



TIMBER NOTICE OF SALE

SALE NAME: HEART THROB

AGREEMENT NO: 30-102717

AUCTION: April 27, 2023 starting at 10:00 a.m., **COUNTY:** Clark
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 20 miles east of Battleground, WA

**PRODUCTS SOLD
AND SALE AREA:**

All timber, except trees marked with blue paint, trees bound out by yellow "Leave Tree Area" tags, all down timber existing 5 years prior to the day of sale, all downed timber greater than 36 inches in diameter and timber described in Schedule A, bounded by the following;

Unit 1 (VRH): White "Timber Sale Boundary" tags with pink flagging, pink flagging along reprod and the L-1070 Road;

Unit 2 (Thin): Blue "Special Management Area" tags and pink flagging;

Unit 3 (VRH): White "Timber Sale Boundary" tags with pink flagging, pink flagging along reprod and the L-1070 Road;

Unit 4 and 5 (ROW): Orange "Right of Way" tags and orange flagging;

All forest products above located on part(s) of Sections 15, 16, 21 and 22 all in Township 3 North, Range 4 East, W.M., containing 128 acres, more or less.

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

ESTIMATED SALE VOLUMES AND QUALITY:

Species	Avg DBH	Ring Count	Total MBF	Total \$/MBF	MBF by Grade								
					1P	2P	3P	SM	1S	2S	3S	4S	UT
Douglas fir	20.3	10	4,887	\$356.00				200		3,172	1,292	186	37
Red alder	15		4	\$155.00							4		
Redcedar	20.3		1	\$805.00							1		
Sale Total			4,892										

MINIMUM BID: \$356/MBF (est. value \$1,741,000.00) **BID METHOD:** Sealed Bids

PERFORMANCE

SECURITY: \$100,000.00 **SALE TYPE:** MBF Scale

EXPIRATION DATE: October 31, 2024 **ALLOCATION:** Export Restricted

BIDDABLE SPECIES: Douglas fir

BID DEPOSIT: \$174,100.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.



TIMBER NOTICE OF SALE

HARVEST METHOD: Cable, Cable-Assist, Shovel, Forwarder, and Track skidder. This sale is estimated to be 90 percent ground based harvesting and 10 percent cable harvest systems. Ground based equipment is restricted to sustained slopes 40 percent or less, and shall operate only during dry soil conditions. Ground Based Yarding will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

ROADS: 37.29 stations of optional construction. 9.31 stations of optional reconstruction. 81.19 stations of required prehaul maintenance. 38.27 stations of abandonment, if built. 21.00 stations of required post haul maintenance. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the L-1050 Rock Pit (Sec 28 T3N R04E, W.M) at no charge to the purchaser. For additional information see Road Plan 6-2. 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. For additional information see Road Plan 6-5. Purchaser shall conduct rock source development in accordance with Rock Source Development Plan. See Road Plan 6-10 for additional information. Road construction will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator

Road construction, reconstruction and maintenance work will be restricted from October 1 to April 30. See Road Plan 1-25 for additional information. The hauling of forest products will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

ACREAGE DETERMINATION

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

FEES: \$83,164.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

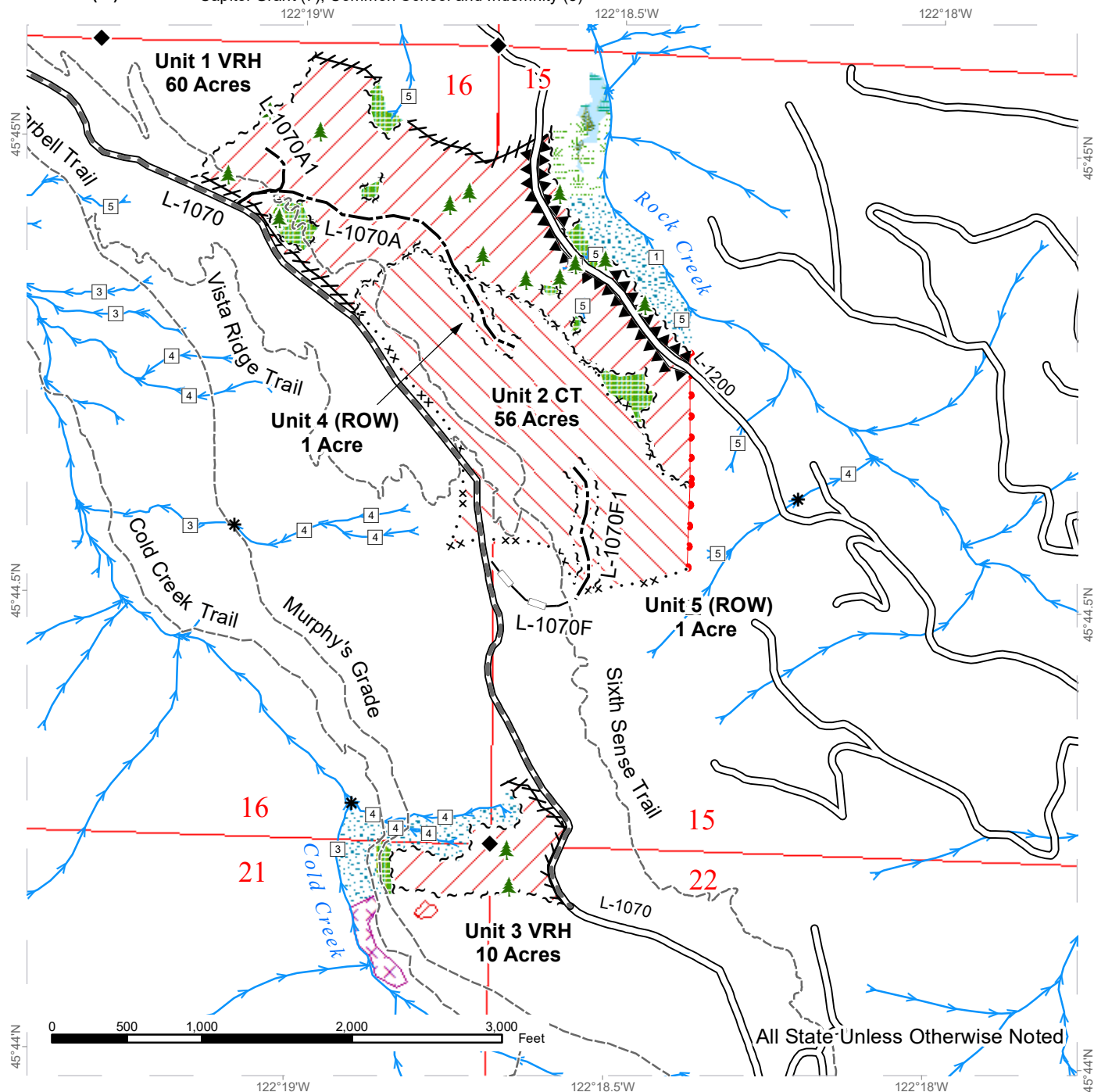
SPECIAL REMARKS: This sale contains approximately 200 MBF special mill DF, 1,909 MBF high quality 2 Saw DF, 216 MBF high quality 3 saw DF. See Cruise for additional for additional information.

Sixth Sense Trail is within Units 1 and 2. See H-140 for trail closure requirements and trail clean up requirements.

TIMBER SALE MAP

SALE NAME: HEART THROB VRH THIN
AGREEMENT #: 30-102717
TOWNSHIP(S): T3R4E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3)

REGION: Pacific Cascade Region
COUNTY(S): Clark
ELEVATION RGE: 1280-2120



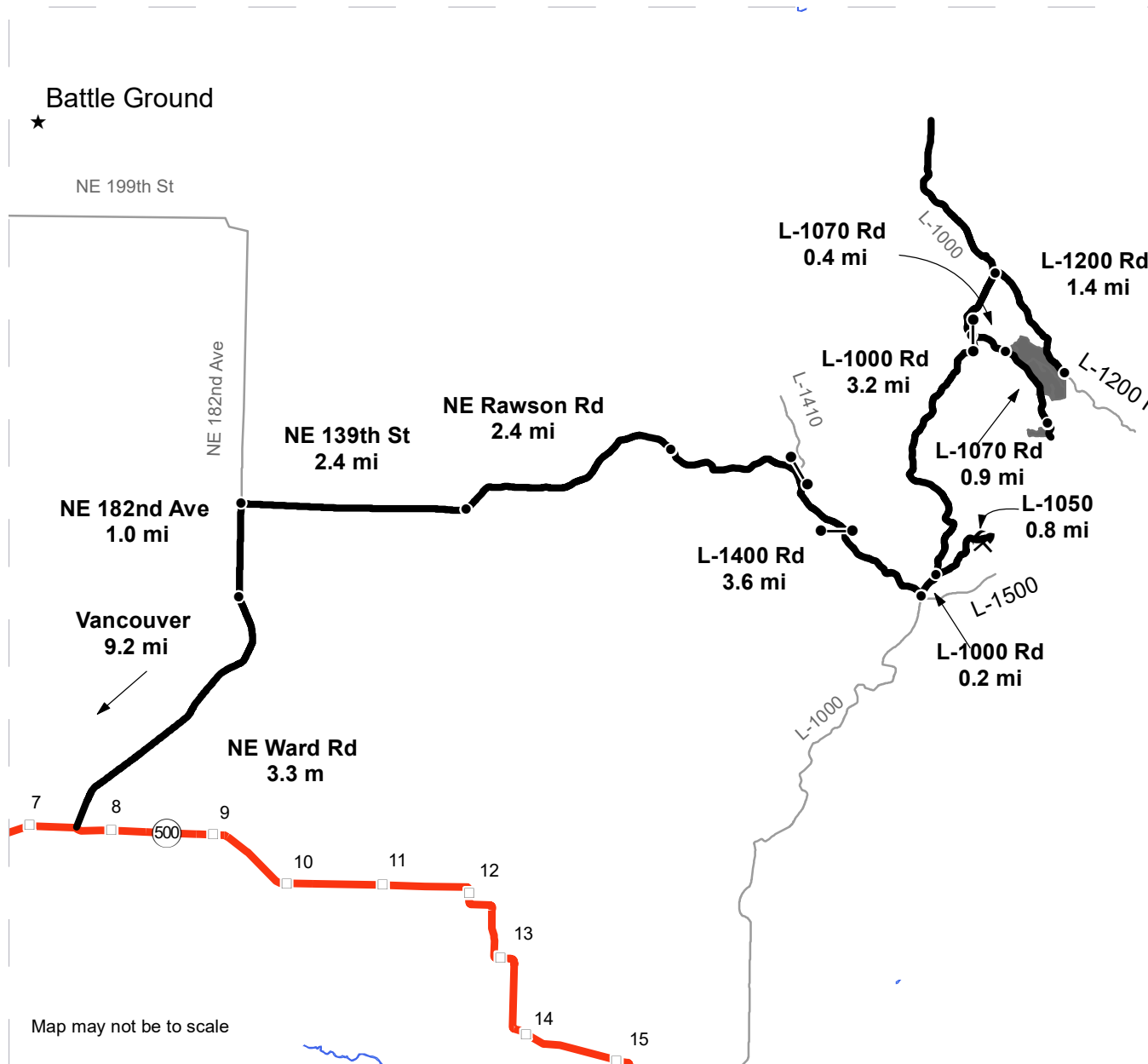
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|-----------------------------|-------------------------------|---------------------------|
| Variable Retention Harvest | Existing Roads | Right of Way Tags |
| Variable Density Thinning | Required Pre-Haul Maintenance | Property Line |
| Special Mgt Area | Optional Construction | Flag Line |
| Leave Tree Area | Optional Reconstruction | Streams |
| Riparian Mgt Zone | Old Grades/Trails | Stream Type |
| Forested Wetland | Sale Boundary Tags | Stream Type Break |
| Wetland Mgt Zone | Special Mgmt Area | Survey Monument |
| Potentially Unstable Slopes | Leave Tree Tags | Leave Tree Area <1/4-acre |



DRIVING MAP

SALE NAME: HEART THROB VRH THIN
AGREEMENT#: 30-102717
TOWNSHIP(S): T3R4E
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REGION: Pacific Cascade Region
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- Timber Sale Unit
- Highway
- Haul Route
- Other Route
- Other Road
- Distance Indicator
- Gate (PCP 1-1)
- Rock Pit

DRIVING DIRECTIONS:

From State Route 500 (mp 7.5) turn northeast onto NE Ward Rd and follow for 3.3 miles. NE Ward Rd becomes NE 182nd Ave., continue for 1 mile. Turn east onto NE 139th St., continue for 2.4 miles. NE 139th St. becomes NE Rawson Rd., continue for 2.4 miles. NE Rawson Rd. becomes the L-1400 Rd., continue for 3.6 miles. Turn north onto the L-1000 Rd for 0.2 miles. Turn east onto the L-1050 for 0.8 miles to the L-1050 Rock Pit.

From the L-1050/L-1000 junction continue 3.2 miles on the L-1000 to the L-1070 rd. Turn east onto the L-1070 Rd. (PCP 1-1 Gate) continue for 0.4 miles to Unit 1 and 2. Continue another 0.9 miles to Unit 3.



**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

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

Export Restricted MBF Scale AGREEMENT NO. 30-0102717

SALE NAME: HEART THROB

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

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

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

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

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

G-010 Products Sold and Sale Area

Purchaser was the successful bidder on April 27, 2023 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products: All timber, except trees marked with blue paint, trees bound out by yellow "Leave Tree Area" tags, all down timber existing 5 years prior to the day of sale, all downed timber greater than 36 inches in diameter and timber described in Schedule A, bounded by the following;

Unit 1 (VRH): White "Timber Sale Boundary" tags with pink flagging, pink flagging along reprod and the L-1070 Road;

Unit 2 (Thin): Blue "Special Management Area" tags and pink flagging;

Unit 3 (VRH): White "Timber Sale Boundary" tags with pink flagging, pink flagging along reprod and the L-1070 Road;

Unit 4 and 5 (ROW): Orange "Right of Way" tags and orange flagging,, located on approximately 128 acres on part(s) of Sections 15, 16, 21, and 22 all in Township 3 North, Range 4 East W.M. in Clark County(s) as shown on the attached timber sale map and as designated on the sale area.

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

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

G-020 Inspection By Purchaser

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

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
B	Heart Throb Schedule B

G-030 Contract Term

Purchaser shall remove the forest products conveyed and complete all work required by this contract prior to October 31, 2024.

G-040 Contract Term Adjustment - No Payment

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

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

G-050 Contract Term Extension - Payment

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

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

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

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

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

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

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

- e. Payment of \$30.00 per acre per annum for the acres on which an operating release has not been issued for Units 1, 3, 4 & 5. Payment of \$3.00 per acre per annum in Unit 2.
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

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

G-060 Exclusion of Warranties

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

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

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

G-062 Habitat Conservation Plan

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

By signing this contract, Purchaser agrees to comply with the terms and conditions of the ITP, and the HCP, which shall become terms of this contract. The State agrees to

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

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

G-063 Incidental Take Permit Notification Requirements

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

authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

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

G-065 Regulatory Disclaimer

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

G-066 Governmental Regulatory Actions

a. Risk

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

b. Sale Area

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

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

c. Adjustment of Price

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

Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070 Limitation on Damage

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

G-080 Scope of State Advice

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

G-090 Sale Area Adjustment

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

G-100 Forest Products Not Designated

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

G-110 Title and Risk of Loss

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

G-116 Sustainable Forestry Initiative® (SFI) Certification

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

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

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

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

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

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

G-140 Indemnity

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

G-150 Insurance

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

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

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

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

2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

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

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

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

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

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

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

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

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

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

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

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

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

G-160 Agents

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

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

G-170 Assignment and Delegation

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

G-180 Modifications

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

G-190 Contract Complete

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

G-200 Notice

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

G-210 Violation of Contract

G-220 State Suspends Operations

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

G-210 Violation of Contract

- a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate

is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.

- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

G-220 State Suspends Operations

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

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

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

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

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

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

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

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

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; L-1000, L-1050, L-1051, L-1070, L-1070 A, L-1070 A1, L-1070 F, L-1070 F1, L-1200 and L-1400. 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 L-1200, unless authority is granted in writing by the Contract Administrator.

G-430 Open Fires

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

G-450 Encumbrances

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

DATA MISSING

Section P: Payments and Securities

P-010 Initial Deposit

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

P-021 Payment for Forest Products

Purchaser agrees to pay the following rates per MBF Scribner net log scale for forest products conveyed and cut or removed from the sale area plus \$88,060.00 on day of sale and \$9.00 per MBF upon removal in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause.

DATA MISSING

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

Utility logs, special cull and peelable cull logs of all species, included on loads of logs that are required to be removed and scaled per clause H-150 will be paid for on an adjusted gross scale basis at the rate of \$20.00 per MBF plus fees.

P-027 Payment for Removal of Optional Forest Products

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

P-040 Weighing and Scaling Costs

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

P-045 Guarantee of Payment

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

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

Forest products included in this agreement which are destroyed, damaged, stolen, lost, or mismatched shall be paid for by Purchaser on demand of the State. The rates contained in clause P-021 shall apply.

P-080 Payment Account Refund

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

P-090 Performance Security

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

P-100 Performance Security Reduction

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

Section L: Log Definitions and Accountability

L-010 Forest Products Conveyed

Forest products conveyed are all logs or parts of logs described by the 'Products Sold and Sale Area' (G-010) clause meeting the removal requirements listed in the 'Required Removal of Forest Products' (H-150) clause.

L-020 Short Logs - Peeler Blocks

Logs or parts of logs which are removed from the sale area that fail to meet the minimum gross length requirements shall be scaled and graded as short logs or peeler blocks. Such material shall be paid for at the forest products rates specified in this contract.

L-060 Load Tickets

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

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

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

L-071 Log and Load Reporting Service

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

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

L-080 Scaling Rules

Determination of volume and grade of any forest products shall be conducted by a state approved third party scaling organization and in accordance with the Westside log scaling and grading rules and Scribner Volume Table, revised July 1, 1972, contained in the Northwest Log Rules Eastside and Westside Log Scaling Handbook (developed and produced by the Northwest Log Rules Advisory Group) and in effect on the date of confirmation of this contract.

Special scaling specifications shall be noted on the State's Brand Designation form which is hereby incorporated to this contract by reference.

L-110 State Approval of Log Scaling and Weighing Locations

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

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or

enroute to final destinations. Forest products from this sale shall be measured or weighed at facilities, which are currently approved for use by the State and are currently authorized for this sale. The State reserves the right to verify load volume and weights with State employees or contractors at the State's own expense. The State reserves the right to revoke the authorization of previously approved measurement locations.

L-120 Long Log Taper Distribution

Forest products over 40 feet long plus trim shall be segment scaled and the lower segment diameters shall be determined using actual taper. In order to utilize taper rules for determining segment diameters for poles and pilings greater than 40 feet in length plus trim, Purchaser must request use of a Pole and Piling Scaling Specification Agreement on file in the region office. Approval for usage of a special Pole and Piling Scaling Specification Agreement may be granted at the sole discretion of the State.

Following State approval for usage of the Pole and Piling Scaling Specification Agreement, the Brand Designation form shall be amended to incorporate the long log taper rules. The volume reported by the scaling organization for forest products over 40 feet plus trim will be expanded by 5 percent and the additional 5 percent volume shall be billed to the purchaser at the contract rate.

L-130 Conversion Factors

Forest products removed from the sale area that are not measured in units specified in the 'Payment for Forest Products' clause of this contract shall be converted to board feet using Department of Natural Resources' standard conversion factors.

Section H: Harvesting Operations

H-010 Cutting and Yarding Schedule

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

H-011 Certification of Fallers and Yarder Operators

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

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

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

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

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

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

H-012 Leave Tree Damage Definition

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

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

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

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

H-013 Reserve Tree Damage Definition

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

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

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

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

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

H-015 Skid Trail Requirements

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

Purchaser shall comply with the following during the yarding operation:

- a. Skid trails will not exceed 14 feet in width, including rub trees.
- b. Skid trails shall not cover more than 5 percent of the total acreage on one unit.
- c. Skid trail location will be pre-approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- g. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

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

H-017 Preventing Excessive Soil Disturbance

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

H-025 Timing Requirements for Timber Removal

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

H-030 Timber Falling

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

H-035 Fall Trees Into Sale Area

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

H-040 Purchaser Harvest Plan

Purchaser shall, as part of the plan of operations, prepare an acceptable harvest plan for all units. The plan shall address the felling, bucking and yarding, which are part(s) of this contract. The harvest plan shall be approved by the Contract Administrator prior to beginning the harvest operation. Purchaser shall not deviate from the harvest plan without prior written approval by the Contract Administrator.

H-050 Rub Trees

Trees designated for cutting along skid trails and cable corridors shall be left standing as rub trees until all timber that is tributary to the skid trail or cable corridor has been removed.

H-052 Branding and Painting

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

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

H-060 Skid Trail Locations

Locations of skid trails must be marked by Purchaser and approved by the Contract Administrator prior to the felling of timber.

H-080 Snags Not to be Felled

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

H-110 Stump Height

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

H-120 Harvesting Equipment

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

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-127 Tailholds on Private Land

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

H-130 Hauling Schedule

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

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. No operations shall occur on weekends, State recognized holidays, or from 7 p.m. to 7 a.m. on weekdays.

B. Purchaser shall post Active Haul Routes with CB channels.

C. The use of unmuffled compression brakes will not be permitted on site.

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

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

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

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

Operational requirements for trails within 200 feet.
See Timber Sale Maps for approximate trail locations.

H. Trail closures will be posted by the purchaser prior to operations at each end of the harvest unit and at the nearest junction with another trail or road. Posting will include the date posted, closure periods, and anticipated re-opening. Closure signs will be maintained by the purchaser during the sale and will be removed after approval of the final trail cleaning following harvest.

I. Trails should be rerouted onto roads or other trail systems when possible. All trail reroutes need to be approved by the Contract Administrator. In the event that there is no logical trail reroute, the purchaser shall clean the trail of debris and open the trail to recreationists by 5 p.m. Friday to 5 a.m. Monday, June 1st to September 30th.

J. Recreational trails shall be posted, closed and a watchman provided during harvest operations. Trail shall be re-opened within fifteen days of completion of yarding operations on each harvest unit.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- a. Sediment delivery from roads will not be allowed. Hauling operations will be shut down as needed until conditions improve or work can be completed that eliminates the delivery of sediment.
- b. Within shovel logging areas, the shovel operator shall break up concentrations of logging debris greater than 10 feet by 10 feet to allow exposure of natural soils to ensure proper reforestation.

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

H-150 Required Removal of Forest Products

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

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

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

H-157 Optional Removal of Forest Products Not Designated

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

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

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

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

H-160 Mismanufacture

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

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

H-180 Removal of Specialized Forest Products or Firewood

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

H-230 Tops and Limbs Outside the Sale Boundary

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

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 12/5/2022 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on L-1000, L-1050, L-1051, L-1070, L-1070A, L-1070A1, L-1070F, L-1070F1, L-1200. All work shall be completed to the specifications detailed in the Road Plan.

C-060 Designated Road Maintainer

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

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

C-080 Landing Locations Approved Prior to Construction

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

C-140 Water Bars

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

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

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

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

S-010 Fire Hazardous Conditions

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

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

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

S-020 Extreme Hazard Abatement

Purchaser shall provide a written Extreme Hazard Abatement plan that meets the requirements of WAC 332-24 prior to the beginning of logging operations. The plan

must be acceptable to the Contract Administrator. The plan will identify how Purchaser will accomplish abatement. Purchaser shall also provide, and keep current, a written timetable for completion of all specified work in the plan. The Contract Administrator's acceptance and approval of Purchaser's hazard abatement plan shall not be construed as any statement or warranty that the hazard abatement plan is adequate for Purchaser's purposes or complies with applicable laws.

Extreme Hazard Abatement is required along the L-1200 road in Unit 1. Logging debris will be cleared a minimum of 100 feet adjacent to L-1200 road.

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-040 Noxious Weed Control

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-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-100 Stream Cleanout

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

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

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

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

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

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

d. Hazardous Material Release Reporting

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

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

-DNR Contract Administrator

S-131 Refuse Disposal

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

S-150 Recreation Trail Cleanout

At the completion of logging operations Sixth Sense Trail, Murphy's grade, Tarbell Trail, Purchaser shall repair any damage to and clean out all logging debris from recreational trail(s).

Section D: Damages

D-010 Liquidated Damages

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

D-020 Failure to Remove Forest Products

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

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

Where:

LD = Liquidated Damage value.

V = The unremoved value at the date of breach of contract. The value is determined by subtracting the removal volume to date from the State's cruise volume multiplied by the contract bid rates.

- ID = Initial Deposit paid at date of contract that has not been applied to timber payments.
- P = Advance payments received but not yet applied to specific contract requirements.
- C = Charges assessed for contract requirements completed prior to breach of contract but not paid for.
- A = Administrative Fee = \$2,500.00.

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

Where:

- r = daily equivalent of an annual interest at current interest rate as established by WAC 332-100-030.
- LD = Liquidated damage value.
- N = Number of days from date of breach to date payment is received.

D-030 Inadequate Log Accountability

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

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

data is not properly submitted to the Log and Load Reporting Service per clause L-071, and \$250 each unused ticket that is not returned to the State, for any reason.

D-040 Leave Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-012, Leave Tree Damage Definition, the trees damaged result in substantial injury to the State. The value of the damaged leave trees at the time of the breach is not readily ascertainable. Therefore, Purchaser agrees to pay the State as liquidated damages at the rate of \$1,000.00 per tree for all damaged trees in Unit 2.

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 Units 1 & 3.

SIGNATURES

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

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser

Print Name

Date: _____
Address: _____

Eric Wisch
Pacific Cascade Region Manager

Date: _____

DRAFT

DRAFT

DRAFT

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

STATE OF _____)

COUNTY OF _____)

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

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

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

Notary Public in and for the State of _____

My appointment expires _____

Schedule B
Heart Throb Schedule B

Schedule B
Cut Tree Selection Criteria

General Requirements for Upland Thinning Unit 2:

1. Remove all hardwoods except where no conifers exist; hardwood species shall be used to fulfill the spacing requirements when no conifers exist.
2. No tree of any species can be removed that is equal to or greater than 20" diameter at breast height (DBH) unless otherwise authorized by the contract administrator.
3. Do not cut any western red cedar. Western red cedar can be counted toward the final basal area requirements if they are free of damage and defect.
4. Openings created by felling trees shall not exceed 35 feet between leave trees. If openings in the stand exceed this distance, sufficient trees shall be left on the perimeter of the opening to maintain the appropriate basal area per acre.

Unit #2

An average residual basal area of 140 square feet per acre shall be maintained of the best trees in the stand. Trees greater than 20" DBH may not be removed unless the trees are severely damaged or deformed as defined below or need to be removed for ground based yarding corridors.

Leave Tree Definition:

Leave trees in the unit will be selected by comparing their characteristics with other trees in the stand. Leave trees will be the best trees from the largest diameter classes available and evenly distributed over the landscape.

Preferred leave tree species in order of preference are:

1. Western redcedar
2. Douglas-fir
3. Pacific Silver Fir
4. Western hemlock
5. Red alder

Best tree definition is having the following characteristics:

1. Fullest and most vigorous crowns
2. Free of major defect and damage
3. Best form: tallest tree, straightest boles, and smallest limb diameters

Definitions:

Deformed Tree: any tree that has forked tops, broken tops, large spike knots, or severe sweep in the bole.

Damaged Tree: any tree with severe cat faces (bark removed on more than half of the circumference of the tree) or recent damage to the bark or root system.

Ground-based Yarding Corridors:

Corridors are limited to 14 feet wide (including rub trees) and should be located in a manner that reduces the damage to or removal of leave trees.

Compliance

Variable radius plots will be measured by the Contract Administrator to determine basal area per acre. The number of trees in a plot will be multiplied by the basal area factor (BAF) of the instrument to determine the basal area of the plot. The average tree count for all plots in a unit will determine the basal area for that unit. Only trees greater than or equal to 7" DBH will be measured.

Certification of Fallers and Yarder Operators (additional requirements beyond those outlined in the H-011):

The contract administrator and faller/harvest operator will jointly review the take tree selection criteria as outlined in Schedule B of the sale contract. In conjunction with the Contract administrator, the faller/ harvest operator will mark a designated area as a test plot within the sale area boundary. Satisfactory thinning of the test plot completes the certification process.

Certifications will be issued to the individuals when they demonstrate to the Contract Administrator their ability to perform within the requirements set forth in the contract.

PRE-CRUISE NARRATIVE

Sale Name: HEART THROB VRH & Thin	Region: Pacific Cascade
Agreement #: 30-102717	District: Yacolt
Contact Forester: Kayla Swerin Phone / Location: 360-280-9415	County(s): Clark, Choose a county
Alternate Contact: Aaron Nelson Phone / Location: 360-601-0296	Other information: Click here to enter text.

Type of Sale: MBF Scale	
Harvest System: Ground based Click here to enter text.	90%
Harvest System: Uphill Cable Click here to enter text.	10%
Enter % of 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 VRH	SEC.15&16 T03N/R04E	03	76	10	6	0	0	60	GPS (Trimble)
2 THIN	SEC.15&16 T03N/R04E	03	56	0	0	0	0	56	GPS (Trimble)
3 VRH	SEC. 15,16, 21, 22 T03N/R04E	03, 07	19	8	1	0	0	10	GPS (Trimble)
4 ROW	SEC.15&16 T03N/R04E	03	1	0	0	0	0	1	GPS (Trimble)
5 ROW	SEC.15 T03N/R04E	03	1	0	0	0	0	1	GPS (Trimble)
TOTAL ACRES			153	18	7	0	0	128	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit#	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
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1 VRH	Unit 1 is bound by white "Timber Sale Boundary" tags, pink flagging and the L-1070 road.	VRH	570 Leave Trees
2 Thin	Unit 2 is bound by blue "Special Management" tags, pink flagging and L-1070.	THIN	None
3 VRH	Unit 3 is bound by white "Timber Sale Boundary" tags, pink flagging and the L-1070. Clumped leave trees are bound by yellow "Leave Tree Area" tags and pink flagging. Individual leave trees are marked with a ring of blue paint.	VRH	96 Leave Trees
4 ROW	Unit 4 is bound by orange "Right-of-Way" tags and orange flagging.	ROW	N/A
5 ROW	Unit 5 is bound by orange "Right-of-Way" tags and orange flagging.	ROW	N/A

OTHER PRE-CRUISE INFORMATION:

Unit#	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1 VRH	DF/RA 2,000/MBF	Unit 1 can be accessed via the L-1070 road. (PCP 1-1 Gate) and the L-1200 road.	Logging Plan/Cruise Maps and Driving Map
2 Thin	DF 55/mbf	Unit 2 can be accessed via the L-1070 (PCP 1-1 Gate).	Logging Plan/Cruise Maps and Driving Map
3 VRH	DF/RA 50/mbf	Unit 3 can be accessed via the L-1070 road. (PCP 1-1 Gate).	Logging Plan/Cruise Maps and Driving Map
4 ROW	DF 1/mbf	Unit 4 can be accessed via the L-1070 road. (PCP 1-1 Gate).	Logging Plan/Cruise Maps and Driving Map
5 ROW	DF 1/mbf	Unit 5 can be accessed via the L-1070 road. (PCP 1-1 Gate).	Logging Plan/Cruise Maps and Driving Map
TOTAL MBF	3,053 / mbf		

REMARKS:

Units 1 and 2 consist mostly of large DF with sweep, butt rot and conks. Smaller second growth trees are of better quality. There are a handful of old growth fir (60" plus) please inform lead forester if any found with out blue paint or included in a leave tree clump. There are some areas of heavy brush and less TPA. Unit 3 is mostly higher quality DF. All three Units have recreation trails throughout, mountain bikers travel quickly down the trails. Use caution.
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Prepared By: Amanda Taylor Date:	Title: NRS-2	CC: Aaron Nelson
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Timber Sale Cruise Report Heart Throb

Sale Name: HEART THROB

Sale Type: MBF SCALE

Region: PACIFIC CASC

District: YACOLT

Lead Cruiser: AMHerrman

Other Cruisers: BEWarnstadt, DPClark

Cruise Narrative:

Location:

Township 3 North, Range 04 East, Section 15. Heart Throb is 11 miles east of Battleground, WA. Access is via L-1400, 1000, 1070, and 1200 forest roads.

The sale consists of 2 variable retention harvest units (U1, U3); 2 right of ways (U4, U5); and a thinning unit (U2).

Heart Throb lays on flat-moderate slopes. Harvest is expected to be mostly ground-based.

The understory of Units 1 and 2 contains dense patches of vine maple, salal, and sword fern nestled over loose rocky terrain. Unit 3 is a bit more "worker friendly" with less brush and fewer rocks. Well-used bike trails wind through the western sides of Units 1 and 2. Use caution while walking them.

Timber composition is uniform, almost entirely Douglas-fir. Most trees display good form. Many trunks have shed their lower limbs resulting in an abundance of high quality bottom segments. Poles were observed throughout the sale but appear to be more concentrated in flatter areas.

Most trees contain little defect and appear in good health. However, small mortality pockets and fungal infection were observed. The rocky nature of Heart Throb may lead to additional breakage when falling timber.

136 variable radius plots were used to measure 352 trees. Cruise to count plot ratio is 1:1. Tree diameters were measured at 4.5'

Bole heights were measured to a 5" top or break point. Trees were segmented into lengths based on a preference for long logs (40') and taking into account location of defect in each tree cruised.

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade					
				All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	20.3	9.9		4,887	200	3,172	1,292	186	37
RA	15.0			4			4		
RC	24.0			1			1		
ALL	20.3	9.9		4,891	200	3,172	1,297	186	37

Timber Sale Notice Weight (tons)

Sp	Tons by Grade					
	All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	34,040	1,188	20,549	10,337	1,718	249

Sp	Tons by Grade					
	All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
RC	28			28		
RA	27			27		
ALL	34,095	1,188	20,549	10,392	1,718	249

Timber Sale Overall Cruise Statistics (Cut + Leave Trees)

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
269.1	3.4	178.6	1.6	48,165	3.7

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
HEART THROB U1	B1C: VR, 1 BAF (46.94) Measure/ Count Plots, Sighting Ht = 4.5 ft	60.0	66.4	63	30	1
HEART THROB U2	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	56.0	56.1	54	26	0
HEART THROB U3	B1C: VR, 1 BAF (46.94) Measure/ Count Plots, Sighting Ht = 4.5 ft	10.0	10.9	13	7	0
HEART THROB U4	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	1.0	0.8	3	2	0
HEART THROB U5	B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	1.0	1.1	3	3	0
All		128.0	135.3	136	68	1

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	15.2	40	10,364	10,214	1.4	8,475.7	1,307.4
DF	LIVE	2 SAW	HQ-A	15.3	40	896	889	0.8	760.2	113.8
DF	LIVE	2 SAW	HQ-B	15.8	40	13,733	13,676	0.4	11,313.5	1,750.6
DF	LIVE	3 SAW	Domestic	9.0	38	8,603	8,496	1.2	8,780.3	1,087.5
DF	LIVE	3 SAW	HQ-B	10.0	40	1,610	1,597	0.8	1,556.9	204.4
DF	LIVE	4 SAW	Domestic	6.2	26	1,484	1,455	1.9	1,717.5	186.2
DF	LIVE	CULL	Cull	6.1	7	204	0	100.0	0.0	0.0
DF	LIVE	SPECIAL MILL	HQ-A	19.2	40	1,564	1,564	0.0	1,187.8	200.2
DF	LIVE	UTILITY	Pulp	5.4	15	292	285	2.4	248.5	36.4
RA	LIVE	3 SAW	Domestic	11.0	30	33	31	6.4	27.0	4.0
RC	LIVE	3 SAW	Domestic	6.8	40	7	7	3.2	28.1	0.9

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
RC	LIVE	CULL	Cull	5.0	2	0	0	100.0	0.0	0.0

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	Pulp	5.5	15	275	2.5	238.6	35.2
DF	5 - 8	LIVE	Cull	5.7	6	0	100.0	0.0	0.0
DF	5 - 8	LIVE	Domestic	6.8	32	4,492	1.3	5,322.0	574.9
DF	5 - 8	LIVE	HQ-B	8.4	40	244	1.1	297.8	31.3
DF	9 - 11	LIVE	Cull	9.9	6	0	100.0	0.0	0.0
DF	9 - 11	LIVE	Domestic	10.2	37	4,390	0.9	4,322.4	562.0
DF	9 - 11	LIVE	HQ-B	10.4	40	1,272	0.8	1,188.5	162.8
DF	9 - 11	LIVE	Pulp	10.8	15	10	0.0	9.9	1.3
DF	12 - 14	LIVE	HQ-B	13.3	40	3,850	0.2	3,562.2	492.8
DF	12 - 14	LIVE	Domestic	13.4	40	4,598	1.0	4,154.5	588.5
DF	12 - 14	LIVE	HQ-A	14.5	40	149	0.0	137.4	19.0
DF	15 - 19	LIVE	HQ-A	16.9	40	1,859	0.4	1,480.6	237.9
DF	15 - 19	LIVE	Domestic	17.1	39	4,006	1.8	3,159.9	512.8
DF	15 - 19	LIVE	HQ-B	17.2	40	8,108	0.5	6,504.5	1,037.9
DF	15 - 19	LIVE	Cull	19.8	25	0	100.0	0.0	0.0
DF	20+	LIVE	HQ-A	20.7	40	445	0.0	329.9	57.0
DF	20+	LIVE	HQ-B	21.3	40	1,799	0.3	1,317.4	230.3
DF	20+	LIVE	Domestic	21.9	40	2,679	2.3	2,014.8	342.9
RA	9 - 11	LIVE	Domestic	11.0	30	31	6.4	27.0	4.0
RC	5 - 8	LIVE	Cull	5.0	2	0	100.0	0.0	0.0
RC	5 - 8	LIVE	Domestic	6.8	40	7	3.2	28.1	0.9

Cruise Unit Report HEART THROB U1

Unit Sale Notice Volume (MBF): HEART THROB U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade					
				All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	20.8			3,108	154	2,087	747	105	15
RC	24.0			1			1		
ALL	20.8			3,108	154	2,087	748	105	15

Unit Cruise Design: HEART THROB U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	60.0	66.4	63	30	1

Unit Cruise Summary: HEART THROB U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	168	364	5.8	0
RC	1	1	0.0	0
ALL	169	365	5.8	0

Unit Cruise Statistics (Cut + Leave Trees): HEART THROB U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	271.2	40.9	5.2	191.0	24.4	1.9	51,791	47.7	5.5
RC	0.7	793.7	100.0	19.4	0.0	0.0	14	793.7	100.0
ALL	272.0	41.1	5.2	190.5	25.4	2.0	51,806	48.3	5.5

Unit Summary: HEART THROB U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	153	ALL	20.3	90	117	49,711	48,803	1.8	113.7	255.6	56.7	2,928.2
DF	LIVE	POLE	15	ALL	21.0	101	129	3,044	2,988	1.8	6.5	15.6	3.4	179.3
RC	LIVE	CUT	1	ALL	24.0	44	50	15	14	6.2	0.2	0.7	0.2	0.9
ALL	LIVE	CUT	154	ALL	20.3	90	117	49,727	48,818	1.8	113.9	256.3	56.9	2,929.1
ALL	LIVE	POLE	15	ALL	21.0	101	129	3,044	2,988	1.8	6.5	15.6	3.4	179.3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	ALL	ALL	169	ALL	20.3	91	117	52,770	51,806	1.8	120.4	272.0	60.3	3,108.3

Cruise Unit Report HEART THROB U2

Unit Sale Notice Volume (MBF): HEART THROB U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	18.3			1,113	658	375	62	19
RA	15.0			4		4		
ALL	18.2			1,117	658	379	62	19

Unit Cruise Design: HEART THROB U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	56.0	56.1	54	26	0

Unit Cruise Summary: HEART THROB U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	71	356	6.6	0
RA	1	1	0.0	0
ALL	72	357	6.6	0

Unit Cruise Statistics (Cut + Leave Trees): HEART THROB 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	263.7	37.7	5.1	161.6	26.7	3.2	42,619	46.2	6.0
RA	0.7	734.8	100.0	95.4	0.0	0.0	71	734.8	100.0
ALL	264.4	37.2	5.1	161.4	27.0	3.2	42,690	46.0	6.0

Unit Summary: HEART THROB U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	58	ALL	18.1	76	98	18,479	18,317	0.9	63.4	113.3	26.6	1,025.7
DF	LIVE	POLE	13	ALL	20.1	93	119	1,570	1,556	0.9	4.4	9.6	2.1	87.2
DF	LIVE	LEA	102	ALL	25.3	86	110	22,947	22,746	0.9	40.3	140.7	28.0	1,273.8
RA	LIVE	CUT	1	ALL	15.0	31	83	75	71	6.4	0.6	0.7	0.2	4.0
ALL	LIVE	LEA	102	ALL	25.3	86	110	22,947	22,746	0.9	40.3	140.7	28.0	1,273.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	POLE	13	ALL	20.1	93	119	1,570	1,556	0.9	4.4	9.6	2.1	87.2
ALL	LIVE	CUT	59	ALL	18.1	76	98	18,554	18,387	0.9	64.0	114.1	26.8	1,029.7
ALL	ALL	ALL	174	ALL	21.1	80	103	43,071	42,690	0.9	108.7	264.4	57.0	2,390.6

Cruise Unit Report HEART THROB U3

Unit Sale Notice Volume (MBF): HEART THROB U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade					
				All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	21.4	9.9		583	46	374	147	15	2
ALL	21.4	9.9		583	46	374	147	15	2

Unit Cruise Design: HEART THROB U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	10.0	10.8	13	7	0

Unit Cruise Summary: HEART THROB U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	42	78	6.0	1
ALL	42	78	6.0	1

Unit Cruise Statistics (Cut + Leave Trees): HEART THROB 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	281.6	34.7	9.6	207.1	20.9	3.2	58,339	40.5	10.1
ALL	281.6	34.7	9.6	207.1	20.9	3.2	58,339	40.5	10.1

Unit Summary: HEART THROB U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	33	ALL	21.4	99	128	48,253	47,868	0.8	92.5	231.1	50.0	478.7
DF	LIVE	POLE	9	ALL	21.4	111	142	10,555	10,471	0.8	20.2	50.6	10.9	104.7
ALL	LIVE	CUT	33	ALL	21.4	99	128	48,253	47,868	0.8	92.5	231.1	50.0	478.7
ALL	LIVE	POLE	9	ALL	21.4	111	142	10,555	10,471	0.8	20.2	50.6	10.9	104.7
ALL	ALL	ALL	42	ALL	21.4	101	131	58,809	58,339	0.8	112.7	281.6	60.9	583.4

Cruise Unit Report HEART THROB U4

Unit Sale Notice Volume (MBF): HEART THROB U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	18.9			49	31	14	3	0
ALL	18.9			49	31	14	3	0

Unit Cruise Design: HEART THROB U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	1.0	0.8	3	2	0

Unit Cruise Summary: HEART THROB U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	12	20	6.7	0
ALL	12	20	6.7	0

Unit Cruise Statistics (Cut + Leave Trees): HEART THROB U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	266.7	22.9	13.2	183.8	22.6	6.5	49,004	32.2	14.8
ALL	266.7	22.9	13.2	183.8	22.6	6.5	49,004	32.2	14.8

Unit Summary: HEART THROB U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	12	ALL	18.9	84	107	49,567	49,004	1.1	136.9	266.7	61.3	49.0
ALL	LIVE	CUT	12	ALL	18.9	84	107	49,567	49,004	1.1	136.9	266.7	61.3	49.0
ALL	ALL	ALL	12	ALL	18.9	84	107	49,567	49,004	1.1	136.9	266.7	61.3	49.0

Cruise Unit Report HEART THROB U5

Unit Sale Notice Volume (MBF): HEART THROB U5

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	19.9			34	21	9	2	1
ALL	19.9			34	21	9	2	1

Unit Cruise Design: HEART THROB U5

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	1.0	1.1	3	3	0

Unit Cruise Summary: HEART THROB U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	18	18	6.0	0
ALL	18	18	6.0	0

Unit Cruise Statistics (Cut + Leave Trees): HEART THROB U5

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	240.0	16.7	9.6	140.6	16.9	4.0	33,751	23.7	10.4
ALL	240.0	16.7	9.6	140.6	16.9	4.0	33,751	23.7	10.4

Unit Summary: HEART THROB U5

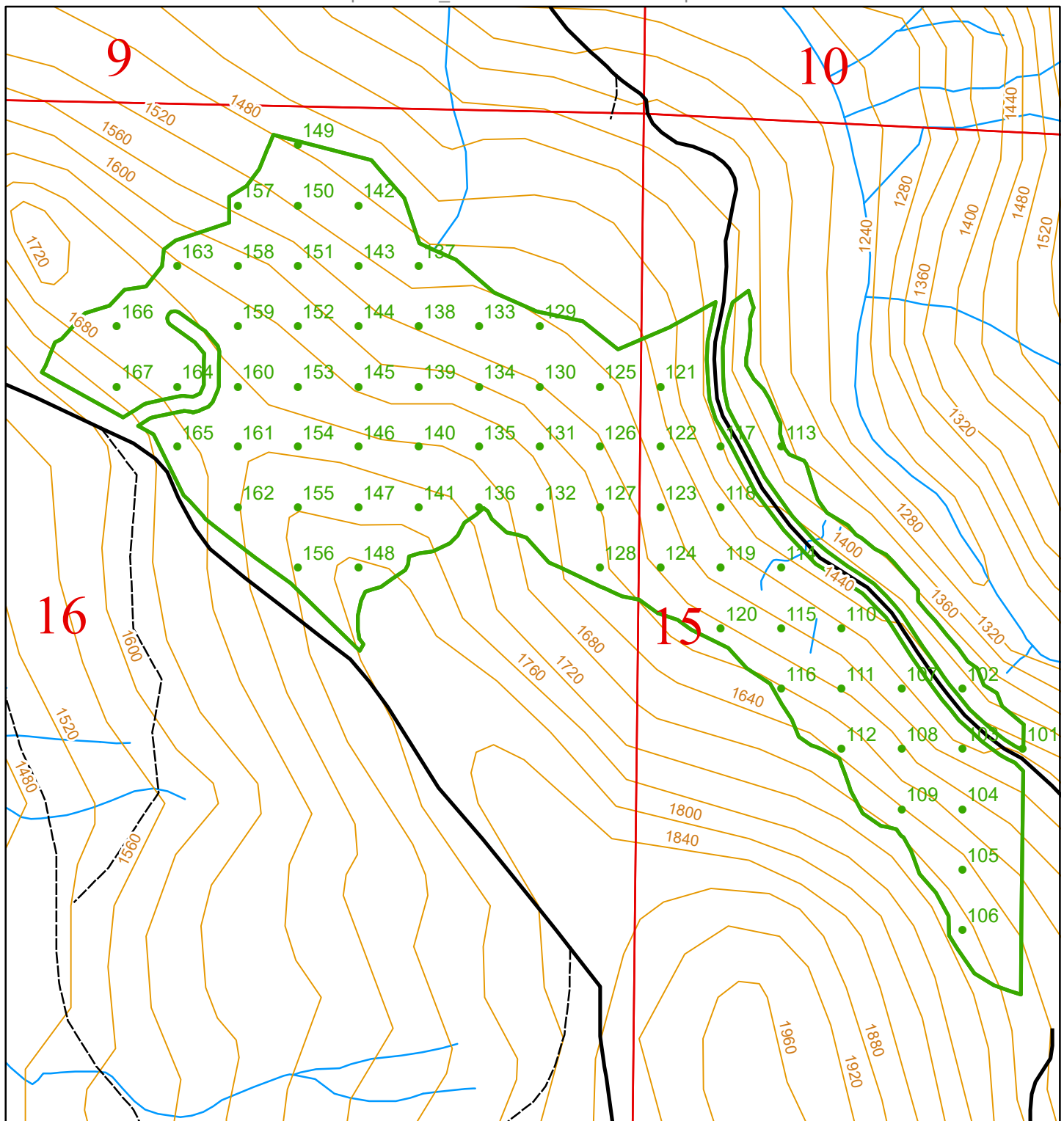
Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	15	ALL	20.1	78	98	28,500	28,126	1.3	90.8	200.0	44.6	28.1
DF	LIVE	POLE	3	ALL	18.6	80	102	5,700	5,625	1.3	21.2	40.0	9.3	5.6
ALL	LIVE	CUT	15	ALL	20.1	78	98	28,500	28,126	1.3	90.8	200.0	44.6	28.1
ALL	LIVE	POLE	3	ALL	18.6	80	102	5,700	5,625	1.3	21.2	40.0	9.3	5.6
ALL	ALL	ALL	18	ALL	19.8	78	99	34,200	33,751	1.3	112.0	240.0	53.9	33.8



A typical view from within Heart Throb



Most fir display good form and contain high quality segments.

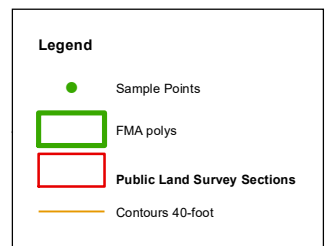


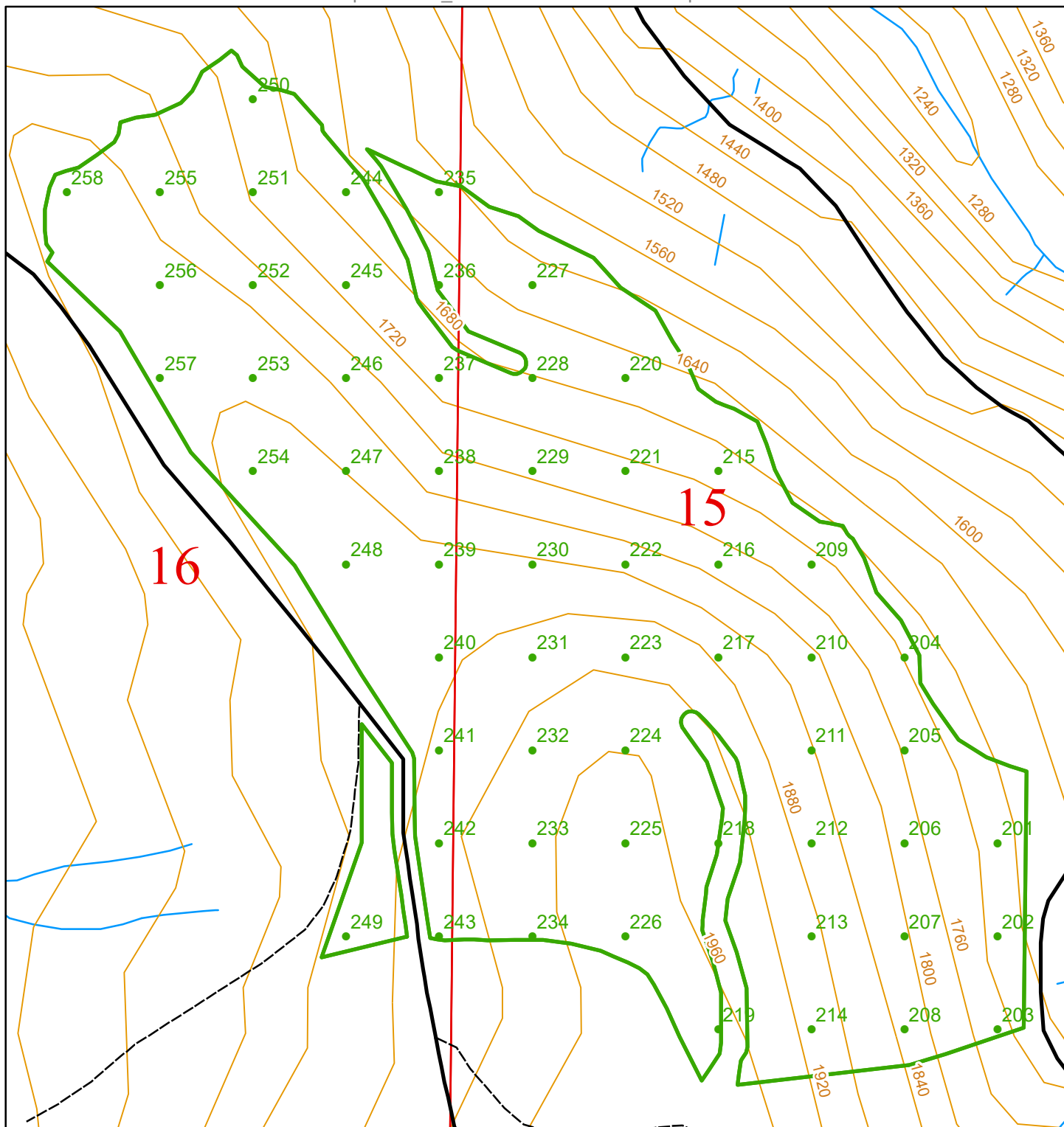
FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	HEART THROB U1	Township:	T03R04E
FMA_ID:	318107	DNR Region:	PACIFIC CASC
Acres:	66	Total Sample Points:	67
County:	CLARK	Spacing Between Points:	Width: 200 Height: 200
		Point Rotation Degrees:	0



0 162.5 325 650 975 1,300 Feet
Scale 1:5,600



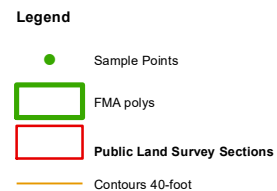


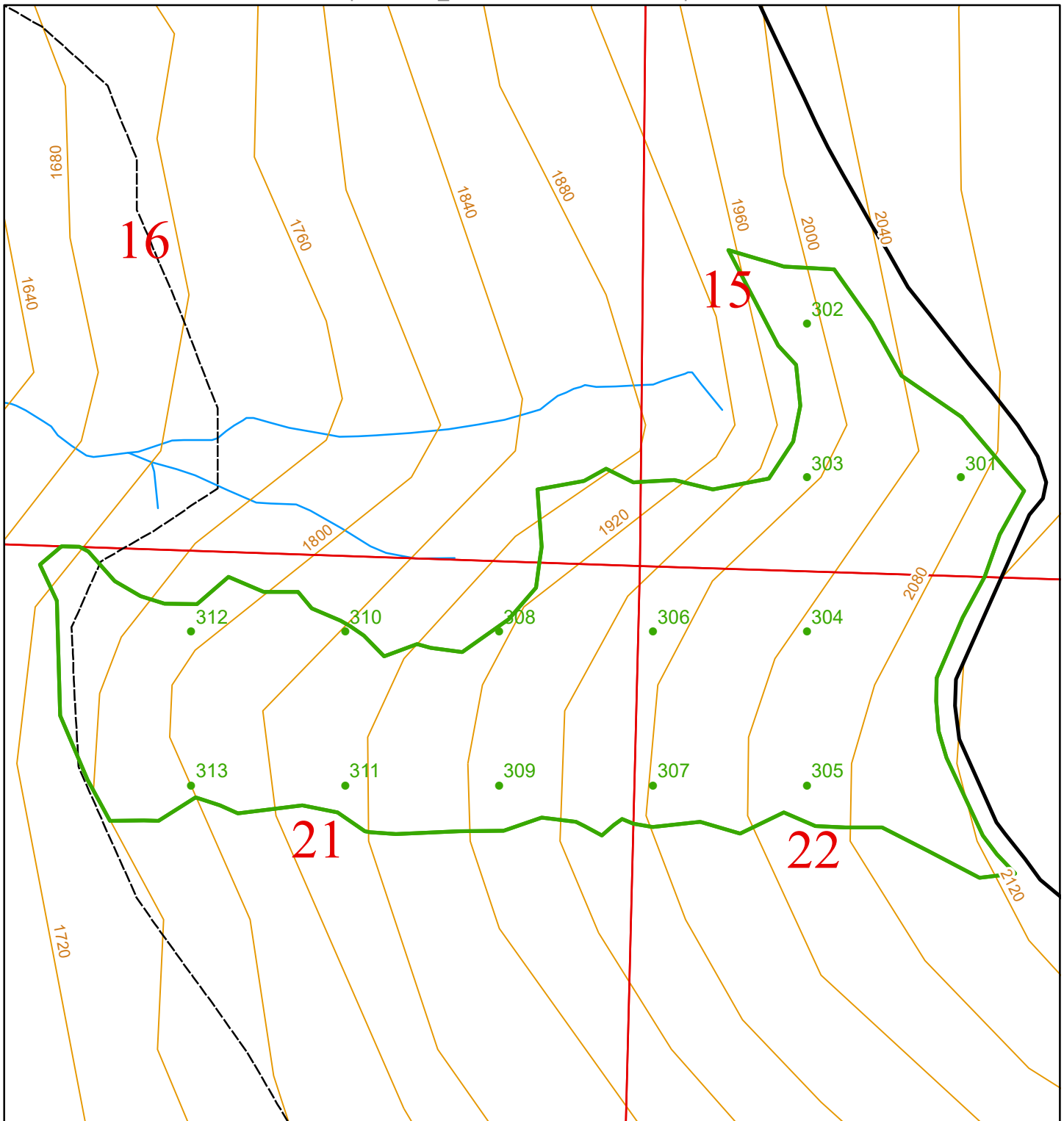
FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	HEART THROB U2	Township:	T03R04E
FMA_ID:	318122	DNR Region:	PACIFIC CASC
Acres:	56	Total Sample Points:	58
County:	CLARK	Spacing Between Points:	Width: 208 Height: 208
		Point Rotation Degrees:	0



0 110 220 440 660 880 Feet
Scale 1:3,800



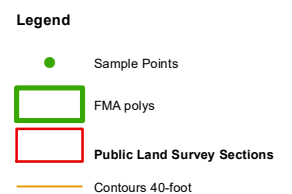


FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	HEART THROB U3	Township:	T03R04E
FMA_ID:	318133	DNR Region:	PACIFIC CASC
Acres:	11	Total Sample Points:	13
County:	CLARK	Spacing Between Points:	Width: 200 Height: 200
		Point Rotation Degrees:	0



0 62.5 125 250 375 500 Feet
Scale 1:2,200





Forest Practices Application/Notification Notice of Decision

FPA/N No: 2941068

Effective Date: 2/3/2023

Expiration Date: 2/3/2026

Shut Down Zone: 660 ; .

EARR Tax Credit: ☒ Eligible ☐ Non-eligible

Reference: Heart Throb VRH Thin

30-102717

Decision

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

FPA/N Classification

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

Number of Years Granted on Multi-Year Request

☐ 4 years ☐ 5 years

Conditions on Approval/Reasons for Disapproval

No additional conditions.

Issued By: Michael Rutledge

Region: Pacific Cascade Region

Title: Forest Practices Forester

Date: 2/3/2023

Copies to: ☐ Landowner, Timber Owner and Operator

Issued in person: ☒ LO ☒ TO ☐ OP

By: Jaquie Gahr Date: 2/3/2023

Appeal Information

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

You must file your appeal at all three addresses below:

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

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

Other Applicable Laws

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

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

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

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

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

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

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

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

DNR Declaration of Mailing

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

Click or tap to enter
a date.

(Date)

Castle Rock, WA

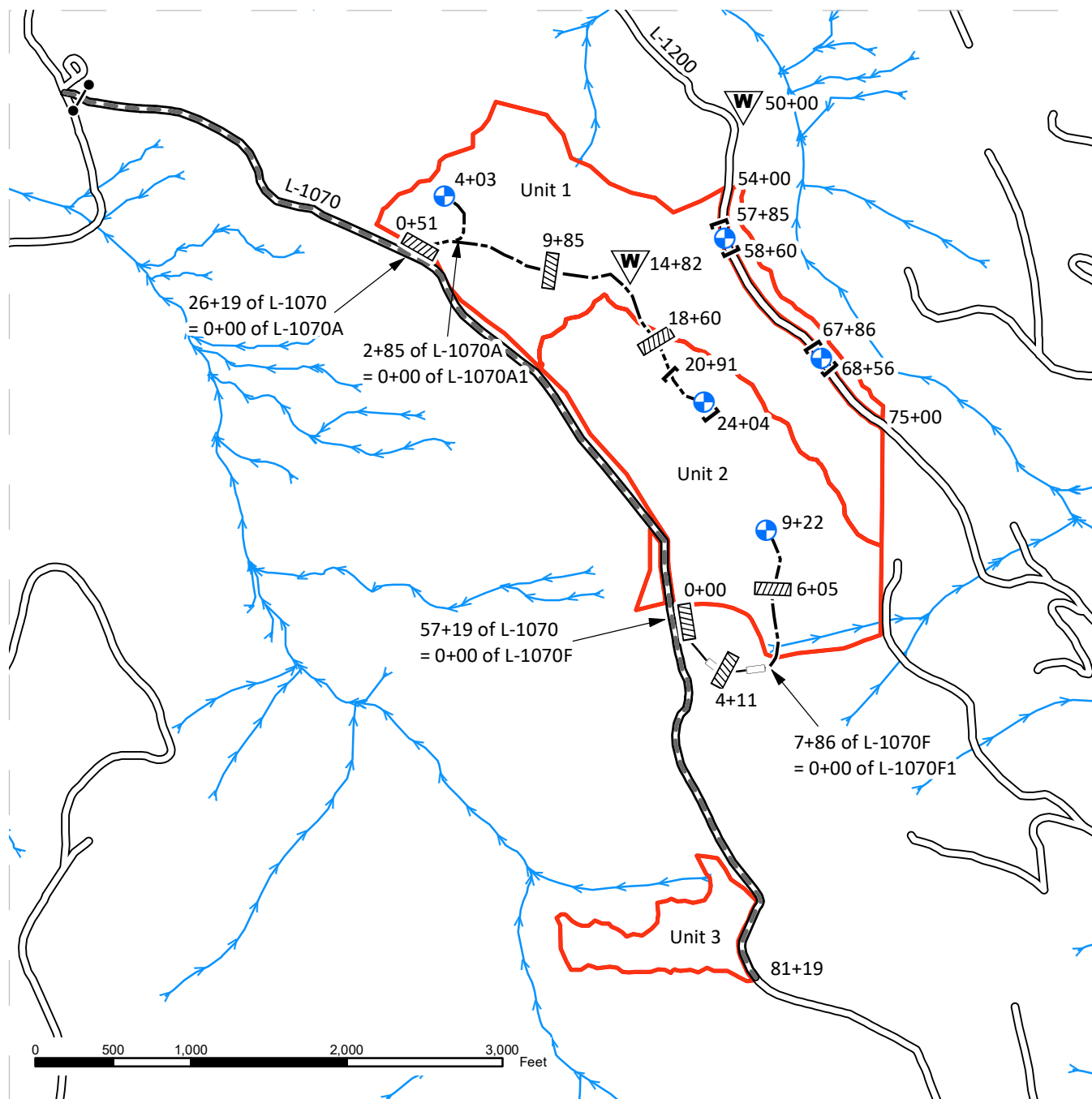
(City & State where signed)

(Signature)

ROAD PLAN MAP

SALE NAME: HEART THROB
AGREEMENT #: 30-102717
TOWNSHIP(S): T3R4E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3)

REGION: Pacific Cascade Region
COUNTY(S): Clark
ELEVATION RGE: 1320-2120



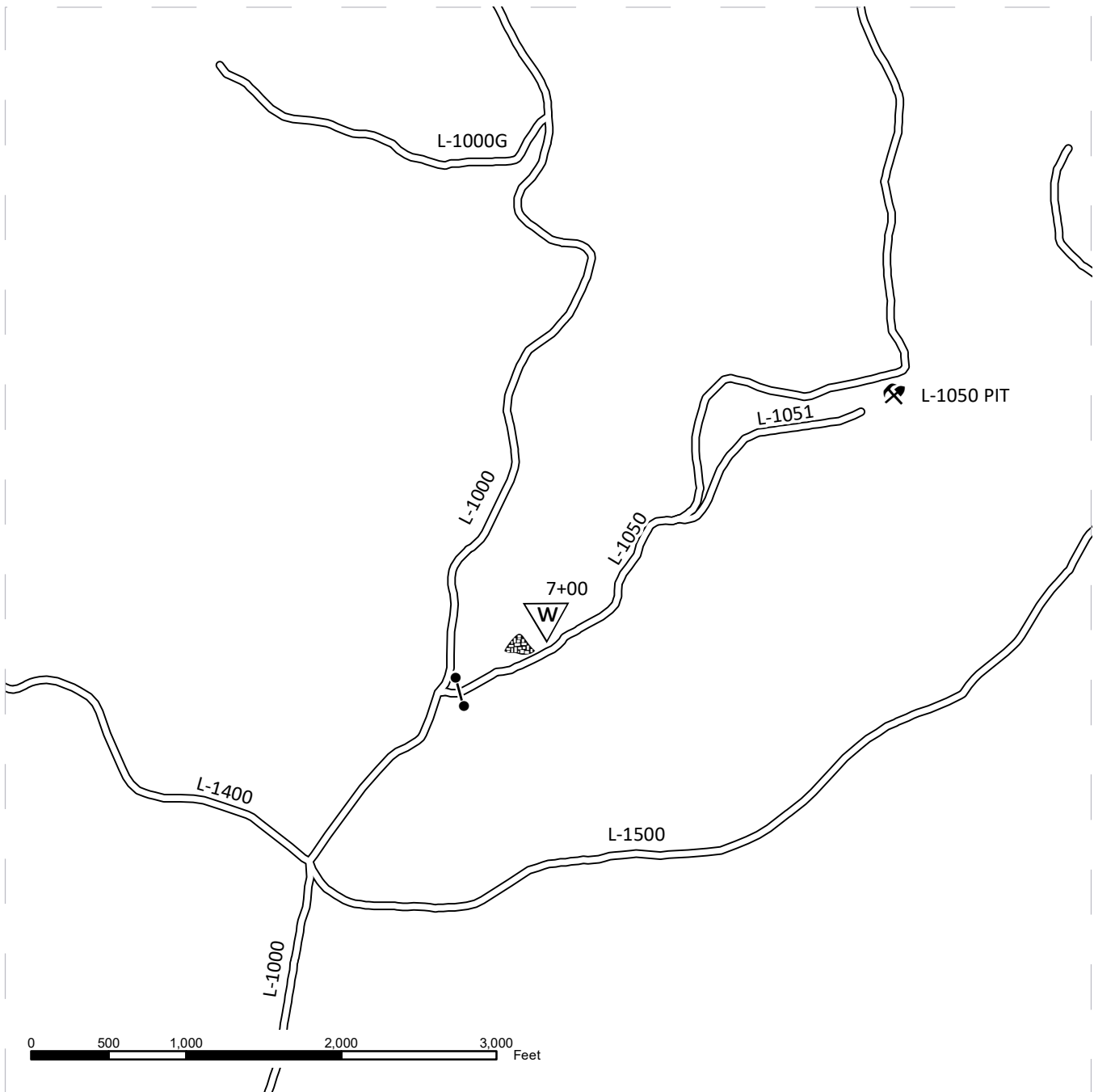
- | | | |
|--|-------------------|--------------------|
| — Sale Boundary | Existing Roads | Streams |
| Required Pre-Haul Maintenance | Culvert | End Haul |
| Optional Construction | Waste Area | Landing - Proposed |
| Optional Reconstruction | Gates (Corporate) | |








ROAD PLAN MAP

SALE NAME: HEART THROB
AGREEMENT #: 30-102717
TOWNSHIP(S): T3R4E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3)

REGION: Pacific Cascade Region
COUNTY(S): Clark
ELEVATION RGE: 1320-2120



-  Existing Roads
-  Waste Area
-  Rock Pit
-  Existing Stockpile (1 1/2-INCH MINUS CRUSHED)
-  Gates (Corporate)



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

HEART THROB TIMBER SALE ROAD PLAN
CLARK COUNTY
YACOLT DISTRICT
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-102717

STAFF ENGINEER: AMANDA TAYLOR/SCOTT HANNA

DRAWN & COMPILED BY: SCOTT HANNA

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>
L-1070	0+00 to 81+19	Pre-haul Maintenance
L-1200	54+00 to 75+00	Post-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>
L-1070A	0+00 to 24+04	Construction
L-1070A1	0+00 to 4+03	Construction
L-1070F	0+00 to 7+86	Reconstruction
L-1070F1	0+00 to 9+22	Construction
L-1200	57+85 to 58+60	Reconstruction
L-1200	67+86 to 68+56	Reconstruction

0-4 CONSTRUCTION

Construction includes, but is not limited to the following: clearing and grubbing; waste and debris disposal; excavation and embankment to sub-grade; full-bench excavation and end haul material; acquisition and installation of drainage structures; shaping and compaction of subgrade; turnout, turnaround and landing construction; manufacture, application and compaction of rock; acquisition and application of erosion control materials.

0-5 RECONSTRUCTION

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
L-1070F	0+00 to 7+86	Clearing and grubbing; waste and debris disposal; acquisition and installation of drainage structures; subgrade widening; grade, shape and compact subgrade; manufacture, application and compaction of rock; acquisition and application of erosion control materials.
L-1200	57+85 to 58+60	Excavation of the embankment for landing construction; clearing and grubbing; waste and debris disposal; excavation and embankment to sub-grade with end haul; shaping and compaction of subgrade; manufacture, application and compaction of rock; acquisition and application of erosion control materials.
L-1200	67+86 to 68+56	

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>
L-1070	0+00 to 81+19	Clean ditches; clean inlets and outlets; grade, shape and compact existing surface prior to application of spot patch rock; manufacture, application and compaction of spot patch rock; acquisition and application of erosion control materials.
L-1200	54+00 to 75+00	See Road Plan Clause 9-5 POST-HAUL MAINTENANCE.

0-7 POST-HAUL MAINTENANCE

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

0-10 ABANDONMENT

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

0-12 DEVELOP ROCK SOURCE

Purchaser may develop an existing rock source. Rock source development will involve screening, sorting, end haul and waste disposal, and processing rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

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

- Construction: 4-foot stakes with orange ribbon, orange paint and aluminum tags for reference points, blue paint with aluminum tags for culvert reference points;
- Reconstruction: Orange paint on trees for reference; blue paint for culverts;
- Maintenance: Orange paint on trees for reference.

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>
L-1070A	0+00 to 24+04	centerline, reference points
L-1070F1	0+00 to 9+22	

1-18 REFERENCE POINT DAMAGE

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

1-21 HAUL APPROVAL

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

1-22 WORK NOTIFICATIONS

Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before work begins.

1-23 ROAD WORK PHASE APPROVAL

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

- Subgrade construction with compaction
- Rock application with compaction
- Road abandonment
- Pit development and closure

1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not allowed during the listed closure period(s) unless authorized in writing by the Contract Administrator. Restrictions for hauling forest products are specified in contract clause H-130 HAULING SCHEDULE.

<u>Activity</u>	<u>Closure Period</u>
All Road Work	October 1 to April 30

1-26 OPERATING DURING CLOSURE PERIOD

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

1-29 SEDIMENT RESTRICTION

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

1-30 CLOSURE TO PREVENT DAMAGE

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

- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

1-32 BRIDGE OR ASPHALT SURFACE RESTRICTION

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

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

1-33 SNOW PLOWING RESTRICTION

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

SECTION 2 – MAINTENANCE**2-1 GENERAL ROAD MAINTENANCE**

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

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

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

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

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

2-4 PASSAGE OF LIGHT VEHICLES

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

2-5 MAINTENANCE GRADING – EXISTING ROAD

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
L-1070	0+00 to 81+19	Grade and shape in accordance with TYPICAL SECTION SHEET.
L-1200	54+00 to 75+00	See Road Plan Clause 9-5 POST-HAUL MAINTENANCE.

2-6 CLEANING CULVERTS

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

<u>Road</u>	<u>Stations</u>
L-1070	0+00 to 81+19
L-1200	54+00 to 75+00

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

On the following road(s), Purchaser shall clean ditches, headwalls, and catchbasins. Work must be completed before contract termination and must be done in accordance with the TYPICAL SECTION DETAIL and CULVERT AND DRAINAGE SPECIFICATION DETAIL. Pulling ditch material across the road or mixing in with the road surface is not allowed.

<u>Road</u>	<u>Stations</u>
L-1070	0+00 to 81+19
L-1200	54+00 to 75+00

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-5 CLEARING

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

3-8 PROHIBITED DECKING AREAS

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

- Within the grubbing limits.
- Within 25 feet of a cross drain culvert.
- Within 50 feet of a live stream, or wetland.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 45%.
- On uphill side of road prism, unless approved by the Contract Administrator.
- Against standing trees unless approved by the Contract Administrator.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Purchaser shall remove stumps using a hydraulic mounted excavator unless authorized in writing by the Contract Administrator.

3-12 STUMP PLACEMENT

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

3-14 STUMPS WITHIN DESIGNATED WASTE AREAS

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

3-20 ORGANIC DEBRIS DEFINITION

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

3-21 DISPOSAL COMPLETION

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

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located as listed below or at areas approved in writing by the Contract Administrator.

<u>Road</u>	<u>Disposal Location</u>	<u>Requirements</u>
L-1070A	14+82	Organic debris larger than one cubic foot in volume shall be separated from waste material as defined under Clause 4-35 WASTE MATERIAL DEFINITION. Purchaser shall pile organic debris no closer than 40 feet from standing timber and no higher than 20 feet. Piles must be free of rock and soil.
L-1200	50+00	

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 25 feet of a cross drain culvert.
- Within 50 feet of a live stream, or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- On uphill side of road prism unless approved by Contract Administrator.
- 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 unless approved by Contract Administrator.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris outside of the clearing limits or in natural openings on the downhill side of the road, 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 the following road(s), and on slopes greater than 45%, Purchaser shall end haul or push organic debris to the designated waste areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS or to a waste area located by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
L-1070A	20+91 to 24+04
L-1200	57+85 to 58+60
L-1200	67+86 to 68+56

SECTION 4 – EXCAVATION

4-2 PIONEERING

Pioneering may not extend more than 1000 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions must be taken as pioneering progresses:

- Drainage must be provided on all uncompleted construction.
- Road pioneering operations may not undercut the final cut slope or restrict drainage.
- 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 15 percent favorable and 12 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	1:1	100
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

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

4-10 WIDEN THE EXISTING SUBGRADE

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

<u>Road</u>	<u>Stations</u>
L-1070F	0+00 to 7+86

4-12 FULL BENCH CONSTRUCTION

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

<u>Road</u>	<u>Full Bench Location</u>	<u>Comments</u>
L-1070A	20+91 to 24+04	See L-1070A CONSTRUCTION DETAIL

4-16 END HAULING WASTE MATERIAL

On the following road(s), Purchaser shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
L-1200	57+85 to 58+60	Landing construction.
L-1200	67+86 to 68+56	
L-1050	L-1050 PIT	Rock material not suitable for processing. SEE ROCK SOURCE DEVELOPMENT PLAN

4-21 TURNOUTS

Purchaser shall construct turnouts as designated on the ROCK LIST or as directed by Contract Administrator. Locations may be adjusted to fit the final subgrade alignment and sight distances. Locations changes are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the ROCK LIST.

4-22 TURNAROUNDS

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

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

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

4-27 DITCH WORK – MATERIAL USE PROHIBITED

Purchaser shall not pull ditch material across the road or mix in with the road surface. Excavated material must be scattered outside the grubbing limits or end hauled to the location specified in Clause 4-37 WASTE AREA LOCATION.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Purchaser shall construct ditchouts as identified and as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio.

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 and approved by the Contract Administrator. The amount of material allowed in a waste area is at the discretion of the Contract Administrator.

<u>Road</u>	<u>Waste Area Location</u>	<u>Comments</u>	<u>Volume (yd³)</u>
L-1050	7+00	Waste material shall be spread and compacted evenly with a surface that provides drainage at a minimum of 3% outslope, unless otherwise approved by Contract Administrator.	Approx. 2,000
L-1070A	14+82		Approx. 6,500
L-1200	50+00		Approx. 4000

4-38 PROHIBITED WASTE DISPOSAL AREAS

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

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- Within a riparian management zone.
- On side slopes steeper than 45%.
- On uphill side of road prism.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Within the operational area for cable landings.
- Against standing timber.

4-48 NATIVE MATERIAL

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

4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free. Purchaser shall accomplish all shaping using a motor grader with a minimum of 175 horsepower.

4-56 DRY WEATHER SHAPING

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

4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift. A plate compactor must be used for areas specifically requiring keyed embankment construction and for embankment and waste area segments too narrow to accommodate equipment. Waste material may be placed by end-dumping or sidecasting until sufficiently wide enough to support the equipment.

4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed and reconstructed 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**5-5 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.

5-6 CULVERT TYPE

On the following road, Purchaser may install culverts made of steel or plastic in accordance with Clauses 10-15 through 10-24. All other culverts shall be made of plastic.

<u>Road</u>	<u>Stations</u>
L-1070A	2+85 to 24+04
L-1070F	0+00 to 7+86
L-1070F1	0+00 to 9+22

5-7 USED CULVERT MATERIAL

On temporary roads, Purchaser may install used culverts. All other roads must have new culverts installed.

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.

5-13 CONTINGENCY CULVERTS

The following culverts will be supplied by the Purchaser and are available for installation as directed by the Contract Administrator.

<u>Road</u>	<u>Quantity</u>	<u>Size</u>	<u>Type</u>
On any portions of road(s) used for timber or rock haul.	1	18" x 30'	plastic
	1	18" x 40'	plastic

5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" or 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.

5-17 CROSS DRAIN SKEW AND SLOPE

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

5-18 CULVERT DEPTH OF COVER

All culverts must be installed with a depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Energy dissipater installation is subject to approval by the Contract Administrator.

5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes longer than 20 feet must be staked on both sides at a maximum interval of 15 feet with 6-foot heavy-duty steel posts, and fastened securely to the posts in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

5-25 CATCH BASINS

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

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. 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. Rock must be set in place by machine. Placement must be with a zero-drop-height only. No placement by end dumping or dropping of rock is allowed. Rock type shall meet the specifications in Clause 6-41 SELECT PIT RUN ROCK.

SECTION 6 – ROCK AND SURFACING**6-2 ROCK SOURCE ON STATE LAND**

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

<u>Source</u>	<u>Location</u>
L-1050 PIT	S28, T03N, R04E, W.M.

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 calendar days before starting any operations in the rock source.

<u>Source</u>	<u>Rock Type</u>
L-1050 PIT	3-INCH MINUS CRUSHED, 6-INCH JAW RUN, SELECT PIT RUN

6-20 ROCK CRUSHING OPERATIONS

Rock crushing operations must conform to the following specifications:

- Purchaser shall produce sieve analysis for crushing operations every 1000 yards for 3-INCH MINUS CRUSHED.
- Purchaser may use a commercial testing lab to produce sieve analysis.

6-23 ROCK GRADATION TYPES

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

6-33 3-INCH MINUS CRUSHED ROCK

% Passing 3" square sieve	100%
% Passing 1½" square sieve	55 - 75%
% Passing U.S. #4 sieve	15 - 45%

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

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

6-39 6-INCH JAW RUN ROCK

% Passing 6" in one dimension	100%
% Passing 3" square sieve	45 - 65%

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

6-41 SELECT PIT RUN ROCK

No more than 30 percent of the rock may be smaller than 8 inches in any dimension and no rock may be larger than 12 inches in any dimension. Select Pit Run rock may not contain organic debris, dirt, and trash. Rock may require processing to meet this specification.

6-55 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 3-INCH MINUS CRUSHED, and SELECT PIT RUN for stockpile, spot patching, armoring and energy dissipaters is on a cubic yard truck measure basis. The Contract Administrator will 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, as shown in ROCK ACCOUNTABILITY DETAIL, for each truck and shall give them to the Contract Administrator on a weekly basis during rocking operations.

6-65 ROCK STOCKPILE LOCATION

Purchaser shall stockpile rock as listed below.

<u>Rock Source</u>	<u>Rock Type</u>	<u>Quantity (c.y.)</u>	<u>Stockpile Location</u>
L-1050 PIT	3-INCH MINUS CRUSHED	2000	7+00 of L-1050

6-67 ROCK STOCKPILE SPECIFICATIONS

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

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

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

No equipment other than pneumatic tired equipment may be used on stockpiles. Stockpiles of different types or sizes of aggregate must be spaced far enough apart, or separated by suitable walls or partitions, to prevent the mixing of the aggregates.

6-70 APPROVAL BEFORE ROCK APPLICATION

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

6-71 ROCK APPLICATION

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

6-73 ROCK FOR WIDENED PORTIONS

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

6-75 OPTIONAL ROCK EXCEPTION

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

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

<u>Road</u>	<u>Stations</u>
L-1070A	2+85 to 24+04
L-1070F	0+00 to 7+86
L-1070F1	0+00 to 9+22

6-76 DRY WEATHER ROCK COMPACTION

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

SECTION 7 – STRUCTURES**7-57 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.

7-70 GATE CLOSURE

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

<u>Road</u>	<u>Station</u>
L-1050	1+15
L-1070	1+03

SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES

Purchaser shall install sediment traps, silt fences, settling ponds or other methods as approved by the Contract Administrator.

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 3-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

Purchaser shall spread grass seed on all exposed soils resulting from road work activities. Cover all exposed soils using manual dispersal methods. 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>Qty (lbs)*</u>	<u>Type</u>
Construction	128	Grass seed
Reconstruction	32	
Maintenance	28	
Abandonment	88	

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

8-16 REVEGETATION SUPPLY

The Purchaser shall provide the grass seed.

8-17 REVEGETATION TIMING

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

8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least 75% coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed in areas that have failed to germinate or have been damaged through any cause. Restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed at no additional cost to the state.

8-26 GRASS SEED: ELK FORAGE MIX

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

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

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Orchard Grass	25
Perennial Rye Grass	25
Annual Rye Grass	15
Red Clover	15
White Clover	10
Birdsfoot Trefoil	10
Inert and Other Crop	0.5

SECTION 9 – POST-HAUL ROAD WORK

9-1 EARTHEN BARRICADES

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

<u>Road</u>	<u>Stations</u>
L-1070A	3+00
L-1070F	0+00

9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

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

9-5 POST-HAUL MAINTENANCE

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

<u>Road</u>	<u>Stations</u>	<u>Additional Requirements</u>
L-1200	54+00 to 75+00	Clean ditches; clean inlets and outlets; grade, shape and compact existing surface; manufacture, application and compaction of rock.

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

9-21 ROAD ABANDONMENT

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

<u>Road</u>	<u>Stations</u>	<u>Type</u>
L-1070A	2+85 to 24+04	Light
L-1070F	0+00 to 7+86	Light
L-1070F1	0+00 to 9+22	Light

9-22 LIGHT ABANDONMENT

- Remove road shoulder berms except as directed.
- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 200 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade. Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Scatter woody debris onto abandoned road surfaces.
- Remove ditch cross drain culverts and leave the resulting trench open in accordance with CROSS DRAIN REMOVAL DETAIL.
- Cover, concurrently with abandonment, all exposed soils within 100 feet of any live stream, with a 3-inch deep layer of straw.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.

SECTION 10 MATERIALS

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.

10-20 FLUME AND DOWNSPOUT

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

10-21 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.

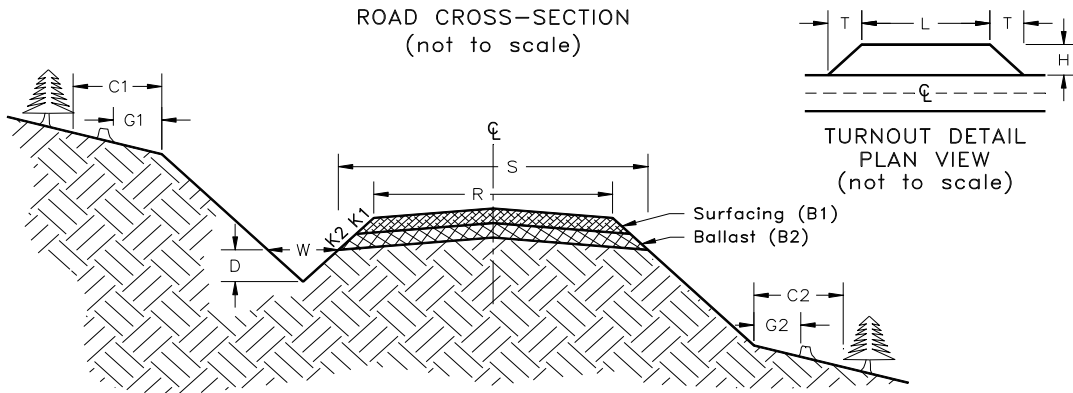
10-24 GAUGE AND CORRUGATION

Metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

<u>Diameter</u>	<u>Gage</u>	<u>Corrugation</u>
18"	16 (0.064")	2 ² / ₃ " X 1 ¹ / ₂ "
24" to 48"	14 (0.079")	2 ² / ₃ " X 1 ¹ / ₂ "
54" to 96"	14 (0.079")	5" X 1"

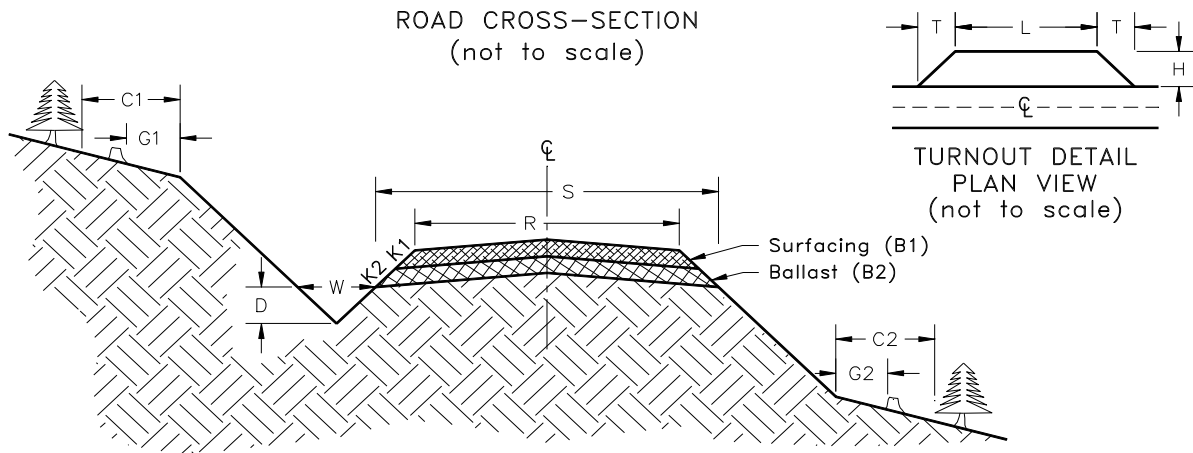
TYPICAL SECTION SHEET

Page 1 of 1



Road Number	From Station	To Station	Tolerance Class	Subgrade Width (feet)	Road Width (feet)	Ditch		Crown @ CL (inches)	Grubbing Limits (feet)		Clearing Limits (feet)	
						Width (feet)	Depth (feet)		G1	G2	C1	C2
L-1070	0+00	81+19	C	--	12	3	1	4	--	--	--	--
L-1070A	0+00	24+04	C	15	12	3	1	4	3	3	5	5
L-1070A1	0+00	4+03	C	15	12	3	1	4	3	3	5	5
L-1070F	0+00	7+86	C	15	12	3	1	4	3	3	5	5
L-1070F1	0+00	9+22	C	15	12	3	1	4	3	3	5	5
L-1200	57+85	58+60	C	15	12	3	1	4	3	3	5	5
--	67+86	68+56	C	15	12	3	1	4	3	3	5	5
--	54+00	75+00	C	18	16	3	1	4	--	--	--	--

ROCK LIST
Page 1 of 2



3-INCH MINUS CRUSHED

Road Number	Road Attributes	*Optional Rock	From Station	To Station	Rock Slope	Compacted	Cubic	# of Stations	Cubic Yard Subtotal	Rock Source	Turnout		
						Rock Depth (inches)	Yard Per Station				Length (feet)	Width (feet)	Taper (feet)
					K1	B1				L-1050 PIT	L	H	T
L-1070	Spotpatch		0+00	81+19	1½:1	As directed by CA		--	200				
L-1200	--		54+00	75+00	1½:1	6	39	21.00	819				
Stockpile	--		--	--	--	--	--	--	2000				

REQUIRED 3-INCH MINUS CRUSHED TOTAL 3019 Cubic Yards

Key:

CA - Contract Administrator

ROCK LIST
Page 2 of 2
6-INCH JAW RUN

<u>Road Number</u>	<u>Road Attributes</u>	* Optional Rock	<u>From Station</u>	<u>To Station</u>	<u>Rock Slope</u>	<u>Compacted</u>	<u>Cubic</u>	<u># of Stations or Units</u>	<u>Cubic</u>	<u>Rock Source</u>	<u>Turnout/Turnaround</u>		
						<u>Rock Depth (inches)</u>	<u>Yard Per Station or</u>		<u>Yard Subtotal</u>		<u>Length (feet)</u>	<u>Width (feet)</u>	<u>Taper (feet)</u>
					<u>K2</u>	<u>B2</u>				L-1050 PIT	<u>L</u>	<u>H</u>	<u>T</u>
L-1070A	--		0+00	2+85	1½:1	12	63	2.85	180				
--	--	*	2+85	24+04	1½:1	12	63	21.19	1335				
--	Turnouts	*	As approved by CA		1½:1	12	27	1.00	27		25	10	25
--	TA	*	As approved by CA		1½:1	12	46	1.00	46		30	30	
--	LNDG	*	As approved by CA		1½:1	12	95	1.00	95				
L-1070A1	--		0+00	4+03	1½:1	12	63	4.03	254				
--	TA	*	As approved by CA		1½:1	12	46	1.00	46		30	30	
--	LNDG	*	As approved by CA		1½:1	12	95	1.00	95				
--	CW		0+41	1+19	1½:1	12	--	--	35				
L-1070F	--	*	0+00	7+86	1½:1	12	63	7.86	495				
L-1070F1	--	*	0+00	9+22	1½:1	12	63	9.22	581				
--	Turnouts	*	As approved by CA		1½:1	12	27	1.00	27		25	10	25
--	TA	*	As approved by CA		1½:1	12	46	1	46		30	30	
--	LNDG	*	As approved by CA		1½:1	12	95	1	95				
L-1200	LNDG		57+85	58+60	1½:1	12	63	0.75	47				
L-1200	LNDG		67+86	68+56	1½:1	12	63	0.70	44				

Key:

CA - Contract Administrator
TA - Turnaround
CW - Curve Widening
LNDG - Landing

REQUIRED 6-INCH JAW RUN TOTAL 560 Cubic Yards
OPTIONAL 6-INCH JAW RUN TOTAL 2888 Cubic Yards

ARMORING, AND ENERGY DISSIPATORS

<u>Road Number</u>	<u>Station</u>	<u>Description</u>	<u>Standard</u>	<u>Rock Type</u>	<u>C.Y. Total</u>	<u>Rock Source</u>
All roads	--	Culvert armoring and energy dissipators	Required	SELECT PIT RUN	6	L-1050 PIT

REQUIRED SELECT PIT RUN TOTAL 6 Cubic Yards

CULVERT LIST

Page 1 of 1

<u>Road Number</u>	<u>Location</u>	<u>Culvert</u>			<u>Armoring (Cubic Yards)</u>			<u>Backfill Material</u>	<u>Bedding Material</u>	<u>Culvert Marker (Y/N)</u>	<u>Remarks</u>
		<u>Dia. (inches)</u>	<u>Length (feet)</u>	<u>Type</u>	<u>Inlet</u>	<u>Outlet</u>	<u>Type</u>				
L-1070A	0+51	18	50	PD	0.5	0.5	SPR	NT	NT	N	
	9+85	18	40	XX	0.5	0.5	SPR	NT	NT	N	
	18+60	18	30	XX	0.5	0.5	SPR	NT	NT	N	
L-1070F	0+00	18	50	XX	0.5	0.5	SPR	NT	NT	N	
	4+11	18	30	XX	0.5	0.5	SPR	NT	NT	N	
L-1070F1	6+05	18	30	XX	0.5	0.5	SPR	NT	NT	N	

Key:

- NT - Native (bank run)
- SPR - Select Pit Run
- GM - Galvanized Metal
- PD - Polyethylene Pipe Dual Wall
- XX - PD or GM

COMPACTION LIST

Page 1 of 1

<u>Road</u>	<u>Type</u>	<u>Max Depth Per Lift (inches)</u>	<u>Equipment Type</u>	<u>Equipment Weight (lbs)</u>	<u>Minimum Number of Passes</u>	<u>Maximum Operating Speed (mph)</u>	<u>Maximum Amount of Deflection (inches)</u>
All	Existing Road Surface	--	Vibratory Smooth Drum	20000	4	3	1
All	Subgrade Surface	--	Vibratory Smooth Drum	20000	4	3	1
All	Embankment/Fill	12	Excavation	28000	--	--	4
All	Surfacing Rock (3" Minus Crushed)	6	Vibratory Smooth Drum	20000	4	3	1
All	Ballast Rock (6" Jaw Run)	12	Excavation	28000	4	3	2
All	Waste Areas	24	Excavation	28000	--	--	4
All	Culvert Bedding/Backfill	--	Vibratory Plate Compactor	260	--	--	1

CULVERT AND DRAINAGE SPECIFICATION DETAIL

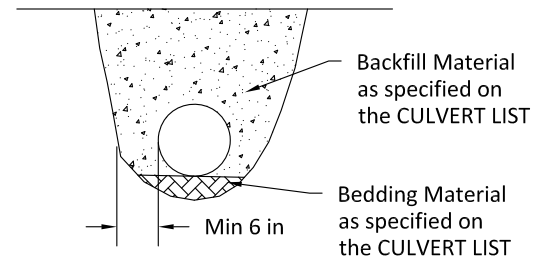
PAGE 1 OF 2

INSTALLATION REQUIREMENTS:

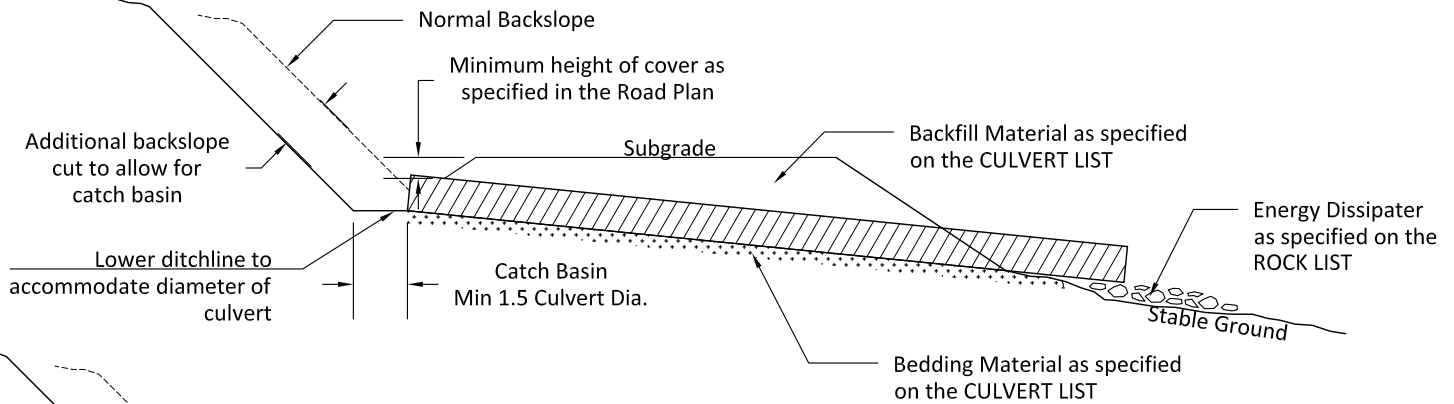
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly 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

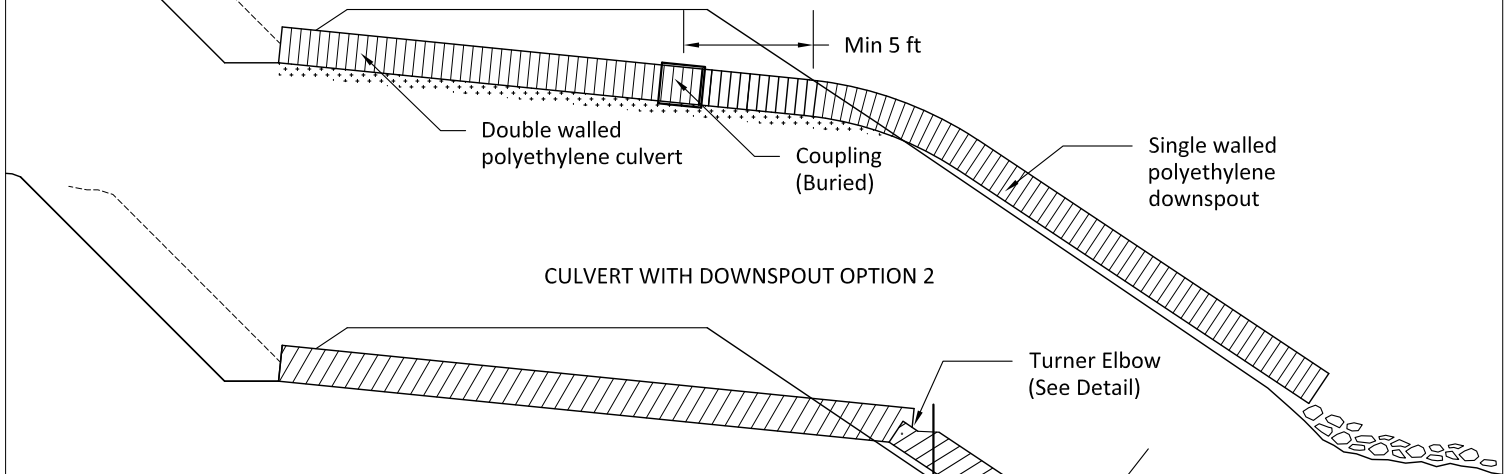
CROSS SECTION



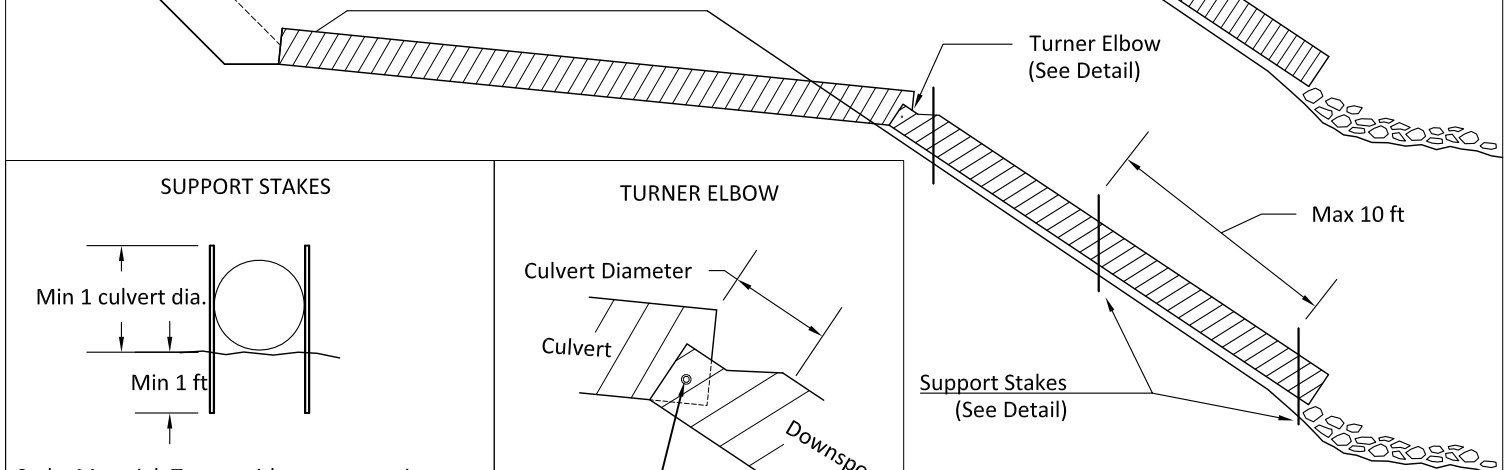
CULVERT PROFILE (TYPICAL)



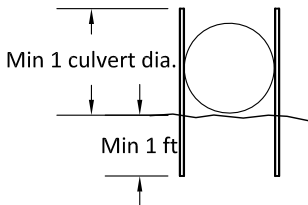
CULVERT WITH DOWNSPOUT OPTION 1



CULVERT WITH DOWNSPOUT OPTION 2

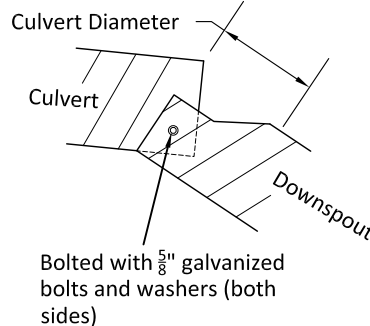


SUPPORT STAKES



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

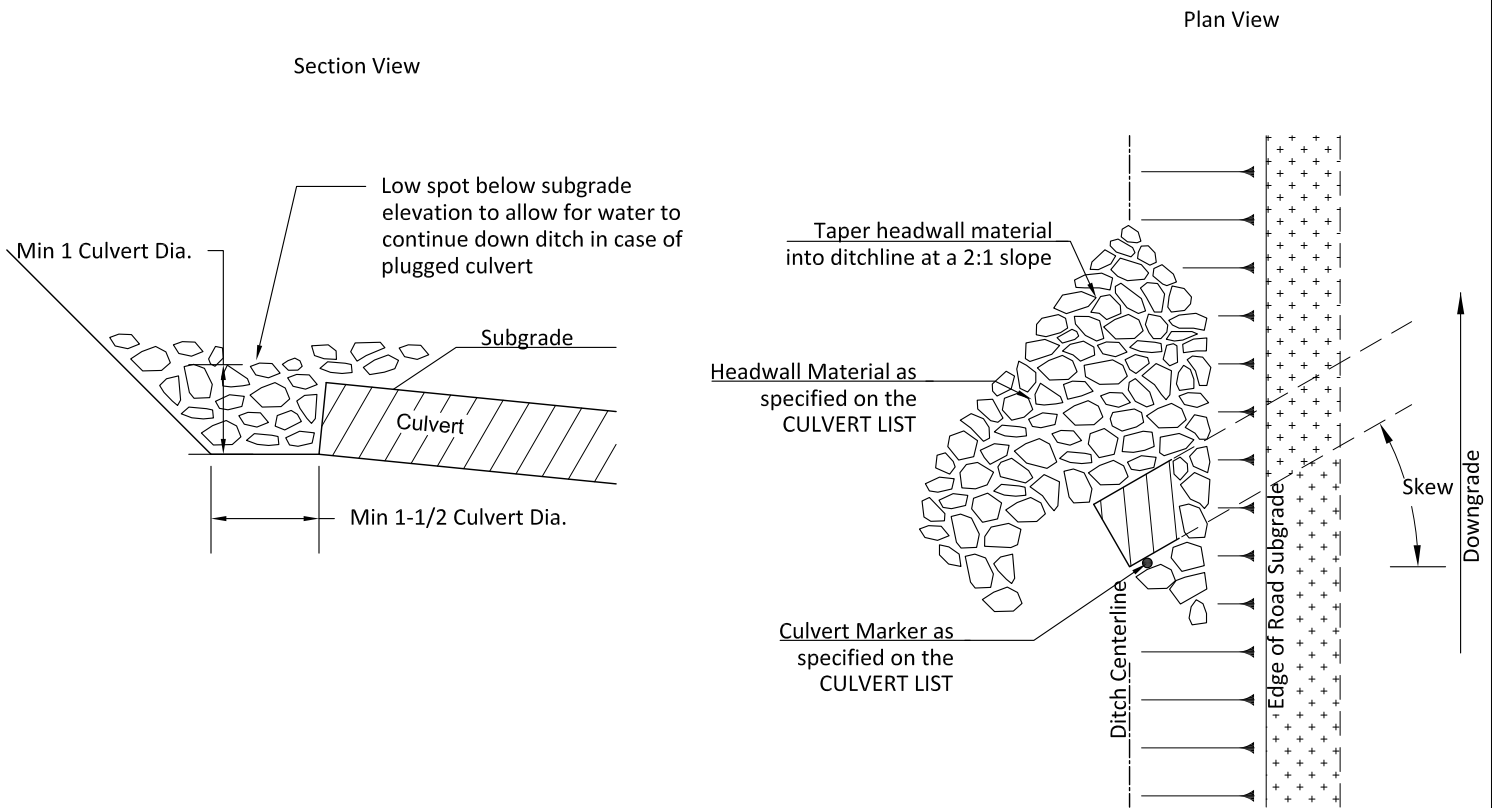


Downspout must be 6 inches larger in diameter than the culvert.

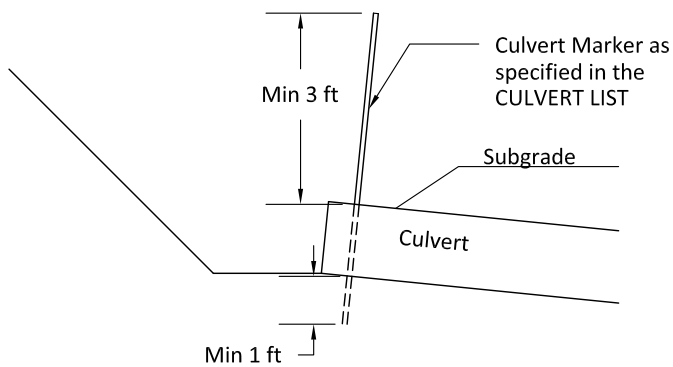
CULVERT AND DRAINAGE SPECIFICATION DETAIL

PAGE 2 OF 2

HEADWALLS

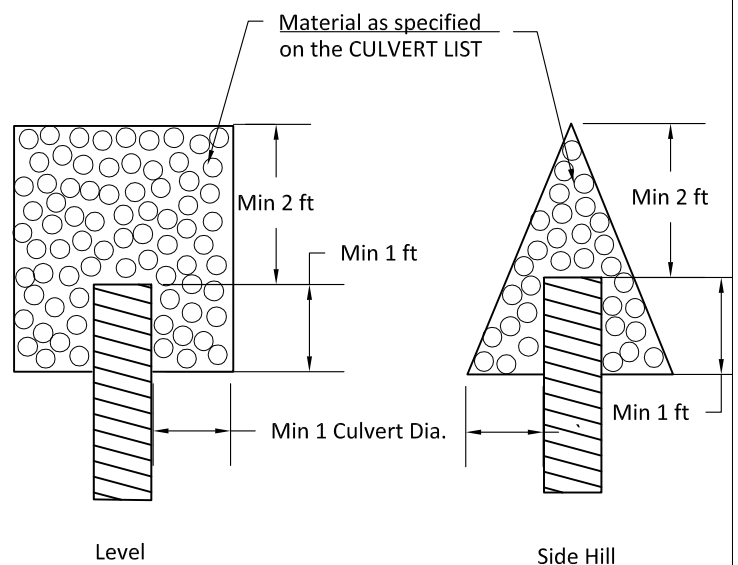


CULVERT MARKERS



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

ENERGY DISSIPATERS



Min Energy Dissipater Depth: 1 Culvert Dia.

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

Drainage

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

Preventative Maintenance

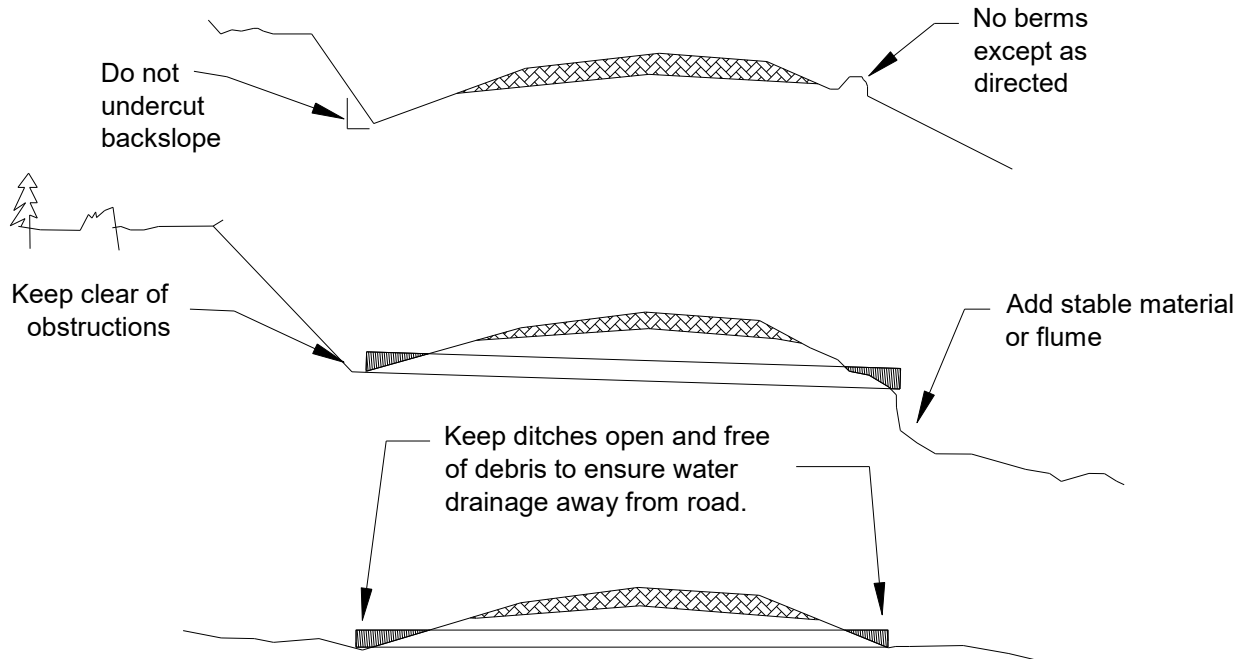
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

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

Debris

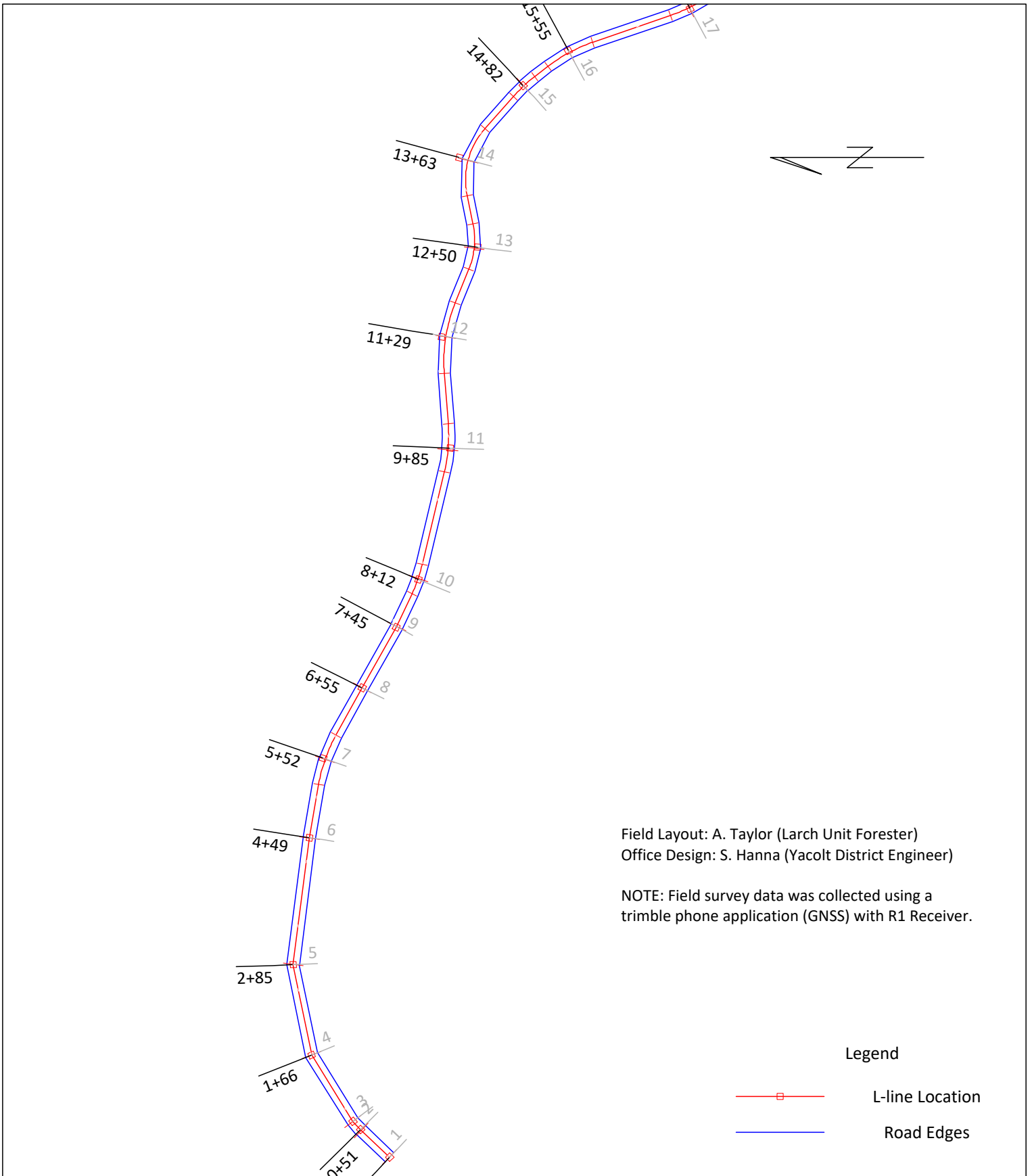
- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



L-1070A CONSTRUCTION DETAIL

Page 1 of 7

PLAN VIEW

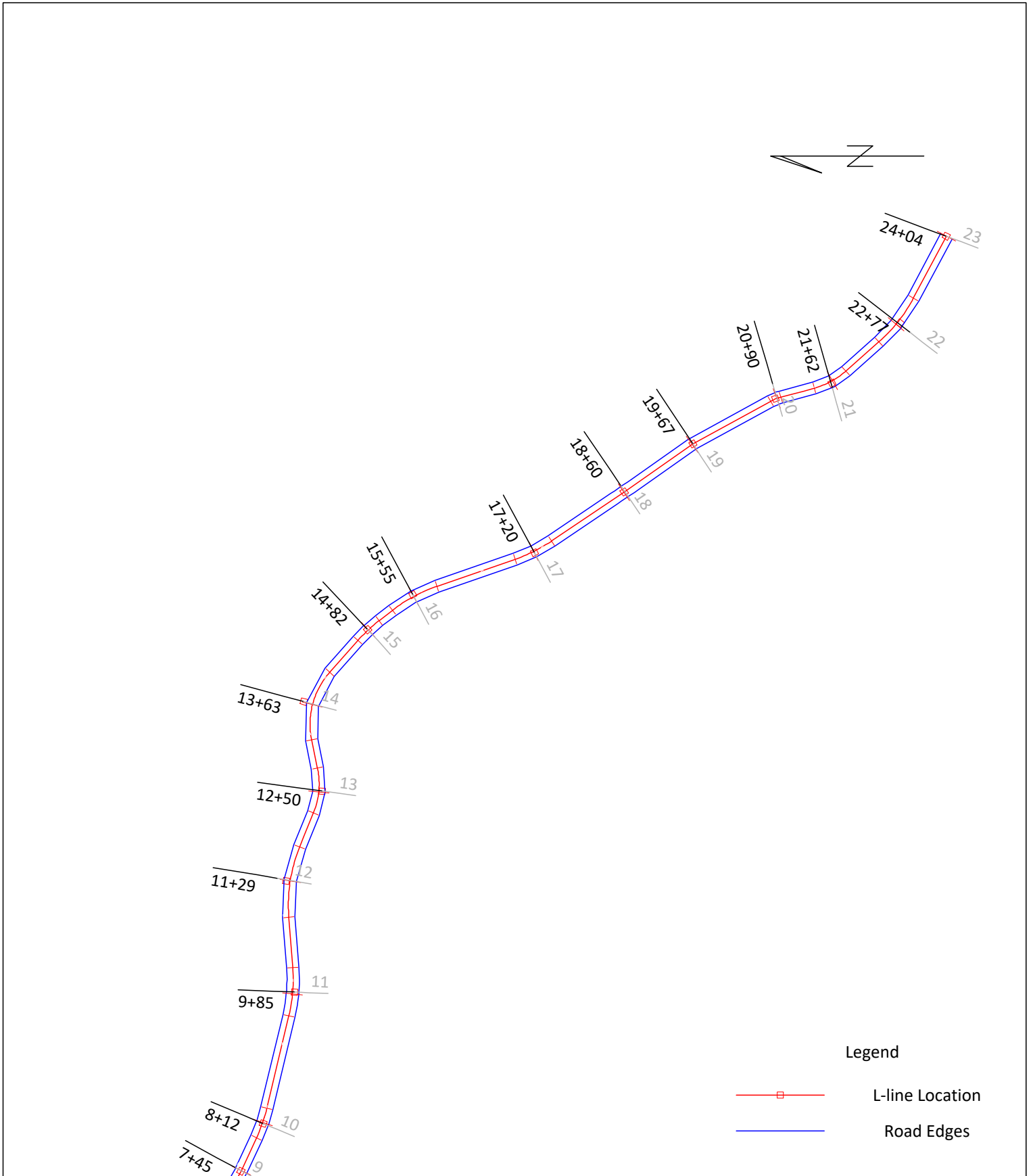


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L-1070A CONSTRUCTION DETAIL

Page 2 of 7

PLAN VIEW

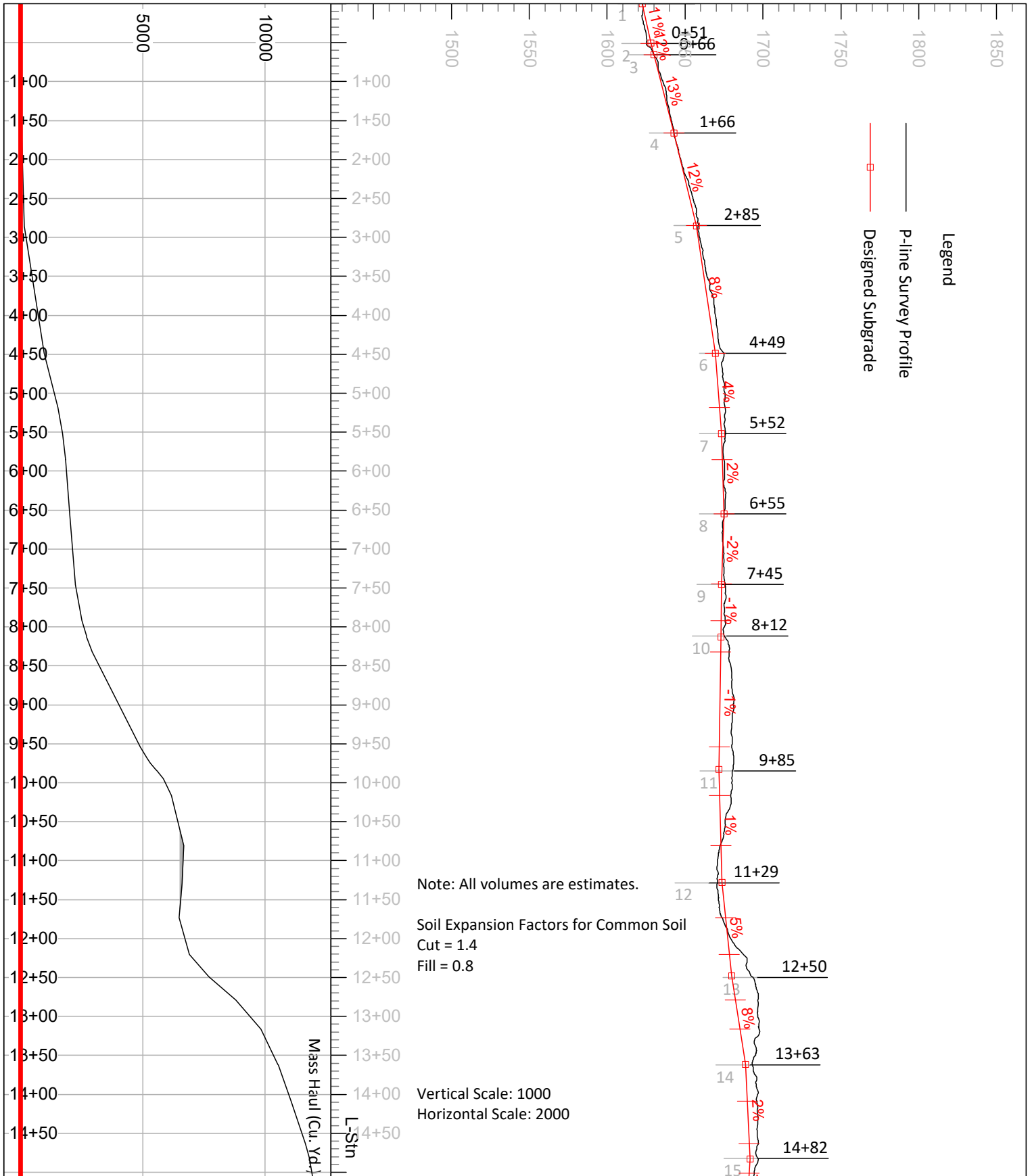


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L-1070A CONSTRUCTION DETAIL

Page 3 of 7

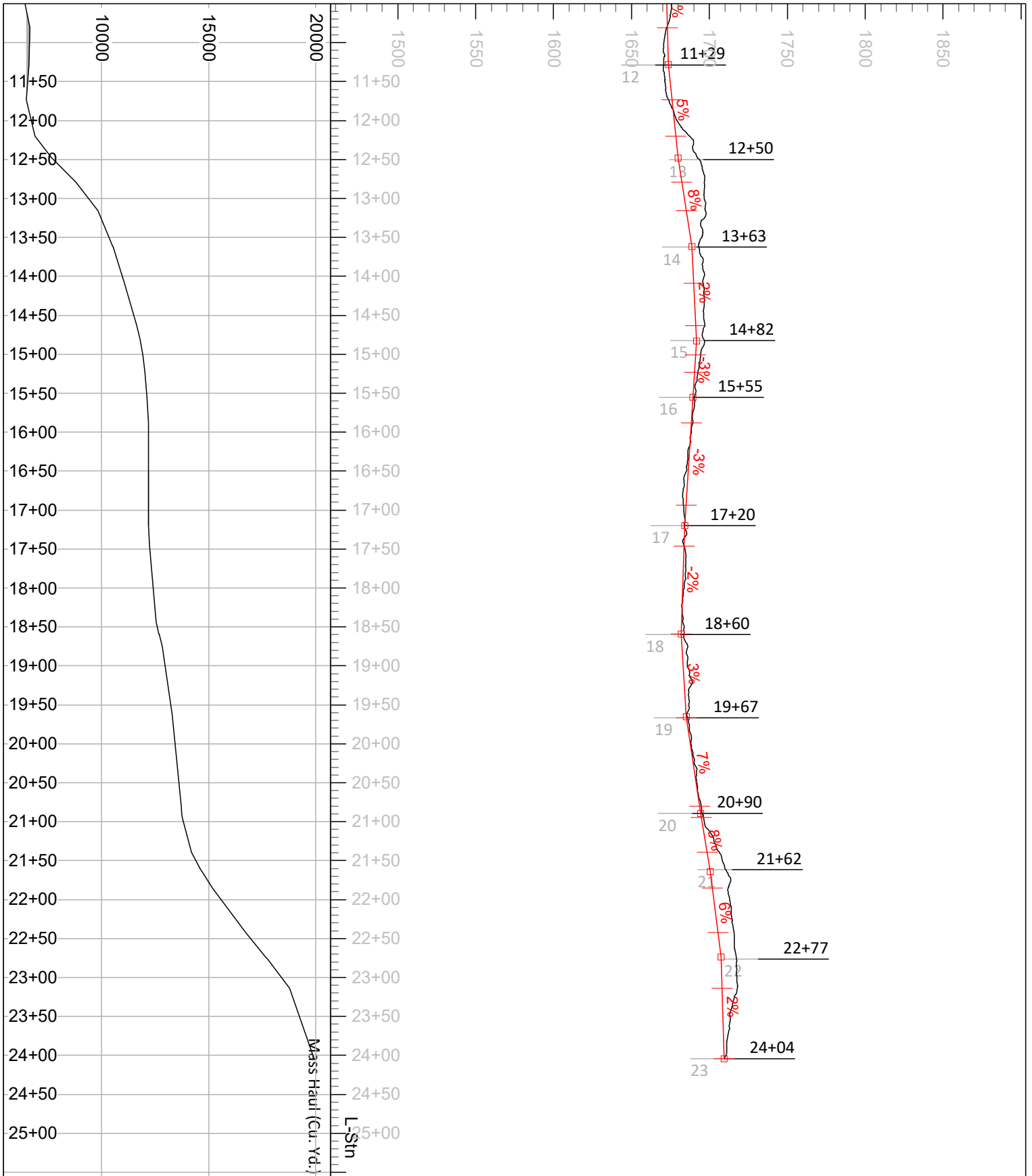
PROFILE VIEW



L-1070A CONSTRUCTION DETAIL

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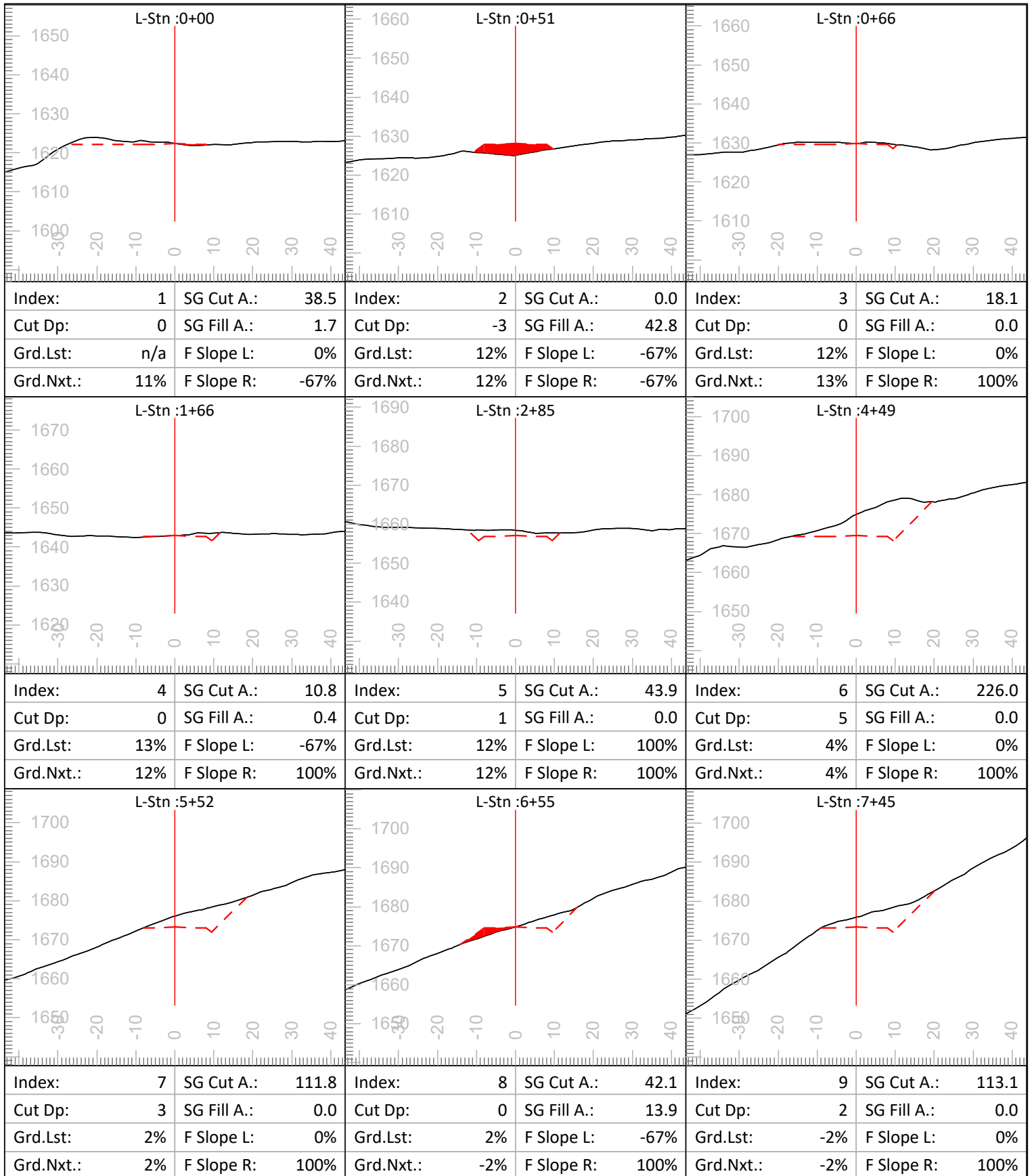
PROFILE VIEW



L-1070A CONSTRUCTION DETAIL

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CROSS SECTIONS



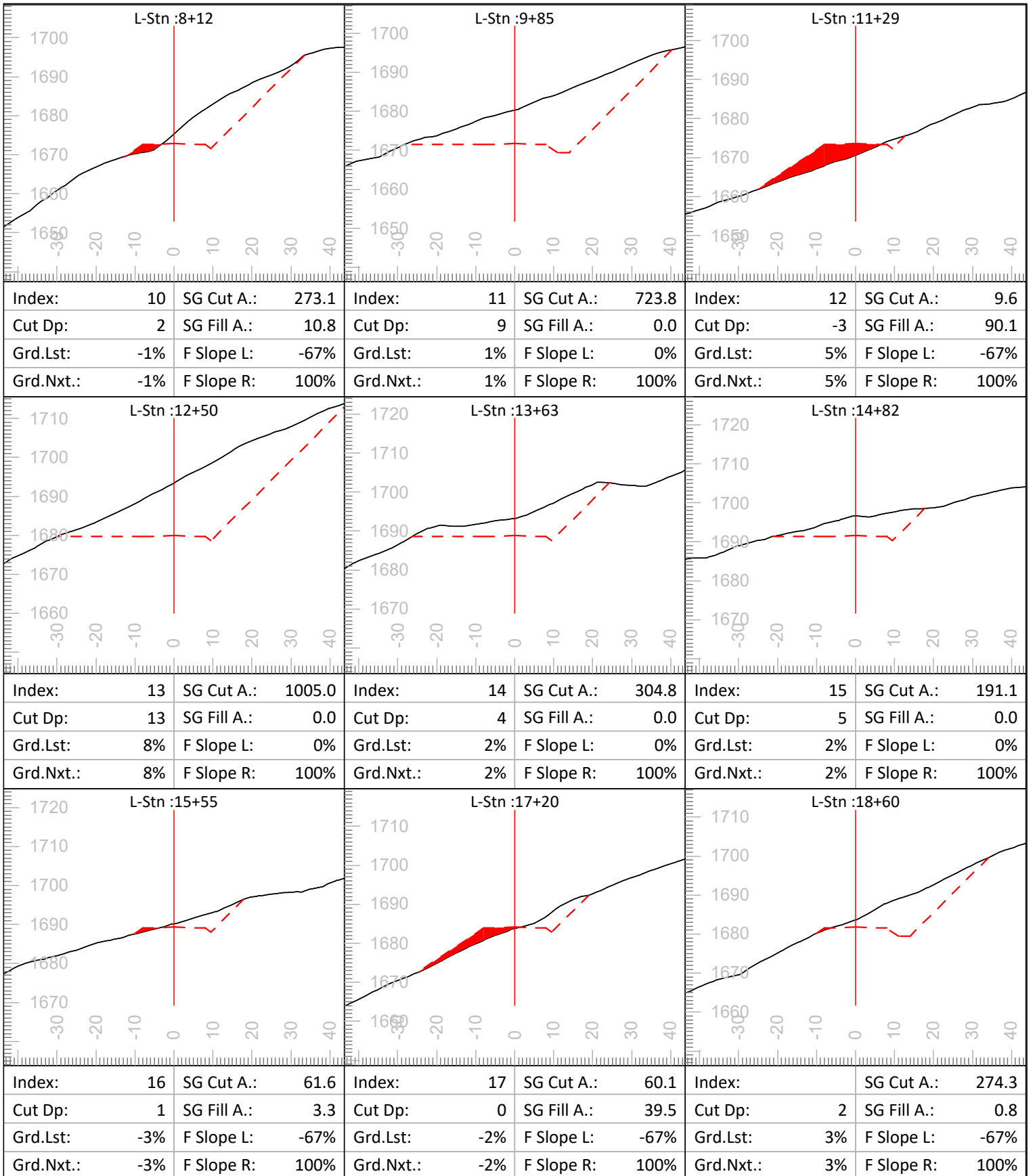
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Horizontal Scale: 400

L-1070A CONSTRUCTION DETAIL

Page 6 of 7

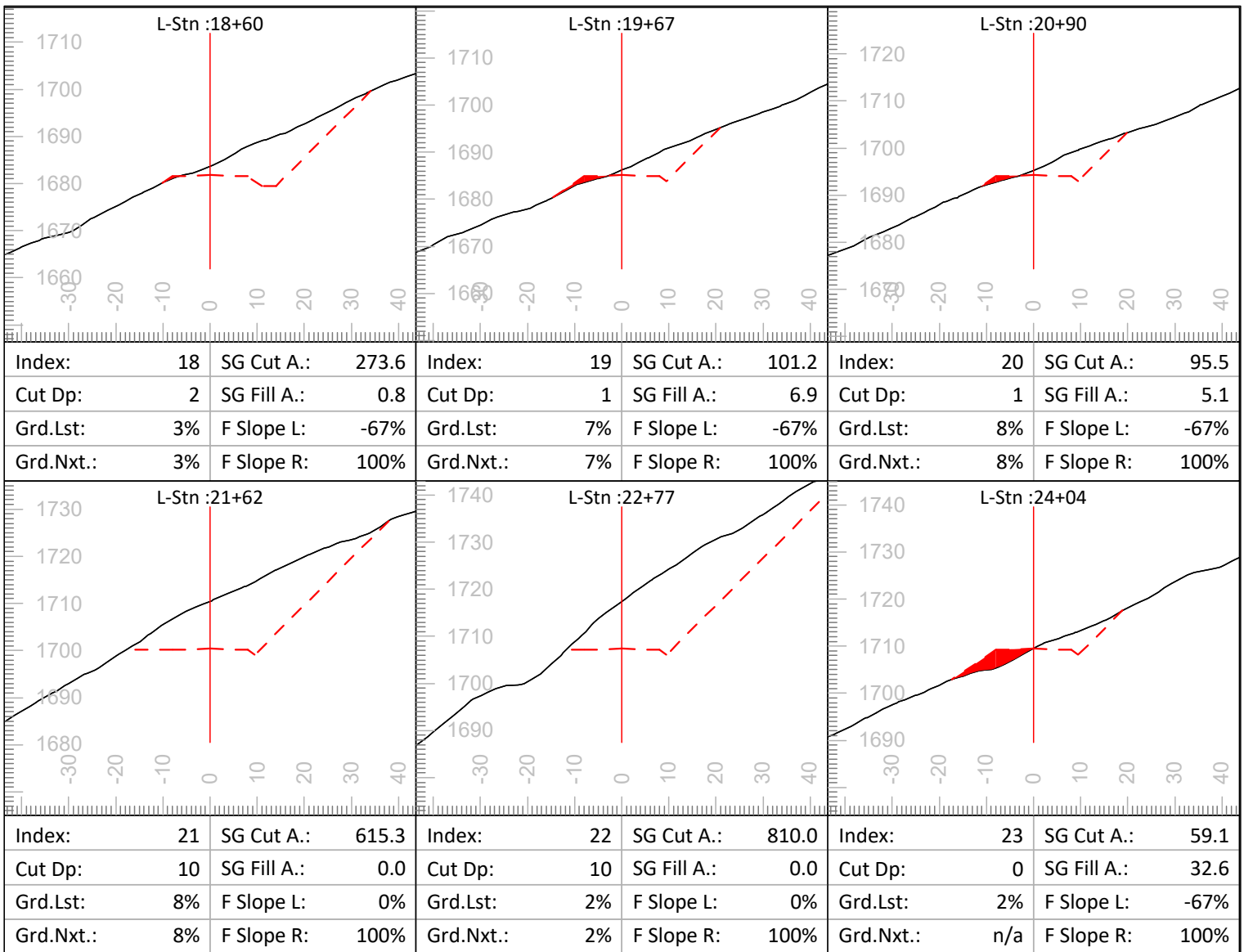
CROSS SECTIONS



L-1070A CONSTRUCTION DETAIL

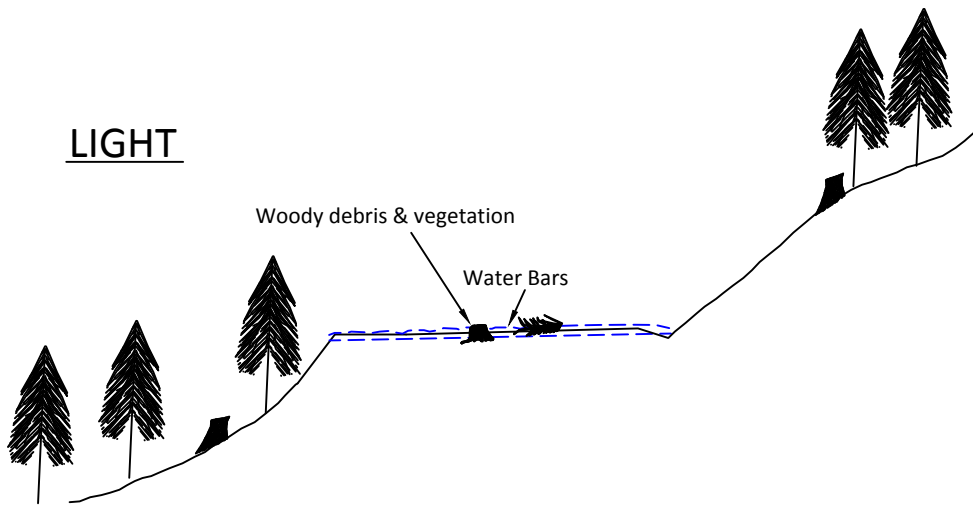
Page 7 of 7

CROSS SECTIONS

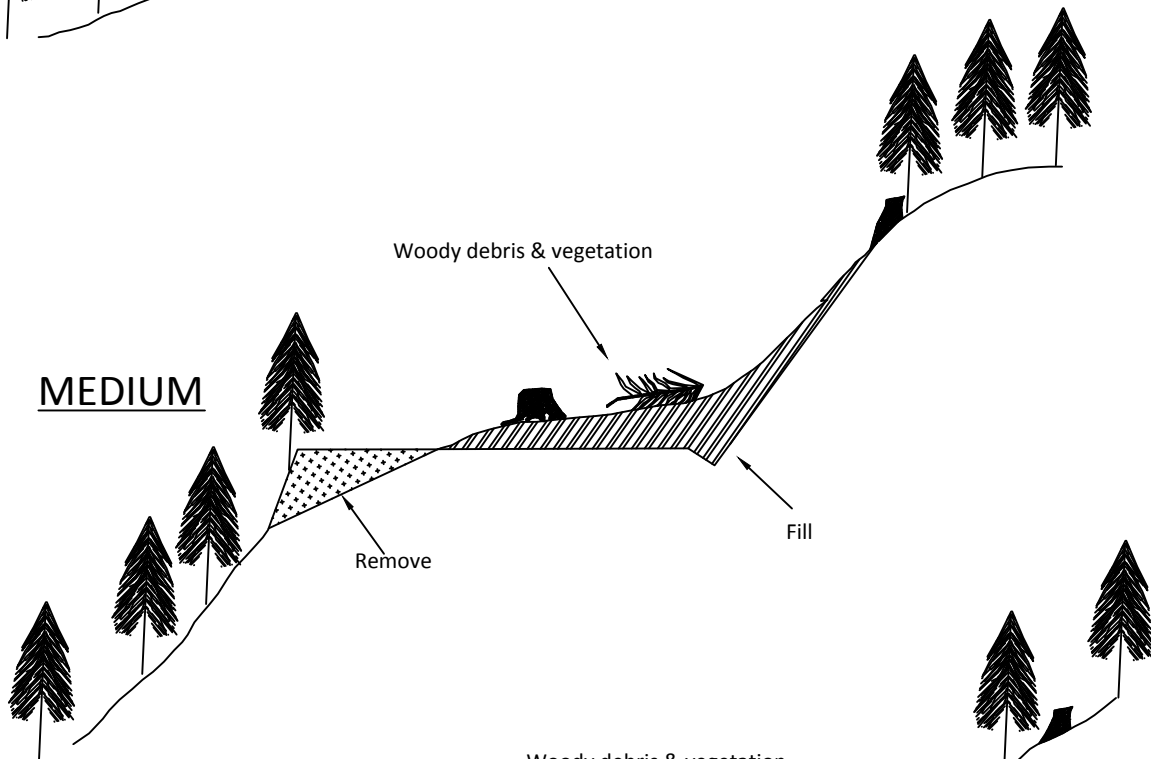


ROAD ABANDONMENT CROSS SECTIONS

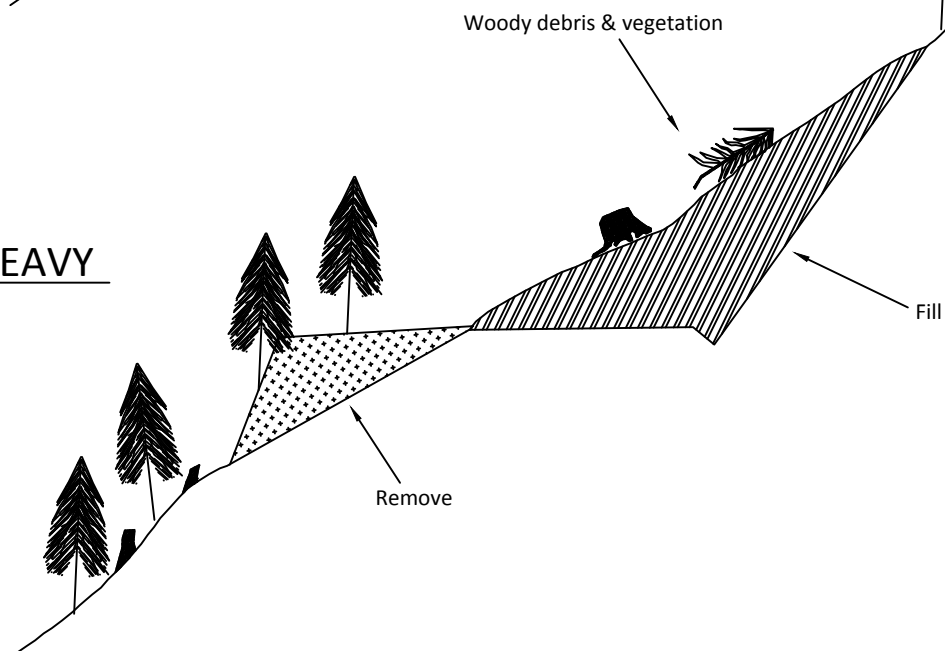
LIGHT



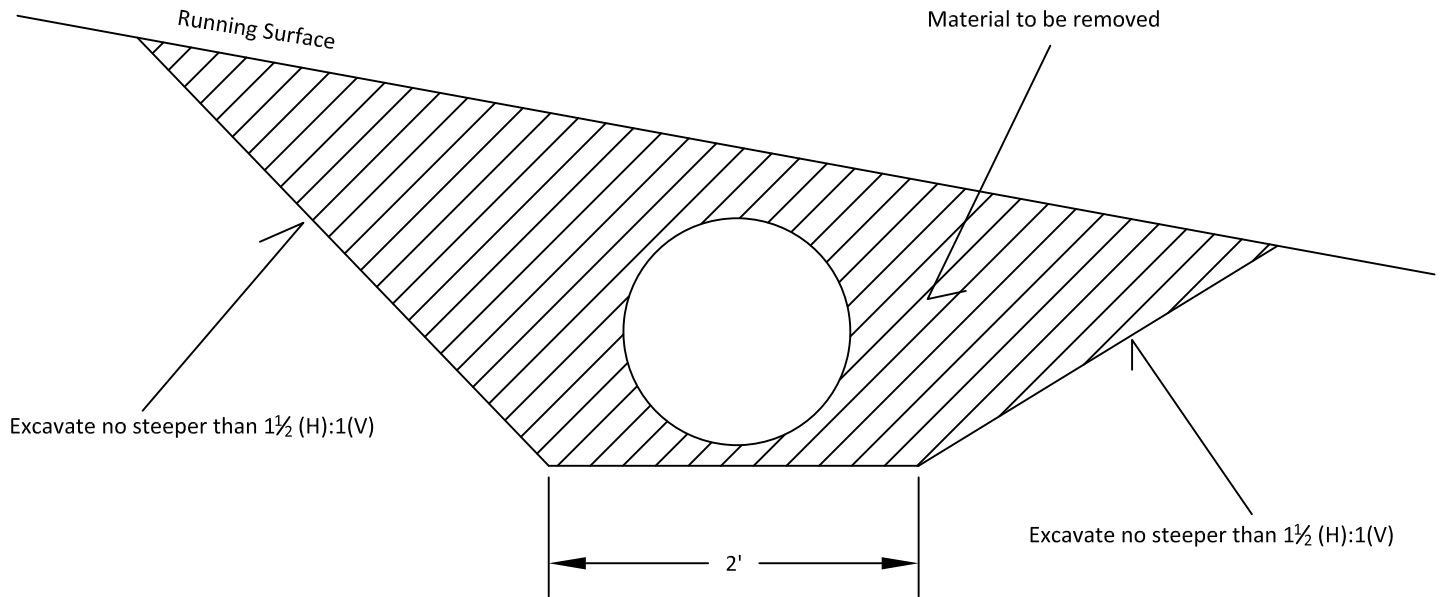
MEDIUM



HEAVY

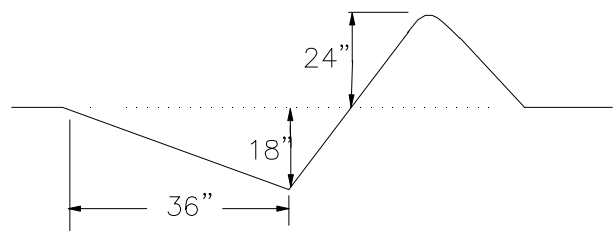
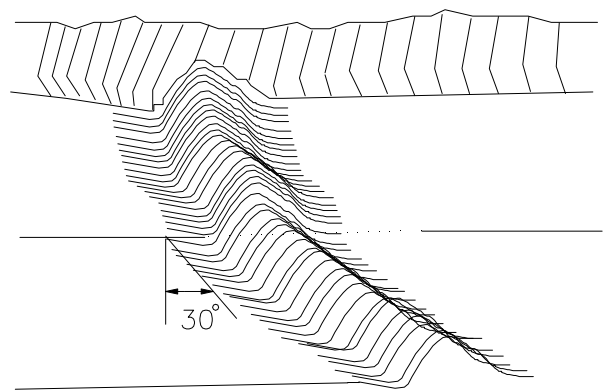


CROSS DRAIN REMOVAL DETAIL



- 1) Excavated material may be wasted on the road surface on the downhill side of the excavation. Waste material shall be sloped no steeper than 1½ (H):1(V).
- 2) Resulting trench shall be keyed into the ditchline and sloped towards the outside edge of the road with a drop of at least 1 foot in 10 feet.

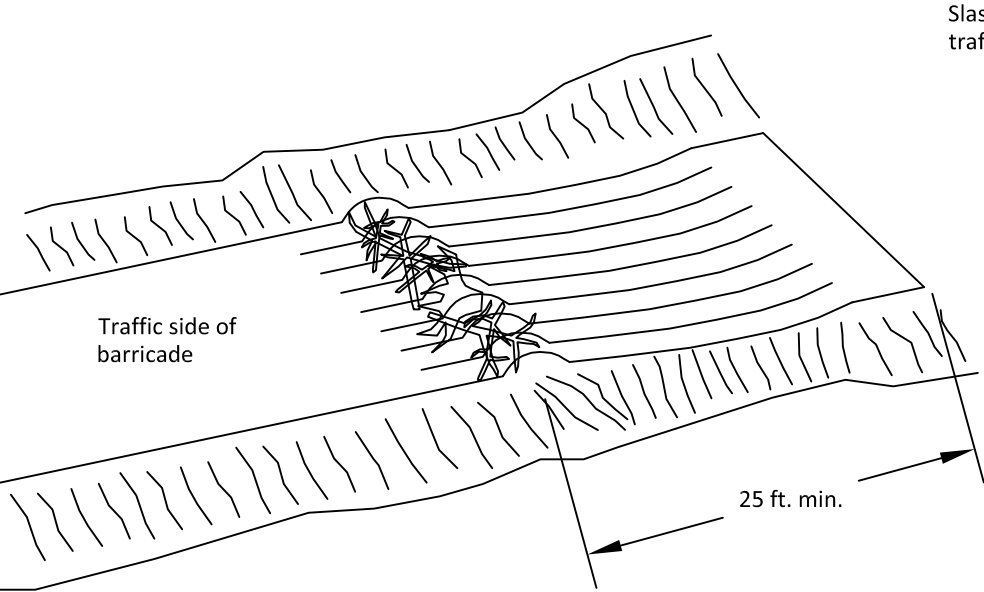
NON-DRIVABLE WATER BAR DETAIL



EARTHEN BARRICADE DETAIL

PLAN VIEW

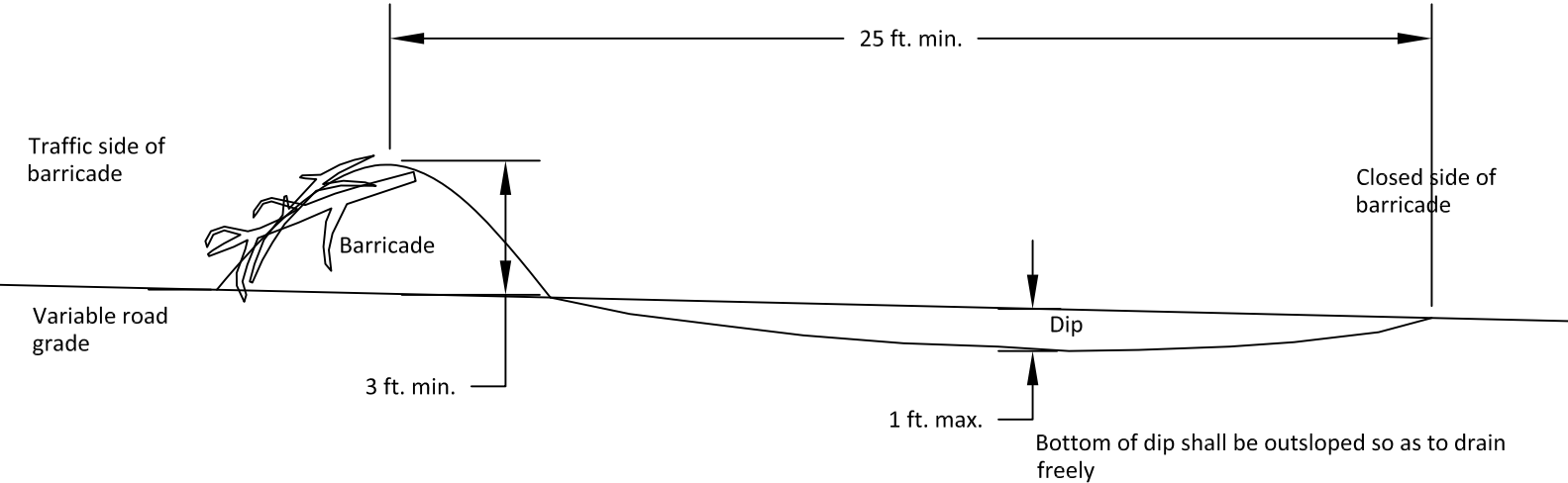
(Not to scale)



Slash and root wads shall be incorporated into traffic side of the barricade.

PROFILE VIEW

(Not to scale)



ROCK ACCOUNTABILITY DETAIL

SALE NAME: _____

Purchaser: _____

Agreement #: _____

Contractor: _____

Rock Quarry/Pit: _____

Truck No: _____

[illegible]

Truck Driver Signature

SIGNATURE

DATE _____

ROCK SOURCE DEVELOPMENT PLAN

L-1050 PIT

Page 1 of 1

1. 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.
2. Purchaser shall arrange with the Contract Administrator to review the pit and examine the area before beginning any operations. A rock source plan of operations shall be developed and agreed upon by the Contract Administrator and Purchaser before beginning any operations.
3. Existing loose shot material will be processed for development of all rock gradation types listed under Section 6 - ROCK AND SURFACING.
4. Material will require screening of excess fines for processing. All excess fines shall be end hauled to designated waste area.
5. Waste Area compaction requirements are specified in the COMPACTION LIST.
6. Working bench width shall be a minimum of 20 feet and outsloped at 2%.
7. The pit floor shall have continuity of slope with a smooth and neat condition that provides drainage at a minimum of 3 percent. No sediment shall enter live water.
8. The location and amount of material deposited in a temporary stockpile is subject to approval by the Contract Administrator. All stockpiled material shall be maintained in a neat and useable condition.
9. At the conclusion of operations, all oversize material excavated from the loose shot stock pile that cannot be processed shall be located as directed by the Contract Administrator. Oversize material is defined as rock fragments larger than two feet in any direction.
10. Upon completion of pit operations, the following shall occur:
 - a. The pit area will be left in a condition that will not endanger public safety, damage property, or be hazardous to animal or human life.
 - b. All exposed soils in the Waste Areas shall be grass seeded in accordance with Section 8 of Road Plan.
 - c. The pit area shall be worked and left in a condition that future operations may proceed in an orderly manner.
 - d. The site shall be cleared of all temporary structures, equipment and rubbish, block access roads with existing on-site rip rap as directed by the Contract Administrator, and shall be left in a neat and presentable condition.
 - e. The Purchaser shall obtain written approval of final rock source condition and compliance with the terms of this plan.

DEPARTMENT OF NATURAL RESOURCES

ROAD DEVELOPMENT COST SUMMARY

Page 1 of 9

REGION	PACIFIC CASCADE		
DISTRICT	YACOLT		
SALE/PROJECT NAME	HEART THROB		CONTRACT NUMBER: 30-102717
LEGAL DESCRIPTION	Section(s) 15, 16, 21, 22, T03N, R04E W.M.		
ROAD NUMBER	L-1070A, L-1070A1, L-1070F1	L-1070F, L-1200	L-1070, L-1200
ROAD STANDARD	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS	37.29	9.31	102.19
CLEARING AND GRUBBING	\$6,243	\$786	
EXCAVATION AND FILL	\$43,346	\$20,199	
MISC. MAINTENANCE			\$9,717
ROCK:			
Surfacing	\$0	\$0	\$53,175
Ballast	\$57,032	\$12,040	\$0
Rip Rap	\$124	\$63	\$0
CULVERTS	\$3,687	\$1,992	\$1,042
GENERAL EXPENSES	\$11,043	\$3,508	\$6,393
MOBILIZATION	\$3,820	\$3,820	\$3,820
TOTAL COSTS	\$125,295	\$42,408	\$74,147
COST PER STATION	\$3,360	\$4,555	\$726
ROAD CLOSURE COSTS	\$4,974		
		TOTAL (All Roads) =	\$246,824
		TOTAL (All roads excluding optional rock) =	\$191,615
		SALE VOLUME MBF =	4,891
		TOTAL COST PER MBF (All Roads) =	\$50.46
		TOTAL COST PER MBF (All roads excluding optional rock) =	\$39.18

Compiled by: Scott Hanna

Date: 12/5/2022

CONSTRUCTION COSTS

Page 2 of 9

SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

CLEARING AND GRUBBING

<u>Road</u>	<u>Type</u>	<u>Average Side Slope (%)</u>	<u>Average MBF/acre</u>	<u>Production Factor</u>	<u>Running Surface (ft)</u>	<u>Total Stations</u>	<u>\$/Station</u>	<u>Sub-Total</u>
L-1070A	Optional	20	30	2.44	12	2.85	\$134.20	\$382.47
L-1070A	Optional	35	30	4.11	12	18.06	\$226.05	\$4,082.46
L-1070A1	Optional	20	30	2.44	12	4.03	\$134.20	\$540.83
L-1070F1	Optional	25	30	2.44	12	9.22	\$134.20	\$1,237.32

CLEARING AND GRUBBING TOTAL = \$6,243.08

EXCAVATION

<u>Road</u>	<u>Type</u>	<u>Average Side Slope (%)</u>	<u>Material Type</u>	<u>Production Factor</u>	<u>Running Surface (ft)</u>	<u>Total Stations</u>	<u>\$/Station</u>	<u>Sub-Total</u>
L-1070A	Optional	20	Common Soil	2.00	12	2.85	\$200.00	\$570.00
L-1070A	Optional	35	Common Soil	3.00	12	18.06	\$300.00	\$5,418.00
L-1070A1	Optional	20	Common Soil	2.00	12	4.03	\$200.00	\$806.00
L-1070F1	Optional	25	Common Soil	2.25	12	9.22	\$225.00	\$2,074.50

FULL BENCH/END HAUL

<u>Road</u>	<u>Cubic Yards</u>	<u>From Station</u>	<u>To Station</u>	<u>Drill (\$/cy)</u>	<u>Exc. (\$/cy)</u>	<u>Haul (\$/cy)</u>	<u>Dozer (\$/cy)</u>	<u>Sub-Total</u>
L-1070A	6,500	20+91	24+04	\$0.00	\$2.27	\$1.33	\$1.39	\$32,435.00

GRADE, SHAPE AND COMPACT SUBGRADE

<u>Total Stations</u>	<u>\$/Station</u>	<u>Sub-Total</u>
37.29	\$32.49	\$1,211.55

SOIL EROSION CONTROL

<u>Total Stations</u>	<u>Average Width (ft)</u>	<u>Application Rate (lbs/ac)</u>	<u>Seed Quantity (lbs)</u>	<u>Material Cost (\$/lb)</u>	<u>Application Cost (\$/sta)</u>	<u>Sub-Total</u>
37.29	30	50	128	\$2.85	\$12.50	\$830.93

EXCAVATION TOTAL = \$43,345.98

CULVERTS

<u>Description</u>	<u>Dia (inches)</u>	<u>Length (feet)</u>	<u>Downspt. (ft)</u>	<u>Cost/ft</u>	<u>Straw Bales</u>	<u>\$/Bale</u>	<u>Markers (\$)</u>	<u>Sub-total</u>
X-Drain	18	150	0	\$24.58		\$9.19		\$3,687.00

CULVERT TOTAL = \$3,687.00

RECONSTRUCTION COSTS

Page 3 of 9

SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

CLEARING AND GRUBBING

<u>Road</u>	<u>Type</u>	<u>Average Side Slope (%)</u>	<u>Average MBF/Acre</u>	<u>Production Factor</u>	<u>Running Surface (ft)</u>	<u>Total Stations</u>	<u>\$/Station</u>	<u>Sub-Total</u>
L-1070F	Optional	25	5	1.25	12	7.86	\$100.00	\$786.00

CLEAR AND GRUB TOTAL = \$786.00

EXCAVATION

<u>Road</u>	<u>Type</u>	<u>Average Side Slope (%)</u>	<u>Material Type</u>	<u>Production Factor</u>	<u>Running Surface (ft)</u>	<u>Total Stations</u>	<u>\$/Station</u>	<u>Sub-Total</u>
L-1070F	Optional	25	Common Soil	2.25	12	7.86	\$168.75	\$1,326.38

FULL BENCH/END HAUL

<u>Road</u>	<u>Cubic Yards</u>	<u>From Station</u>	<u>To Station</u>	<u>Drill (\$/cy)</u>	<u>Exc. (\$/cy)</u>	<u>Haul (\$/cy)</u>	<u>Dozer (\$/cy)</u>	<u>Sub-Total</u>
L-1200	2,300	57+85	58+60	\$0.00	\$1.74	\$1.21	\$1.39	\$9,982.00
L-1200	1,700	67+86	68+56	\$0.00	\$1.74	\$2.44	\$0.75	\$8,381.00

GRADE, SHAPE AND COMPACT SUBGRADE

<u>Total Stations</u>	<u>Cost/Station</u>	<u>Sub-Total</u>
9.31	\$32.49	\$302.48

SOIL EROSION CONTROL

<u>Total Stations</u>	<u>Average Width (ft)</u>	<u>Application Rate (lbs/ac)</u>	<u>Seed Quantity (lbs)</u>	<u>Material Cost (\$/lb)</u>	<u>Application Cost (\$/sta)</u>	<u>Sub-Total</u>
9.31	30	50	32	\$2.85	\$12.50	\$207.58

EXCAVATION TOTAL = \$20,199.44

CULVERTS

<u>Description</u>	<u>Dia (inches)</u>	<u>Length (feet)</u>	<u>Downspt. (ft)</u>	<u>Cost/ft</u>	<u>Straw Bales</u>	<u>\$/Bale</u>	<u>Markers (\$)</u>	<u>Sub-Total</u>
X-Drain	18	80	0	\$24.90				\$1,992.00

CULVERT TOTAL = \$1,992.00

MAINTENANCE COSTS

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SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

MAINTENANCE ACTIVITY TYPE

	<u>\$/Station</u>	<u>Total Stations</u>	<u>Sub-Total</u>
Grade, shape, and compact existing surface	\$32.49	75.00	\$2,436.75
Ditch Cleaning	\$68.87	81.19	\$5,591.56
Clean culvert inlet/outlets	\$7.32	81.19	\$594.31

SOIL EROSION CONTROL

<u>Total Stations</u>	<u>Average Width (ft)</u>	<u>Application Rate (lbs/ac)</u>	<u>Seed Quantity (lbs)</u>	<u>Material Cost (\$/lb)</u>	<u>Application Cost (\$/sta)</u>			<u>Sub-Total</u>
81.19	3	50	28	\$2.85	\$12.50			\$1,094.68

MISC TOTAL = \$9,717.30

CULVERTS

<u>Description</u>	<u>Dia (inches)</u>	<u>Length (feet)</u>	<u>Downspt. (ft)</u>	<u>Cost/ft</u>	<u>Straw Bales</u>	<u>\$/Bale</u>		<u>Sub-Total</u>
Contingency	18	70	0	\$14.88				\$1,041.60

CULVERT TOTAL = \$1,041.60

SURFACING COSTS

Page 5 of 9

SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

<u>Source No.</u>	<u>Pit Name</u>
Rock Source No. 1	L-1050 PIT

<u>Road Name</u>	<u>Type</u>	<u>Total Length (sta)</u>	<u>Optional Rock</u>	<u>Rock Product</u>	<u>Application Cost (\$/yd³)</u>	<u>Haul Cost (\$/yd³)</u>	<u>Base Cost (\$/yd³)</u>	<u>Cubic Yards</u>	<u>Sub-Total</u>
L-1070	Maintenance	81.19	--	3" Minus	\$2.00	\$8.03	\$11.23	200	\$4,252.00
L-1200	Maintenance	21.00	--	3" Minus	\$2.00	\$9.90	\$11.23	819	\$18,943.47
Stockpile	Maintenance		--	3" Minus	\$2.00	\$1.76	\$11.23	2000	\$29,980.00

<u>Type</u>	<u>Total</u>
Construction	\$0.00
Reconstruction	\$0.00
Maintenance	\$53,175.47

BALLAST COSTS

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SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

<u>Source No.</u>	<u>Pit Name</u>
Rock Source No. 1	L-1050 PIT

<u>Road Name</u>	<u>Type</u>	<u>Total Length (sta)</u>	<u>Optional Rock</u>	<u>Rock Product</u>	<u>Application Cost (\$/yd³)</u>	<u>Haul Cost (\$/yd³)</u>	<u>Base Cost (\$/yd³)</u>	<u>Cubic Yards</u>	<u>Sub-Total</u>
L-1070A	Construction	2.85	--	6" Jaw	\$2.00	\$7.65	\$9.78	180	\$3,497.40
L-1070A	Construction	21.19	Optional	6" Jaw	\$2.00	\$7.99	\$9.78	1503	\$29,714.31
L-1070A1	Construction	4.03	--	6" Jaw	\$2.00	\$7.75	\$9.78	430	\$8,397.90
L-1070F	Reconstruction	7.86	Optional	6" Jaw	\$2.00	\$8.57	\$9.78	495	\$10,073.25
L-1070F1	Construction	9.22	Optional	6" Jaw	\$2.00	\$8.81	\$9.78	749	\$15,421.91
L-1200	Reconstruction	0.75	--	6" Jaw	\$2.00	\$9.69	\$9.78	47	\$1,009.09
L-1200	Reconstruction	0.7	--	6" Jaw	\$2.00	\$9.98	\$9.78	44	\$957.44

<u>Type</u>	<u>Total</u>
Construction	\$57,031.52
Reconstruction	\$12,039.78
Maintenance	\$0.00

RIP RAP COSTS

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SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

<u>Source No.</u>	<u>Pit Name</u>
Rock Source No. 1	L-1050 PIT

<u>Road Name</u>	<u>Activity Type</u>	<u>Armoring (\$/yd³)</u>	<u>Bedding (\$/yd³)</u>	<u>Backfill (\$/yd³)</u>	<u>Armoring (yd³)</u>	<u>Bedding (yd³)</u>	<u>Backfill (yd³)</u>	<u>Haul (\$/cy)</u>	<u>Sub-Total</u>
L-1070A	Construction	\$22.92			3			\$7.80	\$92.16
L-1070F	Reconstruction	\$22.92			2			\$8.38	\$62.60
L-1070F1	Construction	\$22.92			1			\$8.78	\$31.70

<u>Type</u>	<u>Total</u>
Construction	\$123.86
Reconstruction	\$62.60
Maintenance	\$0.00

ROAD CLOSURE COSTS

Page 8 of 9

SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

<u>Road</u>	<u>From Station</u>	<u>To Station</u>	<u>Total Stations</u>	<u>Type</u>
L-1070A	2+85	24+04	21.19	Light
L-1070F	0+00	7+86	7.86	Light
L-1070F1	0+00	9+22	9.22	Light

<u>Description</u>	<u>Cost/Station</u>	<u>Total Stations</u>	<u>Sub-Total</u>
Water barring	\$32.36	38.27	\$1,238.42
Wood placement	\$30.00	38.27	\$1,148.10
Cross drain removal and disposal	\$6.17	38.27	\$236.13
Earthen barricade	\$85.00	2.00	\$170.00

SOIL EROSION CONTROL

<u>Total Stations</u>	<u>Average Width (ft)</u>	<u>Application Rate (lbs/ac)</u>	<u>Seed Quantity (lbs)</u>	<u>Material Cost (\$/lb)</u>	<u>Application Cost (\$/sta)</u>	<u>Straw Bales</u>	<u>\$/Bale</u>	<u>Sub-Total</u>
38.27	20	50	88	\$2.85	\$12.50		\$9.19	\$729.18

TOTAL = \$3,521.83

Overhead & General Exp. Add 10% \$352.18

<u>Description</u>	<u>\$ per Move</u>	<u># of Moves</u>	<u>Sub-total</u>
Dump Trucks	100	1	\$100
Excavator	1,000	1	\$1,000

Total Mobilization = \$1,100

ROAD CLOSURE TOTAL = \$4,974.01

MOBILIZATION COSTS

Page 9 of 9

SALE NAME: HEART THROB

CONTRACT NUMBER: 30-102717

LOWBOY HAUL (Round Trip)		
<u>DIST. (mi)</u>	<u>ROADWAY</u>	<u>AVE SPEED (mph)</u>
25.0	Highway	40
9.0	County/ Mainline	25
6.0	Forest Roads	15

<u>Number of Equipment to Mobilize</u>	<u>Equipment Description</u>	<u>Move-in Costs (\$)</u>	<u>Pilot Cars</u>	<u>Mobilization (\$/mile)</u>	<u>Begin Mileage</u>	<u>End Mileage</u>	<u>Total Miles</u>	<u>Internal Mobilization Costs (\$/mile)</u>	<u>Sub-total Cost</u>
	Brush Cutter	\$500.00		\$7.33	0.00	0.00	0.00	\$0.00	\$0.00
1	Graders	\$1,000.00	2	\$52.25	0.00	3.00	3.00	\$156.75	\$1,206.00
1	Loader (Med. & Large)	\$1,000.00	2	\$9.67	0.00	0.00	0.00	\$0.00	\$1,049.25
1	Rollers & Compactors	\$527.80		\$36.67	0.00	3.00	3.00	\$110.01	\$637.81
	Excavators (Med.)	\$527.80		\$9.67	0.00	0.00	0.00	\$0.00	\$0.00
1	Excavators (Large)	\$1,000.00	2	\$115.00	0.00	3.00	3.00	\$345.00	\$1,394.25
	Tractors (D6)	\$527.80		\$43.24	0.00	1.50	1.50	\$0.00	\$0.00
1	Tractor (D8)	\$1,000.00	2	\$84.00	0.00	3.00	3.00	\$252.00	\$1,301.25
4	Dump Truck (10 cy)	\$100.00		\$9.80	0.00	3.00	3.00	\$117.60	\$870.40
1	Move In/Set-up 2 Stage Crusher	\$5,000.00	2	\$422.85	0.00	0.00	0.00	\$0.00	\$5,000.00

TOTAL MOVE-IN COSTS: \$11,458.96



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

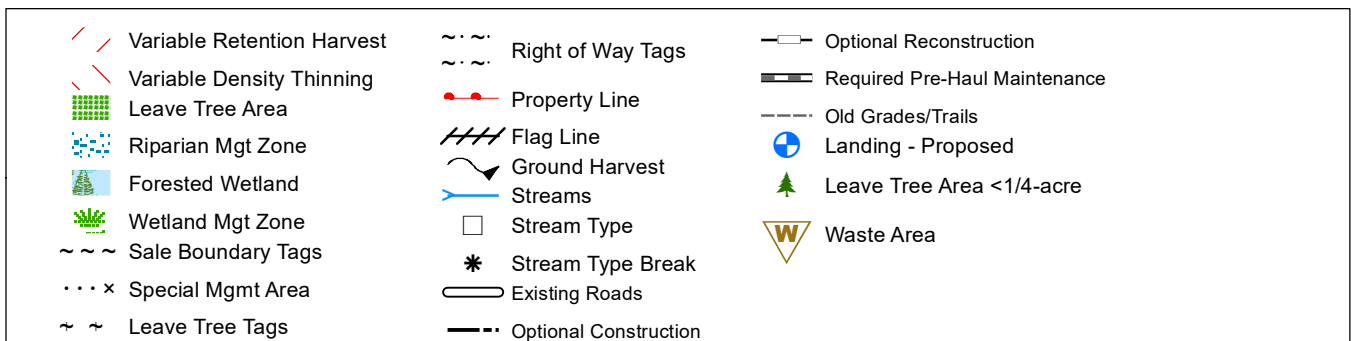
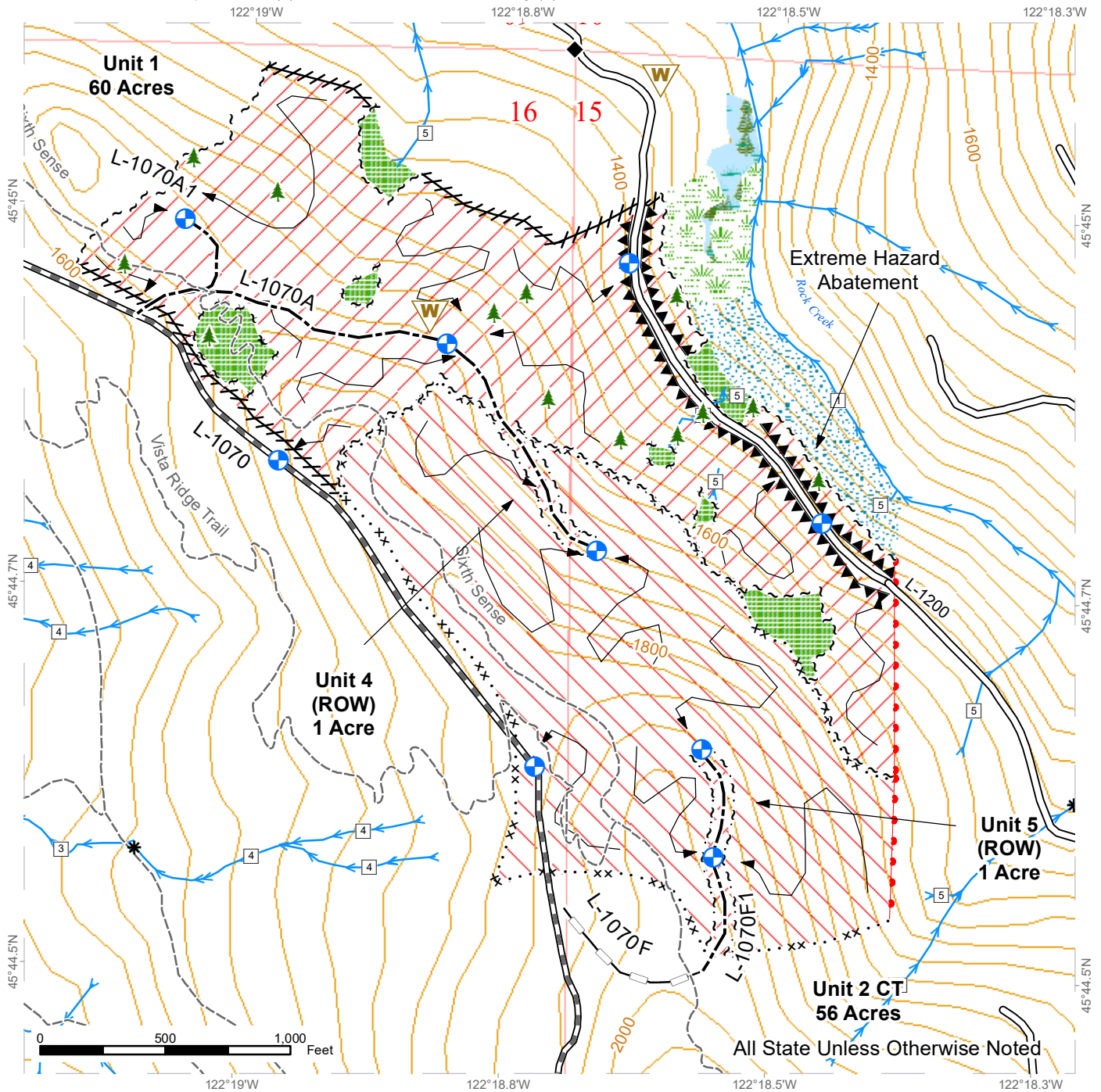
Temporary Reconstruction: **linear feet**
Roads to be reconstructed (optional and required) and then abandoned

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: HEART THROB VRH THIN
AGREEMENT#: 30-102717
TOWNSHIP(S): T3R4E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3)

REGION: Pacific Cascade Region
COUNTY(S): Clark
ELEVATION RGE: 1280-2120



LOGGING PLAN MAP

SALE NAME: HEART THROB VRH THIN
AGREEMENT#: 30-102717
TOWNSHIP(S): T3R4E
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