

Washington DNR Timber Sales Program

The documents for Action Item Timber Sale have been changed as follows:

Documents amended:

Brief Description	DATE	Initials
<p>Information has been added to the Notice of Sale and Draft Contract regarding the following:</p> <p>The Legacy Forest Defense Coalition has appealed the Board of Natural Resources approval of the “Action Item” timber sale (Agreement No. 30-105538) to Lewis County Superior Court. To ensure this information reaches perspective bidders, we will allow a 2-minute opportunity to remove any submitted bids for “Action Item” timber sale before opening the envelopes.</p>	10/15/24	kw
<p>Notice of Sale and Contract Clause P-090: Performance security requirement has been changed from \$140,000.00 to \$100,000.00.</p>	10/17/24	kw
<p>Road Plan: It was discovered that the gauge and corrugation spec for the fish pipe installation was not included in the Road Plan. The specs in the Road Plan were updated to reflect a Gauge of 10 (0.138") and a Corrugation of 5" X 1". Please contact Grant Gerritsen for more information: (360) 790-1593 or by email grant.gerritsen@dnr.wa.gov.</p>	10/23/24	kw



TIMBER NOTICE OF SALE

SALE NAME: ACTION ITEM

AGREEMENT NO: 30-105538

AUCTION: October 31, 2024 starting at 10:00 a.m., **COUNTY:** Lewis
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 4 miles west of Doty, WA

**PRODUCTS SOLD
AND SALE AREA:**

All timber, except leave trees bound by yellow "Leave Tree Area" tags, leave trees marked with blue paint, down logs existing 7 years prior to the day of sale, and snags bounded by the following:

Unit 1, white "Timber Sale Boundary" tags and pink flagging, Nine Creek Mainline and reprod;

Unit 2, white "Timber Sale Boundary" tags and pink flagging, Nine Creek Mainline, N-500 and reprod;

Unit 3, white "Timber Sale Boundary" tags and pink flagging, N-100 Ext and reprod;

All forest products above located on part(s) of Sections 17, 18, 19 and 20 all in Township 13 North, Range 5 West, W.M., containing 102 acres, more or less.

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

ESTIMATED SALE VOLUMES AND QUALITY:

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade								
				1P	2P	3P	SM	1S	2S	3S	4S	UT
Douglas fir	24.6	7	2,647			127	500		1,604	351	51	13
Hemlock	19.2		1,996						1,423	447	111	15
Red alder	15.3		153						60	24	68	
Redcedar	27.8		16							16		
Maple	19.4		15						10	3	2	
Spruce	23		8						7	1		
Sale Total			4,835									

MINIMUM BID: \$1,403,000.00 **BID METHOD:** Sealed Bids

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

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

BID DEPOSIT: \$140,300.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.



TIMBER NOTICE OF SALE

HARVEST METHOD: Cable, Cable-Assist, and Shovel. This sale is estimated to be 85 percent ground based harvest systems and 15 percent cable/cable assist harvest systems. Shovels will not be permitted on sustained slopes over 45 percent. Self-leveling equipment will not be permitted on sustained slopes over 60 percent. Cable-assist equipment will not be permitted on sustained slopes over 70 percent.

For additional harvesting restrictions see Clause H-140 in the contract.

ROADS: 5.00 stations of required reconstruction. 21.85 stations of optional construction. 41.10 stations of required prehaul maintenance. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the B&E Quarry located in S24, T13N, R6W, W.M. on state land at no charge to the Contractor.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the existing stockpile(s) in the Wallville Quarry located in S23, T13N, R6W, W.M. on state land at no charge to the Contractor.

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

This sale requires the installation of a fish pipe on the N-100 road. See road plan for further details. Road construction will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

ACREAGE DETERMINATION

CRUISE METHOD: The sale acres were determined by GPS. Cruise was completed using variable plot cruise methods.

FEES: \$82,195.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

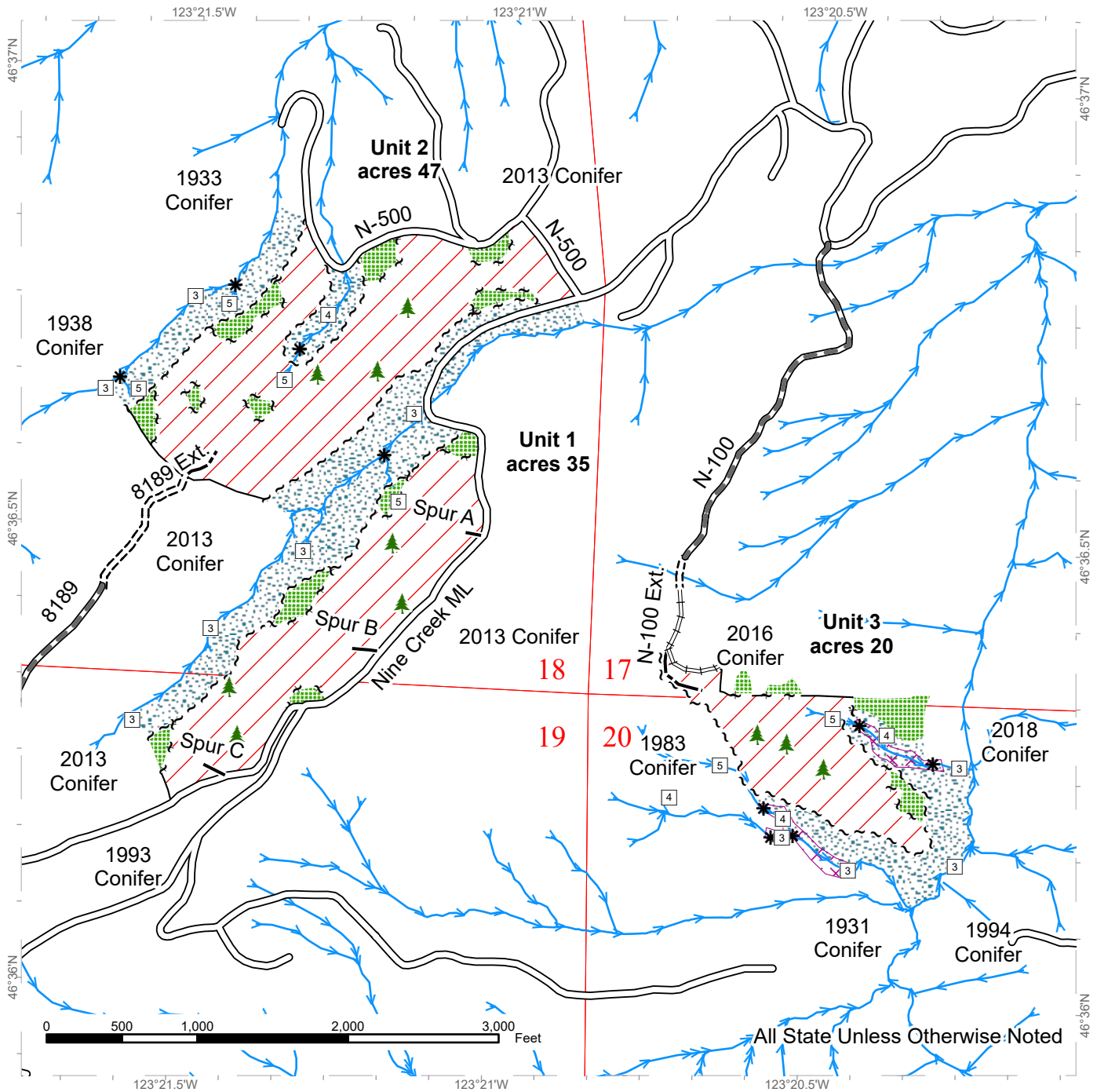
SPECIAL REMARKS: This sale contains approximately 128 MBF of 3P, 500 MBF SM, 699 MBF HQ 2 Saw and 266 MBF HQ 3 Saw Douglas-fir.

The Legacy Forest Defense Coalition has appealed the Board of Natural Resources approval of the "Action Item" timber sale (Agreement No. 30-105538) to Lewis County Superior Court. To ensure this information reaches perspective bidders, we will allow a 2-minute opportunity to remove any submitted bids for "Action Item" timber sale before opening the envelopes.

TIMBER SALE MAP

SALE NAME: ACTION ITEM
AGREEMENT #: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440

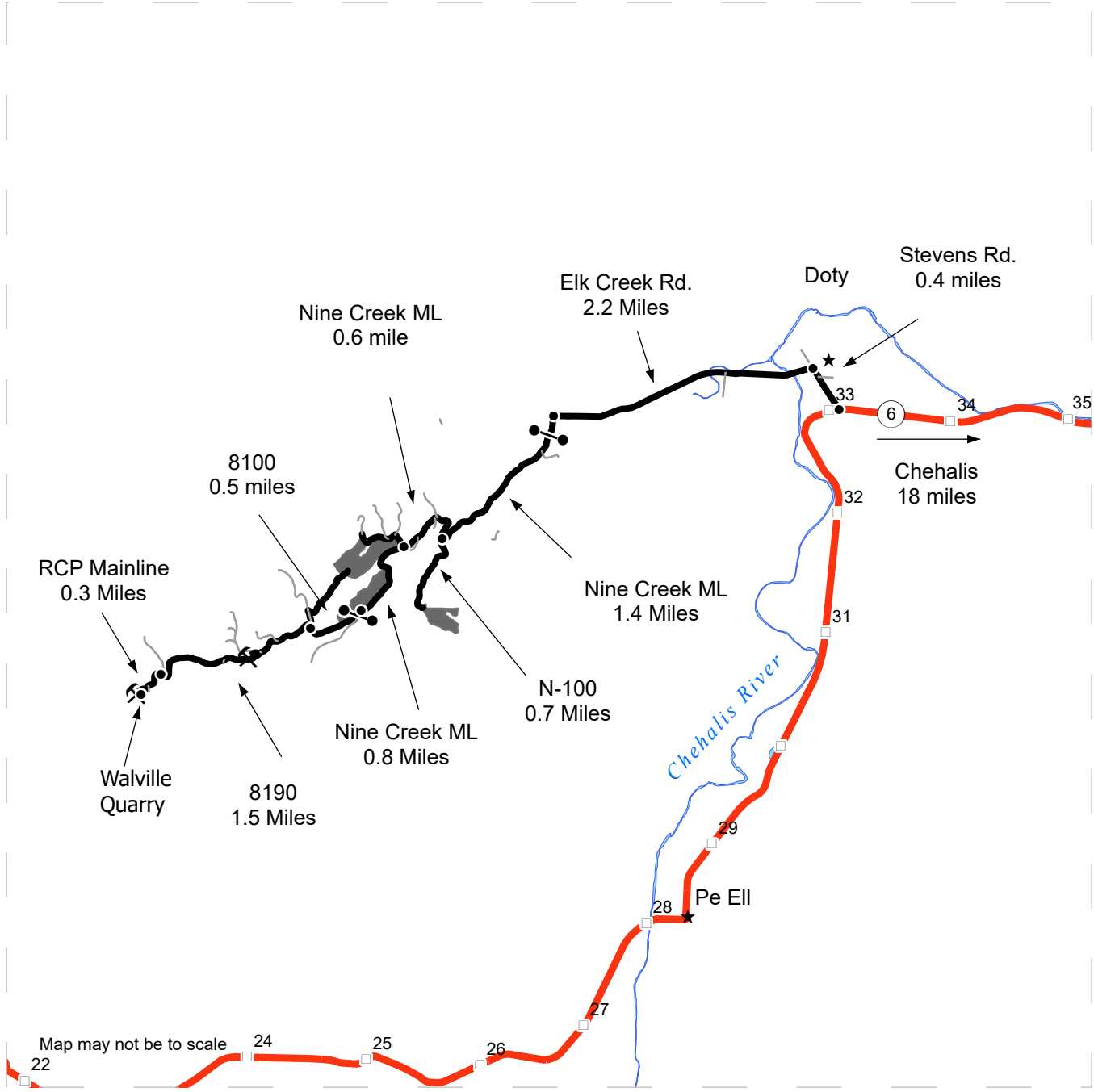


Variable Retention Harvest	Required Reconstruction	Stream Type 5
Leave Tree Area	Optional Construction	Stream Break
Riparian Mgt Zone	Streams	Fish Passage Barrier
Potentially Unstable Slopes	Stream Type 1	Survey Reach Start/End
Existing Roads	Stream Type 2	Leave Tree Area <1/4-acre
Required Pre-Haul Maintenance	Stream Type 3	
Required Construction	Stream Type 4	

DRIVING MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



- Timber Sale Unit
- Haul Route
- Other Road
- Milepost Markers
- Distance Indicator
- Gate (PCP 1-1)
- Walville Quarry
- Town

DRIVING DIRECTIONS:

At approximately mile marker 33 on SR 6 turn onto Stevens Rd. Continue for 0.4 miles and turn left onto Elk Creek Rd. Follow Elk Creek Rd for 2.2 miles and turn south on the Nine Creek Mainline. Continue on Nine Creek Mainline for 1.4 miles to the N-100. Turn south on the N-100 for 0.7 miles to reach Unit 3. To reach Unit 2, continue on the Nine Creek Mainline for 0.6 miles. To reach Unit 1, continue on the Nine Creek Mainline for 0.8 miles.

To the Walville Quarry, continue another 0.5 miles on the 8100 miles past Unit 2, then 1.5 miles on the 8190 to the RCP Mainline. Continue on the RCP Mainline for 0.3 miles to the Quarry.



**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

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

Export Restricted Lump Sum AGREEMENT NO. 30-0105538

SALE NAME: ACTION ITEM

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

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

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

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on October 31, 2024 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber, except leave trees bound by yellow "Leave Tree Area" tags, leave trees marked with blue paint, down logs existing 7 years prior to the day of sale, and snags bounded by the following:

Unit 1, white "Timber Sale Boundary" tags and pink flagging, Nine Creek Mainline and reprod;

Unit 2, white "Timber Sale Boundary" tags and pink flagging, Nine Creek Mainline, N-500 and reprod;

Unit 3, white "Timber Sale Boundary" tags and pink flagging, N-100 Ext and reprod;

All forest products described above located on approximately 102 acres on part(s) of Sections 17, 18, 19, and 20 all in Township 13 North, Range 5 West W.M. in Lewis County(s) as designated on the sale area and as shown on the attached timber sale map.

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

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

G-020 Inspection By Purchaser

Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value

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

G-031 Contract Term

Purchaser shall complete all work required by this contract prior to October 31, 2026.

G-040 Contract Term Adjustment - No Payment

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

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

G-051 Contract Term Extension - Payment

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

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

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

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

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

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

- e. Payment of \$1,129.00 per acre per annum for the acres on which an operating release has not been issued .
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

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

G-060 Exclusion of Warranties

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

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, 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.

The Legacy Forest Defense Coalition has appealed the Board of Natural Resources approval of the “Action Item” timber sale (Agreement No. 30-105538) to Lewis County Superior Court. To ensure this information reaches perspective bidders, we will allow a 2-minute opportunity to remove any submitted bids for “Action Item” timber sale before opening the envelopes.

G-061 Inadvertent Discovery of Cultural Resources

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

G-062 Habitat Conservation Plan

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

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

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

G-063 Incidental Take Permit Notification Requirements

- a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.
- b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.
- c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all

authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

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

G-065 Regulatory Disclaimer

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

G-066 Governmental Regulatory Actions

a. Risk

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

b. Sale Area

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

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

c. Adjustment of Price

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

removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070 Limitation on Damage

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

G-080 Scope of State Advice

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

G-091 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, 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 2022 Forest Management Standard under certificate number: BVC-SFIFM-018227.

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

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

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

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

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

G-140 Indemnity

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

G-150 Insurance

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

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

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

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

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

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

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

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

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

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

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

that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than \$2,000,000.00 each occurrence.

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

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

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

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

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

G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Castle Rock, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive,

modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

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

G-170 Assignment and Delegation

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

G-180 Modifications

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

G-190 Contract Complete

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

G-200 Notice

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

G-210 Violation of Contract

G-220 State Suspends Operations

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

G-210 Violation of Contract

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

State may terminate the rights of Purchaser under this contract and collect damages.

- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

G-220 State Suspends Operations

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

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

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

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

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

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

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract

expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; Nine Creek ML, N-100, N-500, 8100, 8190, RCP ML, N-100 Ext, 8189, 8189 Ext, Spur A, Spur B and Spur C. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference

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

G-340 Preservation of Markers

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

G-360 Road Use Reservation

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

G-370 Blocking Roads

Purchaser shall not block the Nine Creek ML, N-500, 8100, 8190 and RCP ML roads, unless authority is granted in writing by the Contract Administrator.

G-380 Road Easement and Road Use Permit Requirements

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

Easement #55-000198 between Lusk and State dated March 28, 1972.

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:

Easement, including the terms and provisions thereof,

For: Road

In Favor of: Weyerhaeuser Company

Disclosed by Application No.: 50-035439

Granted: 4/2/1971

Expires: Indefinite

Easement, including the terms and provisions thereof,

For: Railroad

In Favor of: Northern Pacific Railroad

Disclosed by Application No.: 50-041383

Granted: 1/31/1900

Expires: Indefinite

Lease, including the terms and provisions thereof,

For: Minor Forest Products

In Favor of: DNR – Pacific Cascade Region

Disclosed by Application No.: 35-CP0012

Granted: 10/17/2016

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 \$125,710.00. The total contract price consists of a \$0.00 contract bid price plus \$125,710.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

THE PURCHASE PRICE SHALL NOT BE AFFECTED BY ANY FACTORS, INCLUDING: the amount of forest products actually present within the contract area, the actual acreage covered by the contract area, the amount or volume of forest products actually cut or removed by purchaser, whether it becomes physically impossible or uneconomic to remove the forest products, and whether the subject forest products have been lost or damaged by fire or any other cause. The only situations Purchaser may not be liable for the full purchase price are governed by clause G-066, concerning governmental regulatory actions taken during the term of the contract.

P-045 Guarantee of Payment

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

P-050 Billing Procedure

The State will compute and forward to Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the State on or before the date shown on the billing statement.

P-080 Payment Account Refund

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

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section H: Harvesting Operations

H-013 Reserve Tree Damage Definition

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

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

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

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

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

H-017 Preventing Excessive Soil Disturbance

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

H-051 Branding and Painting

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

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

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using Shovel, cable or cable-assist with equipment limitation outlined in clause H-140. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

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

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

C. All skid trails used by the 6 wheel dive skidder shall be identified by the purchaser and approved by the Contract Administrator in writing.

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

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

F. Self-Leveling ground based yarding equipment will not be permitted on sustained slopes over 60 percent.

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

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 6/21/2024 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on N-100, N-100-Ext, 8100, 8189, 8189 EXT., 8190, Spur A, Spur B and Spur C 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-090 Landing Location

Landings shall be built 50 feet off the Nine Creek ML road(s).

Section S: Site Preparation and Protection

S-001 Emergency Response Plan

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

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

S-010 Fire Hazardous Conditions

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

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

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

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-070 Water Supply

Purchaser shall provide, during the "closed season", a water supply with a minimum capacity of 300 gallons for rapid filling of pump trucks or trailers at a location designated by the Contract Administrator.

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

Scott Sargent

Print Name

Pacific Cascade Region Manager

Date: _____

Date: _____

Address:

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

STATE OF _____)

COUNTY OF _____)

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

_____ to me known to be the _____ of the corporation

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

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

Notary Public in and for the State of

My appointment expires _____

PRE-CRUISE NARRATIVE

Sale Name: Action Item	Region: Pacific Cascade
Agreement #: 30-105538	District: Lewis
Contact Forester: Roy Franklin Phone / Location: 360-520-1971	County(s): Choose a county, Lewis
Alternate Contact: Phone / Location: Click here to enter text.	Other information: Click here to enter text.

Type of Sale: Log Sort (Contract harvest)	
Harvest System: Ground based Click here to enter text.	85%
Harvest System: Uphill Cable Cable-Assist	15%
Enter % of sale acres	
Harvest System: Select harvest system Click here to enter text.	Click here to enter percent sale acres.

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	Sec 18 T13N R05W Sec 19 T13N R05W	01	55	16	4	0	0	35	Combination
2	Sec 18 T13N R05W	01	78	24	7	0	0	47	Combination
3	Sec 17 T13N R05W Sec 20 T13N R05W	01/03	37	14	3	0	0	20	Combination
TOTAL ACRES			170	54	14	0	0	102	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	VRH; Boundaries are marked with white "Timber Sale Boundary" tags and pink flagging, roads and reprod.	None	None

	Clumped leave trees are marked with yellow “Leave Tree Area” tags, pink flagging, and blue paint. Individual trees are marked with blue paint.		
2	VRH; Boundaries are marked with white “Timber Sale Boundary” tags and pink flagging, roads and reprod. Clumped leave trees are marked with yellow “Leave Tree Area” tags, pink flagging, and blue paint. Individual trees are marked with blue paint.	None	None
3	VRH; Boundaries are marked with white “Timber Sale Boundary” tags and pink flagging, roads and reprod. Clumped leave trees are marked with yellow “Leave Tree Area” tags, pink flagging, and blue paint. Individual trees are marked with blue paint.	None	None

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	1,300	See Driving Map	Maps on TSDC
2	2,000	See Driving Map	Maps on TSDC
3	900	See Driving Map	Maps on TSDC
TOTAL MBF	4,200		

REMARKS:

hemlock, doug fir, few cedar

Prepared By: Andrew Arko	Title: Forester	CC:
Date: 4/13/2023		

Timber Sale Cruise Report ACTION ITEM

Sale Name: ACTION ITEM

Sale Type: SORT

Region: PACIFIC CASC

District: LEWIS

Lead Cruiser: Blake Warnstadt

Other Cruisers: DBuchanan

Cruise Narrative:

Location: ACTION ITEM is located approximately 4 miles SW of Doty. It can be most easily accessed from the Nine Creek ML off Elk Creek Road.

Cruise Design: This sale was cruised using variable radius plots with a 54.44 BAF sighted at 4.5 feet. A 1:1 cruise to count plot ratio was used. Conifers were cruised to 40 foot preferred log lengths and hardwoods cruised to 30 foot preferred log lengths.

Timber Quality: Action Item is mostly Douglas Fir and Western Hemlock.

There is a small amount of Red Alder and a trace amount of Western Red Cedar, Maple, and Sitka Spruce. Douglas Fir log quality is good mix regular domestic, High Quality B, Special Mill, and a few 3P. They have an average diameter of 24.5" at 4.5 feet. Boles are mostly straight with spike knots being the most common defect. Western Hemlock logs are fairly clean, exception being; there is a moderately amount of dwarf mistletoe mixed in. The Red Alder in this sale is minimal but in decent shape.

Logging and Stand Conditions: This sale has mostly gentle slopes and is estimated to be 85% ground based logging. It has been previously commercial thinned with a small amount of old mechanical damage. All three stands have some small pockets of root disease mortality in DF. There is some dwarf mistletoe in a moderate amount of the WH. Units 1 and 2 had some added windfall creating some small holes in these stands. Unit 3 had a live WH observed to have conks growing low in the bole. There is a moderately heavy Western Hemlock understory filled in throughout. Unit 3 has approximately 2.5 acres of younger wind damaged timber in the south end added to the beauties below. This will make room for a landing and improve the access to the Stand.

General Remarks:

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade						
				All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	24.6			2,647	127	500	1,604	351	51	13
WH	19.2			1,996			1,423	447	111	15
RA	15.3			153			60	24	68	
RC	27.8			16				16		
MA	19.4			15			10	3	2	
SS	23.0			8			7	1		
ALL	20.4			4,835	127	500	3,104	843	232	28

Timber Sale Notice Weight (tons)

Sp	Tons by Grade						
	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	16,793	661	2,964	9,689	2,930	453	95
WH	16,058			10,484	4,163	1,257	154
RA	1,308			447	190	672	
RC	159				159		
MA	115			68	18	29	
SS	59			44	16		
ALL	34,492	661	2,964	20,731	7,475	2,411	249

Timber Sale Overall Cruise Statistics

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
241.4	3.5	195.6	1.8	47,405	4.0

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
ACTION ITEM U1	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	35.0	39.4	40	22	1
ACTION ITEM U2	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	47.0	53.7	51	25	1
ACTION ITEM U3	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	20.0	23.0	20	12	0
All		102.0	116.1	111	59	2

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	17.5	40	9,324	8,871	4.9	5,436.8	904.8
DF	LIVE	2 SAW	HQ-A	16.6	40	1,077	1,049	2.6	664.4	107.0
DF	LIVE	2 SAW	HQ-B	16.9	40	5,970	5,808	2.7	3,587.9	592.4
DF	LIVE	3 PEELER	Domestic	27.9	40	1,250	1,250	0.0	660.9	127.5
DF	LIVE	3 SAW	Domestic	9.2	37	2,722	2,612	4.0	2,329.5	266.4
DF	LIVE	3 SAW	HQ-B	10.0	40	841	830	1.3	600.5	84.7
DF	LIVE	4 SAW	Domestic	6.5	25	525	498	5.2	453.4	50.8
DF	LIVE	CULL	Cull	8.3	4	88	0	100.0	0.0	0.0
DF	LIVE	SPECIAL MILL	HQ-A	18.4	40	4,924	4,906	0.4	2,964.3	500.4

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	UTILITY	Pulp	7.2	14	134	126	5.5	95.2	12.9
MA	LIVE	2 SAW	Domestic	14.6	30	105	100	4.9	68.1	10.2
MA	LIVE	3 SAW	Domestic	10.6	30	26	26	0.0	17.9	2.6
MA	LIVE	4 SAW	Domestic	7.6	19	33	24	27.9	29.1	2.5
RA	LIVE	2 SAW	Domestic	13.8	30	672	589	12.4	446.7	60.1
RA	LIVE	3 SAW	Domestic	11.0	31	260	240	7.6	189.7	24.5
RA	LIVE	4 SAW	Domestic	6.6	30	729	667	8.4	671.8	68.1
RA	LIVE	CULL	Cull	6.2	3	5	0	100.0	0.0	0.0
RC	LIVE	3 SAW	Domestic	14.5	35	205	160	21.8	158.7	16.3
RC	LIVE	CULL	Cull	9.9	6	11	0	100.0	0.0	0.0
SS	LIVE	2 SAW	Domestic	15.9	40	66	66	0.0	43.7	6.7
SS	LIVE	3 SAW	Domestic	7.7	38	13	13	0.0	15.7	1.3
WH	LIVE	2 SAW	Domestic	16.0	40	14,771	13,857	6.2	10,407.1	1,413.5
WH	LIVE	2 SAW	HQ-B	13.6	40	95	93	2.5	76.9	9.5
WH	LIVE	3 SAW	Domestic	9.4	38	4,642	4,381	5.6	4,162.6	446.9
WH	LIVE	4 SAW	Domestic	5.8	30	1,143	1,090	4.7	1,256.9	111.1
WH	LIVE	CULL	Cull	7.4	5	118	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	7.1	13	150	150	0.0	154.2	15.3

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Cull	5.4	5	0	100.0	0.0	0.0
DF	5 - 7	LIVE	Pulp	5.7	14	63	0.0	44.5	6.4
DF	5 - 7	LIVE	Domestic	6.5	31	992	3.8	896.2	101.2
DF	8 - 11	LIVE	Domestic	9.7	35	2,053	4.3	1,836.4	209.4
DF	8 - 11	LIVE	Pulp	9.7	14	37	1.0	34.2	3.8
DF	8 - 11	LIVE	Cull	9.9	4	0	100.0	0.0	0.0
DF	8 - 11	LIVE	HQ-B	10.0	40	830	1.3	600.5	84.7
DF	12 - 15	LIVE	Cull	13.4	6	0	100.0	0.0	0.0
DF	12 - 15	LIVE	Pulp	13.4	13	26	21.2	16.6	2.7
DF	12 - 15	LIVE	HQ-B	13.5	40	1,305	1.1	887.8	133.1
DF	12 - 15	LIVE	Domestic	13.6	39	2,338	4.0	1,699.0	238.5
DF	12 - 15	LIVE	HQ-A	14.0	40	1,016	0.5	717.9	103.7
DF	16 - 19	LIVE	HQ-B	17.7	40	2,419	2.9	1,511.4	246.7
DF	16 - 19	LIVE	Domestic	17.9	40	2,582	4.3	1,526.1	263.3
DF	16 - 19	LIVE	HQ-A	17.9	40	1,996	1.2	1,239.0	203.5
DF	20+	LIVE	Cull	21.7	4	0	100.0	0.0	0.0

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	20+	LIVE	HQ-A	22.1	40	2,943	0.6	1,671.8	300.2
DF	20+	LIVE	HQ-B	23.2	40	2,084	3.5	1,188.7	212.6
DF	20+	LIVE	Domestic	24.9	40	5,265	4.4	2,923.0	537.0
MA	5 - 7	LIVE	Domestic	6.6	24	12	15.3	17.9	1.2
MA	8 - 11	LIVE	Domestic	8.7	20	38	15.9	29.1	3.9
MA	12 - 15	LIVE	Domestic	14.6	30	100	4.9	68.1	10.2
RA	5 - 7	LIVE	Cull	5.9	3	0	100.0	0.0	0.0
RA	5 - 7	LIVE	Domestic	5.9	31	431	9.7	460.8	43.9
RA	8 - 11	LIVE	Domestic	9.6	29	477	6.8	400.7	48.7
RA	12 - 15	LIVE	Domestic	13.7	30	544	11.7	410.9	55.5
RA	16 - 19	LIVE	Domestic	16.9	30	44	20.0	35.8	4.5
RC	5 - 7	LIVE	Cull	6.0	6	0	100.0	0.0	0.0
RC	8 - 11	LIVE	Domestic	9.7	29	24	16.9	33.1	2.4
RC	8 - 11	LIVE	Cull	11.1	4	0	100.0	0.0	0.0
RC	12 - 15	LIVE	Domestic	12.9	40	13	7.7	13.4	1.3
RC	16 - 19	LIVE	Domestic	19.8	40	23	55.0	35.3	2.3
RC	20+	LIVE	Cull	20.0	8	0	100.0	0.0	0.0
RC	20+	LIVE	Domestic	22.8	40	101	10.0	77.0	10.3
SS	5 - 7	LIVE	Domestic	7.7	38	13	0.0	15.7	1.3
SS	12 - 15	LIVE	Domestic	15.9	40	66	0.0	43.7	6.7
WH	5 - 7	LIVE	Domestic	5.8	33	1,654	3.9	1,843.7	168.7
WH	5 - 7	LIVE	Cull	6.1	5	0	100.0	0.0	0.0
WH	5 - 7	LIVE	Pulp	6.7	13	108	0.0	102.0	11.1
WH	8 - 11	LIVE	Pulp	8.5	14	42	0.0	52.2	4.3
WH	8 - 11	LIVE	Cull	9.6	7	0	100.0	0.0	0.0
WH	8 - 11	LIVE	Domestic	10.0	36	3,651	4.8	3,391.6	372.4
WH	12 - 15	LIVE	HQ-B	13.6	40	93	2.5	76.9	9.5
WH	12 - 15	LIVE	Domestic	13.7	40	5,024	4.6	4,228.5	512.4
WH	12 - 15	LIVE	Cull	14.0	6	0	100.0	0.0	0.0
WH	16 - 19	LIVE	Domestic	17.4	40	5,248	6.9	3,859.3	535.3
WH	20+	LIVE	Domestic	22.3	40	3,751	8.3	2,503.5	382.6
WH	20+	LIVE	Cull	26.2	8	0	100.0	0.0	0.0

Cruise Unit Report ACTION ITEM U1

Unit Sale Notice Volume (MBF): ACTION ITEM U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade						
				All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
WH	20.1			747			545	164	30	8
DF	25.0			519	15	141	273	76	10	4
RA	14.2			70			22	12	36	
RC	35.3			6				6		
MA	12.0			1					1	
ALL	20.1			1,344	15	141	841	258	78	12

Unit Cruise Design: ACTION ITEM U1

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	35.0	39.4	40	22	1

Unit Cruise Summary: ACTION ITEM U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	57	96	2.4	0
DF	30	53	1.3	0
RA	10	13	0.3	0
RC	2	2	0.1	0
MA	1	1	0.0	0
ALL	100	165	4.1	0

Unit Cruise Statistics: ACTION ITEM 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 (%)
WH	130.7	74.2	11.7	163.4	32.4	4.3	21,347	80.9	12.5
DF	72.1	110.0	17.4	205.7	15.8	2.9	14,838	111.1	17.6
RA	17.7	322.2	51.0	113.2	19.6	6.2	2,003	322.8	51.3
RC	2.7	441.4	69.8	67.8	8.1	5.8	185	441.5	70.0
MA	1.4	632.5	100.0	25.5	0.0	0.0	35	632.5	100.0
ALL	224.6	38.5	6.1	171.0	32.5	3.3	38,408	50.4	6.9

Unit Summary: ACTION ITEM U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	30	ALL	25.0	103	132	15,416	14,838	3.8	21.2	72.1	14.4	519.3
MA	LIVE	CUT	1	ALL	12.0	18	22	55	35	37.5	1.7	1.4	0.4	1.2
RA	LIVE	CUT	10	ALL	14.1	62	83	2,189	2,003	8.5	16.3	17.7	4.7	70.1
RC	LIVE	CUT	2	ALL	35.3	70	103	327	185	43.5	0.4	2.7	0.5	6.5
WH	LIVE	CUT	57	ALL	19.9	77	98	23,219	21,347	8.1	60.5	130.7	29.3	747.2
ALL	LIVE	CUT	100	ALL	20.3	79	101	41,206	38,408	6.8	100.1	224.6	49.3	1,344.3
ALL	ALL	ALL	100	ALL	20.3	79	101	41,206	38,408	6.8	100.1	224.6	49.3	1,344.3

Cruise Unit Report ACTION ITEM U2

Unit Sale Notice Volume (MBF): ACTION ITEM U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade						
				All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	27.4			1,297	82	235	830	136	11	4
WH	19.0			1,138			797	261	74	6
RA	11.5			22			5	4	14	
ALL	21.1			2,458	82	235	1,631	401	98	10

Unit Cruise Design: ACTION ITEM 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	47.0	53.6	51	25	1

Unit Cruise Summary: ACTION ITEM U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	63	104	2.0	0
WH	57	120	2.4	0
RA	5	5	0.1	0
ALL	125	229	4.5	0

Unit Cruise Statistics: ACTION ITEM 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	111.0	103.3	14.5	248.6	16.1	2.0	27,600	104.6	14.6
WH	128.1	67.4	9.4	189.1	23.9	3.2	24,221	71.5	9.9
RA	5.3	510.2	71.4	87.5	37.2	16.6	467	511.6	73.4
ALL	244.4	37.1	5.2	213.9	26.8	2.4	52,289	45.8	5.7

Unit Summary: ACTION ITEM U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	63	ALL	27.4	113	146	28,419	27,600	2.9	27.1	111.0	21.2	1,297.2
RA	LIVE	CUT	5	ALL	11.5	37	53	550	467	15.1	7.4	5.3	1.6	22.0

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	57	ALL	19.0	82	104	25,625	24,221	5.5	65.1	128.1	29.4	1,138.4
ALL	LIVE	CUT	125	ALL	21.2	87	112	54,594	52,289	4.2	99.6	244.4	52.2	2,457.6
ALL	ALL	ALL	125	ALL	21.2	87	112	54,594	52,289	4.2	99.6	244.4	52.2	2,457.6

Cruise Unit Report ACTION ITEM U3

Unit Sale Notice Volume (MBF): ACTION ITEM U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade						
				All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	20.0			830	31	124	501	139	30	5
WH	15.5			111			81	22	7	1
RA	18.0			61			33	9	18	
MA	20.0			14			10	3	1	
RC	22.9			10				10		
SS	23.0			8			7	1		
ALL	19.0			1,033	31	124	632	184	57	6

Unit Cruise Design: ACTION ITEM 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	20.0	23.0	20	12	0

Unit Cruise Summary: ACTION ITEM U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	44	71	3.6	0
WH	9	11	0.6	0
RA	10	10	0.5	0
MA	2	2	0.1	0
RC	2	2	0.1	0
SS	1	1	0.1	0
ALL	68	97	4.9	0

Unit Cruise Statistics: ACTION ITEM 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	193.3	63.0	14.1	214.8	31.6	4.8	41,514	70.4	14.9
WH	29.9	138.0	30.9	184.9	34.2	11.4	5,535	142.2	32.9
RA	27.2	165.4	37.0	111.2	25.2	8.0	3,028	167.3	37.8
MA	5.4	307.8	68.8	129.0	31.4	22.2	702	309.4	72.3
RC	5.4	307.8	68.8	90.6	92.9	65.7	493	321.5	95.1

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 (%)
SS	2.7	447.2	100.0	146.6	0.0	0.0	399	447.2	100.0
ALL	264.0	34.3	7.7	195.7	37.6	4.6	51,672	50.9	8.9

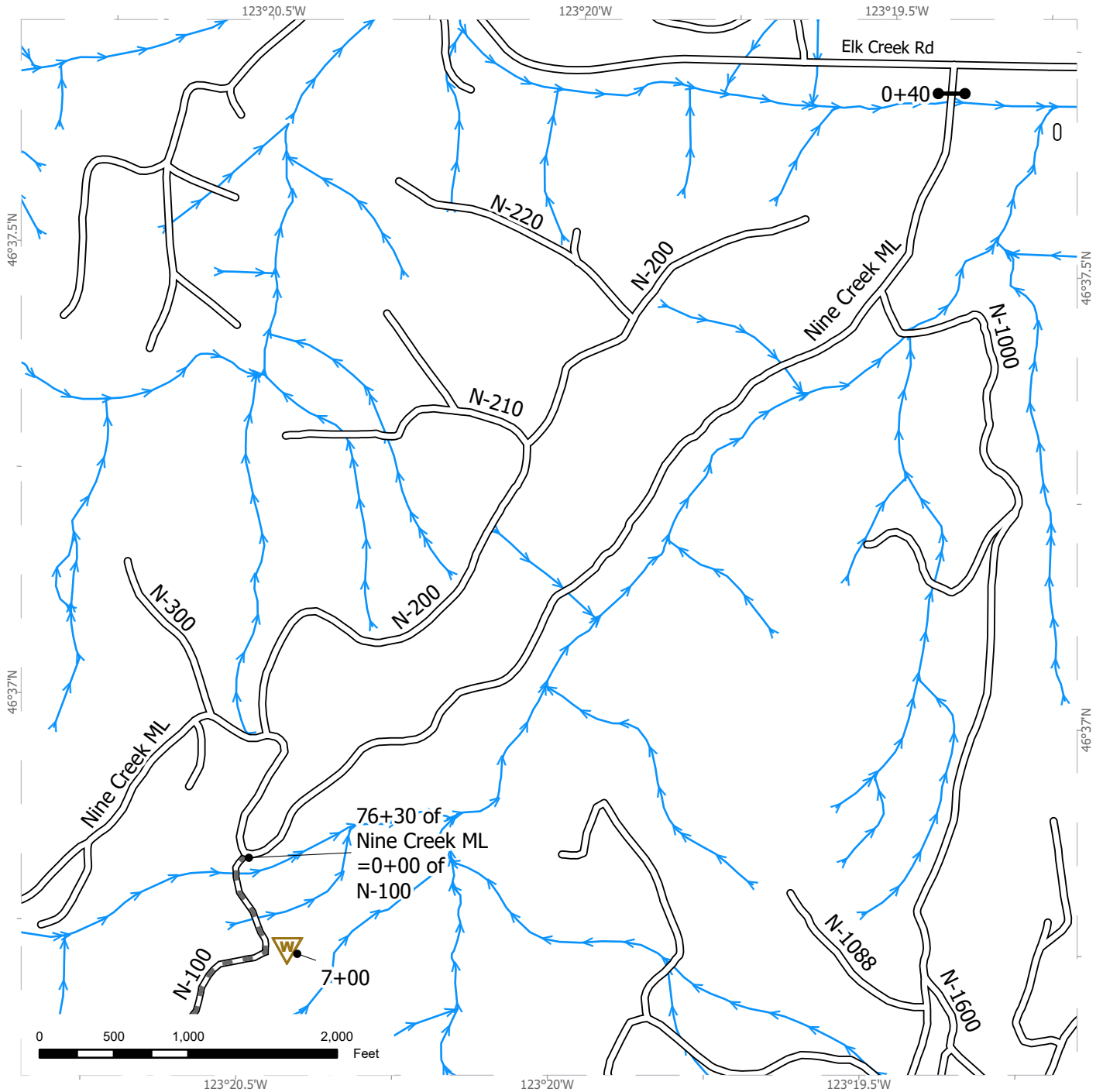
Unit Summary: ACTION ITEM U3




Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	44	ALL	20.4	87	115	43,196	41,514	3.9	85.1	193.3	42.8	830.3
MA	LIVE	CUT	2	ALL	20.0	71	88	740	702	5.1	2.5	5.4	1.2	14.0
RA	LIVE	CUT	10	ALL	18.0	70	88	3,374	3,028	10.3	15.4	27.2	6.4	60.6
RC	LIVE	CUT	2	ALL	22.9	44	54	527	493	6.5	1.9	5.4	1.1	9.9
SS	LIVE	CUT	1	ALL	23.0	80	102	399	399	0.0	0.9	2.7	0.6	8.0
WH	LIVE	CUT	9	ALL	15.5	60	85	5,834	5,535	5.1	22.9	29.9	7.6	110.7
ALL	LIVE	CUT	68	ALL	19.4	79	105	54,070	51,672	4.4	128.7	264.0	59.7	1,033.4
ALL	ALL	ALL	68	ALL	19.4	79	105	54,070	51,672	4.4	128.7	264.0	59.7	1,033.4

ROAD PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT #: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



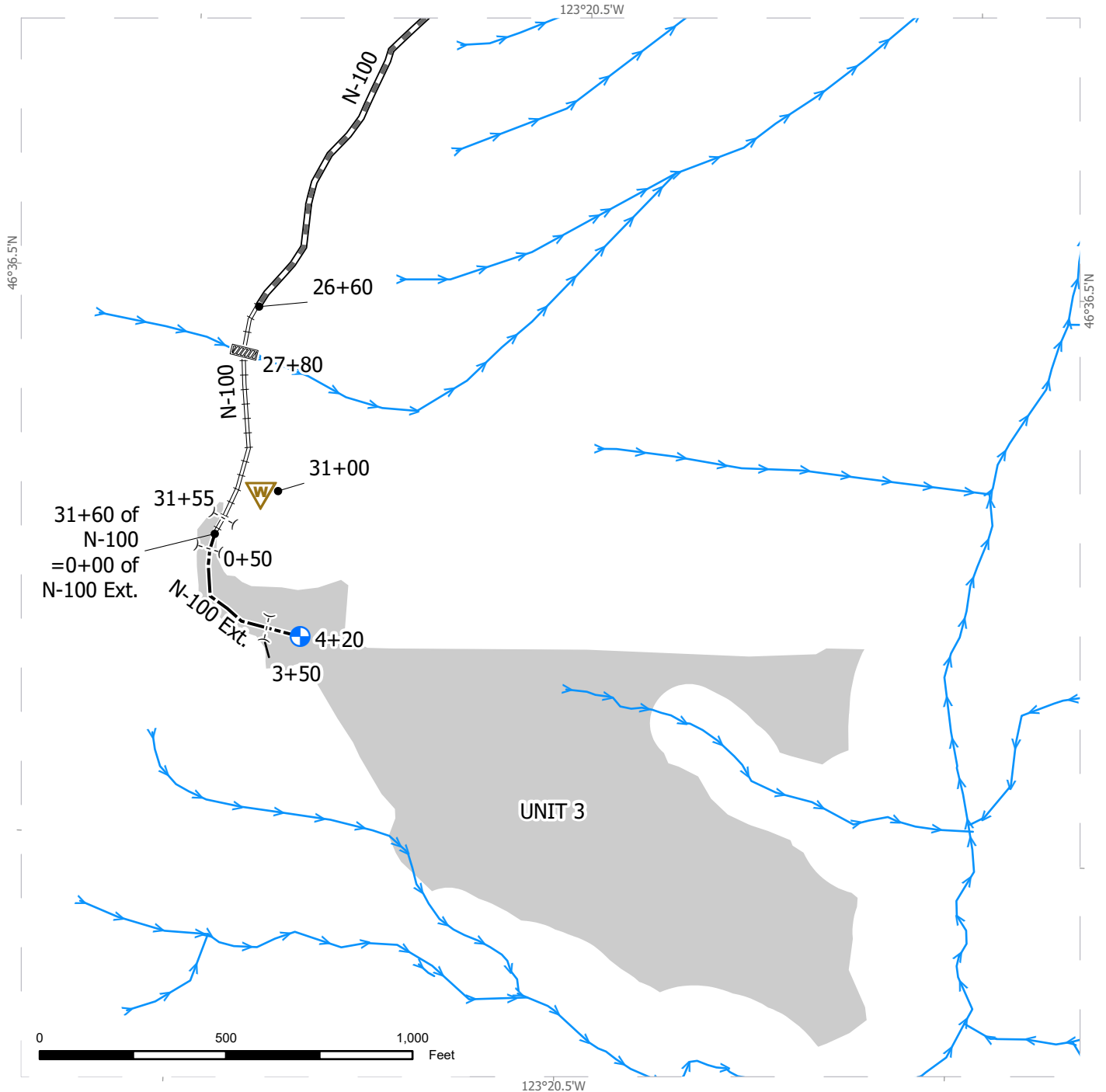
 Existing Roads	 Gate (PCP 1-1)
 Required Pre-Haul Maintenance	 Waste Area
 Streams	



ROAD PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



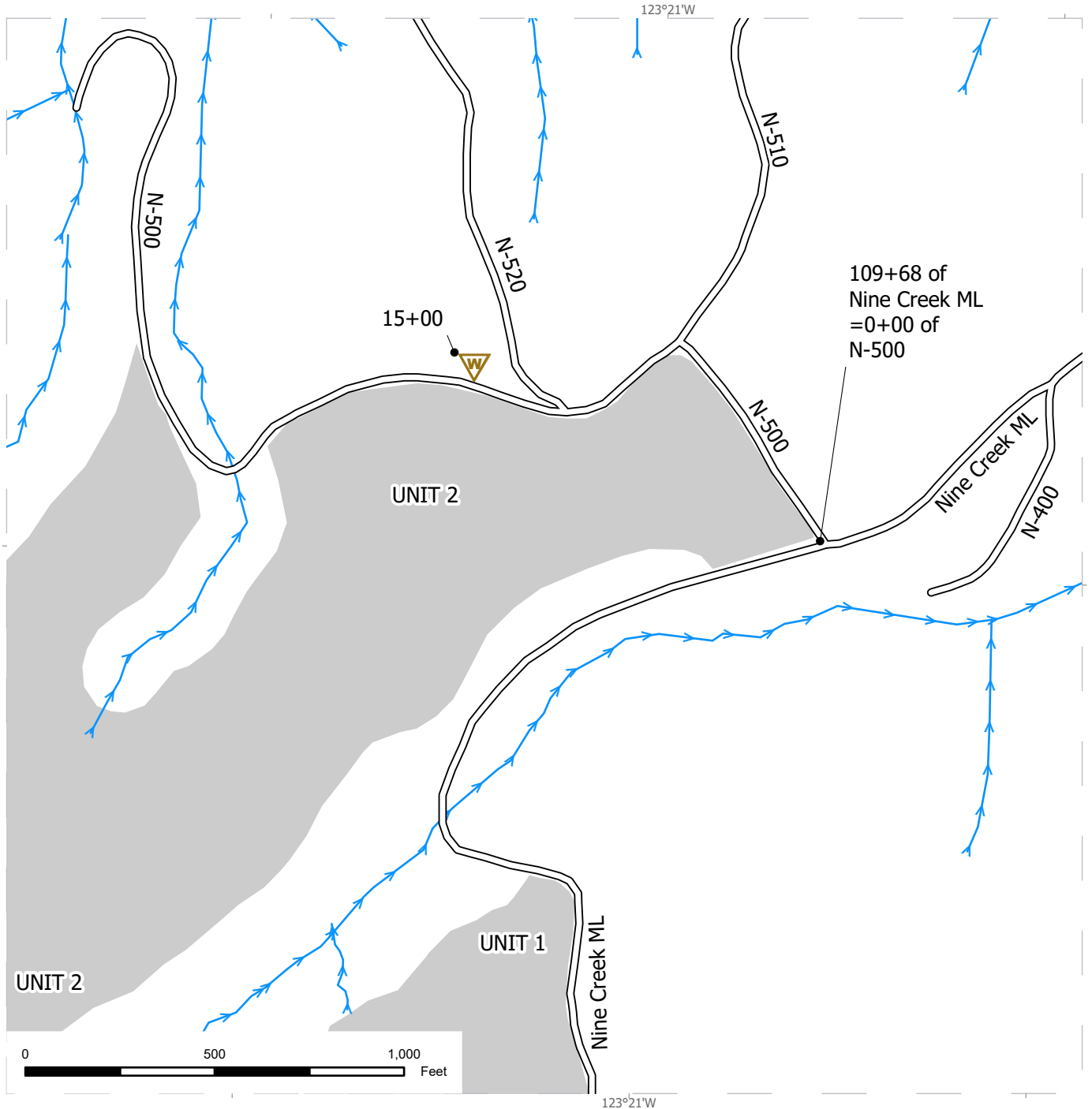
Required Pre-Haul Maintenance	Cross-drain Culvert	Harvest Unit
Required Reconstruction	Culvert	
Optional Construction	Landing - Proposed	
Streams	Waste Area	



ROAD PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



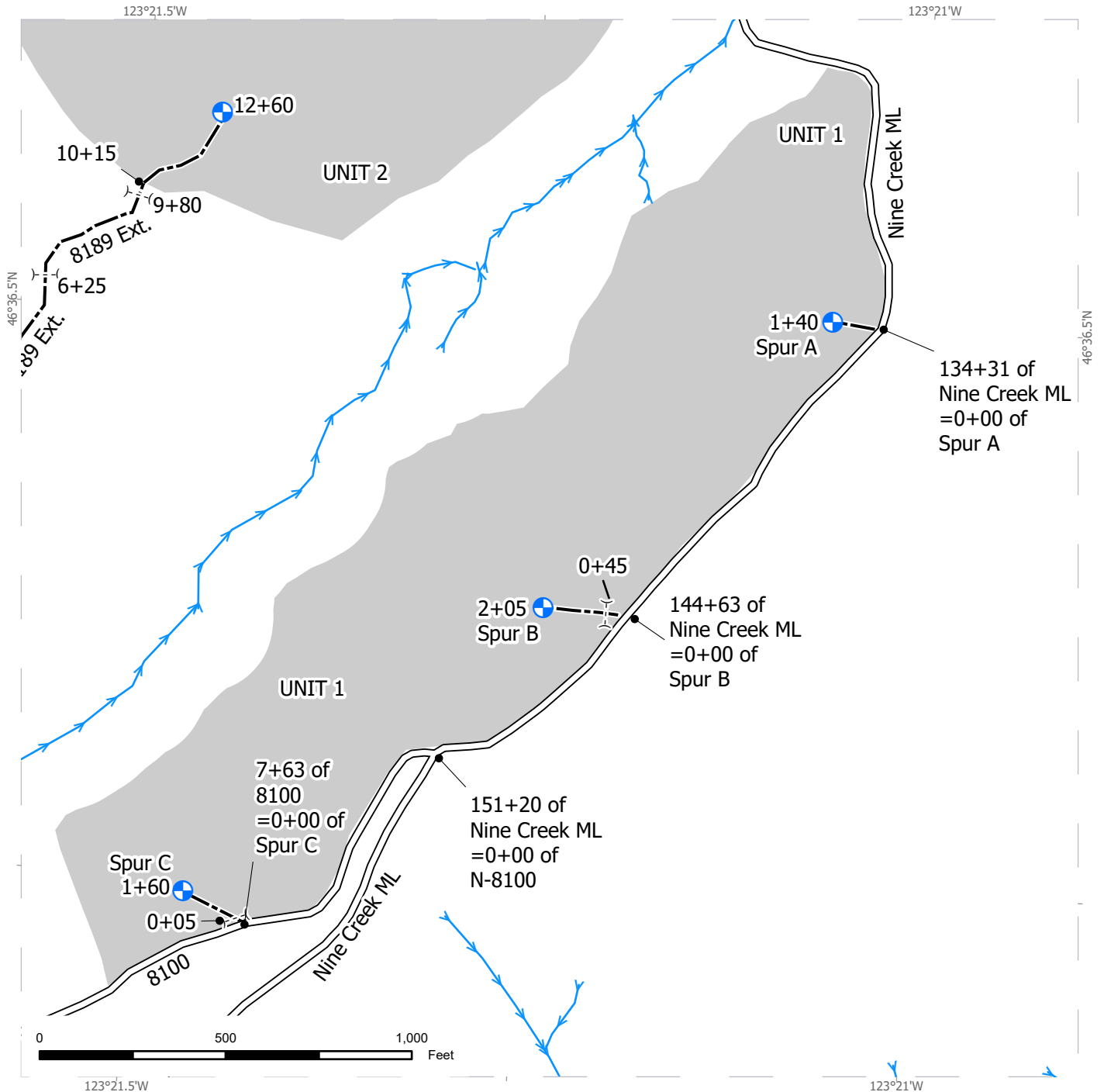
Existing Roads	Waste Area	Harvest Unit
Streams		



ROAD PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT #: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



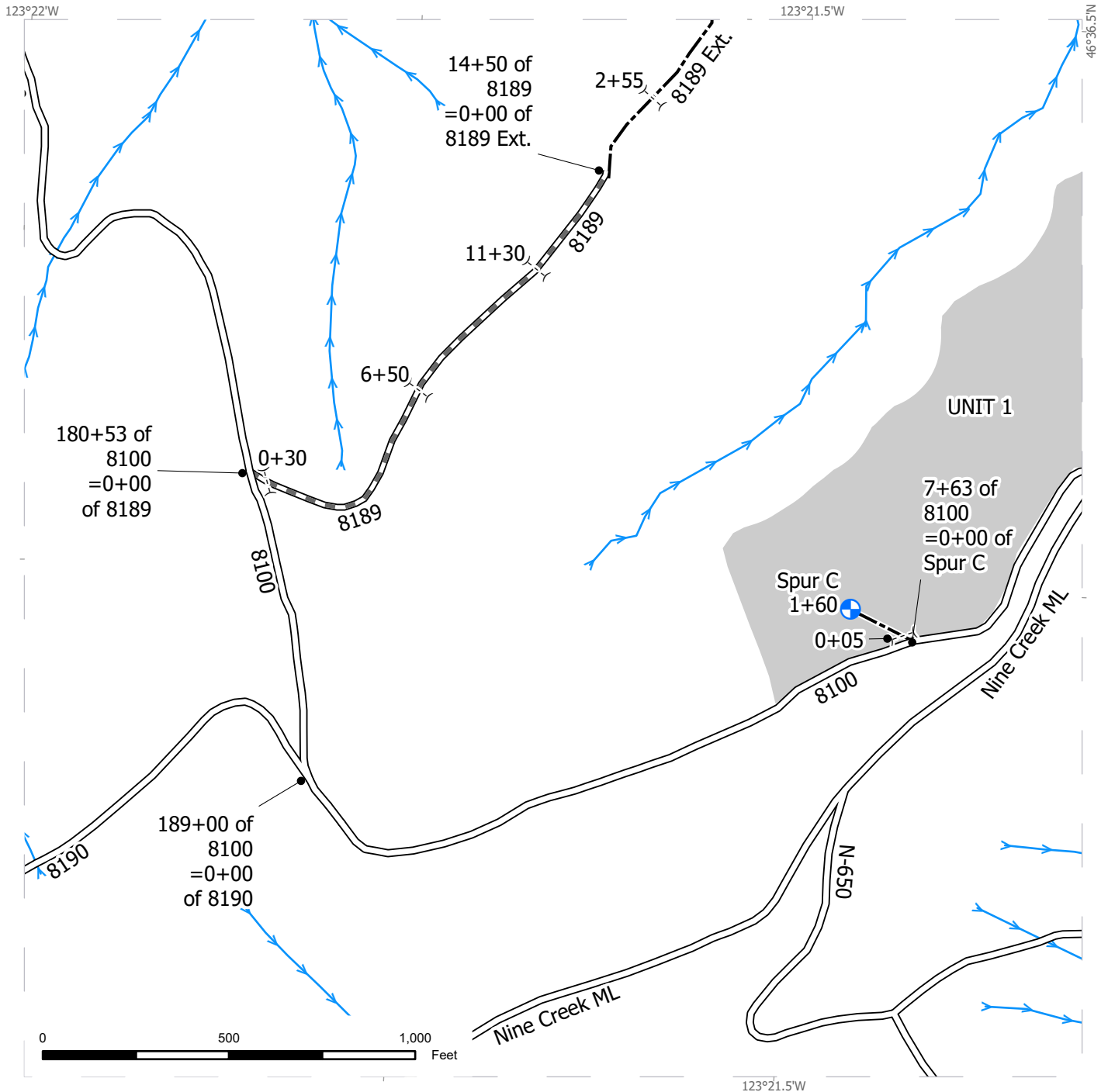
Existing Roads	Cross-drain Culvert	Harvest Unit
Optional Construction	Landing - Proposed	
Streams		



ROAD PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT #: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



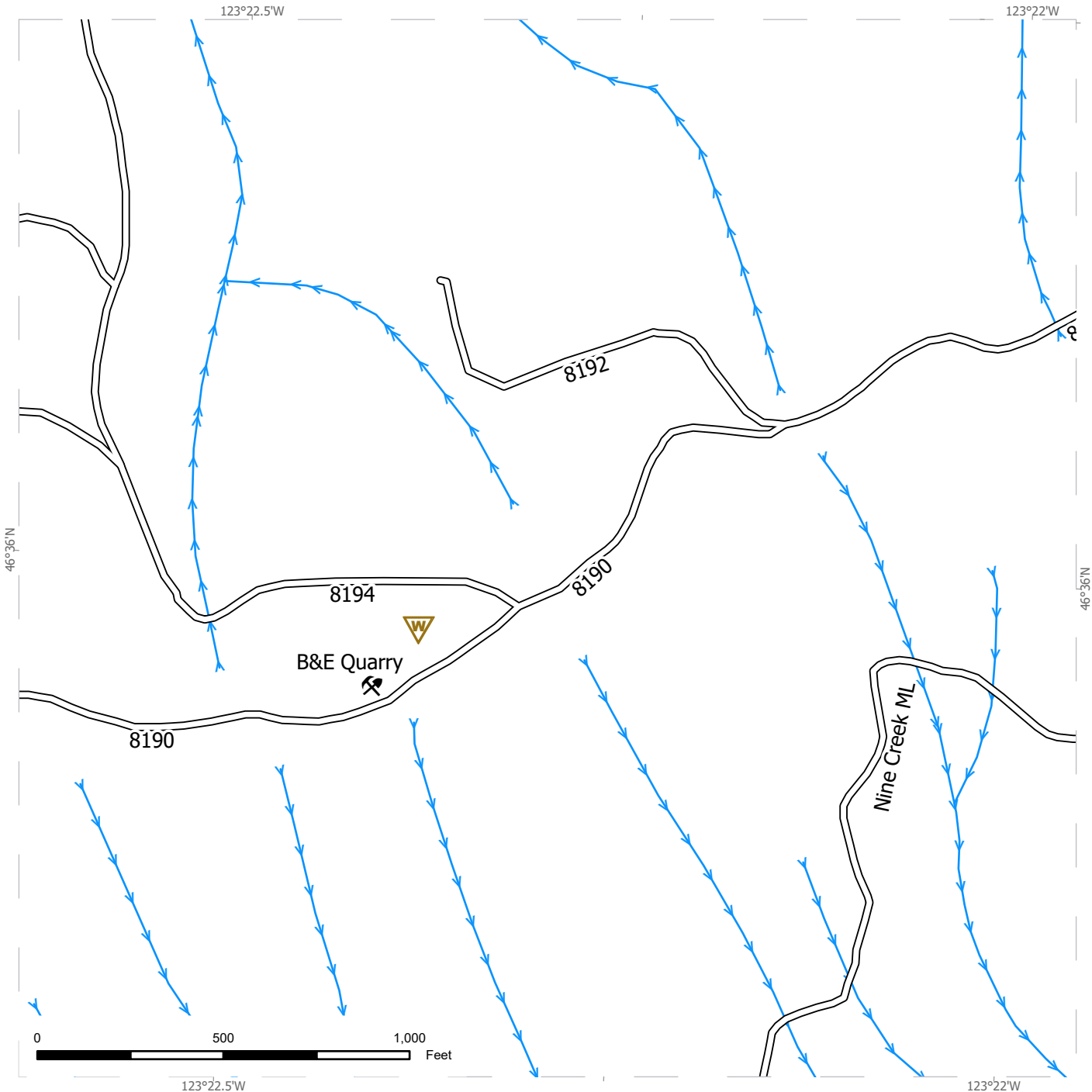
Existing Roads	Cross-drain Culvert	Harvest Unit
Required Pre-Haul Maintenance	Landing - Proposed	
Optional Construction		
Streams		







ROAD PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



 Existing Roads	 Rock Pit
 Streams	 Waste Area



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

ACTION ITEM SORTS TIMBER SALE ROAD PLAN
LEWIS COUNTY
LEWIS DISTRICT
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-105538

STAFF ENGINEER: G. GERRITSEN

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>
N-100	0+00 to 26+60	Pre-Haul Maintenance
	26+60 to 31+60	Reconstruction
8189	0+00 to 14+50	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>
N-100-EXT	0+00 to 4+20	Construction
Spur A	0+00 to 1+40	Construction
Spur B	0+00 to 2+05	Construction
Spur C	0+00 to 1+60	Construction
8189-EXT	0+00 to 12+60	Construction

0-4 CONSTRUCTION

Construction includes, but is not limited to: clearing; grubbing; right-of-way debris disposal; excavation and/or embankment to and compaction of subgrade; construction and compaction of waste areas; end haul and compaction of waste; landing construction; acquisition and installation of drainage structures; installation of fish passage structures; manufacture, application and compaction of rock.

0-5 RECONSTRUCTION

Reconstruction includes, but is not limited to: clearing; grubbing; right-of-way debris disposal; acquisition and installation of drainage structures; manufacture, application and compaction of rock.

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
N-100	26+60 to 26+91	Clear, grub and widen subgrade to the dimensions shown on the TYPICAL SECTION SHEET; construct ditches; install culverts as shown on the CULVERT LIST; grade, shape and compact existing road surface; apply rock as shown on the ROCK LIST; grade shape and compact the applied rock.
	28+60 to 31+60	

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>
N-100	0+00 to 26+60	Grading, desodding
	1+50 to 3+00	Remove and replace silt fence
8189	0+00 to 14+50	Grading, ditch reconstruction, installation of culverts, addition of turnouts and turnarounds

0-7 POST-HAUL MAINTENANCE

This project includes post-haul road maintenance listed in Clause 9-5 POST-HAUL MAINTENANCE9-5

0-12 DEVELOP ROCK SOURCE

Purchaser may develop an existing rock source. Rock source development involves stripping overburden, waste material disposal, digging, drilling and blasting, etc. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

0-13 STRUCTURES

Purchaser shall install a fish passage culvert. Requirements for this structure are listed in Section 7 STRUCTURES.

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.)	1.0	1.5	3.0

1-6 ORDER OF PRECEDENCE

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

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

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

1-7 TEMPORARY ROAD CLOSURE

Purchaser shall notify the Contract Administrator a minimum of 5 business days before the closure of any road.

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

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

1-9 DAMAGED METALLIC COATING

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

1-15 ROAD MARKING

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

- Road centerline marked with construction stakes, orange flagging, orange paint and RPs for new construction.
- Road centerline marked with orange flagging, orange paint and RPs for reconstruction.
- Pre-haul maintenance marked with construction stakes and/or painted trees, orange flagging and orange paint.

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. Reconstruction of existing road grades must conform to the original location except where construction staked or designed.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
N-100	27+74	Fish Passage Install Construction Stakes and RPs

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 timber hauling other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1-22 WORK NOTIFICATIONS

On the following road(s), Purchaser shall notify the Contract Administrator a minimum of 5 business days before work begins.

<u>Road</u>	<u>Stations</u>
N-100	27+74

1-23 ROAD WORK PHASE APPROVAL

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

- Subgrade construction, drainage installation and subgrade compaction;
- Rock application and compaction.

1-25 ACTIVITY TIMING RESTRICTION

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

<u>Road</u>	<u>Stations</u>	<u>Activity</u>	<u>Closure Period</u>
All roads	All stations	Road Work	October 1 st through April 30 th
N-100	27+74	Within Ordinary High Water Mark	See Approved FPA

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 comply with a maintenance plan to include further protection of state resources. Purchaser shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense. If other operators are using, or desire to use these roads, a joint operating plan must be developed. All parties shall follow this plan.

1-29 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-220.1 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 jaw run, pit run or native surface roads.
- Wheel track rutting exceeds 2 inches on crushed rock roads.
- Surface or base stability problems persist.
- 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 SURFACE RESTRICTION

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

If tracked equipment is used on bridge 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 surface(s) and have surface(s) evaluated by the Region Engineer or their designee for any damage caused by transporting equipment. Any damage to the surface(s) will be repaired, at the Purchaser’s expense, as directed by the Contract Administrator.

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

1-33 SNOW PLOWING RESTRICTION

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

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-050.1 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-060.1 DESIGNATED ROAD MAINTAINER as directed by the Contract Administrator. Purchaser shall maintain roads in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

2-4 PASSAGE OF LIGHT VEHICLES

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

2-5 MAINTENANCE GRADING – EXISTING ROAD

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

<u>Road</u>	<u>Stations</u>
N-100	0+00 to 26+60
8189	0+00 to 14+50

2-8 MAINTAINING EROSION CONTROL STRUCTURES

Purchaser shall clean and maintain all erosion control structures. Work must be completed before timber haul and must be done in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL. Excavated material must be scattered outside the grubbing limits or disposed of as specified in Clause 4-36 DISPOSAL OF WASTE MATERIAL.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-5 CLEARING

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 4 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 the contract administrator.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps adjacent to the road shoulder and in compliance with all other clauses in this road plan.

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 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, and stumps that are larger than one cubic foot in volume within the grubbing limits as shown on the TYPICAL SECTION SHEET and ROADSIDE BRUSHING DETAIL.

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 subgrade compaction, application of rock, and timber haul.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

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

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris outside of the grubbing limits and in natural openings 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.

3-32 END HAULING ORGANIC DEBRIS

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 or to a waste area located by the Contract Administrator.

SECTION 4 – EXCAVATION

4-2 PIONEERING

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

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

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

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

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 15 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

4-5 CUT SLOPE RATIO

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

<u>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Excavation Slope Percent</u>
Common Earth (on side slopes up to 70%)	1:1	100
Common Earth (on slopes over 70%)	¾:1	133
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, unless construction staked or designed:

<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.

4-21 TURNOUTS

Purchaser shall construct turnouts as designated on the ROCK LIST. Location changes are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

4-22 TURNAROUNDS

Purchaser shall construct turnarounds as designated on the ROCK LIST. Turnarounds must be no larger than 30 feet long and 30 feet wide. Location changes are subject to written approval by the Contract Administrator.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

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

4-27 DITCH WORK – MATERIAL USE PROHIBITED

Purchaser shall not pull ditch material across the road or mix in with the road surface. Excavated material must be disposed of as specified in Clause 4-36 DISPOSAL OF WASTE MATERIAL.

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 45%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37 WASTE AREA LOCATION.

4-37 WASTE AREA LOCATION

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

<u>Waste Area Location</u>	<u>Comments</u>
N-100	7+00, East side of road
	31+00, East side of road
N-500	Sta 15+00, North side of road
8190	See ROCK SOURCE DEVELOPMENT PLAN for location

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.
- Within a riparian management zone.
- Within a wetland management zone.
- On side slopes steeper than 45%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Within the operational area for cable landings.
- Against standing timber.

4-45 SELECT BORROW

Select borrow consists of granular material, either naturally occurring or processed, and contains no more than 5% clay, organic debris, or trash by volume.

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. 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 except ditch. Purchaser shall obtain written approval from the Contract Administrator for subgrade compaction before rock application.

4-62 DRY WEATHER COMPACTION

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

4-63 EXISTING SURFACE COMPACTION

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

SECTION 5 – DRAINAGE

5-1 REMOVAL OF SHOULDER BERMS

Purchaser shall remove berms from road shoulders, except as directed by the Contract Administrator. The construction of ditchouts is required where ponding could result from the effects of sidecast debris.

5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and meet the specifications in Clauses 10-15 through 10-24.

5-6 CULVERT TYPE

Purchaser shall install crossdrain culverts made of plastic in accordance with Clauses 10-15 through 10-24.

5-10 CULVERT MARKER INSTALLATION

At all new culverts, Purchaser shall provide and install culvert markers at the inlet in accordance with the CULVERT MARKER INSTALLATION 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 and the Corrugated Polyethylene Pipe Association’s “Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings”. 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 20 feet. Shorter section of banded culvert shall be installed at the inlet end.

5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 30 inches in diameter and over before backfilling.

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

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

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

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. Energy dissipater installation is subject to approval by the Contract Administrator.

5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 3 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.

5-27 ARMORING FOR STREAM CROSSING CULVERTS

At the following culvert(s), Purchaser shall place Light Loose Rip Rap immediately following construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the ROCK LIST and attached culvert design(s). 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.

<u>Road</u>	<u>Stations</u>	<u>Rock Type</u>
N-100	27+74	Light Loose Rip Rap

5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be waterbarred by November 1. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 150 feet.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

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

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
B&E Quarry	SW ¼ of NE ¼ of T13R06W S24	Light Loose Rip Rap, 6-Inch Jaw Run, Quarry Spalls

6-3 ROCK SOURCE ON STATE LAND, EXISTING STOCKPILE

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

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>	<u>Quantity</u>
Walville Quarry	SE ¼ of SE ¼ of T13R06W S23	Light Loose Rip Rap	31cy
		2 ½-Inch Minus	698cy

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.

6-10 ROCK SOURCE DEVELOPMENT PLAN BY STATE

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

<u>Source</u>	<u>Rock Type</u>
B&E Quarry	6-Inch Jaw Run, Light Loose Rip Rap

6-22 FRACTURE REQUIREMENT FOR ROCK

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

6-23 ROCK GRADATION TYPES

Purchaser shall provide or manufacture rock in accordance with the types and amounts listed in the ROCK LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles. Purchaser shall provide a sieve analysis upon request from the Contract Administrator.

6-28 1 ¼-INCH MINUS CRUSHED ROCK

- % Passing 1 ¼" square sieve 100%
- % Passing 5/8" square sieve 55 - 75%
- % Passing U.S. #4 sieve 20 - 50%

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

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

6-32 2 ½-INCH MINUS CRUSHED ROCK

- % Passing 2 ½" square sieve 100%
- % Passing 2" square sieve 65 - 95%
- % Passing 1" square sieve 50 – 80%
- % Passing U.S. #4 sieve 30 – 50%
- % Passing U.S. #40 sieve 16% maximum
- % Passing U.S. #200 sieve 8% maximum

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

6-39 6-INCH JAW RUN ROCK

% Passing 6" in one dimension	100%
% Passing U.S. #40 sieve	16% maximum
% Passing U.S. #200 sieve	5% maximum

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

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.

6-44 STREAM SIMULATION ROCK

% Passing 5" square sieve	80 - 100%
% Passing 2" square sieve	40 - 60%
% Passing 5/8" square sieve	15 - 35%
% Passing U.S. #4 sieve	5 - 20%
% Passing U.S. #200 sieve	10% maximum

The portion of aggregate retained on the No. 4 sieve may not contain more than 0.2 percent organic debris and/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%	(18" - 28")
15% to 80%	(8" - 18")
10% to 20%	(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. Unless otherwise stated in Clause 6-75 OPTIONAL ROCK EXCEPTION.

6-56 ROCK MEASUREMENT BY TRUCK VOLUME

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

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for subgrade 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, unless otherwise specified in the ROCK LIST.

SECTION 7 – STRUCTURES

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, Forest Practices Hydraulic Permit (FPHP), STREAM DIVERSION PROCEDURE and Action Item Fish Crossing design.

7-18 INSTALLATION PRODUCTION SCHEDULE

Purchaser shall provide the Contract Administrator or their designee, with a production schedule showing projected completion dates for the following items before starting construction of the structure(s). Production schedule must include:

- dewatering
- placement of pipe
- channel construction and stream simulation rock application
- subgrade completion
- rock application and compaction

7-19 INSTALLATION STAGE ACCEPTANCE

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 for each stage of construction, listed in Clause

7-18 INSTALLATION PRODUCTION SCHEDULE, before starting construction on the next stage.

7-55 LARGE CULVERT INSTALLATION

Purchaser shall install a large culvert in accordance with the Action Item Fish Crossing design.

7-56 STEEL PIPE, PIPE ARCH, AND STRUCTURAL PLATE INSTALLATION

Purchaser shall install steel pipe, pipe arches, and structural plate culverts in accordance with the National Corrugated Steel Pipe Association "Installation Manual for Corrugated Steel Pipe, Pipe Arches, and Structural Plate." Installation is subject to the inspection and approval of the Contract Administrator before placement and backfill. The latest edition of the NCSPA Installation Manual can be found at www.ncspa.org.

7-57 CULVERT SHAPE CONTROL

Purchaser shall monitor the culvert shape during backfill and compaction. Special attention must be paid to maintaining the structure’s rise dimensions, concentricity, and smooth uniform curvature. If compaction methods are resulting in peaking or deflection of the culvert, Purchaser shall modify the compaction method to achieve the appropriate end result.

7-58 MATERIAL INSIDE CULVERT

Purchaser shall provide and install Stream Simulation Rock inside the following culvert(s) as specified in the Action Item Fish Crossing design. Stream Simulation Rock must meet the specifications in Clause 6-44 STREAM SIMULATION ROCK and quantities in the ROCK LIST.

<u>Road</u>	<u>Station</u>
N-100	27+74

7-71 GATE CLOSURE DURING HAUL

On the following road(s), Purchaser shall keep gates closed and locked except for passing vehicles.

<u>Road</u>	<u>Station</u>	<u>Comment</u>
Nine Creek ML	0+40	Private Landowner Farm Gate

SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES

On the following road(s), Purchaser shall install Silt Fence in accordance with the table below. All other sediment control shall be accomplished using sediment traps, silt fences, settling ponds or other methods as approved in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>	<u>Type</u>	<u>Comments</u>
N-100	1+00 to 2+50	Temporary Silt Fence	Remove existing silt fence; install new silt fence in accordance with Silt Fence Detail and Clause 10-6; remove installed fence before conclusion of the contract

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 must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

8-15 REVEGETATION

On the following road(s) and waste areas, Purchaser shall spread 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>	<u>Type</u>
N-100	1+00 to 3+50	8	Grass Seed
	26+60 to 31+60	15	
Waste Areas		75	

*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 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 2-inch tall grass. Purchaser shall reapply the grass seed in areas that have failed to germinate or have been damaged through any cause, restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed at no additional cost to the state.

8-25 GRASS SEED

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

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

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Perennial Rye	35-45
Red Fescue	30-40
Highland Bent	5-15
White Clover	10-20
Inert and Other Crop	0.5

SECTION 9 – POST-HAUL ROAD WORK

9-5 POST-HAUL MAINTENANCE

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

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

SECTION 10 MATERIALS

10-6 GEOTEXTILE FOR TEMPORARY SILT FENCE

Geotextiles must meet the following minimum requirements for strength and property qualities and must be designed by the manufacturer to be used for filtration. Woven slit-film geotextiles are not allowed. Material must be free of defects, cuts, and tears.

	<u>ASTM Test</u>	<u>Requirements</u>
Type	--	Unsupported between posts
Apparent opening size	D 4751	No. 30 max., No. 100 min.
Water permittivity	D 4491	0.02 sec ⁻¹
Grab tensile strength	D 4632	180 lb in machine direction, 100lb in cross-machine direction
Grab tensile elongation	D 4632	30% max. at 180 lb or more
Ultraviolet stability	D 4355	70% retained after 500 hours of exposure

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be aluminized (aluminum type 2 coated meeting AASHTO M-274).

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.

10-21 METAL BAND

Metal coupling and end bands must meet the AASHTO specification designated for the culvert and must have matching corrugations. Culverts 24 inches and smaller must have bands with a minimum width of 12 inches. Culverts over 24 inches must have bands with a minimum width of 24 inches.

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.

10-23 RUBBER CULVERT GASKETS

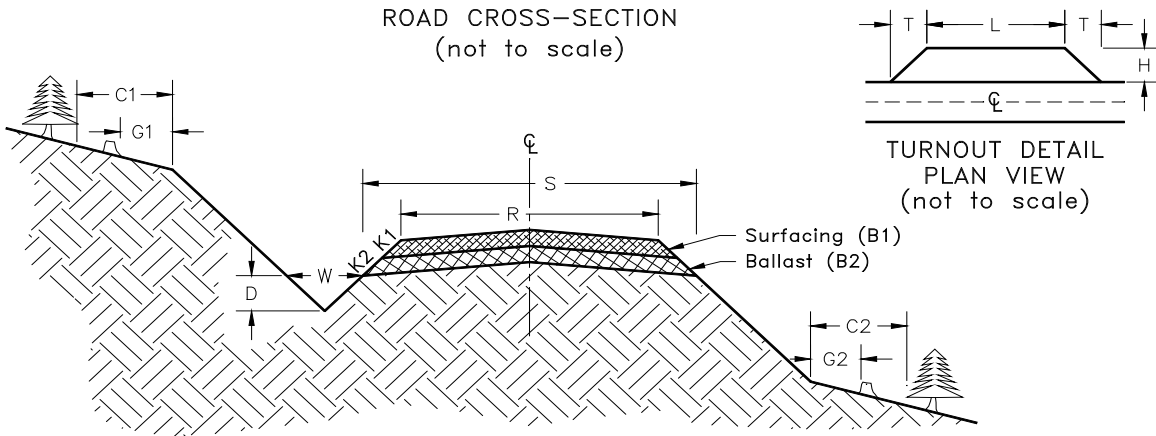
Rubber gaskets must be continuous closed cell, synthetic expanded rubber gaskets conforming to the requirements of ASTM D 1056. Rubber gaskets must be used with all corrugated metal pipe coupling bands.

10-24 GAUGE AND CORRUGATION

Unless otherwise stated in the Action Item Fish Crossing design, metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

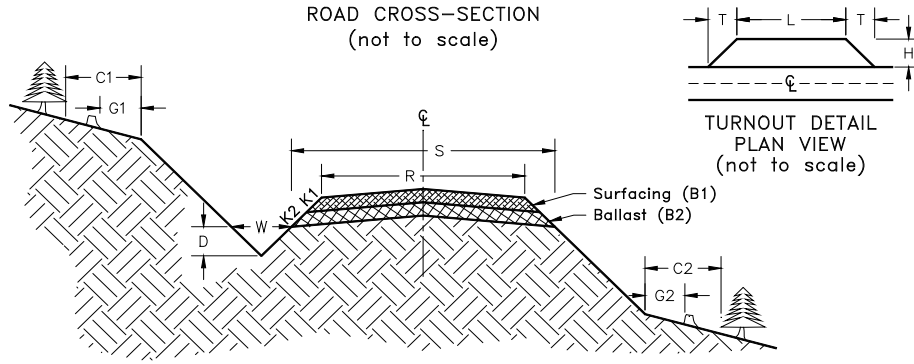
<u>Diameter</u>	<u>Gauge</u>	<u>Corrugation</u>
18"	16 (0.064")	2 ² / ₃ " X 1/2"
24" to 48"	14 (0.079")	2 ² / ₃ " X 1/2"
54" to 96"	12 (0.109")	3" X 1"
102" to 144"	10 (0.138")	5" X 1"

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
				S	R	W	D					
N-100	0+00	26+60	B	13	12	3	1	4	0	0	0	0
N-100	26+60	31+60	A	17	12	3	1	4	5	5	10	10
N-100-EXT	0+00	4+20	C	17	12	3	1	4	5	5	10	10
8189	0+00	14+50	B	17	12	3	1	4	5	5	10	10
8189-EXT	0+00	12+60	C	17	12	3	1	4	5	5	10	10
Spur A	0+00	1+40	C	17	12	3	1	4	5	5	10	10
Spur B	0+00	2+05	C	17	12	3	1	4	5	5	10	10
Spur C	0+00	1+60	C	17	12	3	1	4	5	5	10	10

ROCK LIST



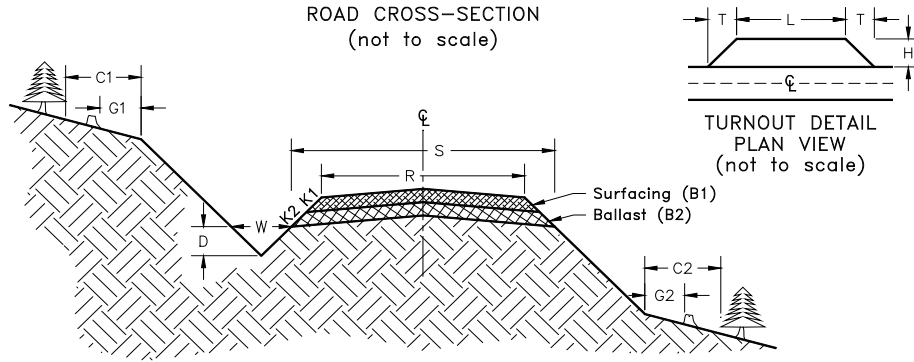
LIGHT LOOSE RIP RAP

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
			K2	B2				Walville Quarry Stockpile or Commercial Source
N-100	27+80		See Action Item Fish Crossing Design		31	1.00	31	

*Optional Rock in accordance with 6-75

REQUIRED LIGHT LOOSE RIP RAP: 31 CY
 OPTIONAL LIGHT LOOSE RIP RAP: 0 CY

ROCK LIST



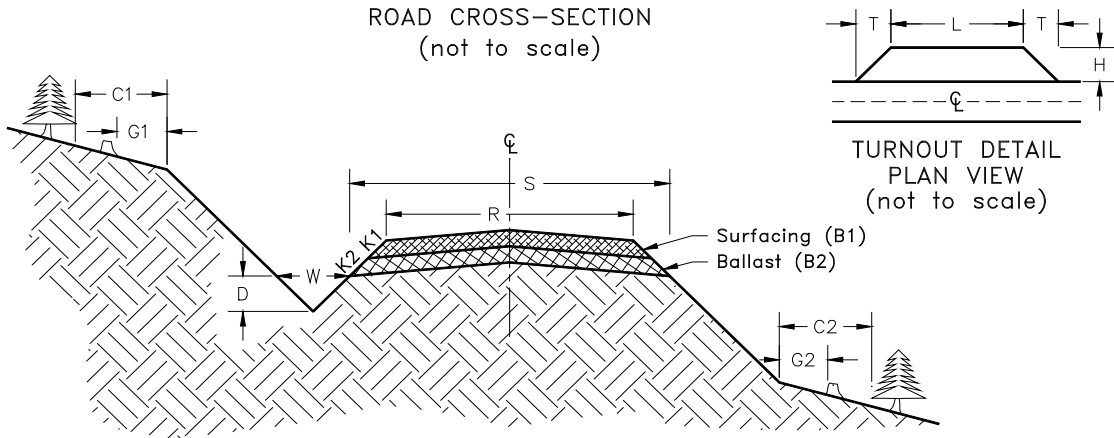
6-INCH JAW RUN

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 B&E Quarry or Commercial Source	Turnout		
									Length	Width	Taper
			K2	B2					L	H	T
N-100	26+60	31+60	1 1/2:1	12	70	5.00	350				
N-100-EXT	* 0+00	* 4+20	1 1/2:1	18	100	4.20	420				
	* Turnarounds				53	1	53				
	* Landings				81	1	81				
8189	Turnarounds		1 1/2:1	18	53	1	53				
	Turnouts				46	1	46		40	10	25
8189-EXT	* 0+00	* 12+60	1 1/2:1	18	100	12.60	1260				
	* Turnarounds				53	1	53				
	* Turnouts				46	1	46		40	10	25
	* Landings				81	1	81				
Spur A	* 0+00	* 1+40	1 1/2:1	18	100	1.40	140				
	* Turnarounds				53	1	53				
	* Landings				81	1	81				
Spur B	* 0+00	* 2+05	1 1/2:1	18	100	2.05	205				
	* Turnarounds				53	1	53				
	* Landings				81	1	81				
Spur C	* 0+00	* 1+60	1 1/2:1	18	100	1.60	160				
	* Turnarounds				53	1	53				
	* Landings				81	1	81				

*Optional Rock in accordance with 6-75

REQUIRED 6-INCH JAW RUN: 449 CY
 OPTIONAL 6-INCH JAW RUN: 2901 CY

ROCK LIST



QUARRY SPALLS

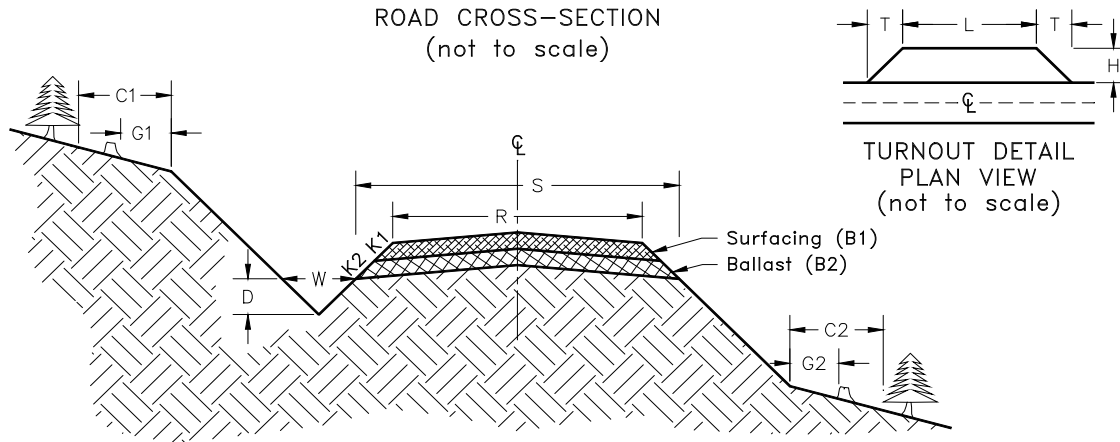
Road Number		Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source
		K2	B2				B&E Quarry or Commercial Source
N-100	Inlet/Outlet Armoring			1	1	1	
	Energy Dissipaters			1	1	1	
N-100-EXT	Inlet/Outlet Armoring			1	2	2	
	Energy Dissipaters			1	2	2	
8189	Inlet/Outlet Armoring			1	3	3	
	Energy Dissipaters			1	3	3	
8189-EXT	Inlet/Outlet Armoring			1	3	3	
	Energy Dissipaters			1	3	3	
Spur B	Inlet/Outlet Armoring			1	1	1	
	Energy Dissipaters			1	1	1	
Spur C	Inlet/Outlet Armoring			1	1	1	
	Energy Dissipaters			0	1	0	

*Optional Rock in accordance with 6-75

REQUIRED QUARRY SPALLS: 21 CY

OPTIONAL QUARRY SPALLS: 0 CY

ROCK LIST



2 1/2 INCH MINUS CRUSHED ROCK

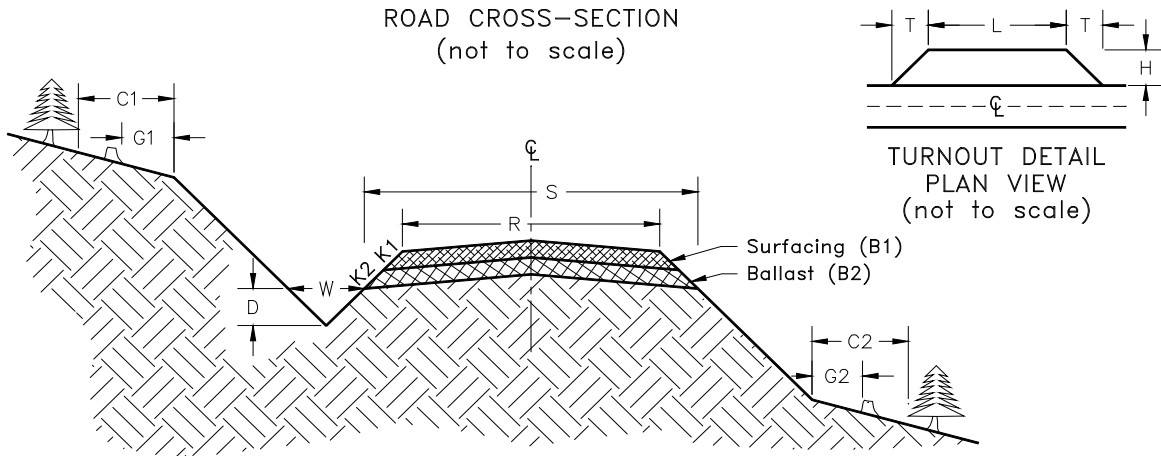
Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source Walville Quarry Stockpile or Commercial Source
			K1	B1				
N-100	0+00	26+60	1 1/2:1	4	20	26.60	532	
	Curve Widening		1 1/2:1	4			16	
N-100	26+60	31+60	1 1/2:1	6	30	5.00	150	

REQUIRED 2 1/2 INCH MINUS CRUSHED ROCK: 698 CY

OPTIONAL 2 1/2 INCH MINUS CRUSHED ROCK: 0 CY

*Optional Rock in accordance with 6-75

ROCK LIST



1 1/4 INCH MINUS CRUSHED ROCK

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 Commercial Source
			K1	B1				
N-100	Culvert Bedding/ Backfill				90	1	90	

REQUIRED 1 1/4 INCH MINUS CRUSHED ROCK: 90 CY

OPTIONAL 1 1/4 INCH MINUS CRUSHED ROCK: 0 CY

*Optional Rock in accordance with 6-75

CULVERT LIST

Road Number	Location	Culvert			Armoring (C.Y.)			Backfill	Bedding	Inlet	Remarks
		Dia (In)	Length	Type	Inlet	Outlet	Type	Material	Material	Marker	
N-100	27+74	108	55	CMP	14.0	17.0	LL	SB	CR	N	Type 3 Fish Stream Crossing
N-100	31+55	18	30	PD	0.5	0.5	QS	NT	NT	Y	
N-100-EXT	0+50	18	30	PD	0.5	0.5	QS	NT	NT	Y	
N-100-EXT	3+50	18	30	PD	0.5	0.5	QS	NT	NT	Y	
8189	0+30	18	30	PD	0.5	0.5	QS	CR	CR	Y	
8189	6+50	18	30	PD	0.5	0.5	QS	CR	CR	Y	
8189	11+30	18	30	PD	0.5	0.5	QS	CR	CR	Y	
8189-EXT	2+55	18	30	PD	0.5	0.5	QS	NT	NT	Y	
8189-EXT	6+25	18	30	PD	0.5	0.5	QS	NT	NT	Y	
8189-EXT	9+80	18	30	PD	0.5	0.5	QS	NT	NT	Y	
Spur B	0+45	18	30	PD	0.5	0.5	QS	NT	NT	Y	
Spur C	0+05	18	30	PD	0.5	0.5	QS	NT	NT	Y	

Key:

- QS - Quarry Spalls
- SB - Select Borrow
- NT - Native Material
- CR - 1 1/4 Inch Minus Crushed Rock
- LL - Light Loose Rip Rap
- PD - Polyethylene Pipe Double Wall
- CMP - Corrugated Metal Pipe

COMPACTION LIST

Road	Type	Max Depth Per Lift (inches)	Equipment Type	Minimum 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

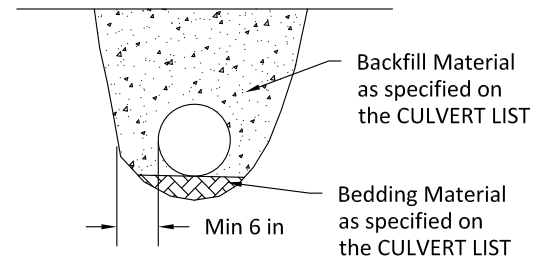
CULVERT AND DRAINAGE SPECIFICATION DETAIL
PAGE 1 OF 2

INSTALLATION REQUIREMENTS:

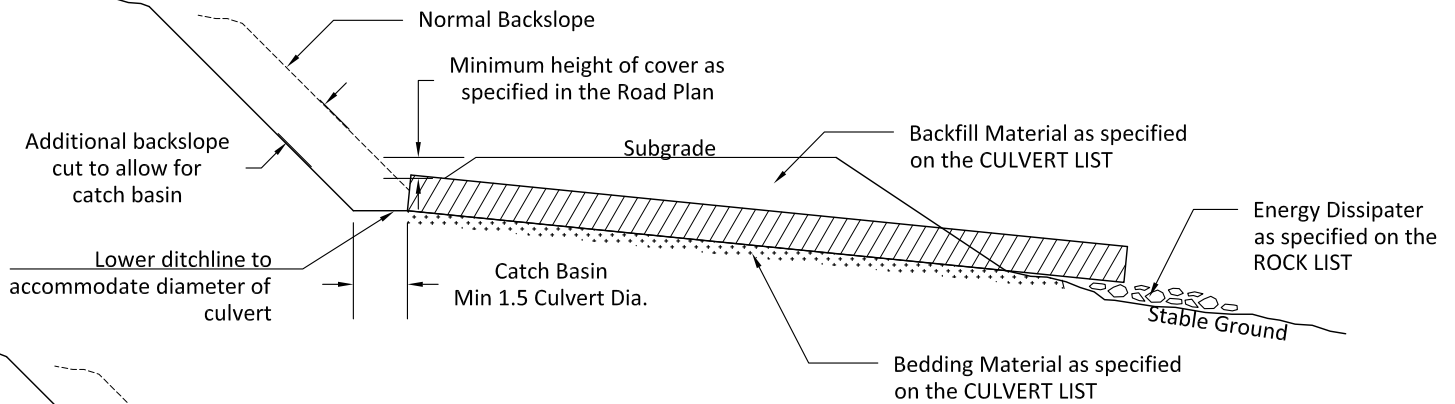
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly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

ALL DRAWINGS ARE NOT TO SCALE

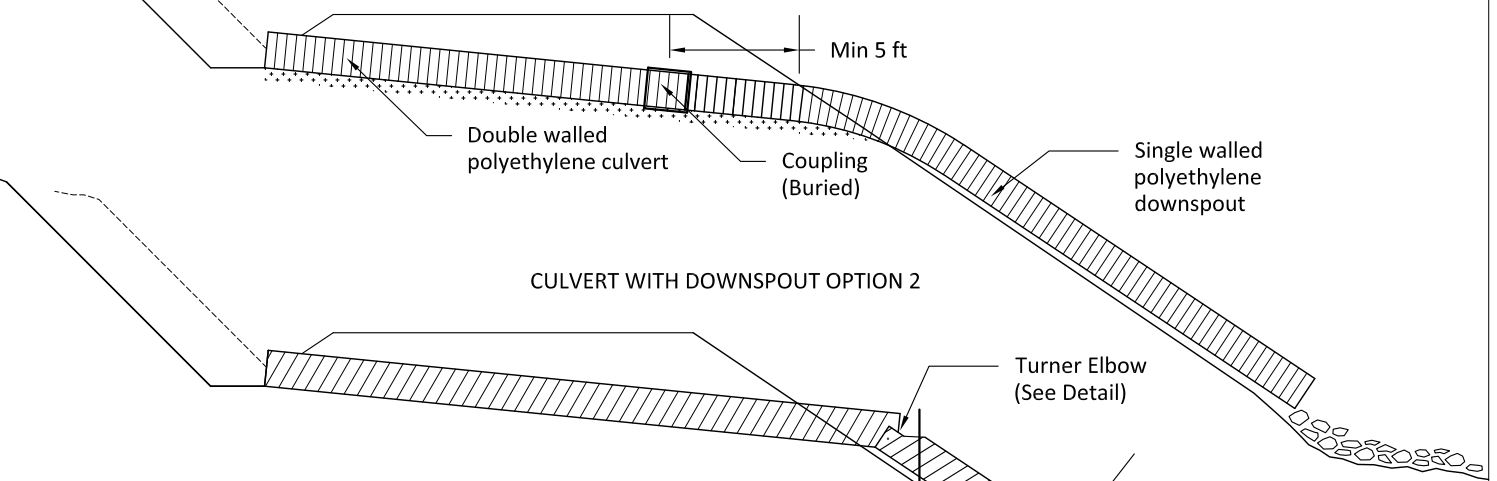
CROSS SECTION



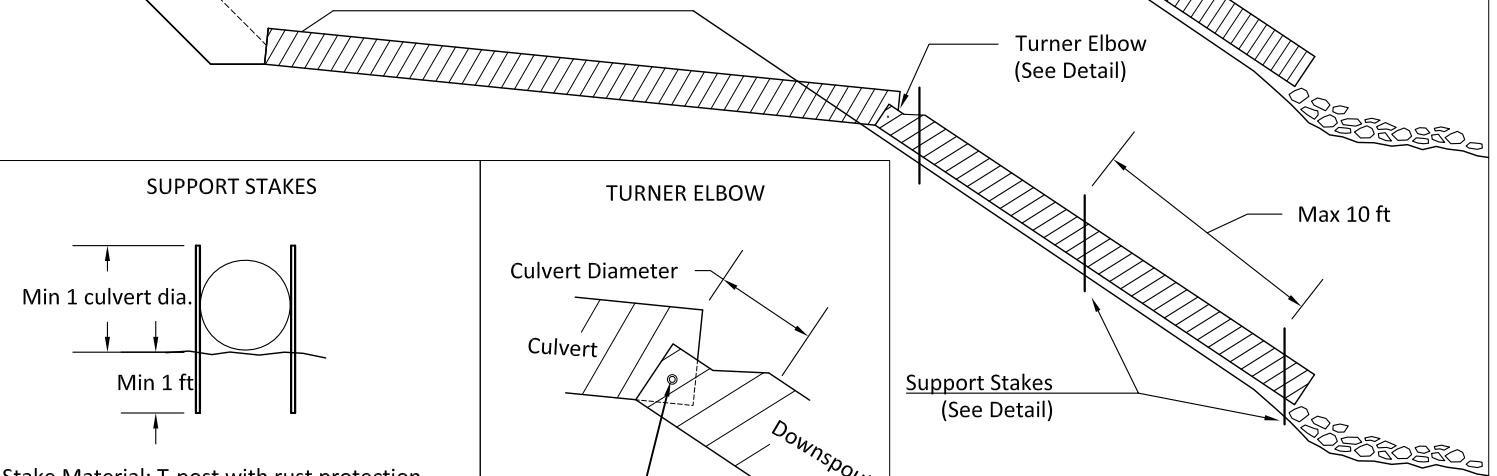
CULVERT PROFILE (TYPICAL)



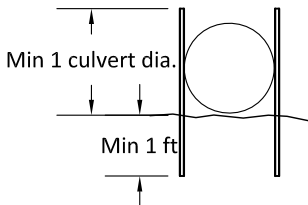
CULVERT WITH DOWNSPOUT OPTION 1



CULVERT WITH DOWNSPOUT OPTION 2

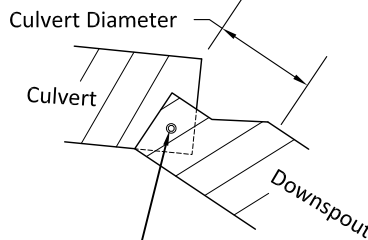


SUPPORT STAKES



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

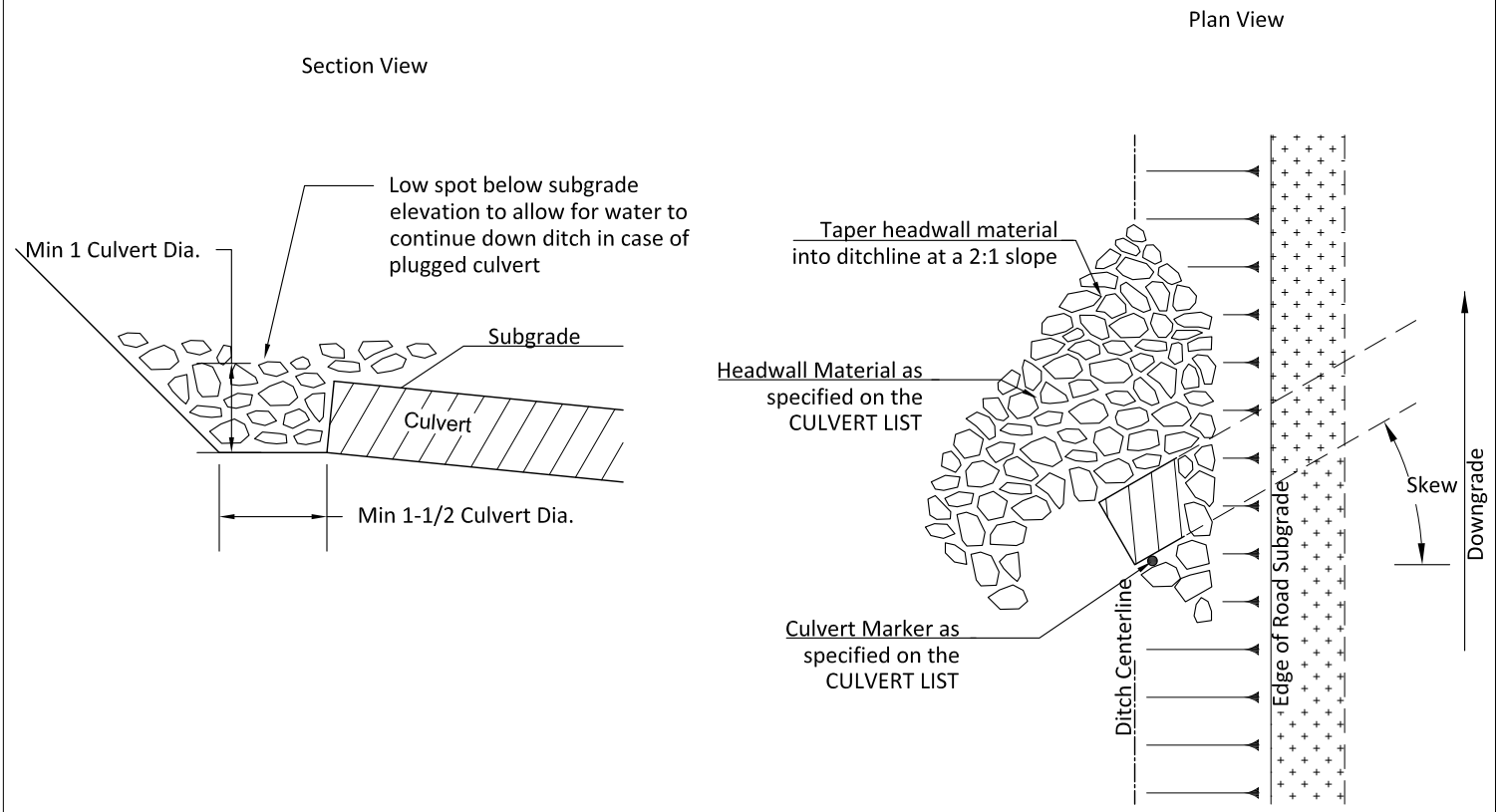
TURNER ELBOW



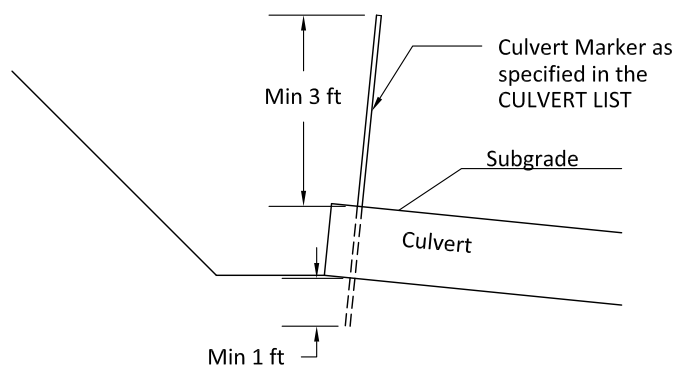
Bolted with $\frac{5}{8}$ " galvanized bolts and washers (both sides)
Downspout must be 6 inches larger in diameter than the culvert.

CULVERT AND DRAINAGE SPECIFICATION DETAIL
PAGE 2 OF 2

HEADWALLS

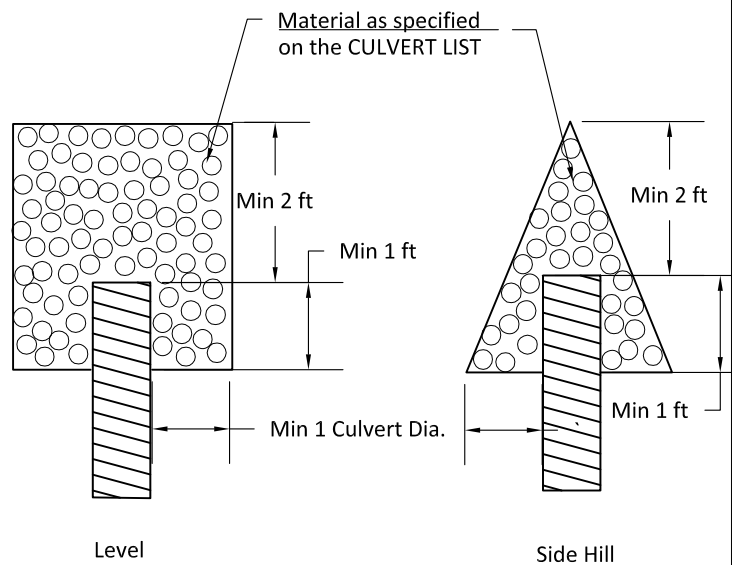


CULVERT MARKERS



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

ENERGY DISSIPATORS



Min Energy Dissipater Depth: 1 Culvert Dia.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 1 of 2

Cuts and Fills

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

Drainage

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

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 2 of 2

Preventative Maintenance

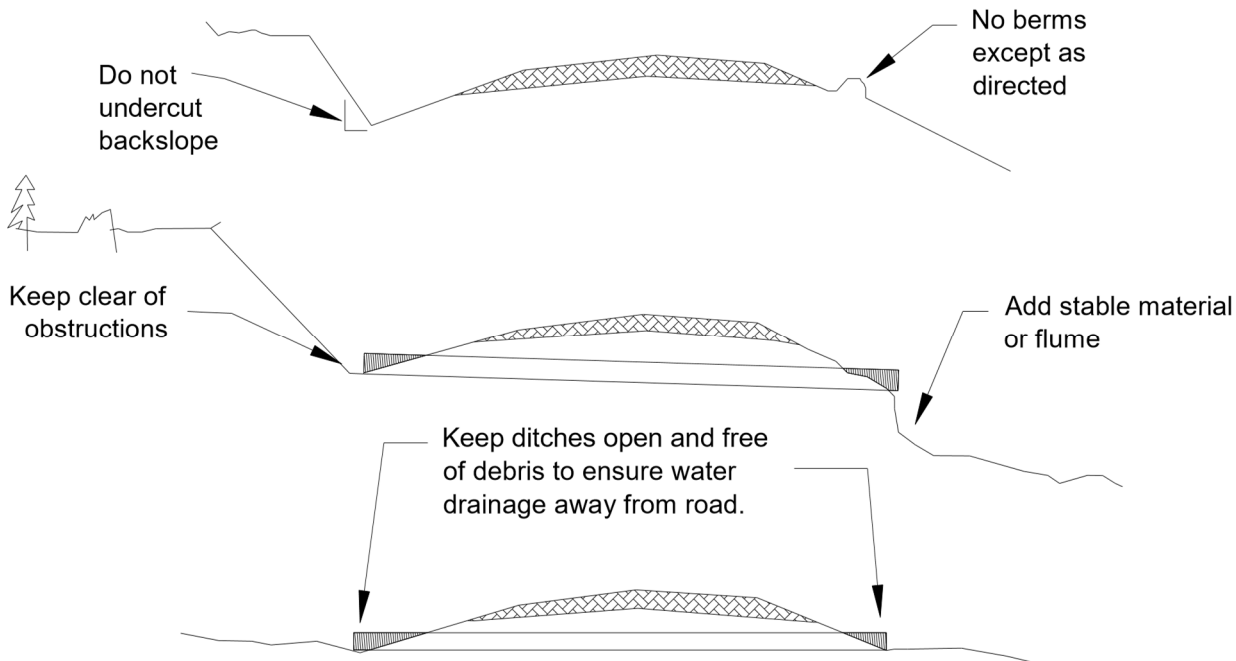
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

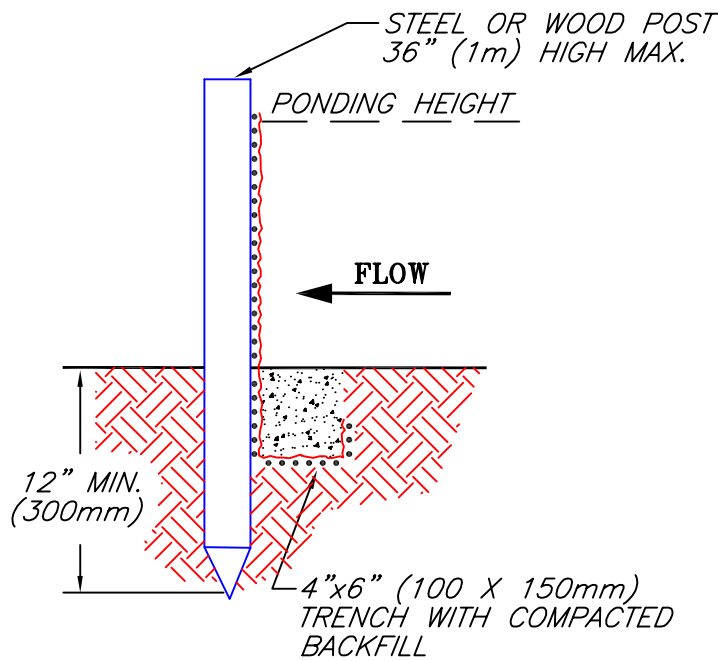
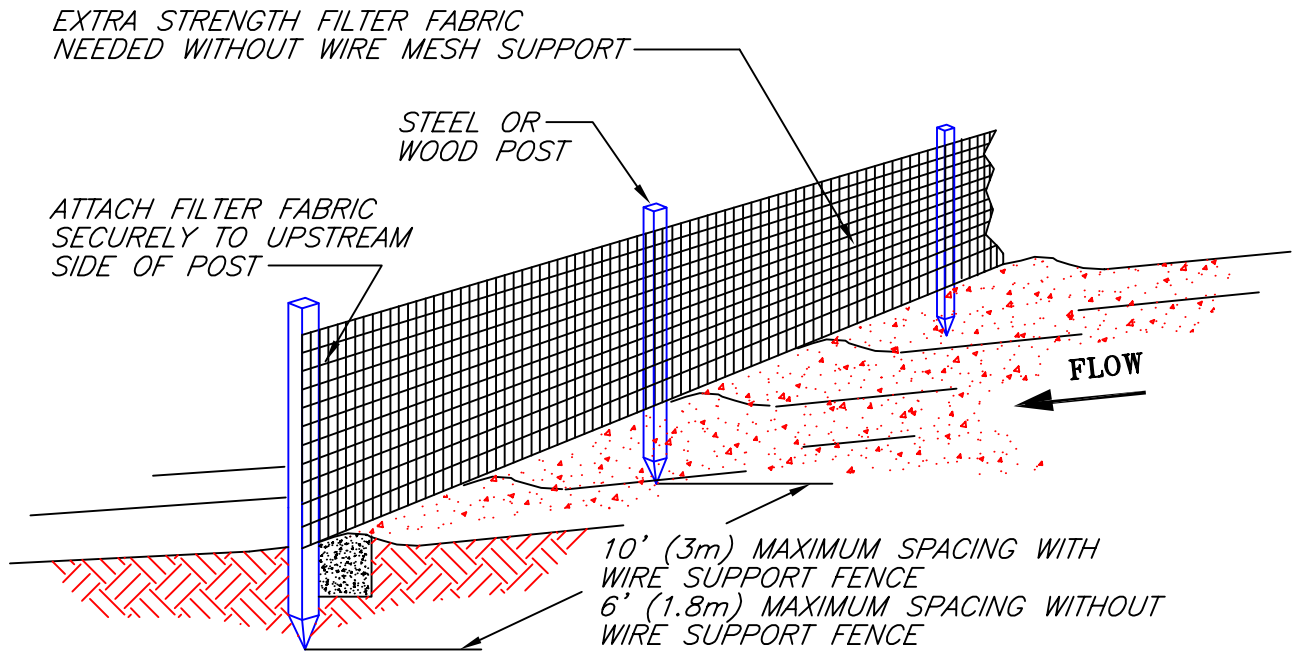
Termination of Use or End of Season

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

Debris

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





TRENCH DETAIL

NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

NOT TO SCALE

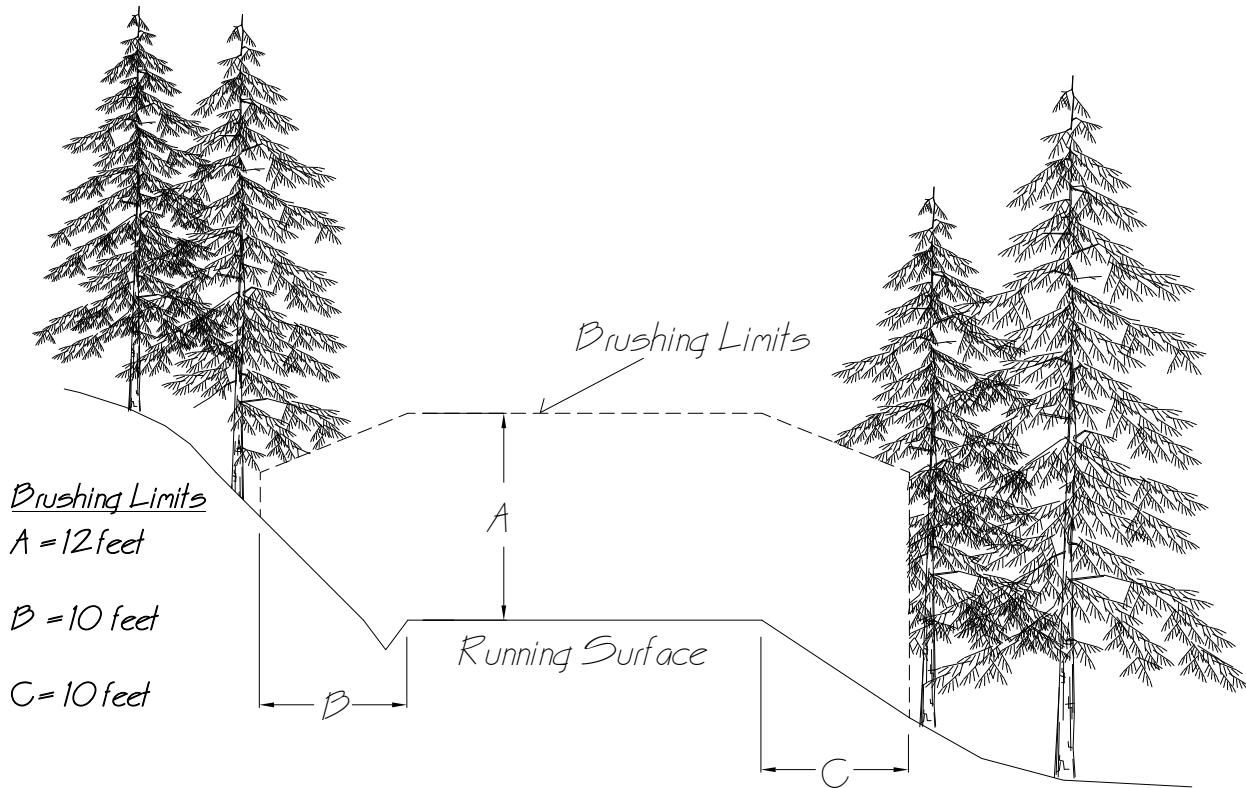
SILT FENCE

© 1994 JOHN McCULLAH

©

FILE: SILTFENC

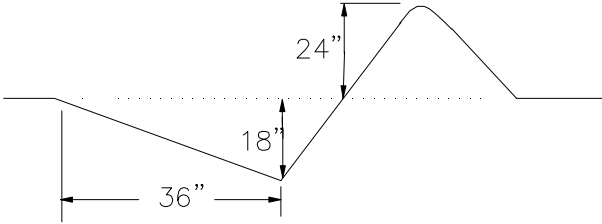
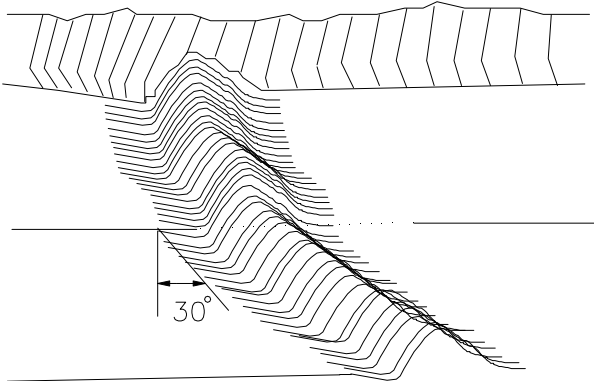
ROADSIDE BRUSHING DETAIL



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

NON-DRIVABLE WATER BAR DETAIL

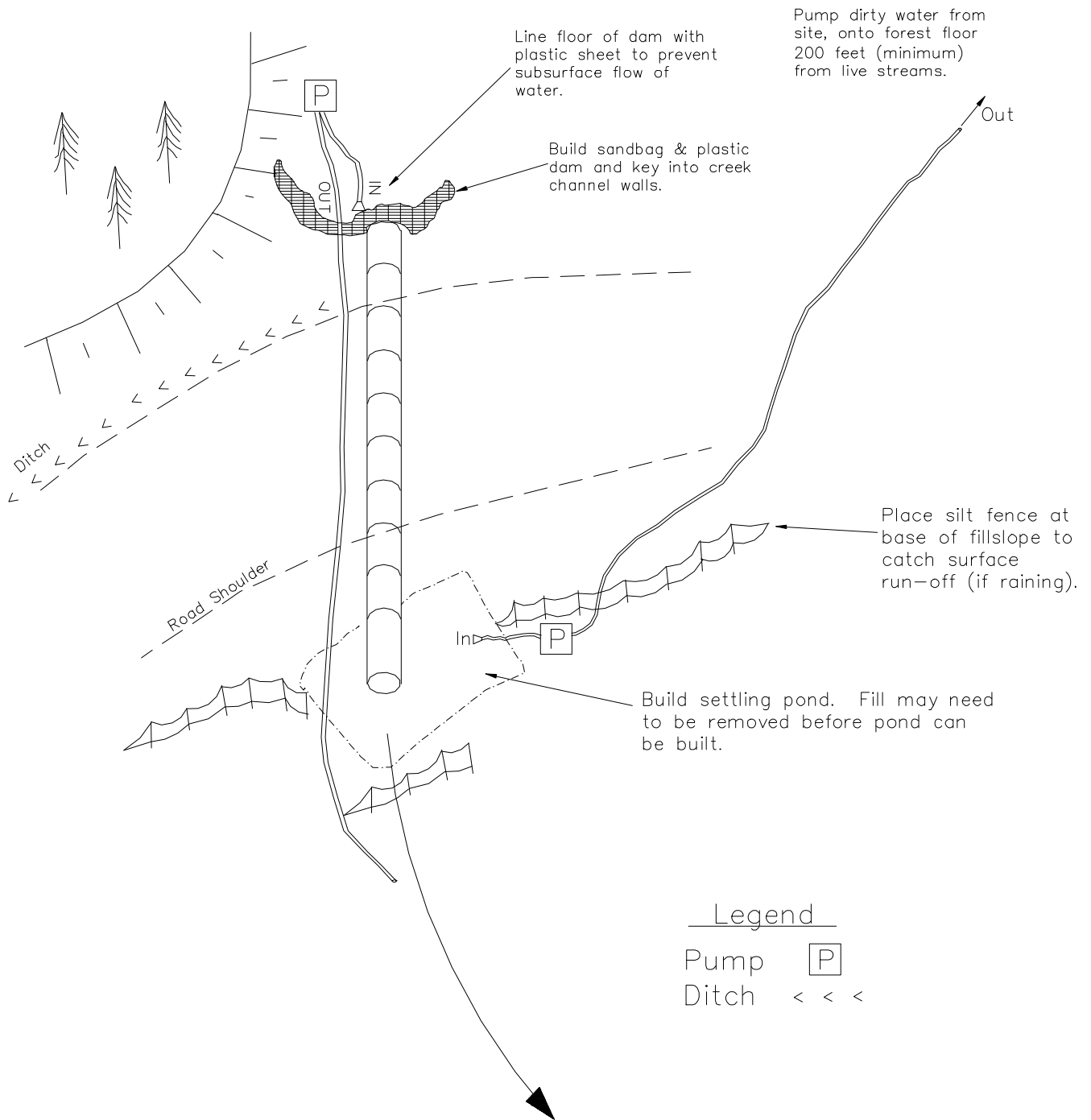


STREAM DIVERSION PROCEDURE

For culvert installation or removal in live waters, sites shall be dewatered within the area of direct influence of the stream. Stream culvert installations or removals will occur as follows, any deviations shall be approved, in writing, by the Contract Administrator.

1. Prior to any work within the high waterline, Purchaser shall contact the Contract Administrator for an on-site pre-work to submit a plan for pumping and/or diverting all stream flow around the work area and pumping and/or diverting any groundwater flow from out of the work area, as approved, in writing, by the Contract Administrator. The SETTLING POND AND PUMP DETAIL, included herein, is an example of a pre-approved dewatering plan.
2. Once the stream has been pumped and/or diverted, stream flow shall not be allowed through the work area until all work below the ordinary high water line has been completed and approved, in writing, by the Contract Administrator.
3. Sedimentation shall be avoided during culvert installation or removal in accordance with Road Plan Clause 1-29 SEDIMENT RESTRICTION.
4. Per Road Plan Clause 8-1 SEDIMENT CONTROL STRUCTURES, Purchaser shall install silt fences or other suitable sediment control methods as approved by the Contract Administrator.
5. Backfill any settling ponds and remove any diversion culverts.
6. Maintain a clean jobsite in accordance with Road Plan Clause 7-5 STRUCTURE DEBRIS.

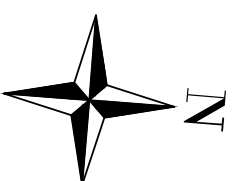
SETTLING POND AND PUMP DETAIL



GENERAL NOTES:

FIELD MEASUREMENTS TAKEN IN OCTOBER OF 2023.

ANY STANDING TIMBER REMOVED FROM THE SITE SHALL BE LEFT WHOLE AND PLACED IN THE CONSTRUCTED INLET CHANNEL FOLLOWING CONSTRUCTION, AS DESIGNATED BY THE DESIGN ENGINEER OR THEIR DESIGNEE.

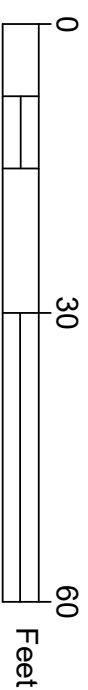


CONSTRUCTION NOTES:

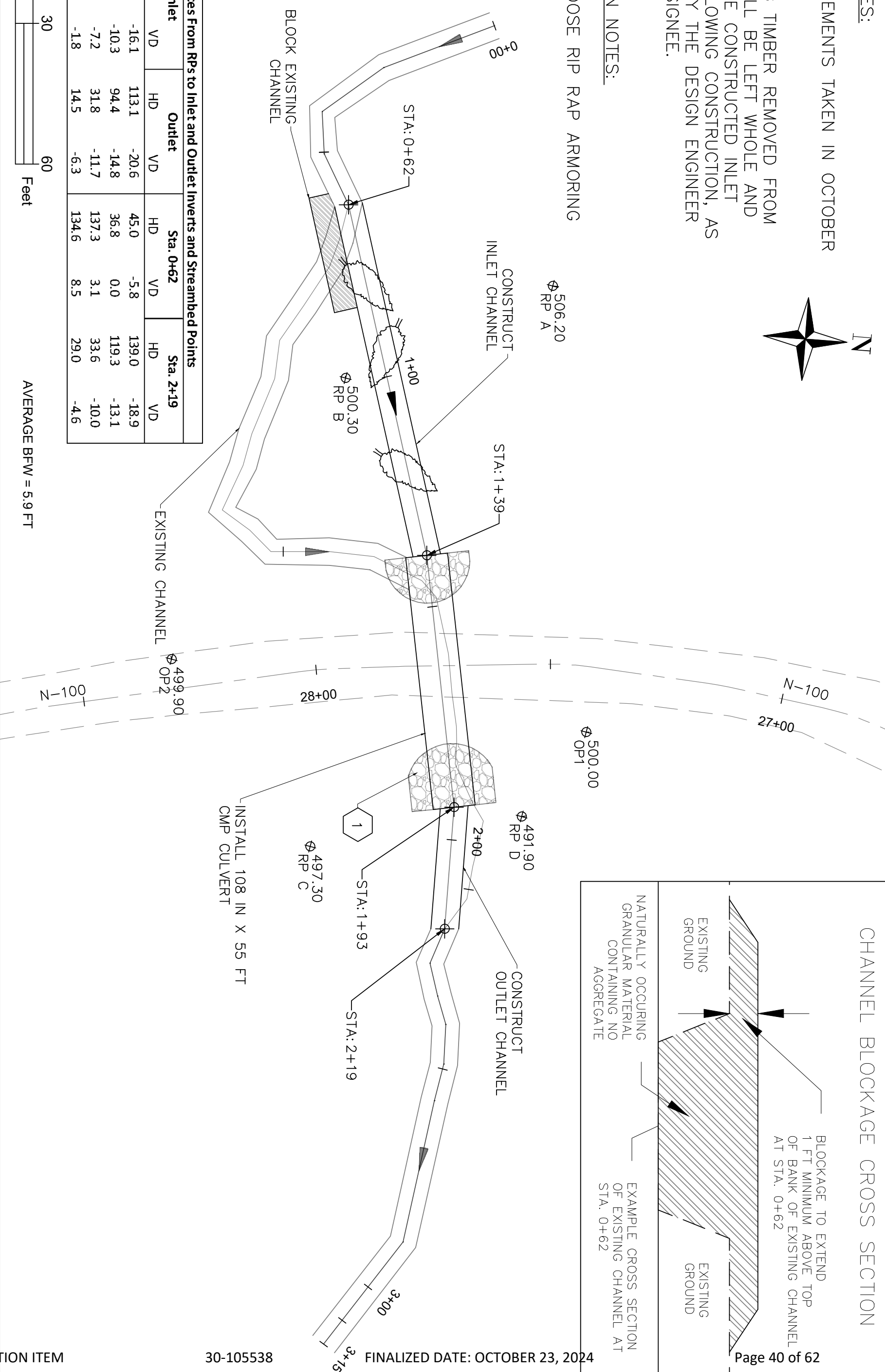
- 1 LIGHT LOOSE RIP RAP ARMORING

Ø 506.20
RP A

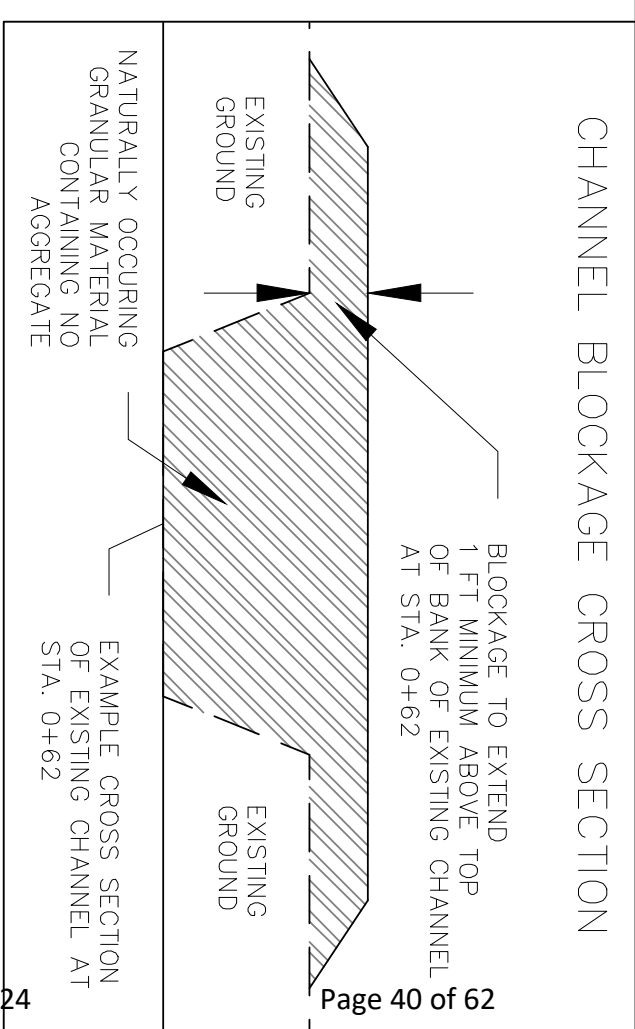
Distances From RPs to Inlet and Outlet Inverts and Streambed Points								
	Inlet		Outlet		Sta. 0+62		Sta. 2+19	
	HD	VD	HD	VD	HD	VD	HD	VD
RP A	63.4	-16.1	113.1	-20.6	45.0	-5.8	139.0	-18.9
RP B	41.6	-10.3	94.4	-14.8	36.8	0.0	119.3	-13.1
RP C	66.8	-7.2	31.8	-11.7	137.3	3.1	33.6	-10.0
RP D	59.2	-1.8	14.5	-6.3	134.6	8.5	29.0	-4.6



AVERAGE BFW = 5.9 FT



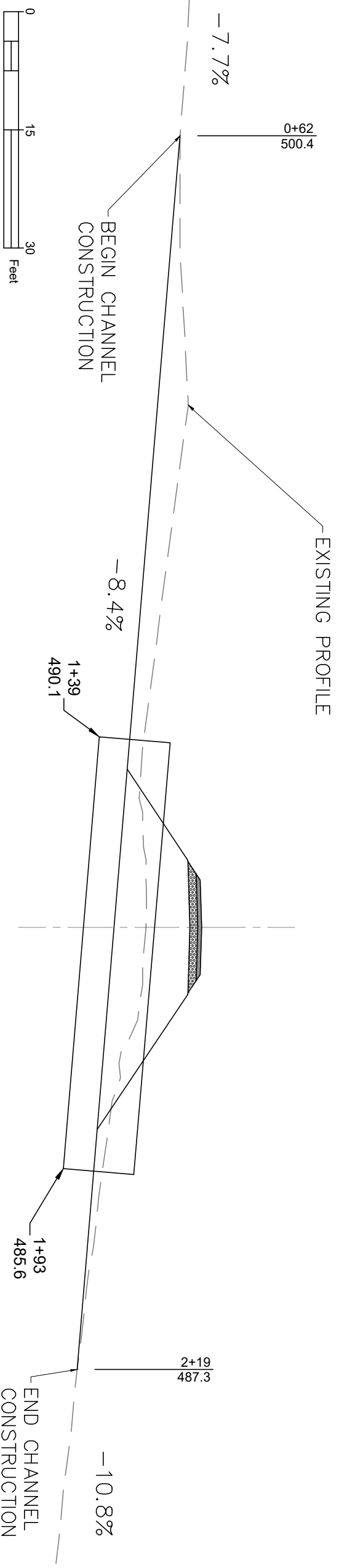
CHANNEL BLOCKAGE CROSS SECTION



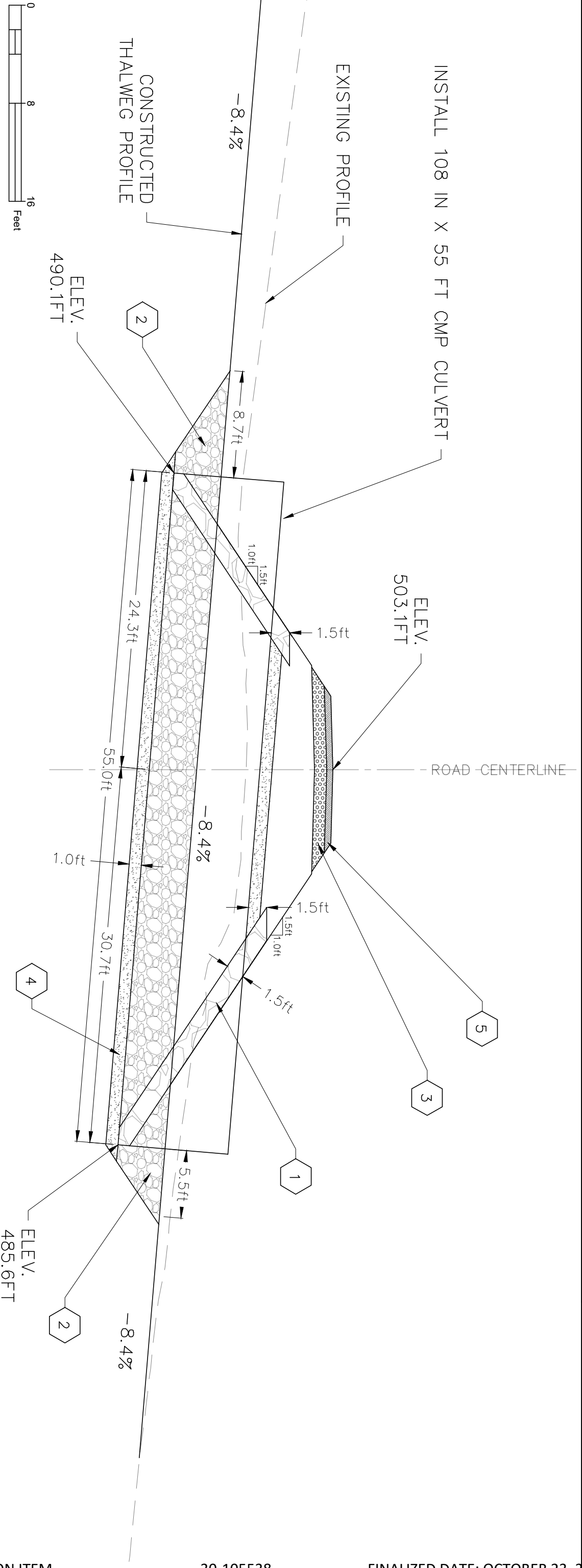
WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES


SITE PLAN
ACTION ITEM FISH CROSSING DESIGN
DESIGNED BY: G. GERRITSEN
DRAWN BY: G. GERRITSEN

LEGAL: Sec.17 T13N R05W
LAT & LONG: N46.6070° W123.3481°
DATE: 04/01/2024
REVISION DATE: XXXX/XXXX



- CONSTRUCTION NOTES:**
- 1 LIGHT LOOSE RIP RAP ARMORING
 - 2 STREAM SIMULATION ROCK
 - 3 SELECT PIT RUN
 - 4 1 1/4 INCH MINUS CRUSHED ROCK
 - 5 2 1/2 INCH MINUS CRUSHED ROCK





WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

STREAM PROFILE ACTION ITEM FISH CROSSING DESIGN

DESIGNED BY: G. GERRITSEN
DRAWN BY: G. GERRITSEN

LEGAL: Sec. 17 T13N R05W
LAT & LONG: N46.6070° W123.3481°
DATE: 04/01/2024
REVISION DATE: XXXX/XXXX

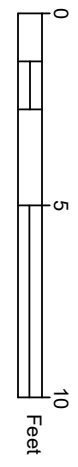
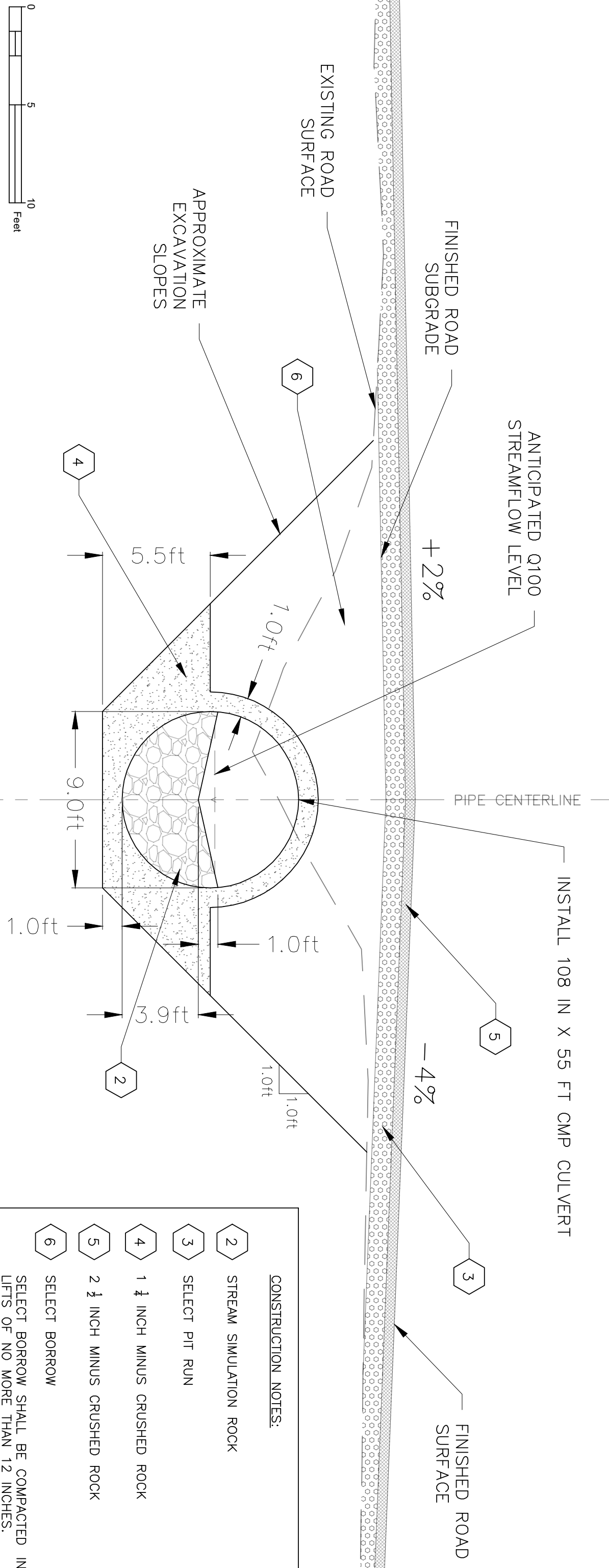
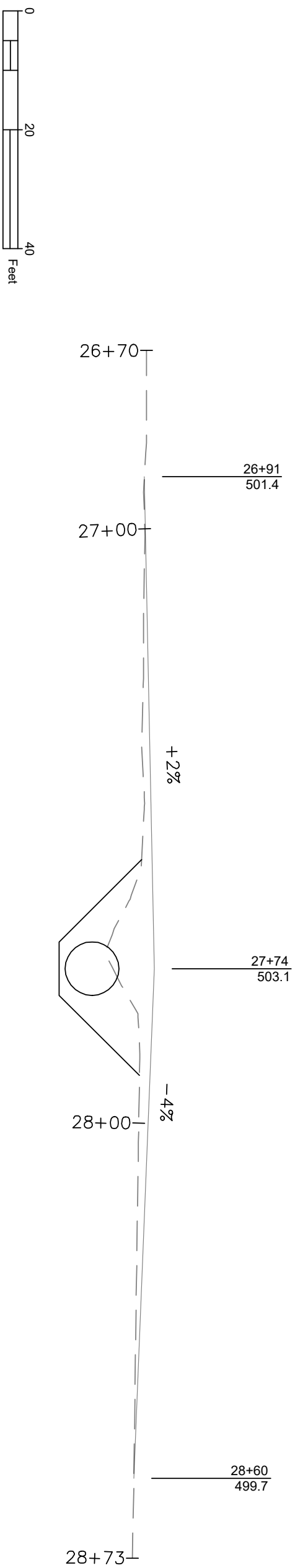
ACTION ITEM

30-105538

FINALIZED DATE: OCTOBER 23, 2024

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SHEET 2 OF 4



- CONSTRUCTION NOTES:**
- 2 STREAM SIMULATION ROCK
 - 3 SELECT PIT RUN
 - 4 1 ¼ INCH MINUS CRUSHED ROCK
 - 5 2 ½ INCH MINUS CRUSHED ROCK
 - 6 SELECT BORROW
- SELECT BORROW SHALL BE COMPACTED IN LIFTS OF NO MORE THAN 12 INCHES.

WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

CENTERLINE ROAD PROFILE
ACTION ITEM FISH CROSSING DESIGN

DESIGNED BY: G. GERRITSEN
DRAWN BY: G. GERRITSEN

LEGAL: Sec. 17 T 13N R05W
LAT & LONG: N46.6070° W123.3481°
DATE: 04/01/2024
REVISION DATE: XXXX/XXXX

ACTION ITEM

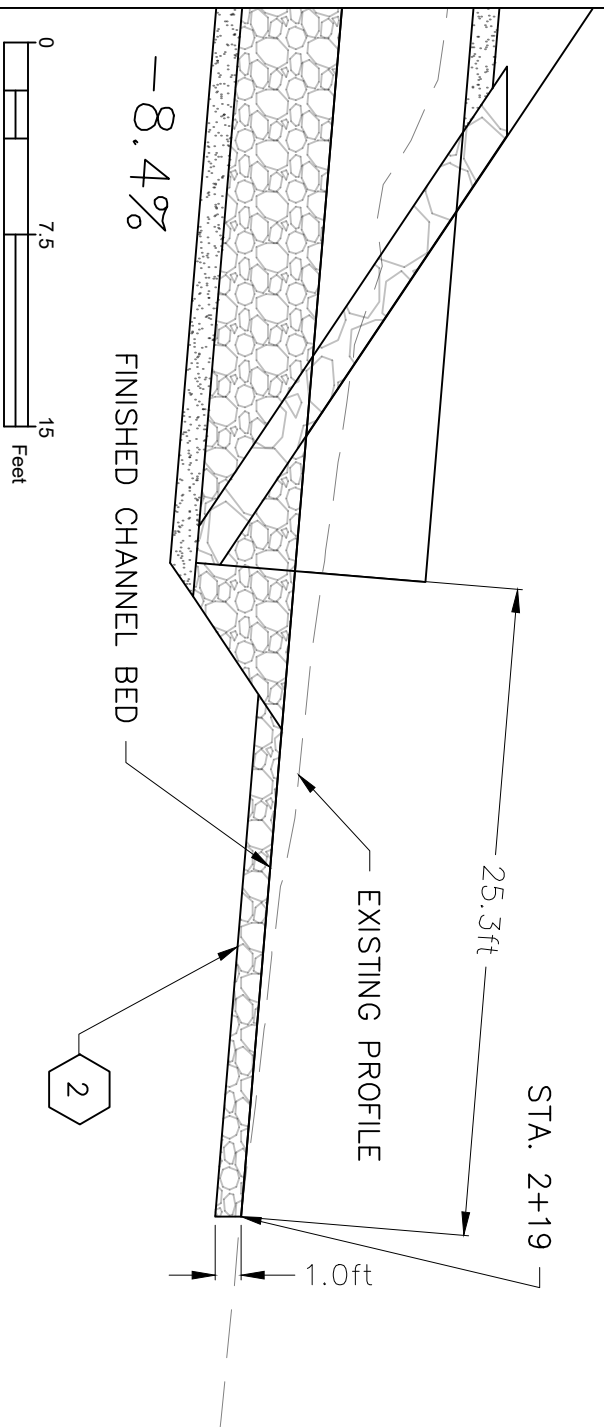
30-105538

FINALIZED DATE: OCTOBER 23, 2024

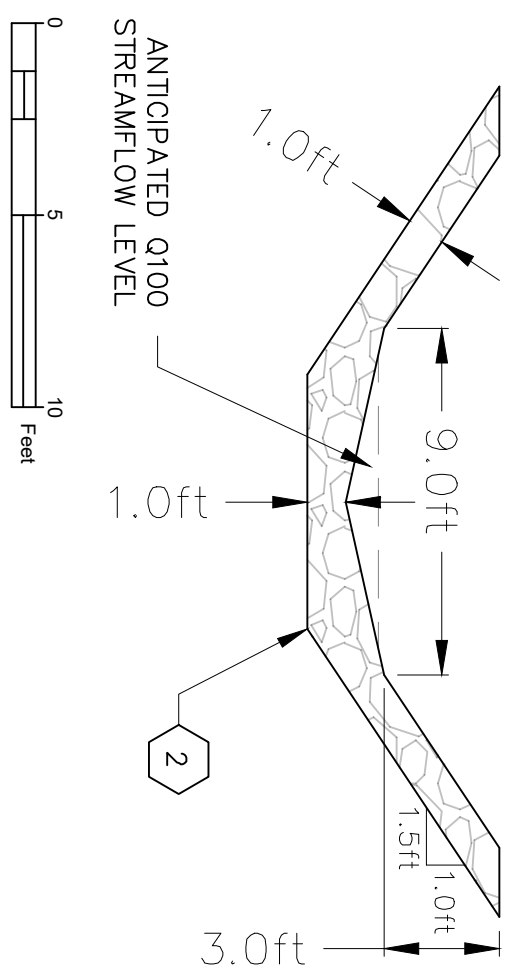
SHEET 3 OF 4

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OUTLET CHANNEL PROFILE



CHANNEL CROSS SECTION



CONSTRUCTION NOTES:

INLET AND OUTLET CHANNEL SHALL BE CONSTRUCTED TO MEET THE FOLLOWING:

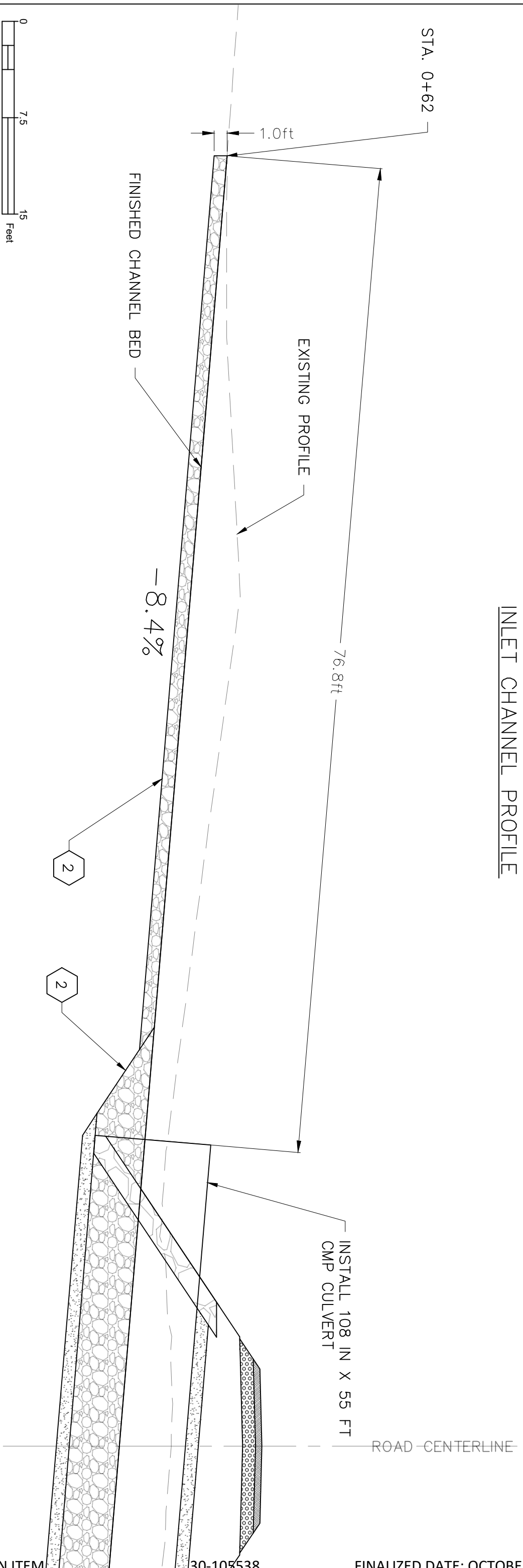
CHANNEL BED IS SHAPED TO PROVIDE A DEFINED LOW-FLOW PATH IN THE CENTER OF THE CHANNEL, AND ALLOWS FOR THE ANTICIPATED 5.9FT STREAM WIDTH AT TYPICAL STREAMFLOW.

CHANNEL BANKS PROVIDE 3 VERTICAL FEET OF ARMORING ABOVE THE ANTICIPATED TYPICAL STREAMFLOW LEVEL. MINIMUM THICKNESS OF CHANNEL BANK ARMORING IS 1 FT.



STREAM SIMULATION ROCK

INLET CHANNEL PROFILE



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

CHANNEL CONSTRUCTION DETAIL
ACTION ITEM FISH CROSSING DESIGN
DESIGNED BY: G. GERRITSEN
DRAWN BY: G. GERRITSEN

LEGAL: Sec.17 T13N R05W
LAT & LONG: N46.6070° W123.3481°
DATE: 04/01/2024
REVISION DATE: XXXX/XXXX

SHEET

4
OF
4

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PACIFIC CASCADE REGION

B&E QUARRY DEVELOPMENT PLAN

Section 24, Township 13 North, Range 06 West, W.M.

Page 1 of 3

1. Development shall begin in Area A. Once the elevation of Area A is reduced to the elevation of the Existing Pit Floor, development shall proceed into the pit floor within the combined area of Area A and the Existing Pit Floor. Development in any other area must be approved in writing by the Contract Administrator.
2. All vegetation including stumps shall be cleared a minimum of 20 feet beyond the top of all working faces.
3. Overburden shall be end hauled to the designated waste area and compacted. Minimal acceptable compaction is achieved by placing waste material in 2 foot or shallower lifts and routing excavation equipment over entire width of the lifts.
4. Root wads and organic debris larger than one cubic foot in volume shall be separated from overburden material and piled in the designated waste area.
5. Pit faces shall not exceed 25 feet in height and shall be sloped no steeper than ¼:1.
6. Working bench width shall be a minimum of 20 feet.
7. The pit floor shall have continuity of slope, providing drainage to the South at a minimum of 2 percent, unless otherwise approved in writing by Contract Administrator.
8. The location and amount of material to be placed in a stockpile are subject to approval of the Contract Administrator.
9. Oversize material remaining in the rock source at the conclusion of use shall not exceed 5 percent of the total volume mined during that operation. Oversize material is defined as rock fragments larger than two feet in any direction. At the conclusion of operations, oversize material shall be placed as directed by the Contract Administrator.
10. All operations shall be carried out in compliance with all regulations of:
 - a. Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration.
 - b. Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
11. The Operator shall submit an informational drilling and shooting plan to the Contract Administrator 10 working days prior to any drilling (Form # M-126PAC).

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PACIFIC CASCADE REGION

B&E QUARRY DEVELOPMENT PLAN

Section 24, Township 13 North, Range 06 West, W.M.

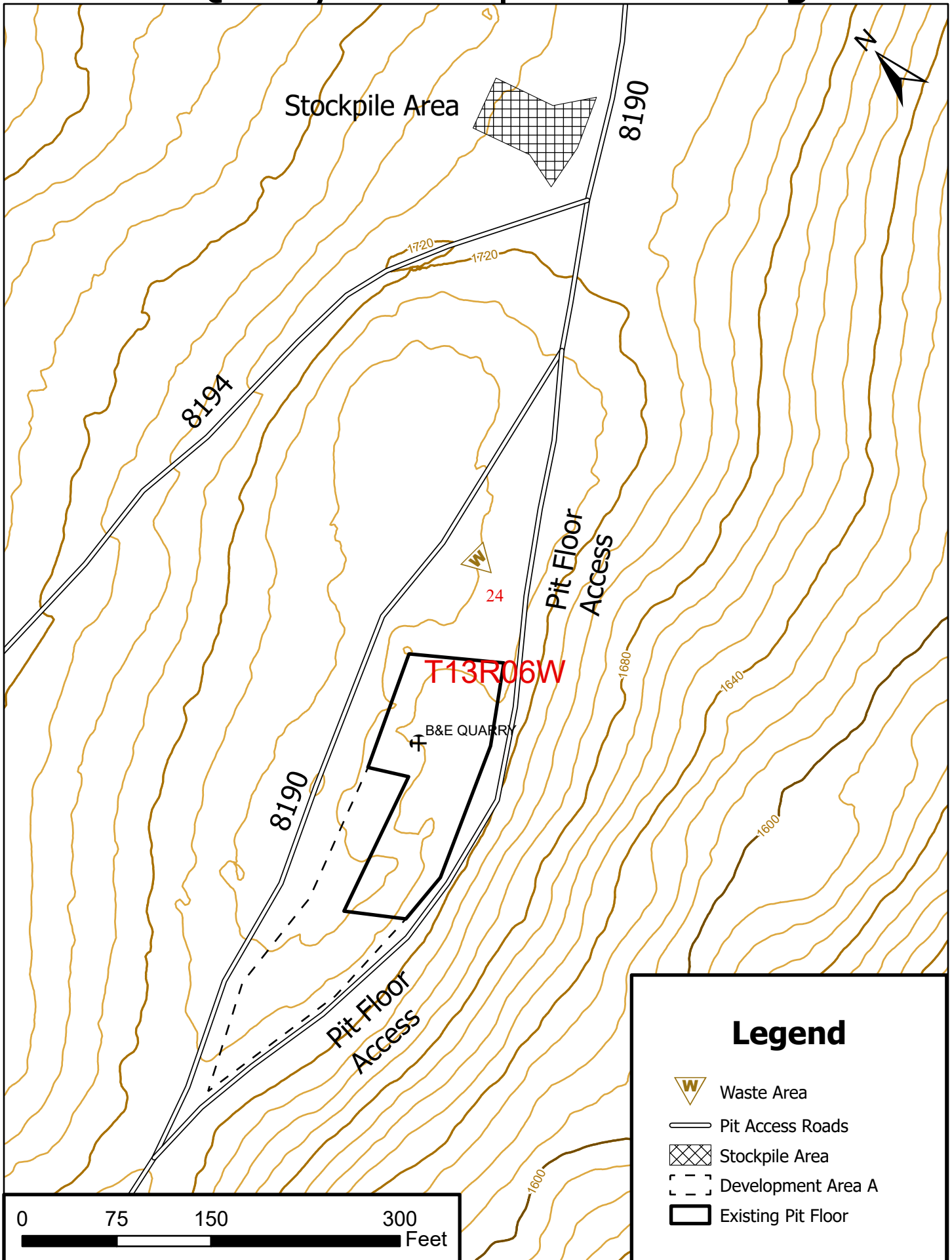
Page 2 of 3

12. Upon completion of pit operations:

- a. The pit floor shall be left in a smooth and neat condition. The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- b. All exposed soil in the waste area shall be grass seeded in accordance with Road Plan Clauses 8-15 REVEGETATION and 8-25 GRASS SEED.
- c. Pit faces and walls shall be scaled and cleared of loose and overhanging material.
- d. Benches and faces shall have safety berms constructed or access blocked to highway vehicles.
- e. The area will be left in a condition that will not endanger public safety, damage property, or be hazardous to animal or human life. The site shall be cleared of all temporary structures, equipment and rubbish, and shall be left in a neat and presentable condition.
- f. Prior to termination of the contract, quarry condition and compliance with all terms of the contract shall be approved in writing by the Contract Administrator.

13. Reclamation will not be required following use.

B&E Quarry Development Plan Pg. 3



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PACIFIC CASCADE REGION

INFORMATIONAL BLASTING PLAN

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

1. Blaster-in-Charge: Name: _____

Company: _____

Address: _____

Telephone: _____

2. Quarry Name/Location: _____

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

4. Hole Spacing: _____

5. Burden: _____

6. Hole Diameter: _____

7. Hole Depth: _____

8. Sub Drill: _____

9. Number of Holes: _____

10. Stemming Depth: _____

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

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

13. Total Weight of Primers for Shot: _____

14. Calculated Powder Factor/Cubic Yard: _____

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

M-126PAC (03/04)

INFORMATIONAL BLASTING PLAN

Page 2 of 3

16. Number of Holes Fired on Each Delay: _____

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

18. Type of Blasting Machine: _____

19. Date, Start Drilling: _____

20. Date and Time, Start Loading: _____

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

INFORMATIONAL BLASTING PLAN

Page 3 of 3

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

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

23. Submitted by: _____ Date: _____

24. Received by: _____ Date: _____

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

M-126PAC (03/04)

SUMMARY - Road Development Costs

REGION: Pacific Cascade

DISTRICT: Lewis

SALE NAME: Action Item

AGREEMENT #: 30-105538

ROAD NUMBERS:	Optional: N-100-EXT, 8189-EXT, Spur A, Spur B, Spur C		
	Required:	N-100	N-100, 8189
ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	21.85	5.00	41.10
CLEARING & GRUBBING, EXCAVATION AND FILL, MISC.:	\$16,923.77	\$2,129.55	\$2,825.07
ROAD ROCK:			
	Optional:	\$54,051.35	\$0.00
	Required:	\$0.00	\$22,087.88
	Total:	\$54,051.35	\$22,087.88
STOCKPILE:	-	-	\$0.00
CULVERTS AND FLUMES:	\$6,461.00	\$923.00	\$2,769.00
STRUCTURES:	-	\$29,220.20	-
MOBILIZATION:	\$2,930.78	\$368.79	\$489.23
TOTAL COSTS:	\$80,366.90	\$54,729.42	\$16,135.56
COST PER STATION:	\$3,678	\$10,946	\$393
ROAD DEACTIVATION & ABANDONMENT COSTS:	\$0.00	\$0.00	\$0.00
	10% OVERHEAD AND GENERAL EXPENSE =		\$15,123.19
	TOTAL (All Roads) =		\$166,355.07
	TOTAL (Minus Optional Rock) =		\$112,303.72
	SALE VOLUME MBF =		4,835
	TOTAL \$/MBF =		\$34.41
	TOTAL \$/MBF (Minus Optional Rock) =		\$23.23

Profit and Risk costs are accounted on an individual basis.

ROCK DEVELOPMENT COST SUMMARY

Pit:	B&E Quarry	Location:	T13R06W
Sale:	Action Item	Road:	3703 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	3703 c.y.
Drill Pct.:	50%	In Place Total:	2645 c.y.

Drill & Shoot:	\$4.50	/cu.yd x	1323	cu.yds.	\$5,953.50
Rip Rock:	\$2.50	/cu.yd x	1322	cu.yds.	\$3,305.00
Push Rock:	\$0.67	/cu.yd x	3703	cu.yds.	\$2,481.01
Load Crusher:	\$0.75	/cu.yd x	3703	cu.yds.	\$2,777.25
Crush 6" Rock:	\$6.50	/cu.yd x	3703	cu.yds.	\$24,069.50
Load Dump Truck:	\$1.50	/cu.yd x	3703	cu.yds.	\$5,554.50
				Subtotal	\$44,140.76

Move In/Set-up Jaw	1	@	\$927.13	=	\$927.13
Move In and set up Drill and Compressor	1	@	\$345.17	=	\$345.17
Move in Loader	1	@	\$458.33	=	\$458.33
Move in Excavator	1	@	\$611.93	=	\$611.93
				Subtotal	\$2,342.56

TOTAL PRODUCTION COSTS \$46,483.32

Base Cost= \$12.55 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Application Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-Way Dist (ft)	ROCK COST
N-100 Material Inside Culvert	\$8.10	\$6.00	\$12.55	\$26.65	167	15	16110	\$4,450.55
N-100	\$8.10	\$1.00	\$12.55	\$21.65	350	15	16110	\$7,577.50
N-100 Backfill	\$8.10	\$1.00	\$12.55	\$21.65	176	15	16110	\$3,810.40
N-100-EXT Energy Dissipator	\$8.29	\$6.00	\$12.55	\$26.84	2	15	16610	\$53.68
N-100-EXT	\$8.29	\$1.00	\$12.55	\$21.84	554	15	16610	\$12,099.36
8189	\$3.56	\$1.00	\$12.55	\$17.11	99	15	4110	\$1,693.89
8189 Energy Dissipator	\$3.56	\$6.00	\$12.55	\$22.11	3	15	4110	\$66.33
8189-EXT	\$4.16	\$1.00	\$12.55	\$17.71	1440	15	5714	\$25,502.40
8189-EXT Energy Dissipator	\$4.16	\$6.00	\$12.55	\$22.71	3	15	5714	\$68.13
Spur A	\$4.87	\$1.00	\$12.55	\$18.42	274	15	7564	\$5,047.08
Spur B Energy Dissipator	\$4.45	\$6.00	\$12.55	\$23.00	1	15	6464	\$23.00
Spur B	\$4.45	\$1.00	\$12.55	\$18.00	339	15	6464	\$6,102.00
Spur C Inlet and Outlet Armorin	\$3.91	\$6.00	\$12.55	\$22.46	1	15	5040	\$22.46
Spur C	\$3.91	\$1.00	\$12.55	\$17.46	294	15	5040	\$5,133.24
					Total C.Y.	3703	Sub Total	\$71,650.02

TOTAL ROCKING COSTS \$71,650.02

ROCK DEVELOPMENT COST SUMMARY

Pit:	Walville Quarry Stockpile	Location:	
Sale:	Action Item	Road:	789 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	789 c.y.
Drill Pct.:	0%	In Place Total:	564 c.y.

Load Dump Truck:	\$1.50	/cu.yd x	789 cu.yds.	\$1,183.50
			Subtotal	\$1,183.50

Base Cost=	\$1.50	Per Cu.Yd.		TOTAL PRODUCTION COSTS \$1,183.50
------------	--------	------------	--	-----------------------------------

Road Segment	Haul Cost /cu.yd.	Application Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-way Dist (ft)	ROCK COST
N-100	\$11.53	\$1.00	\$1.50	\$14.03	548	18	30200	\$7,688.44
N-100	\$11.53	\$1.00	\$1.50	\$14.03	150	18	30200	\$2,104.50
N-100 Inlet and Outlet Armorir	\$11.53	\$6.00	\$1.50	\$19.03	31	18	30200	\$589.93
8189 Crossdrain Backfill	\$7.56	\$1.00	\$1.50	\$10.06	60	18	17600	\$603.60
				Total C.Y.	789		Sub Total	\$10,986.47

TOTAL ROCKING COSTS \$10,986.47

ROCK DEVELOPMENT COST SUMMARY

Pit:	Commercial Source	Location:	
Sale:	Action Item	Road:	90 c.y.
Swell:	0.00	Stockpile:	c.y.
Shrinkage	0.00	Total Truck Loads:	90 c.y.
Drill Pct.:	0%	In Place Total:	c.y.

Purchase 1 1/4" Minus Crushed \$13.50 /ton x 130 tons = \$1,755.00
Subtotal \$1,755.00

TOTAL PRODUCTION COSTS \$1,755.00

Base Cost= \$19.50 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Application Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-way Dist (ft)	ROCK COST
N-100 Stream Culvert Bedding	\$19.00	\$1.00	\$19.50	\$39.50	90	15	44880	\$3,555.00
					Total C.Y.	90	Sub Total	\$3,555.00

TOTAL ROCKING COSTS \$3,555.00

SUMMARY OF ROAD

Sale:	Action Item		Road:	N-100
	Required Pre-Haul Maintenance- 26+60 stations 0.50 miles	Required Reconstruction - 0+00 stations 0.00 miles	Required Construction - 0+00 stations 0.00 miles	
	Required Abandonment- 0+00 stations 0.00 miles	Optional Reconstruction - 0+00 stations 0.00 miles	Optional Construction - 0+00 stations 0.00 miles	

PRE-HAUL MAINTENANCE

MISC.

Desod, grade and shape existing road surface -	26.60	stations @	\$18.25	per station	\$485.45
Roll shaped road surface w/ vibratory roller prior to rocking -	26.60	stations @	\$9.70	per station	\$258.02
Remove and replace silt fence - 1+00 to 2+50	1.50	@	\$42.11	each	\$63.17
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$806.64

ROCK

0+00	to	26+60	548	cy. of	2 1/2 Inch Minus Crushed Rock	@	\$14.03	per c.y.=	\$7,688.44	
									TOTAL ROCK	\$7,688.44

SUBTOTAL **\$8,495.08**

MOBILIZATION

SUBTOTAL **\$139.69**

OVERHEAD & GENERAL EXPENSES

10%

SUBTOTAL **\$863.48**

Optional Rock? NO

TOTAL **\$9,498.25**

COST PER STATION **\$357.08**

SUMMARY OF ROAD

Sale:	Action Item			Road:	N-100
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -	5+00 0.09	stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -	0+00 0.00	stations miles
			Required Construction -	0+00 0.00	stations miles
			Optional Construction -	0+00 0.00	stations miles

RECONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	5.00	sta @	\$140.00	per sta	\$700.00
Construct waste areas -	2.00	hours @	\$180.00	per hour	\$360.00

EXCAVATION

Pull and clean ditch-	5.00	stations @	\$67.19	per station	\$335.95
Grade and shape subgrade -	5.00	stations @	\$14.60	per station	\$73.00

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	5.00	stations @	\$12.12	per station	\$60.60
Apply grass seed per Clause 8-15 -	40.00	lbs @	\$15.00	per lbs	\$600.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$2,129.55**

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	30	LF of 18"	\$915.00	0	LF of 24"	\$0.00
			\$915.00			\$0.00
<u>Culvert Stakes & Markers</u>	1	markers	\$8.00			
			\$8.00			
				TOTAL CULVERTS		\$923.00

ROCK

26+60 to 31+60	150	cy. of	2 1/2 Inch Minus Crushed Rock	@	\$14.03	per c.y.=	\$2,104.50
Stream Culvert Bedding	27+74	90	1 1/4 Inch Minus Crushed Rock	@	\$39.50	per c.y.=	\$3,555.00
Material Inside Culvert	27+74	167	Stream Simulation Rock	@	\$26.65	per c.y.=	\$4,450.55
Inlet and Outlet Armoring	27+74	31	Light Loose Rip Rap	@	\$19.03	per c.y.=	\$589.93
26+60 to 31+60	350	cy. of	6-Inch Jaw Run	@	\$21.65	per c.y.=	\$7,577.50
Backfill	27+74	176	Select Borrow	@	\$21.65	per c.y.=	\$3,810.40
						TOTAL ROCK	\$22,087.88

ADDITIONAL REQUIREMENTS

Purchase 108in x 55ft Culvert -	55.00	feet @	\$400.00	per foot	\$22,000.00
Stream diversion installation -	2.00	hrs @	\$256.60	per hr	\$513.20
Stream pumping -	3.00	days @	\$141.60	per day	\$424.80
Excavation and channel construction -	15.00	hours @	\$215.00	per hr	\$3,225.00
Endhaul to waste area -	50.00	c.y. @	\$2.60	per c.y.	\$130.00
Labor -	3.00	days @	\$832.00	per day	\$2,496.00
Backfill structure (on site material) -	176.00	c.y. @	\$2.00	per c.y.	\$352.00
Compact backfill material -	176.00	c.y. @	\$0.45	per c.y.	\$79.20
				TOTAL ADDITIONAL REQUIREMENTS	\$29,220.20

SUBTOTAL **\$54,360.63**

MOBILIZATION

SUBTOTAL **\$368.79**

OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$5,472.94**

TOTAL \$60,202.36

Optional Rock? NO

COST PER STATION \$12,040.47

SUMMARY OF ROAD

Sale:	Action Item		Road:	N-100-EXT
	Required Pre-Haul Maintenance- 0+00 stations 0.00 miles	Required Reconstruction - 0+00 stations 0.00 miles	Required Construction - 0+00 stations 0.00 miles	
	Required Abandonment- 0+00 stations 0.00 miles	Optional Reconstruction - 0+00 stations 0.00 miles	Optional Construction - 4+20 stations 0.08 miles	

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	4.20	sta @	\$280.00	per sta	\$1,176.00
Remove large stumps -	3.00	@	\$350.00	each	\$1,050.00

EXCAVATION

Road Construction Earthwork	4.20	sta. @	\$269.23	per sta. =	\$1,130.77
Grade and shape subgrade -	4.20	stations @	\$14.60	per station	\$61.32

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	4.20	stations @	\$12.12	per station	\$50.90
Construct turnaround -	1.00	@	\$134.62	each	\$134.62
Construct landing -	1.00	@	\$538.46	each	\$538.46

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$4,142.07**

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	60	LF of 18"	<u>\$1,830.00</u>	0	LF of 24"	\$0.00
			\$1,830.00			\$0.00
<u>Culvert Stakes & Markers</u>						
2 markers			<u>\$16.00</u>			
			\$16.00			
				<u>TOTAL CULVERTS</u>		\$1,846.00

ROCK

Energy Dissipator	0+50, 3+50	2	cy. of	Quarry Spalls	@	\$26.84	per c.y. =	\$53.68
0+00 to	4+20	554	cy. of	6-Inch Jaw Run	@	\$21.84	per c.y. =	<u>\$12,099.36</u>
								TOTAL ROCK

\$12,153.04

SUBTOTAL **\$18,141.11**

MOBILIZATION

SUBTOTAL **\$717.30**

OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$1,885.84**

TOTAL \$20,744.25

Optional Rock? YES

COST PER STATION \$4,939.11

SUMMARY OF ROAD

Sale:	Action Item		Road:	8189							
Required Pre-Haul Maintenance-	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td align="center">14+50</td></tr> <tr><td align="center">0.27</td></tr> </table> stations miles	14+50	0.27	Required Reconstruction -	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td align="center">0+00</td></tr> <tr><td align="center">0.00</td></tr> </table> stations miles	0+00	0.00	Required Construction -	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td align="center">0+00</td></tr> <tr><td align="center">0.00</td></tr> </table> stations miles	0+00	0.00
14+50											
0.27											
0+00											
0.00											
0+00											
0.00											
Required Abandonment-	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td align="center">0+00</td></tr> <tr><td align="center">0.00</td></tr> </table> stations miles	0+00	0.00	Optional Reconstruction -	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td align="center">0+00</td></tr> <tr><td align="center">0.00</td></tr> </table> stations miles	0+00	0.00	Optional Construction -	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td align="center">0+00</td></tr> <tr><td align="center">0.00</td></tr> </table> stations miles	0+00	0.00
0+00											
0.00											
0+00											
0.00											
0+00											
0.00											

PRE-HAUL MAINTENANCE

CLEARING

Roadside Brushing 0.27 miles @ \$1,170.00 per mile = \$315.90

EXCAVATION

Reconstruct ditch -	14.50	stations @	\$67.19	per station	\$974.26
Clean culvert inlet and outlet @ sta. 3+90 -	1.00	@	\$53.75	per culvert	\$53.75
Construct turnout @ sta. 9+60 -	1.00	@	\$134.62	each	\$134.62
Construct turnaround @ sta. 14+20 -	1.00	@	\$134.62	each	\$134.62

MISC.

Grade and shape existing road surface -	14.50	stations @	\$18.25	per station	\$264.63
Roll shaped road surface w/ vibratory roller prior to rocking -	14.50	stations @	\$9.70	per station	\$140.65

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$2,018.43**

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>					
90	LF of 18"	\$2,745.00	0	LF of 24"	\$0.00
		\$2,745.00			\$0.00
<u>Culvert Stakes & Markers</u>					
3	markers	\$24.00			
		\$24.00			
			<u>TOTAL CULVERTS</u>		\$2,769.00

ROCK

Crossdrain Backfill	0+30, 6+50, 11+30	60	cy. of	2 1/2 Inch Minus Crushed Rock	@	\$10.06	per c.y.=	\$603.60	
0+00 to Energy Dissipator	14+50 +30, 6+50, 11+30	99	cy. of	6-Inch Jaw Run Quarry Spalls	@	\$17.11	per c.y.=	\$1,693.89	
		3	cy. of		@	\$22.11	per c.y.=	\$66.33	
							<u>TOTAL ROCK</u>		\$2,363.82

SUBTOTAL **\$7,151.25**

MOBILIZATION

SUBTOTAL **\$0.00**

OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$715.13**

Optional Rock?

TOTAL \$7,866.38

COST PER STATION \$542.51

SUMMARY OF ROAD

Sale:	Action Item		Road:	8189-EXT
Required	0+00	stations	Required	0+00
Pre-Haul Maintenance-	0.00	miles	Reconstruction -	0.00
			stations	stations
			miles	miles
Required	0+00	stations	Required	12+60
Abandonment-	0.00	miles	Optional	0.24
			Reconstruction -	0.00
			stations	stations
			miles	miles

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	12.60	sta @	\$280.00	per sta	\$3,528.00
Remove large stumps -	5.00	@	\$350.00	each	\$1,750.00

EXCAVATION

Road Construction Earthwork	12.60	sta. @	\$152.17	per sta. =	\$1,917.34
Grade and shape subgrade -	12.60	stations @	\$14.60	per station	\$183.96

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	12.60	stations @	\$12.12	per station	\$152.71
Construct turnaround -	1.00	@	\$134.62	each	\$134.62
Construct landing -	1.00	@	\$538.46	each	\$538.46

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$8,205.09**

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>					
90	LF of 18"	\$2,745.00	0	LF of 24"	\$0.00
		\$2,745.00			\$0.00
<u>Culvert Stakes & Markers</u>					
3	markers	\$24.00			
		\$24.00			
			TOTAL CULVERTS		\$2,769.00

ROCK

0+00 to	12+60	1,440	cy. of	6-Inch Jaw Run	@	\$17.71	per c.y.=	\$25,502.40
Energy Dissipator	+55, 6+25, 9+8	3	cy. of	Quarry Spalls	@	\$22.71	per c.y.=	\$68.13
								TOTAL ROCK \$25,570.53

SUBTOTAL **\$36,544.62**

MOBILIZATION

SUBTOTAL **\$1,420.92**

OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$3,796.55**

Optional Rock?

TOTAL **\$41,762.09**

COST PER STATION \$3,314.45

SUMMARY OF ROAD

Sale:	Action Item		Road:	Spur A
	Required Pre-Haul Maintenance- 0+00 stations 0.00 miles	Required Reconstruction - 0+00 stations 0.00 miles	Required Construction - 0+00 stations 0.00 miles	Required Construction - 0+00 stations 0.00 miles
	Required Abandonment- 0+00 stations 0.00 miles	Optional Reconstruction - 0+00 stations 0.00 miles	Optional Construction - 1+40 stations 0.03 miles	Optional Construction - 1+40 stations 0.03 miles

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris 1.40 sta @ \$280.00 per sta \$392.00

EXCAVATION

Road Construction Earthwork 1.40 sta. @ \$152.17 per sta. = \$213.04
 Grade and shape subgrade - 1.40 stations @ \$14.60 per station \$20.44

MISC.

Roll subgrade w/ vibratory roller prior to rocking - 1.40 stations @ \$12.12 per station \$16.97
 Construct turnaround - 1.00 @ \$134.62 each \$134.62
 Construct landing - 1.00 @ \$538.46 each \$538.46

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$1,315.53**

ROCK

0+00 to 1+40 274 cy. of 6-Inch Jaw Run @ \$18.42 per c.y. = \$5,047.08

TOTAL ROCK **\$5,047.08**

SUBTOTAL **\$6,362.61**

MOBILIZATON

SUBTOTAL **\$227.82**

OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$659.04**

TOTAL \$7,249.47

Optional Rock? YES

COST PER STATION \$5,178.19

SUMMARY OF ROAD

Sale:	Action Item		Road:	Spur B
	Required Pre-Haul Maintenance- 0+00 stations 0.00 miles	Required Reconstruction - 0+00 stations 0.00 miles	Required Construction - 0+00 stations 0.00 miles	Optional Reconstruction - 0+00 stations 0.00 miles
	Required Abandonment- 0+00 stations 0.00 miles	Optional Reconstruction - 0+00 stations 0.00 miles	Optional Construction - 2+05 stations 0.04 miles	

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris 2.05 sta @ \$280.00 per sta \$574.00

EXCAVATION

Road Construction Earthwork 2.05 sta. @ \$269.23 per sta. = \$551.92
 Grade and shape subgrade - 2.05 stations @ \$14.60 per station \$29.93

MISC.

Roll subgrade w/ vibratory roller prior to rocking - 2.05 stations @ \$12.12 per station \$24.85
 Construct turnaround @ sta. - 1.00 @ \$134.62 each \$134.62
 Construct landing - 1.00 @ \$538.46 each \$538.46

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$1,853.78**

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	30 LF of 18"	\$915.00	0 LF of 24"	\$0.00
		\$915.00		\$0.00
<u>Culvert Stakes & Markers</u>	1 markers	\$8.00		
		\$8.00		
			TOTAL CULVERTS	\$923.00

ROCK

Energy Dissipator 0+45 1 cy. of Quarry Spalls @ \$23.00 per c.y. = \$23.00
 0+00 to 2+05 339 cy. of 6-Inch Jaw Run @ \$18.00 per c.y. = \$6,102.00

TOTAL ROCK **\$6,125.00**

SUBTOTAL **\$8,901.78**

MOBILIZATION

SUBTOTAL **\$321.03**

OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$922.28**

Optional Rock? YES

TOTAL \$10,145.09

COST PER STATION \$4,948.82



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES
FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

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

EXCISE TAX EXEMPT ACTIVITIES

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

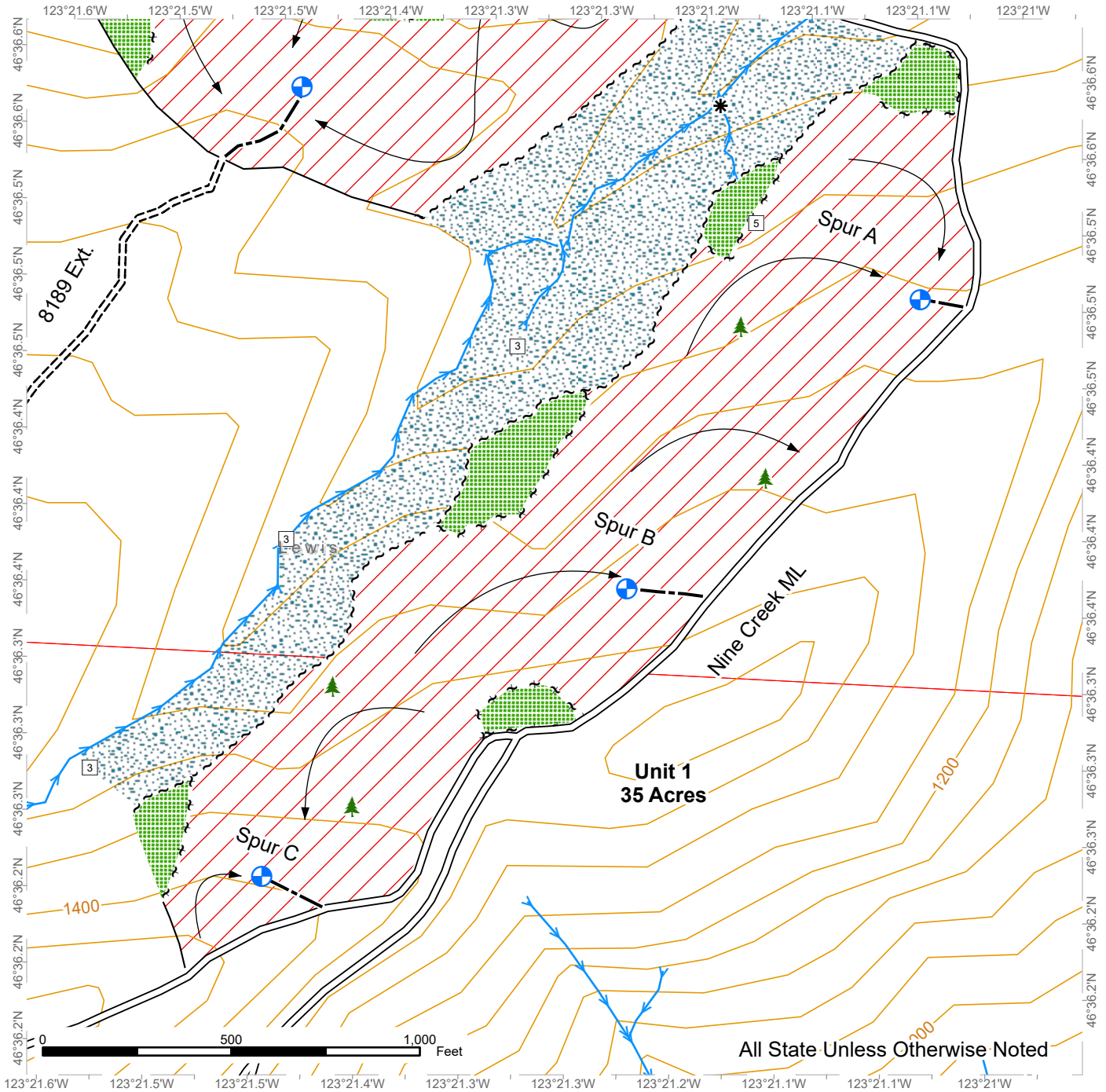
Temporary Reconstruction: **linear feet**
Roads to be reconstructed (optional and required) and then abandoned

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

LOGGING PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440

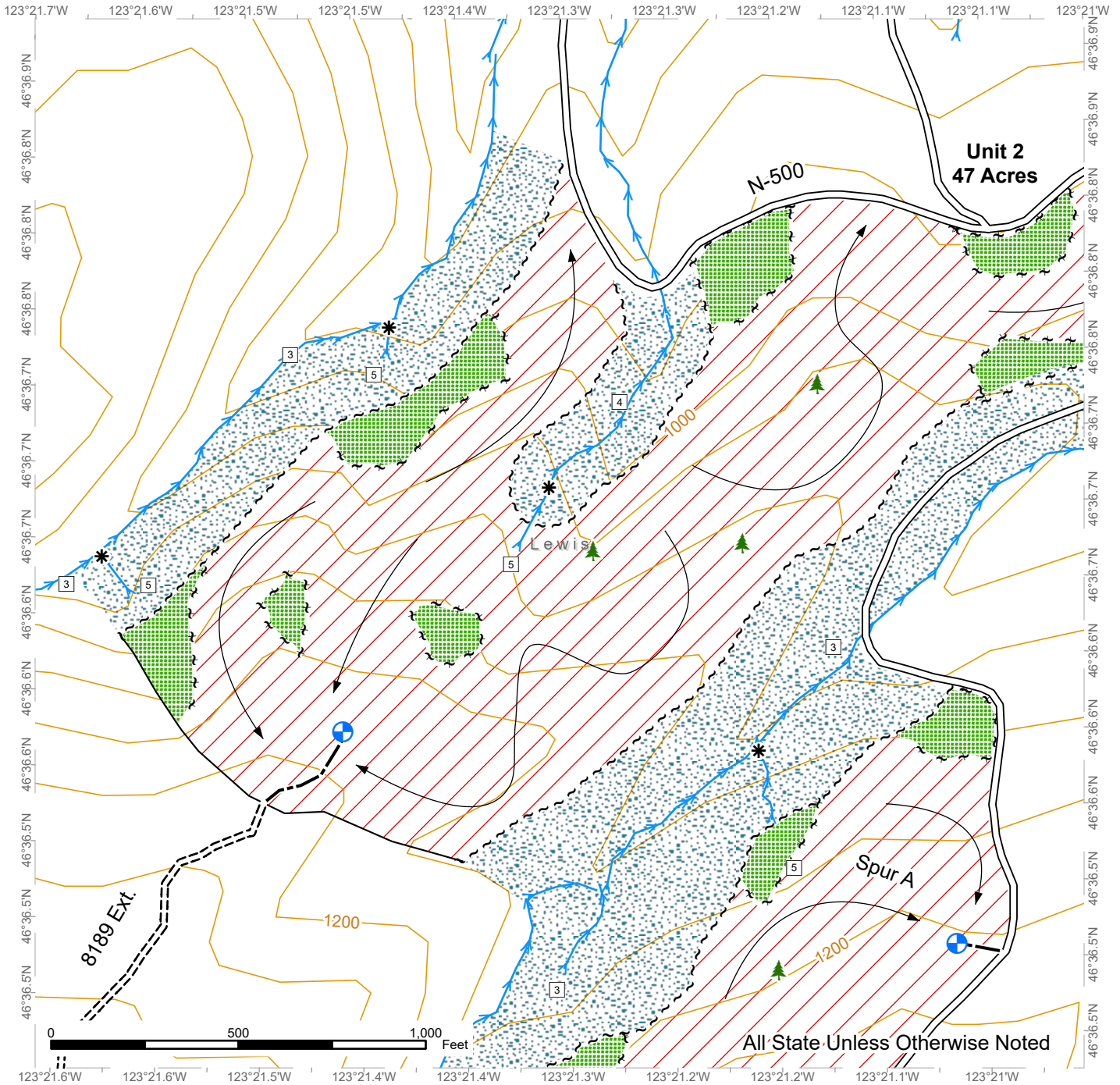


Leave Tree Area	Existing Roads	Stream Break
Riparian Mgt Zone	Required Pre-Haul Maintenance	Stream Type 3
Sale Boundary Tags	Required Construction	Stream Type 5
Timber Type Change	Optional Construction	Landing - Proposed
Leave Tree Tags	Streams	Leave Tree Area <1/4-acre
Ground Based		
Cable Harvest		



















LOGGING PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



All State Unless Otherwise Noted

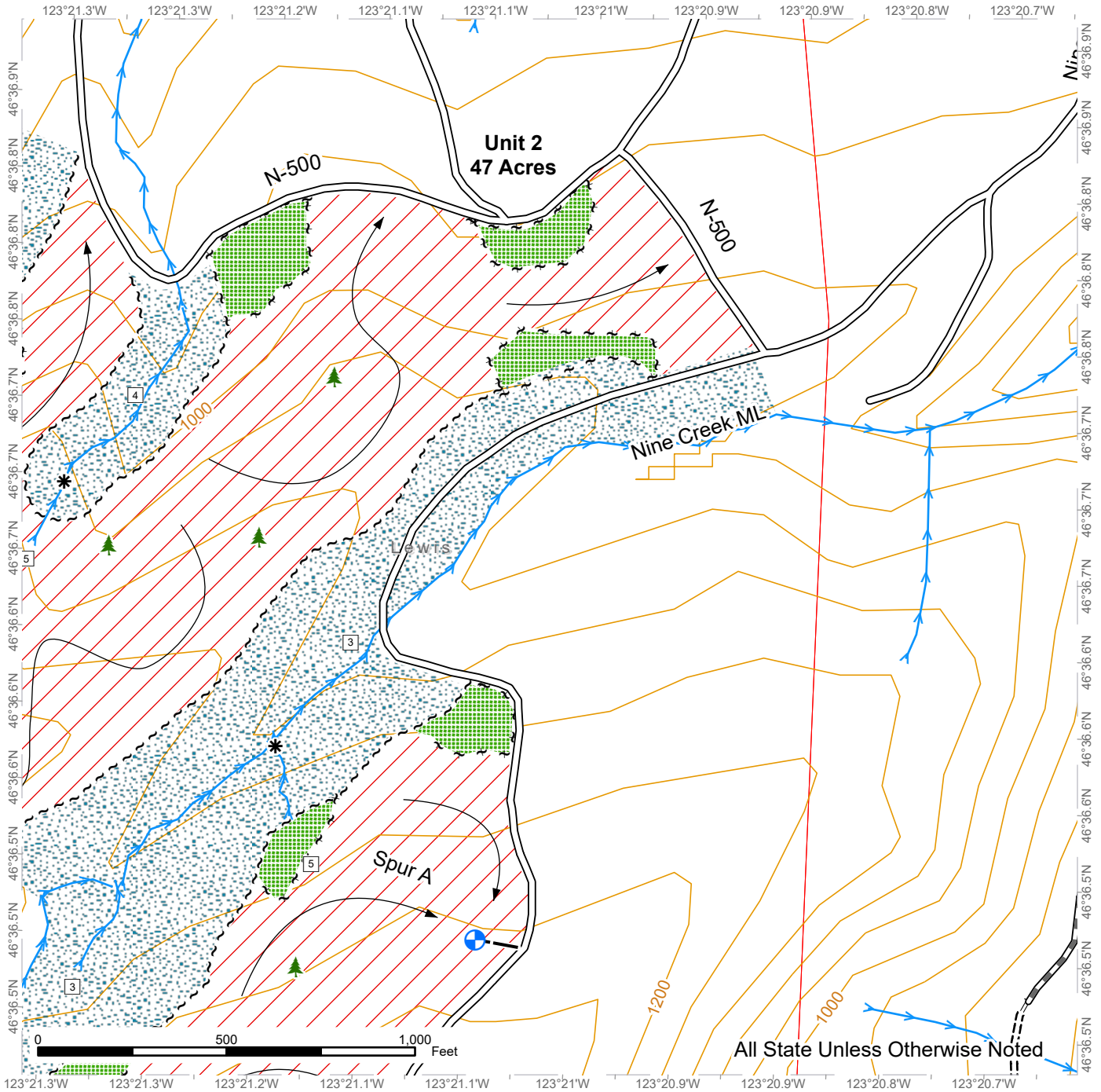
 Leave Tree Area	 Existing Roads	 Stream Break
 Riparian Mgt Zone	 Required Pre-Haul Maintenance	 Stream Type 3
 Sale Boundary Tags	 Required Construction	 Stream Type 4
 Timber Type Change	 Optional Construction	 Stream Type 5
 Leave Tree Tags	 Streams	 Landing - Proposed
 Ground Based		 Leave Tree Area <1/4-acre
 Cable Harvest		



LOGGING PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440

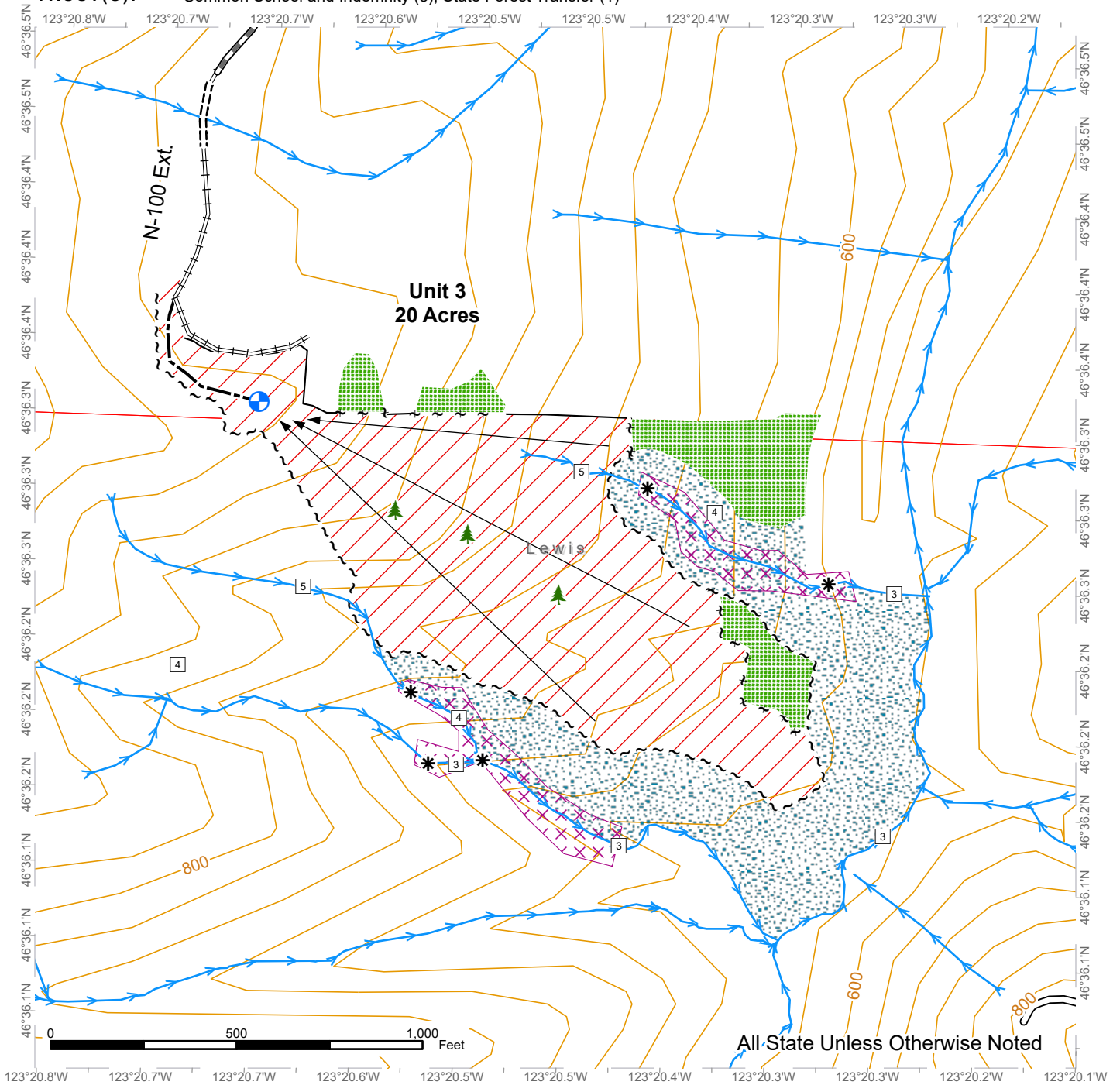


	Leave Tree Area		Existing Roads		Stream Break
	Riparian Mgt Zone		Required Pre-Haul Maintenance		Stream Type 3
	Sale Boundary Tags		Required Construction		Stream Type 4
	Leave Tree Tags		Required Reconstruction		Stream Type 5
	Ground Based		Optional Construction		Landing - Proposed
	Cable Harvest		Streams		Leave Tree Area <1/4-acre

LOGGING PLAN MAP

SALE NAME: ACTION ITEM
AGREEMENT#: 30-105538
TOWNSHIP(S): T13R5W
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 560-1440



	Leave Tree Area		Existing Roads		Stream Break
	Riparian Mgt Zone		Required Pre-Haul Maintenance		Stream Type 3
	Potentially Unstable Slopes		Required Construction		Stream Type 4
	Sale Boundary Tags		Required Reconstruction		Stream Type 5
	Timber Type Change		Optional Construction		Landing - Proposed
	Leave Tree Tags		Streams		Leave Tree Area <1/4-acre
	Ground Based				
	Cable Harvest				