140.00	per sta. =	\$280.00
Grade and shape subgrade -	2.00	stations @	\$21.00	per station	\$42.00
MISC.					
Roll subgrade w/ vibratory roller prior to rocking -	2.00	stations @	\$12.12	per station	\$24.24
Construct landing -	1.00	@	\$387.70	each	\$387.70
Grass seed and fertilize -	5.20	lbs @	\$9.00	per lbs	\$46.80
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$1,240.74
ROCK					
0+00 to	2+00	192 cy. of	Pit Run	@	\$4.56 per c.y.=
					\$875.52
TOTAL ROCK					\$875.52
SUBTOTAL					\$2,116.26
Optional Rock?					YES
TOTAL					\$2,116.26
COST PER STATION					\$1,058.13

SUMMARY OF ROAD

Sale:	Great Divide		Road:	5973.2	
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles
Required Abandonment-	<div><div>1+20</div><div>0.02</div></div> stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Optional Construction -	<div><div>1+60</div><div>0.03</div></div> stations miles

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	1.60	sta @	\$230.00	per sta	\$368.00
Construct waste areas -	2.00	hours @	\$252.00	per hour	\$504.00

EXCAVATION

Road Construction Earthwork	1.60	sta. @	\$140.00	per sta. =	\$224.00
Grade and shape subgrade -	1.60	stations @	\$21.00	per station	\$33.60

FILL

Fill roadway @ area of 1+60 -	8.00	hours @	\$230.00	per hour	\$1,840.00
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MISC.

Roll subgrade w/ vibratory roller prior to rocking -	1.60	stations @	\$12.12	per station	\$19.39
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$3,024.99

ROCK

0+00 to 1+60	167	cy. of	Pit Run	@	\$5.13	per c.y. =	\$856.71
TOTAL ROCK							\$856.71

ABANDONMENT

Construct waterbar -	1.00	@	\$57.33	each	\$57.33
Construct Spoil Berm -	1.00	@	\$172.00	each	\$172.00
Grass seed and fertilize -	4.40	lbs @	\$9.00	per lbs	\$39.60
TOTAL ADDITIONAL REQUIREMENTS					\$268.93

SUBTOTAL \$4,150.63

Optional Rock?	<div>YES</div>	TOTAL	\$4,150.63
		COST PER STATION	\$2,594.14

SUMMARY OF ROAD

Sale:	Great Divide	Road:	5973
Required	<input type="text"/>	Required	<input type="text"/>
Pre-Haul Maintenance-	stations	Reconstruction -	stations
	0.00 miles		1+64 stations
			0.03 miles
Required Abandonment-	<input type="text"/>	Optional	<input type="text"/>
	stations	Reconstruction -	stations
	0.00 miles		0.00 miles
		Optional	<input type="text"/>
		Construction -	stations
			0.00 miles

RECONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	1.64	sta @	\$115.00	per sta	\$188.60
Construct waste areas -	1.00	hours @	\$252.00	per hour	\$252.00

EXCAVATION

Construct settling ponds at approaches-	4.00	@	\$43.00	each	\$172.00
Pull and clean ditch-	1.64	stations @	\$53.75	per station	\$88.15
Grade and shape subgrade -	1.64	stations @	\$21.00	per station	\$34.44

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	1.64	stations @	\$12.12	per station	\$19.88
Grass seed and fertilize -	1.60	lbs @	\$9.00	per lbs	\$14.40

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$769.47**

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	60	LF of 18"	\$1,658.40	0	LF of 24"	\$0.00
			\$1,658.40			\$0.00
<u>Culvert Stakes & Markers</u>	2	markers	\$16.00			
			\$16.00			
					TOTAL CULVERTS	\$1,674.40

ROCK

Culvert Backfill	0+00	20	cy. of	1 1/4"-0"	@	\$34.71	per c.y.=	\$694.20
MSE Wall Backfill	0+00	600	cy. of	3"-0"	@	\$36.47	per c.y.=	\$21,882.00
MSE Wall Bedding	0+00	200	cy. of	24"-12"	@	\$88.77	per c.y.=	\$17,754.00
MSE Wall Facing	0+00	500	cy. of	1 1/4"-0"	@	\$34.71	per c.y.=	\$17,355.00
Sill Bedding	0+00	20	cy. of	5/8"-0"	@	\$45.36	per c.y.=	\$907.20
Energy Dissipator	0+00	2	cy. of	8"-0"	@	\$42.67	per c.y.=	\$85.34
Road Ballast	0+00	100	cy. of	3"-0"	@	\$31.47	per c.y.=	\$3,147.00
Road Surfacing	0+00	50	cy. of	1 1/4"-0"	@	\$39.71	per c.y.=	\$1,985.50
							TOTAL ROCK	\$63,810.24

ADDITIONAL REQUIREMENTS

15'x45' concrete bridge				LS		\$71,042.90		
Professional design	1.00	@	\$6,000.00	each		\$6,000.00		
Temporary bridge shoring	2.00	days @	\$2,032.00	per day		\$4,064.00		
Replace decking on old bridge			LS			\$3,000.00		
MSE materials	1504.00	ft ² @	\$12.84	per ft ²		\$19,311.36		
MSE materials freight			LS			\$2,800.00		
MSE technical assistance			LS			\$3,500.00		
Remove old bridge	1.00	days @	\$10,000.00	per day		\$10,000.00		
Excavation	2.00	days @	\$1,840.00	per day		\$3,680.00		
Endhaul	2.00	days @	\$776.00	per day		\$1,552.00		
Install MSE wall	5.00	days @	\$2,920.00	per day		\$14,600.00		
Install crushed rock and sills	1.00	days @	\$4,568.00	per day		\$4,568.00		
Site prep for crane	1.00	days @	\$2,800.00	per day		\$2,800.00		
Install new bridge	2.00	days @	\$14,101.00	per day		\$28,202.00		
Construct and abandon temporary stream crossing	1.00	days @	\$1,840.00	per day		\$1,840.00		
				TOTAL ADDITIONAL REQUIREMENTS		\$175,120.26		

SUBTOTAL **\$241,374.37**

TOTAL \$241,374.37

Optional Rock?

COST PER STATION \$147,179.49



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

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FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

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

EXCISE TAX EXEMPT ACTIVITIES

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

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

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.
(Revised 9/18)

LOGGING PLAN MAP

SALE NAME: GREAT DIVIDE

AGREEMENT#: 30-102769

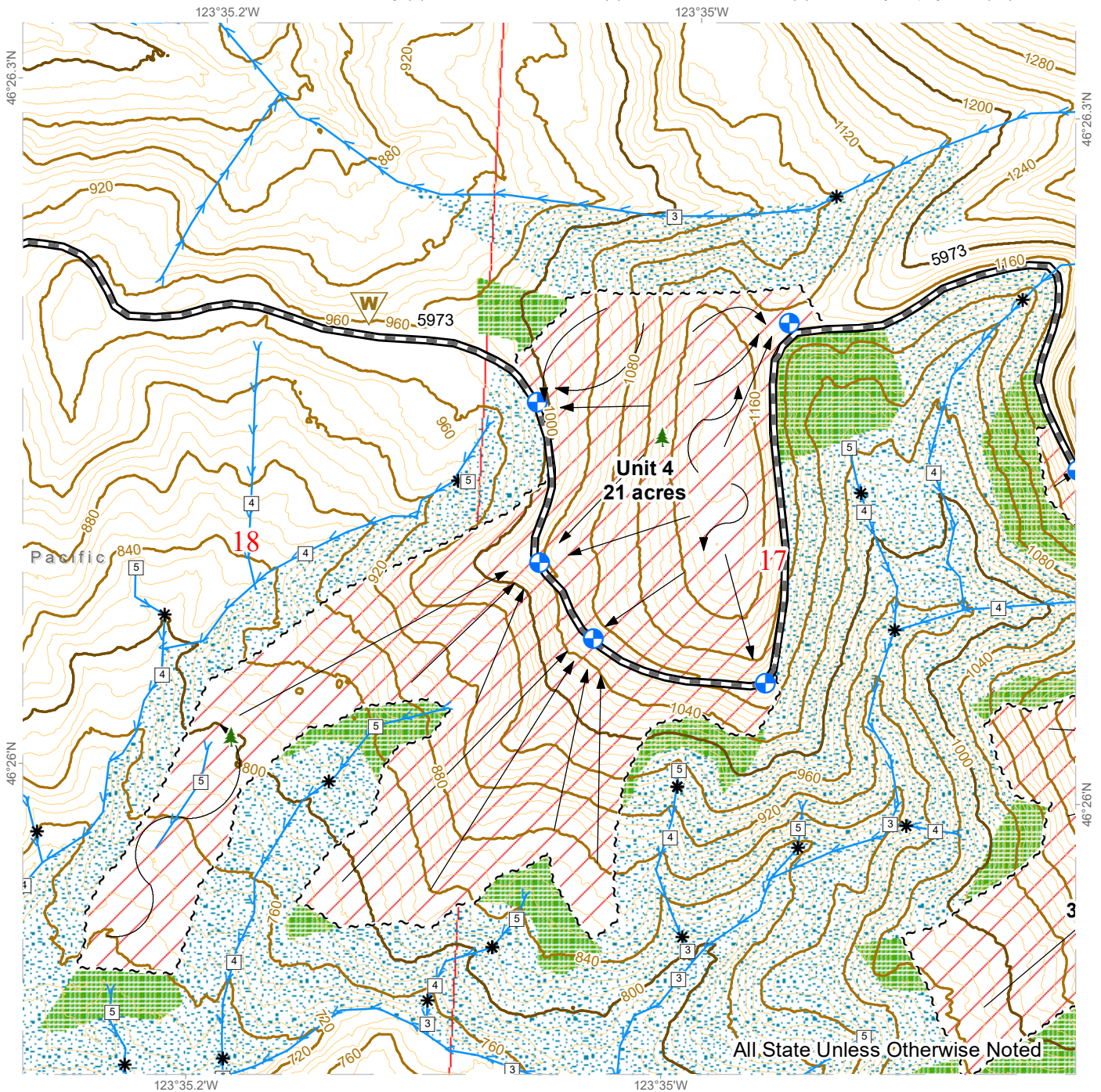
TOWNSHIP(S): T11R7W

TRUST(S): Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1), University Repayment (41)

REGION: Pacific Cascade Region

COUNTY(S): Pacific

ELEVATION RGE: 640-1760



- | | | |
|-------------------|-------------------------------|---------------------------|
| Sale Area | Sale Boundary Tags | Stream Type |
| Leave Tree Area | Existing Roads | Stream Type Break |
| Riparian Mgt Zone | Required Pre-Haul Maintenance | Landing - Proposed |
| Ground Harvest | Streams | Leave Tree Area <1/4-acre |
| Cable Harvest | | Waste Area |



LOGGING PLAN MAP

SALE NAME: GREAT DIVIDE

AGREEMENT#: 30-102769

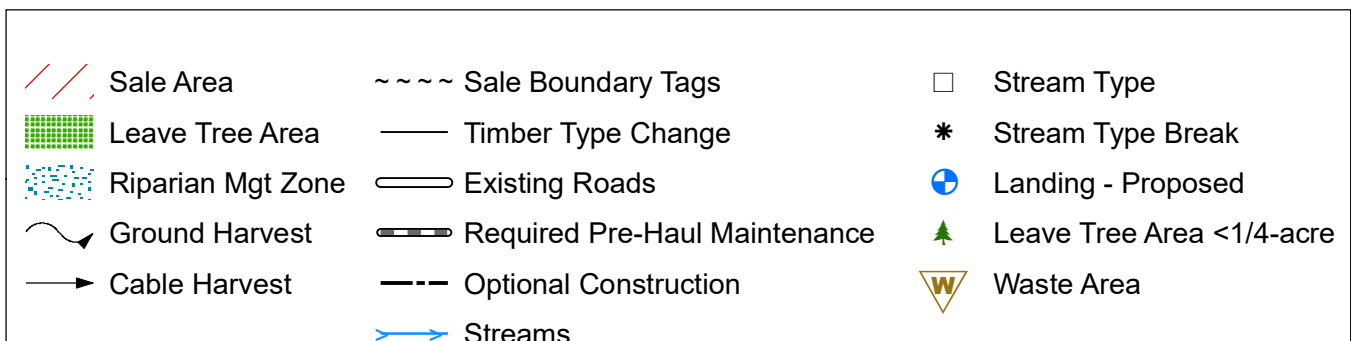
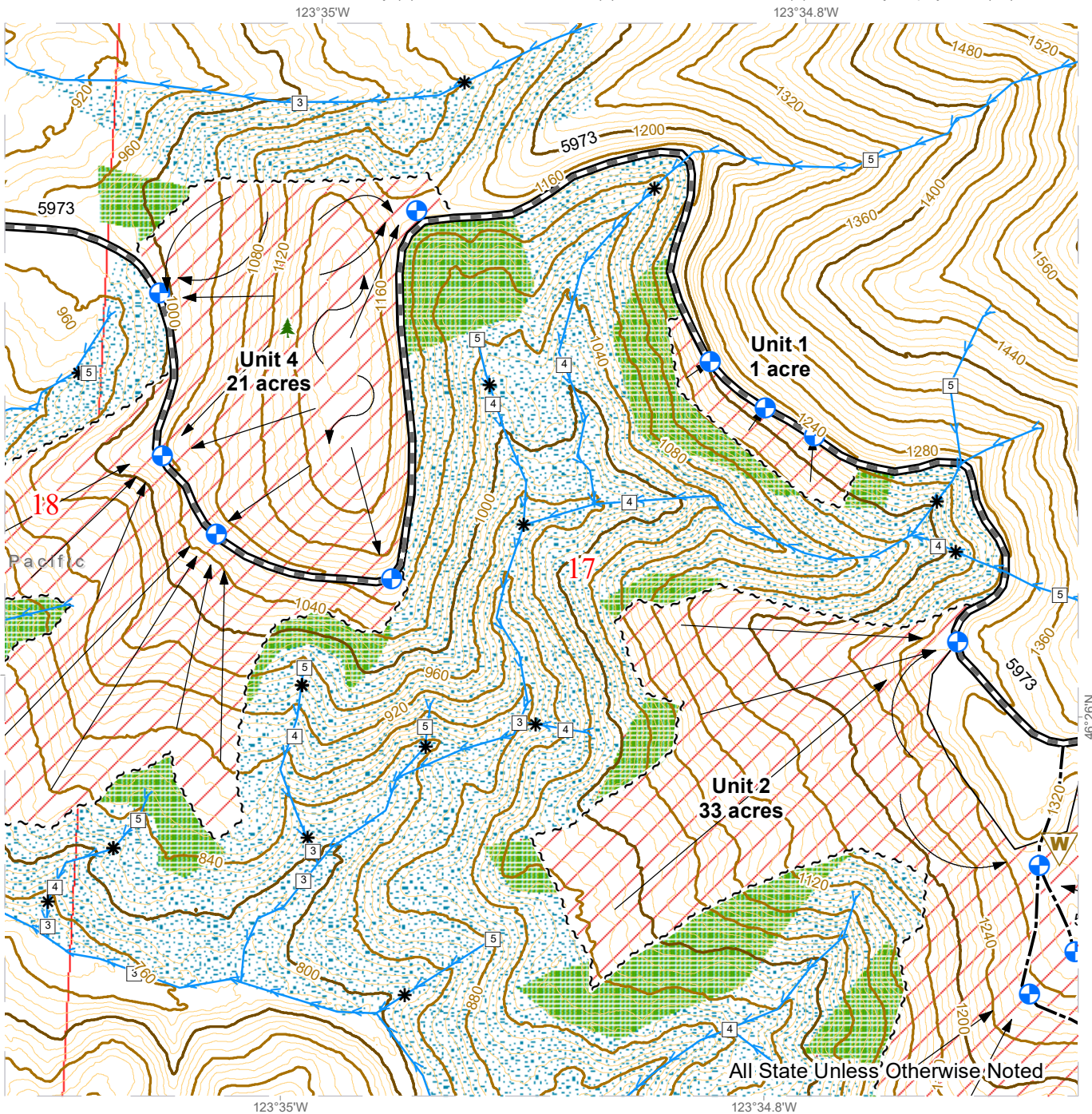
TOWNSHIP(S): T11R7W

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LOGGING PLAN MAP

SALE NAME: GREAT DIVIDE

AGREEMENT#: 30-102769

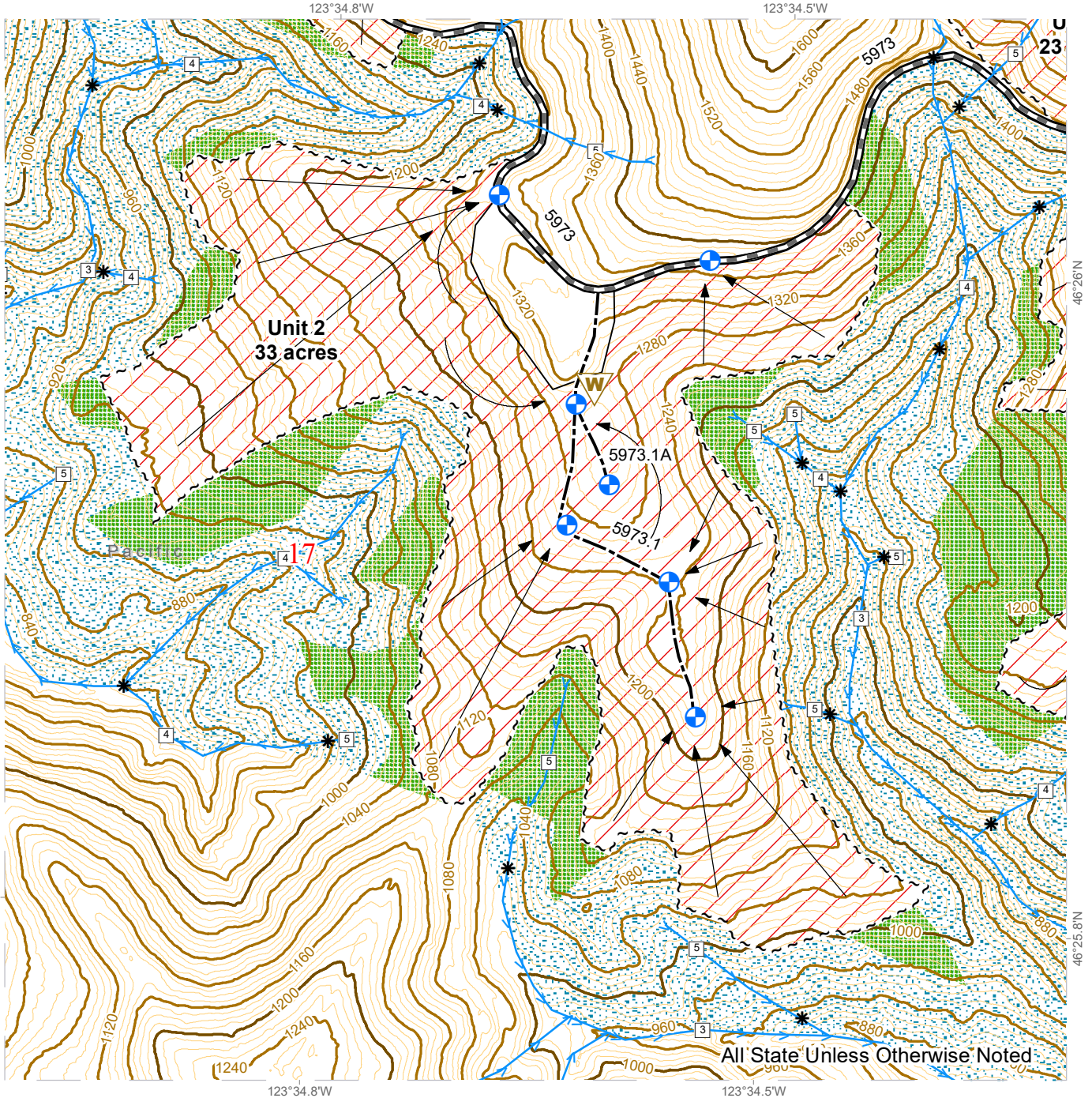
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- | | | |
|-------------------|-------------------------------|--------------------|
| Sale Area | Sale Boundary Tags | Stream Type |
| Leave Tree Area | Timber Type Change | Stream Type Break |
| Riparian Mgt Zone | Existing Roads | Landing - Proposed |
| Ground Harvest | Required Pre-Haul Maintenance | Waste Area |
| Cable Harvest | Optional Construction | |
| | Streams | |



ELEVATION RGE: 640-1760



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