



**TIMBER NOTICE OF SALE**

**SALE NAME:** SNIKERS

**AGREEMENT NO:** 30-092941

**AUCTION:** October 25, 2016 starting at 10:00 a.m., **COUNTY:** Pierce  
South Puget Sound Region Office, Enumclaw, WA

**SALE LOCATION:** Sale located approximately 9 miles southeast of the town of Eatonville.

**PRODUCTS SOLD AND SALE AREA:** All timber, except leave trees marked with blue paint or bounded out by yellow leave tree area tags, snags, and downed timber existing more than 5 years from the day of sale, bounded by the following: white timber sale boundary tags, property line marked with pink flagging, and the 8 and 8332 roads in Unit #1; all timber marked with a single band of pink paint located north of Unit #1 outside the boundary; all timber bounded by orange right of way tags on part(s) of Sections 33 and 34 all in Township 16 North, Range 5 East, W.M., containing 98 acres, more or less.

**CERTIFICATION:** This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BV-SFIS-US09000572) and FSC 100% raw materials under the Forest Stewardship Council® Standard (cert no: BV-FM/COC-080501).

**ESTIMATED SALE VOLUMES AND QUALITY:**

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade								
				1P	2P	3P	SM	1S	2S	3S	4S	UT
Douglas fir	13.8	7	2,187						980	732	444	31
Red alder	14.9		478						189	128	140	21
Hemlock	13	7	49						15	13	18	3
Cottonwood	20.1		24						22			2
Sale Total			2,738									

**MINIMUM BID:** \$764,000.00 **BID METHOD:** Sealed Bids

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

**EXPIRATION DATE:** October 31, 2018 **ALLOCATION:** Export Restricted

**BID DEPOSIT:** \$76,400.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

**HARVEST METHOD:** Cable and ground based equipment with ground based equipment, with self-leveling equipment limited to sustained slopes 65 percent or less, cable-tethered equipment limited to sustained slopes 70 percent or less, and all other ground based equipment limited to sustained slopes 45 percent or less. Yarding may be restricted if rutting becomes excessive, per clause H-017.

Falling, yarding and timber haul will not be permitted from November 1st to May 15th, nor at all on weekend or state recognized holidays, unless authority to do so is granted, in writing, by the Contract Administrator. If permission is granted to operate from November 1st to May 15th, the Purchaser shall comply with a Winter Operating Plan to include further protection of water, soil, roads and other forest assets at the Purchaser's



## TIMBER NOTICE OF SALE

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expense. Sedimentation preventative measures must be in place prior to commencing any winter operations.

### **ROADS:**

34.01 stations of required construction. 12.62 stations of optional construction. 3.00 stations optional construction of landings. 123.69 required pre-haul maintenance. 20.99 required post-haul maintenance. 3.00 stations required decommissioning of landings, if built. Purchaser maintenance on the 81, 81 ext., 81-2, 81-3, 833, and 8332 roads. Designated maintenance on all other roads used. Rock for this proposal may be obtained from the Charcoal Rock Pit or any commercial rock source.

Operation of road construction equipment or rock haul will not be permitted from November 1st to May 15th, nor at all on weekend or state recognized holidays, unless authority to do so is granted, in writing, by the Contract Administrator. If permission is granted to operate from November 1st to May 15th, the Purchaser shall comply with a Winter Operating Plan to include further protection of water, soil, roads and other forest assets at the Purchaser's expense. Sedimentation preventative measures must be in place prior to commencing any winter operations.

### **ACREAGE DETERMINATION**

#### **CRUISE METHOD:**

Acreeage was determined by traversing boundaries by GPS. Traverse GPS files are available upon request by emailing [rachel.mason@dnr.wa.gov](mailto:rachel.mason@dnr.wa.gov). See cruise narrative for cruise method.

### **FEES:**

\$48,600.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

### **SPECIAL REMARKS:**

There are 21 take trees marked by a single band of pink paint located outside the northern boundary adjacent to the 8332 Road.

Purchaser must provide a written Extreme Hazard Abatement Plan, which meets the requirements of contract clause S-020. Hazard Abatement is required within 100 feet of the 8 Road. Approximate area is shown on the Timber Sale Map.

Wildlife timing restrictions will be in effect within the timing restriction area for eastern portion of the Unit and the Charcoal Rock Pit, as shown on the timber sale map. No activities are allowed within the timing restriction area from one hour before official sunrise to two hours after official sunrise, and from one hour before official sunset to one hour after official sunset from April 1 through August 31.

The Scott Turner Road and the DNR 8 Road are heavily used for residential and recreational traffic. Caution and active timber harvest signs shall be posted along both roads during operations. A road guard shall be used to control traffic during timber falling activities within 1.5 tree lengths of the DNR 8 Road.

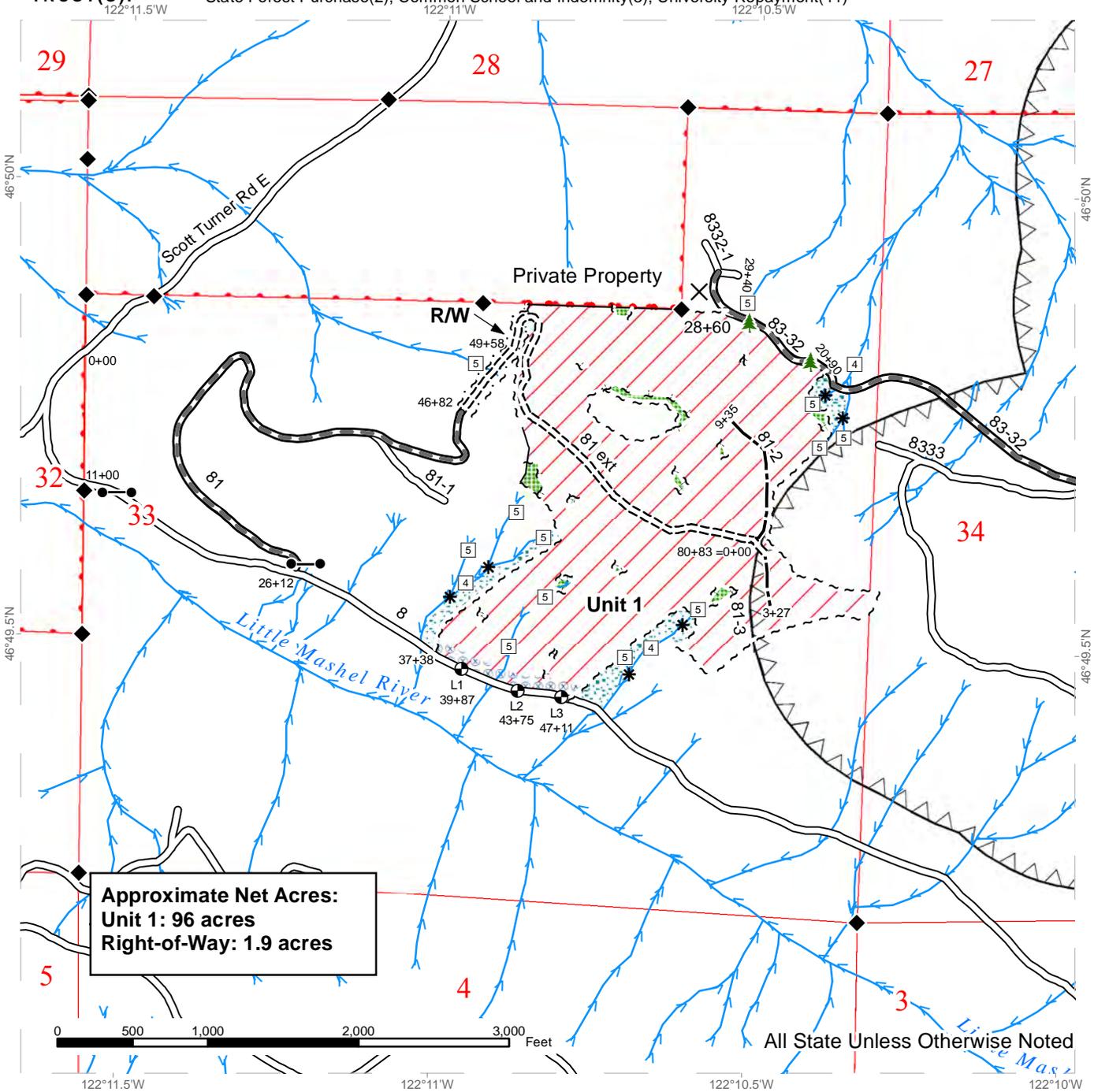
Purchaser shall cut vine maple, leaving a stump of 12 inches or less in harvest area.

See map for gate locations. Gate keys may be obtained by contacting the South Puget Sound Region Office at (360) 825-1631 or by contacting Kevin Carlsen at (360) 870-4090.

# TIMBER SALE MAP

**SALE NAME:** SNIKERS  
**AGREEMENT #:** 30-092941  
**TOWNSHIP(S):** T16R05E  
**TRUST(S):** State Forest Purchase(2), Common School and Indemnity(3), University Repayment(41)

**REGION:** South Puget Sound Region  
**COUNTY(S):** PIERCE  
**ELEVATION RGE:** 1,863 - 2,769 ft.

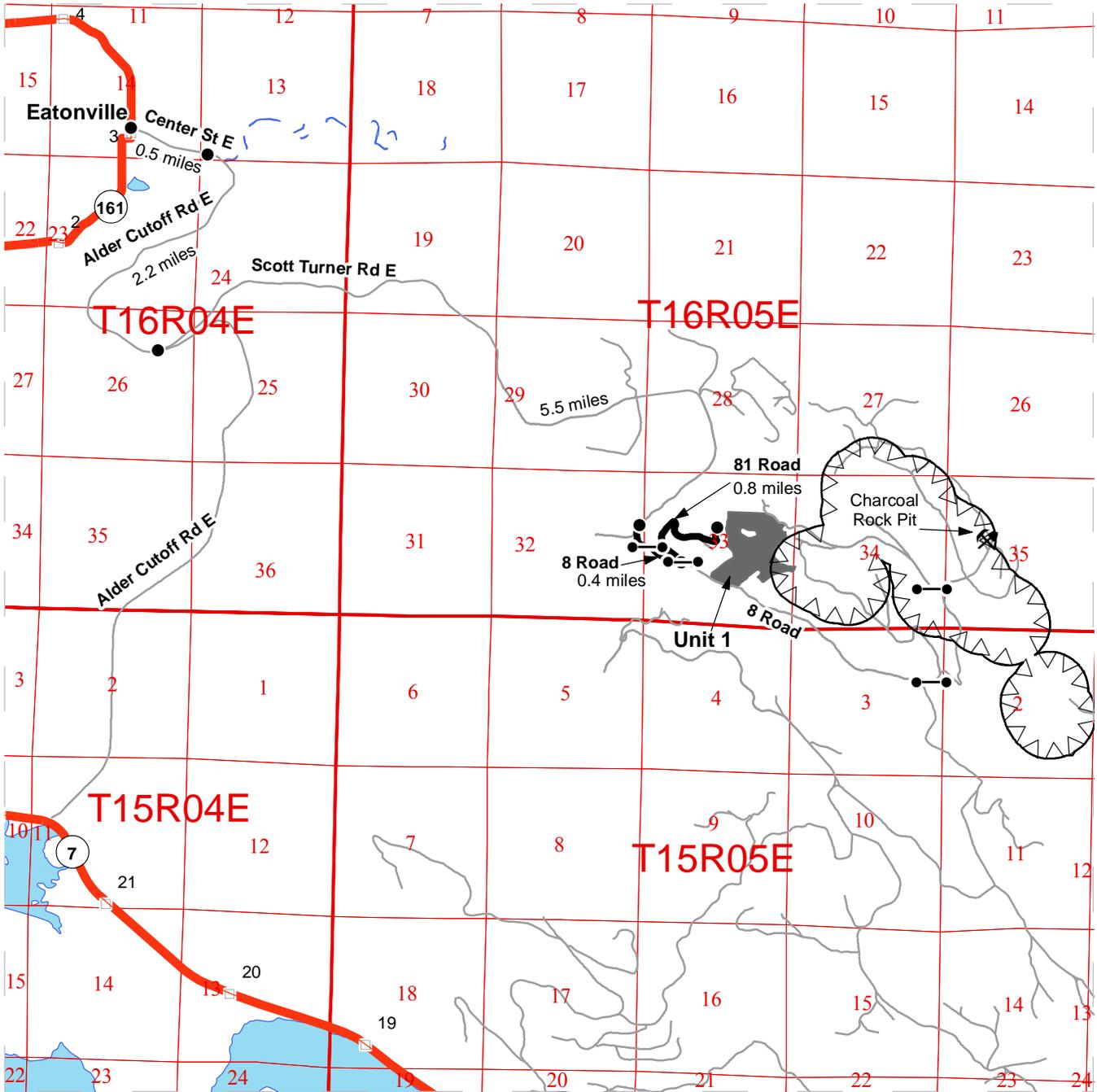


Sale Area	Riparian Mgt Zone	Stream Type Break
Sale Boundary Tags	Extreme Hazard Abatement	Streams
Leave Tree Tags	Timing Restriction	Required Pre-Haul Maintenance
Right of Way Tags	Double Band Blue Painted Leave Trees	Existing Roads
Pink Flagging	Single Band Pink Painted Take Trees	Required Construction
Property Line	Gate - 383 Key	Optional Construction
Leave Tree Area	Designated Landings	Monumented Corners
	Stream Type	

# DRIVING MAP

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REGION: South Puget Sound Region  
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	Timber Sale Unit
	Highways
	Haul Route
	Other Route
	Timing Restriction
	Milepost Markers
	Distance Indicator
	Existing Rock Pit
	Gate - 383 key

**DRIVING DIRECTIONS:**

From Eatonville, drive east on Center St E for 0.5 miles. Continue on Alder Cutoff Rd E for 2.2 miles. Turn east onto Scott Turner Rd E for 5.5 miles. Continue onto DNR 8 Rd for 0.4 miles. Turn north onto DNR 81 Rd for 0.8 miles and arrive at the beginning of the Right-of-Way that leads to Unit 1.



**STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES**

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

**Export Restricted Lump Sum AGREEMENT NO. 30-092941**

**SALE NAME: SNIKERS**

**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 a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.

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

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on October 25, 2016 and the sale was confirmed on \_\_\_\_\_. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber, except leave trees marked with blue paint or bounded out by yellow leave tree area tags, snags, and downed timber existing more than 5 years from the day of sale, bounded by the following: white timber sale boundary tags, property line marked with pink flagging, and the 8 and 8332 roads in Unit #1; all timber marked with a single band of pink paint located north of Unit #1 outside the boundary; all timber bounded by orange right of way tags, located on approximately 98 acres on part(s) of Sections 33, and 34 all in Township 16 North, Range 5 East W.M. in Pierce County(s) as designated on the sale area and as shown on the attached timber sale map.

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

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

G-020 Inspection By Purchaser

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

## G-031 Contract Term

Purchaser shall complete all work required by this contract prior to October 31, 2018.

## G-040 Contract Term Adjustment - No Payment

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

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

## G-051 Contract Term Extension - Payment

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

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

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

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

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

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

- e. Payment of \$877.00 per acre per annum for the acres on which an operating release has not been issued in the harvest area.
- 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. 812521 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, PRT-812521 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

#### G-064 Permits

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

#### G-065 Regulatory Disclaimer

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

#### G-066 Governmental Regulatory Actions

##### a. Risk

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

Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.

b. Sale Area

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

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

c. Adjustment of Price

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

G-070 Limitation on Damage

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

G-080 Scope of State Advice

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

**G-091 Sale Area Adjustment**

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, G-102, or G-103. If the sale area is reduced, the State shall determine the volume to be reduced. The State shall calculate the reduction to the total contract price using the rates set forth in clause G-101, G-102, or G-103.

**G-101 Forest Products Not Designated**

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and the Scribner log scale volume, as defined by the Northwest Log Rules Advisory Group, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per Mbf Scribner log scale.

The pricing schedule has not been set for the sale.

**G-111 Title and Risk of Loss**

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

**G-115 Forest Stewardship Council® (FSC®) Certification**

Forest products purchased under this contract are FSC 100% certified as being in conformance with the Forest Stewardship Council Standard under certificate number: BV-FM/COC-080501.

**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: BV-SFIS-US09000572.

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.

Road is defined as the road bed, including but not limited to its component parts, such as 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. 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.

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 Purchaser's 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 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 Enumclaw, 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 post office address:

G-210 Violation of Contract

G-220 State Suspends Operations

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

**G-210 Violation of Contract**

- a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

**G-220 State Suspends Operation**

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

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

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

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

**G-230 Unauthorized Activity**

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

**G-240 Dispute Resolution**

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

- a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
- b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
- c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.

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

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

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

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; on the 8, 81, 81-2, 81-3, 83, 833, and 8332 roads. 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-380 Road Easement and Road Use Permit Requirements

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

Easement #206 between State of Washington, Department of Natural Resources and Mrs. Lila C. Puariea, dated April 5, 1961.

G-396 County Hauling Permit

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

G-430 Open Fires

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

G-450 Encumbrances

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

To be determined approximately one month prior to the day of sale.

Section P: Payments and Securities

P-011 Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without

Purchaser's payment of the full amount specified in Clause P-020, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

P-020 Payment for Forest Products

Purchaser agrees to pay the total, lump sum contract price of \$73,242.00. The total contract price consists of a \$0.00 contract bid price plus \$73,242.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

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

P-045 Guarantee of Payment

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

P-050 Billing Procedure

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

P-080 Payment Account Refund

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

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of

credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section H: Harvesting Operations

H-013 Reserve Tree Damage Definition

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

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

- a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 144 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 area, as approved by the Contract Administrator. Purchaser may be required to pay liquidated damages for Excessive Reserve Tree Damage as detailed in clause D-041.

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

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 12 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other

mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-035 Fall Trees Into Sale Area

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

H-051 Branding and Painting

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

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

H-080 Snags Not to be Felled

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

H-120 Harvesting Equipment

Forest products sold under this contract shall be yarded using cable and ground based equipment with ground based equipment, with self-leveling equipment limited to sustained slopes 65 percent or less, cable-tethered equipment limited to sustained slopes 70 percent or less, and all other ground based equipment limited to sustained slopes 45 percent or less unless authority to use other equipment is granted in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-126 Tailholds on State Land

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

H-127 Tailholds on Private Land

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

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- a. Falling, yarding and timber haul will not be permitted from November 1st to May 15th, nor at all on weekend or state recognized holidays, unless authority to do so is granted, in writing, by the Contract Administrator. If permission is granted to operate from November 1st to May 15th, the Purchaser shall comply with a Winter Operating Plan to include further protection of water, soil, roads and other forest assets at the Purchaser's expense. Sedimentation preventative measures must be in place prior to commencing any winter operations.
- b. Equipment limitation zones are required within 30 feet of Type 5 streams.
- c. Any and all operations associated with this sale may be temporarily suspended when, in the opinion of the Contract Administrator, there is the potential for delivery to typed water.
- d. Purchaser shall notify all employees and contractors working on this sale that any danger tree marked or unmarked may be felled. Any marked danger tree will be replaced with a suitable tree of similar size and species as approved by the Contract Administrator.
- e. There are 21 take trees marked by a single band of pink paint located outside the northern boundary adjacent to the 8332 Road and the NE 1/16 corner.
- f. No equipment may operate within, nor logs yarded through or over, leave tree clumps marked with yellow leave tree area tags.
- g. To facilitate proper reforestation in areas of high slash concentrations, Purchaser shall, in concurrence with ground based yarding, clear plantable spots at a 10.5 foot by 10.5 foot spacing.
- h. Prior to blocking the 8 Road a detailed plan shall be submitted and approved in writing by the Contract Administrator.
- i. The Scott Turner Road and the DNR 8 Road are heavily used for residential and recreational traffic. Caution and active timber harvest signs shall be posted along both roads during operations. A road guard shall be used to control traffic during timber falling activities within 1.5 tree lengths of the DNR 8 Road.
- j. Purchaser shall cut vine maple, leaving a stump of 12 inches or less in harvest area.

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. Purchase shall leave 2 down logs per acre. A log is defined as having a minimum diameter of 12 inches on the small end of the log and a minimum length of 20 feet or at least 100 board feet.
- b. Wildlife timing restrictions will be in effect within the timing restriction area for eastern portion of the Unit and the Charcoal Rock Pit, as shown on the timber sale map. No activities are allowed within the timing restriction area from one hour before official sunrise to two hours after official sunrise, and from one hour before official sunset to one hour after official sunset from April 1 through August 31.

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

H-230 Tops and Limbs Outside the Sale Boundary

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

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 4/4/2016 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on the 81, 81 ext., 81-2, 81-3, 833, and 8332 roads. All work shall be completed to the specifications detailed in the Road Plan.

C-060 Designated Road Maintainer

If required by the State, Purchaser shall perform maintenance and replacement work as directed by the Contract Administrator on all other roads used not covered 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 State current Equipment Rate Schedule on file at the region and Olympia offices. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

**C-140 Water Bars**

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

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

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

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

**S-010 Fire Hazardous Conditions**

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

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

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

**S-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.

**S-030 Landing Debris Clean Up**

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

## S-035 Logging Debris Clean Up

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

## S-050 Cessation of Operations for Low Humidity

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

## S-060 Pump Truck or Pump Trailer

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

## S-100 Stream Cleanout

Slash or debris which enters Type 5 streams as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

## S-110 Resource Protection

No yarding equipment may operate within the Riparian Management Zones unless authority is granted in writing by the Contract Administrator.

## S-120 Stream Protection

No timber shall be felled into, across, or yarded through any streams, except Type 5 streams.

## 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.

## 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 4 to 6 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, the Purchaser is responsible for notifying the following:

Appropriate Department of Ecology regional office (contact information below).

DNR Contract Administrator

ECY - Northwest Region:

1-425-649-7000

(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties)

ECY - Southwest Region:

1-360-407-6300

(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)

ECY - Central Region:

1-509-575-2490

(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties)

ECY - Eastern Region:

1-509-329-3400

(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties)

S-131 Refuse Disposal

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

shall be covered/secured such that these waste materials are properly contained during transport.

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

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

D-041 Reserve Tree Excessive Damage

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

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

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

\_\_\_\_\_  
Purchaser

\_\_\_\_\_  
Art Tasker  
South Puget Sound Region Manager

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Address:

CORPORATE ACKNOWLEDGEMENT

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 \_\_\_\_\_

# FOREST EXCISE TAX -- ROAD SUMMARY SHEET

Region: South Puget Sound

Timber Sale Name: Snikers

Application Number: 30-092941

## Excise Tax Applicable Activities

Construction: 4,663 linear feet

*Road to be constructed (optional and required) but not abandoned*

Reconstruction: 0 linear feet

*Road to be reconstructed (optional and required) but not abandoned*

Abandonment: 0 linear feet

*Abandonment of existing roads not reconstructed under the contract*

Deactivation: 0 linear feet

*Road to be made undriveable but not officially abandoned.*

Pre-Haul Maintenance: 14,468 linear feet

*Existing road to receive maintenance work (specifically required by the contract) prior to haul*

## Excise Tax Exempt Activities

Temporary Optional Construction: 0 linear feet

*Optional roads to be constructed and then abandoned*

Temporary Optional Reconstruction: 0 linear feet

*Optional roads to be reconstructed and then abandoned*

New Abandonment: 0 linear feet

*Abandonment of roads constructed or reconstructed under the contract*

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 7/04)

## PRE-CRUISE NARRATIVE

Sale Name: Snikers	Region: South Puget Sound
Agreement #: 30-092941	District: Rainier
Contact Forester: Kevin Carlsen	Phone/ Location: (360)-492-5031 Ext: / Mineral WC
Alternate Contact: Brandon Mohler	Phone/ Location: (360)-492-5031 Ext: / Mineral WC

Type of Sale (lump sum, mbf scale, tonnage scale or contract harvest): Lump sum
Required or Optional removal of utility as pulp:
Evaluated for RFRS Implementation?: No RFRS
Percentage cable (specify downhill vs uphill): 25% downhill, 40% uphill
Percentage ground based: 35%
Species Onsite: <input checked="" type="checkbox"/> RC, <input checked="" type="checkbox"/> DF, <input checked="" type="checkbox"/> WH, <input checked="" type="checkbox"/> RA, <input checked="" type="checkbox"/> BC, <input checked="" type="checkbox"/> BLM, <input type="checkbox"/> NF, <input type="checkbox"/> SF, <input type="checkbox"/> SS, <input type="checkbox"/> Other:(Please List)

### UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit #	Harvest R/W or RMZ WMZ	Legal Description Sec/Twp/Rng	Grant	Gross Traversed 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		
1		Sec 33/ T 16N/ R 05 E	02	98.6		2.7		95.9	Garmin 64s
	R/W	Sec 33/ T 16N/ R 05 E	02	1.9				1.9	Garmin 64s
<b>TOTAL ACRES</b>				100.5		2.7		97.8	

### HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Mark leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	<p>Variable Retention Harvest: Unit boundary marked with white "Timber Sale Boundary" tags and pink flashers with the following exceptions: portions of the northern boundary marked by the 8332 Road, portions of the southern boundary marked by the 8 Road, and portions of the northern boundary and western boundary marked by type change flagged pink.</p> <p>Tagged leave tree clumps marked with yellow "Leave Tree Area" tags and pink flashers. Individual leave trees marked with a single band of blue paint or double band blue paint. (Double banded trees are located near the 8332 Road.)</p>		<p>8 trees per acre are leave trees.</p> <p>Trees double banded with blue paint along the 8332 Rd are replacement trees for the 21 take trees outside the northern boundary. These trees were moved for operational and safety concerns.</p>

	There are 21 take trees marked by a single band of pink paint within a .88 acre area located outside the northern boundary adjacent to the 8332 RD and the NE 1/16 corner. The .88 acres for this area is not part of harvest unit acres.		
R/W	All trees within the orange "Right-of-Way Boundary" tags will be harvested	N/A	N/A

**OTHER PRE-CRUISE INFORMATION:**

Unit #	Estimated Volume	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	See Cruise		
R/W	See Cruise	Access off 8 road.	See attached maps

**REMARKS:**

None
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Prepared By: Kevin Carlsen Date: 3/17/2016	Title: NRS 1 Forester	CC: Brandon Mohler, Audrey Mainwaring, John Piety
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*Revised 2/23/2007 (PSLD)*

# Cruise Narrative

<b>Sale Name:</b> Snickers	<b>Region:</b> South Puget Sound
<b>Agree. #:</b> 30-092941	<b>District:</b> Rainier
<b>Lead cruiser:</b> John Piety	<b>Completion date:</b> 4-12-16
<b>Other cruisers on sale:</b> none	

**Unit acreage specifications:**

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	95.9	Yes	
2	.88	No	
RW	1.9	Yes	
Total	98.68	No	

**Unit cruise specifications:**

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (cruise:count)	Total number of plots
1	VP	46.9 BAF	4.5	260' X 260'	1:1	63
2	100%	100%	n/a	n/a	n/a	1
RW	VP	40.0 BAF	4.5	325" along centerline	100%	2

**Sale/Cruise Description:**

<b>Minor species cruise intensity:</b>	<b>100% up to 5 trees per species</b>
<b>Minimum cruise spec:</b>	<p>HA - Logs meeting the following criteria: Surface characteristics for a high quality A sort will have sound tight knots not to exceed 1 1/2" in diameter, numbering not more than an average of one per foot of log length. May include logs with not more than two larger knots. Knots and knot indicators 1/2" in diameter and smaller shall not be a determining factor. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log. (High Quality sort. Grades SM, 2S, 12"+ TDIB lengths 16-40ft. Max butt 27" Grade 3S lengths 34ft, 26ft, 17ft. TDIB 8-11". )</p> <p>HB - Logs meeting the following criteria: Surface characteristics for an Intermediate B sort will have sound tight knots not to exceed 1 1/2" in diameter. May include logs with not more than two larger knots up to 2 1/2" in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third to end of the log. (Intermediate sort. Grade 2S, 12"+TDIB</p>

	<p>lengths 16-40ft. Max butt 27" Grade 3S lengths 34ft, 26ft, 17ft min TDIB 8-11".).</p> <p>D - Domestic quality logs that do not meet high quality or intermediate definitions. (Domestic sort. Grades 2S, 3S, 4S and utility. Lengths 16ft-40ft, min TDIB 2in.)</p> <p>O- Logs exceeding 27" on the large end. (Oversize sort. Grade 2S. Lengths 16ft-40ft, 2ft multiples butt diameter min dia. 27 in. +)</p> <p>R - Logs meeting the following criteria: Surface characteristics for a rough log sort will not meet the requirements for a domestic 2S, but still be in limitations for a domestic 3S. Meaning logs will contain excessive knots in excess of 2 1/2" and not exceeding 3" with a recovery of less than 65% of the net scale and greater than 33% of the gross scale. (Rough oversize sort. Grade 3S. Lengths 16ft-40ft, 2ft multiples TDIB 12"+)</p>					
<b>Avg ring count by sp:</b>	<b>DF =</b>	7	<b>WH =</b>	7		
<b>Leave/take tree description:</b>	Leave trees are banded with blue paint and tagged out with yellow leave tree tags.					
<b>Other conditions</b>	Unit 2 are 21 take trees marked with pink paint outside the northern sale boundary..					

**Field observations:**

There are two distinct timber types here. From the ridgeline to the NE is a mix of RA and Large DF, with a heavy pocket of DF on the NW corner. From the Ridgeline to the SW is mostly DF of smaller Diameter and Heights, of a younger age. The quality is mixed throughout the sale and there is quite a bit of stocking variability. The RW is RA with a half dozen large DF. There is some BLM in the sale, not cruised.

**Grants: 02**

**Prepared by:**  
**John Piety**

**Title:**  
**Cruiser**

**CC:**

TC PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																				
T16N R05E S33 Ty0001		95.90		Project: <b>SNIKERS</b>				Page <b>1</b>														
T16N R05E S33 Ty0002		.25		Acres <b>98.05</b>				Date <b>4/12/2016</b>														
T16N R05E S33 Ty00RW		1.90						Time <b>4:32:51PM</b>														
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
									2-4	5-7	8-11	12+	12-20	21-30	31-35	36-99						
DF	HA	2S			2.5	202	197	19										40	16	390	2.02	.5
DF	HB	2S		4	1.2	846	835	82										40	14	274	1.51	3.0
DF	HB	3S		5	1.2	1,167	1,153	113			100							40	9	124	0.73	9.3
DF	D	2S		24	4.6	5,627	5,371	527					100	2	3	95		39	14	290	1.73	18.5
DF	D	3S		29	2.4	6,473	6,316	619			100			0	5	10	85	38	9	106	0.74	59.8
DF	D	4S		20	.6	4,555	4,529	444			96	4		9	35	10	46	30	5	36	0.31	125.7
DF	D	UT		1		266	266	26	100	0						0	100	30	2	5	0.11	49.6
DF	OS	2S		16	5.0	3,721	3,535	347								100		40	20	646	3.45	5.5
DF	OS	UT			50.0	95	48	5						100				16	21	150	3.69	.3
DF	RO	2S		1	25.0	71	53	5								100		40	13	180	1.55	.3
<b>DF Totals</b>				80	3.1	23,023	22,303	2,187	1	20	34	45	3	9	5	83	33	7	82	0.62	272.5	
RA	D	2S		39		1,932	1,932	189							24	65	10	32	14	227	1.60	8.5
RA	D	3S		27	8.9	1,430	1,303	128			100			3	7	75	14	32	10	111	0.87	11.7
RA	D	4S		29	3.2	1,475	1,427	140		82	18			5	15	54	26	29	6	42	0.45	34.2
RA	D	UT		5	.0	210	210	21		7		93	97	3				19	5	24	0.36	8.8
<b>RA Totals</b>				17	3.5	5,047	4,872	478		24	32	44	7	16	62	15	29	8	77	0.70	63.2	
WH	D	2S		30	.4	155	155	15								100		40	13	242	1.56	.6
WH	D	3S		26	.8	129	128	13			100						100	40	9	120	0.84	1.1
WH	D	4S		37		184	184	18		51	49			11	0	0	88	32	6	48	0.60	3.9
WH	D	UT		7		34	34	3	100								100	31	2	8	0.19	4.4
<b>WH Totals</b>				2	.3	502	501	49	7	19	44	31	4	0	0	96	33	5	50	0.53	10.0	
CW	D	2S		93	.9	235	233	23			25	75			11	59	30	32	12	193	1.55	1.2
CW	D	UT		7		16	16	2	30	70					70	30		31	4	21	0.39	.8
<b>CW Totals</b>				1	.8	251	249	24	2	5	24	70	15	57	28	32	9	126	1.10	2.0		
<b>Totals</b>					3.1	28,824	27,926	2,738	1	20	34	45	3	10	15	71	32	7	80	0.63	347.7	

TC PSTATS		PROJECT STATISTICS							PAGE	1	
		PROJECT SNIKERS							DATE	4/12/2016	
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
16N	05E	33	SNIKERS	0001	98.05	66	310	S	W		
16N	05E	33	SNIKERS	0002							
16N	05E	33	SNIKERS	00RW							
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL		66	310	4.7							
CRUISE		35	168	4.8	19,135	.9					
DBH COUNT											
REFOREST											
COUNT		31	142	4.6							
BLANKS											
100 %											
STAND SUMMARY											
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR		120	151.5	13.8	59	42.4	157.5	23,023	22,303	5,504	5,504
R ALDER		31	35.3	14.9	54	11.1	43.1	5,047	4,872	1,270	1,269
WHEMLOCK		14	7.3	13.0	48	1.9	6.7	502	501	177	177
COTWOOD		3	1.0	20.1	68	0.5	2.2	251	249	70	70
<b>TOTAL</b>		<i>168</i>	<i>195.2</i>	<i>14.0</i>	<i>57</i>	<i>55.9</i>	<i>209.4</i>	<i>28,824</i>	<i>27,926</i>	<i>7,021</i>	<i>7,020</i>
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR		104.0	9.5	308	341	373					
R ALDER		62.2	11.2	174	196	218					
WHEMLOCK		122.7	34.0	87	132	177					
COTWOOD		60.3	41.7	175	300	425					
<b>TOTAL</b>		<i>106.9</i>	<i>8.2</i>	<i>272</i>	<i>296</i>	<i>320</i>	<i>457</i>	<i>233</i>	<i>114</i>		
CL	68.1	COEFF	TREES/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR		103.9	12.8	132	152	171					
R ALDER		148.3	18.2	29	35	42					
WHEMLOCK		299.7	36.9	5	7	10					
COTWOOD		491.0	60.4	0	1	2					
<b>TOTAL</b>		<i>71.6</i>	<i>8.8</i>	<i>178</i>	<i>195</i>	<i>212</i>	<i>205</i>	<i>104</i>	<i>51</i>		
CL	68.1	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR		76.7	9.4	143	157	172					
R ALDER		147.1	18.1	35	43	51					
WHEMLOCK		278.1	34.2	4	7	9					
COTWOOD		461.8	56.8	1	2	3					
<b>TOTAL</b>		<i>47.0</i>	<i>5.8</i>	<i>197</i>	<i>209</i>	<i>222</i>	<i>88</i>	<i>45</i>	<i>22</i>		
CL	68.1	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR		79.9	9.8	20,110	22,303	24,496					
R ALDER		155.2	19.1	3,942	4,872	5,802					
WHEMLOCK		307.1	37.8	312	501	690					
COTWOOD		471.5	58.0	105	249	394					
<b>TOTAL</b>		<i>56.2</i>	<i>6.9</i>	<i>25,996</i>	<i>27,926</i>	<i>29,855</i>	<i>126</i>	<i>64</i>	<i>32</i>		

T TSPCSTGR	Species, Sort Grade - Board Foot Volumes (Type)										Page 1										
Project: SNIKERS										Date 4/12/2016											
										Time 4:32:52PM											
T16N R05E S33 T0001										T16N R05E S33 T0001											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
16N	05E	33	SNIKERS	0001	95.90	63	143	S	W												
Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
					Def%	Gross	Net		Net MBF	Log Scale Dia.				Log Length				Ln	Dia		Bd
									2-4	5-7	8-11	12+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
DF	HA	2S			2.5	206	201	19									40	16	390	2.02	.5
DF	HB	2S	4		1.2	865	854	82									40	14	274	1.51	3.1
DF	HB	3S	5		1.2	1,193	1,179	113			100						40	9	124	0.73	9.5
DF	DM	2S	24		4.6	5,743	5,481	526					2	3		95	39	14	290	1.73	18.9
DF	DM	3S	29		2.4	6,605	6,444	618			100			5	10	85	38	9	106	0.74	61.0
DF	DM	4S	20		.6	4,654	4,628	444		96	4		9	35	10	46	30	5	36	0.31	128.5
DF	DM	UT	1			272	272	26	100								30	2	5	0.11	50.7
DF	OS	2S	16		5.0	3,791	3,601	345									40	20	646	3.45	5.6
DF	OS	UT			50.0	97	49	5					100				16	21	150	3.69	.3
DF	RO	2S	1		25.0	73	55	5									40	13	180	1.55	.3
<b>DF</b>	<b>Totals</b>			80	3.1	23,499	22,764	2,183	1	20	34	45	3	9	5	83	33	7	82	0.62	278.4
RA	DM	2S	37			1,820	1,820	175						24	64	11	32	14	228	1.60	8.0
RA	DM	3S	28		8.9	1,462	1,332	128			100		3	7	75	14	32	10	111	0.87	12.0
RA	DM	4S	30		3.3	1,493	1,444	138		82	18		5	16	53	26	29	6	42	0.44	34.6
RA	DM	UT	5			210	210	20		5	95		100				19	5	24	0.35	8.8
<b>RA</b>	<b>Totals</b>			17	3.6	4,984	4,806	461		25	33	42	7	16	61	16	29	8	76	0.69	63.4
WH	DM	2S	30			152	152	15									40	13	240	1.55	.6
WH	DM	3S	25			126	126	12			100						40	9	120	0.83	1.0
WH	DM	4S	38			186	186	18		50	50		11			89	32	6	48	0.61	3.9
WH	DM	UT	7			35	35	3	100								31	2	8	0.19	4.5
<b>WH</b>	<b>Totals</b>			2		498	498	48	7	19	44	30	4			96	33	5	49	0.53	10.1
CW	DM	2S	93		.9	240	238	23			25	75		11	59	30	32	12	193	1.55	1.2
CW	DM	UT	7			17	17	2	30	70				70	30		31	4	21	0.39	.8
<b>CW</b>	<b>Totals</b>			1	.8	257	255	24	2	5	24	70		15	57	28	32	9	126	1.10	2.0
<b>Type Totals</b>					3.1	29,239	28,323	2,716	1	20	34	44	3	10	15	72	32	7	80	0.63	353.9

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT		SNIKERS		DATE	4/12/2016	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
16N	05E	33	SNIKERS	0001	95.90	63	285	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL		63	285	4.5						
CRUISE		32	143	4.5	19,045		.8			
DBH COUNT										
REFOREST										
COUNT		31	142	4.6						
BLANKS										
100 %										
<b>STAND SUMMARY</b>										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	108	154.8	13.8	59	43.3	160.8	23,499	22,764	5,619	5,619
R ALDER	27	35.4	14.8	54	11.0	42.4	4,984	4,806	1,253	1,252
WHEMLOCK	5	7.4	12.9	48	1.9	6.7	498	498	177	177
COTWOOD	3	1.0	20.1	68	0.5	2.2	257	255	71	71
<b>TOTAL</b>	<i>143</i>	<i>198.6</i>	<i>14.0</i>	<i>57</i>	<i>56.7</i>	<i>212.2</i>	<i>29,239</i>	<i>28,323</i>	<i>7,119</i>	<i>7,119</i>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR	103.5	10.0	309	344	378					
R ALDER	67.8	13.3	163	188	213					
WHEMLOCK	94.8	47.1	59	112	165					
COTWOOD	60.3	41.7	175	300	425					
<b>TOTAL</b>	<i>105.7</i>	<i>8.8</i>	<i>278</i>	<i>305</i>	<i>332</i>	<i>446</i>	<i>228</i>	<i>112</i>		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR	99.4	12.5	135	155	174					
R ALDER	147.1	18.5	29	35	42					
WHEMLOCK	296.1	37.3	5	7	10					
COTWOOD	479.4	60.3	0	1	2					
<b>TOTAL</b>	<i>67.6</i>	<i>8.5</i>	<i>182</i>	<i>199</i>	<i>215</i>	<i>182</i>	<i>93</i>	<i>46</i>		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR	72.2	9.1	146	161	175					
R ALDER	148.2	18.7	35	42	50					
WHEMLOCK	277.1	34.9	4	7	9					
COTWOOD	450.8	56.7	1	2	4					
<b>TOTAL</b>	<i>42.9</i>	<i>5.4</i>	<i>201</i>	<i>212</i>	<i>224</i>	<i>74</i>	<i>38</i>	<i>18</i>		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR	75.5	9.5	20,601	22,764	24,927					
R ALDER	156.5	19.7	3,859	4,806	5,752					
WHEMLOCK	307.6	38.7	305	498	691					
COTWOOD	460.4	57.9	107	255	403					
<b>TOTAL</b>	<i>52.4</i>	<i>6.6</i>	<i>26,456</i>	<i>28,323</i>	<i>30,190</i>	<i>109</i>	<i>56</i>	<i>27</i>		



TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	SNIKERS			DATE	4/12/2016	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
16N	05E	33	SNIKERS	0002	0.25	1	21	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES				
TOTAL	1	21	21.0							
CRUISE	1	21	21.0	21	100.0					
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	12	48.0	18.3	72	20.5	88.0	15,400	15,080	3,462	3,462
WHEMLOCK	9	36.0	16.8	54	13.5	55.4	5,800	5,160	1,704	1,706
<b>TOTAL</b>	<i>21</i>	<i>84.0</i>	<i>17.7</i>	<i>64</i>	<i>34.1</i>	<i>143.3</i>	<i>21,200</i>	<i>20,240</i>	<i>5,166</i>	<i>5,168</i>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
DOUG FIR	113.5	34.2	207	314	422					
WHEMLOCK	133.6	47.2	76	143	211					
<b>TOTAL</b>	<i>126.0</i>	<i>28.2</i>	<i>173</i>	<i>241</i>	<i>309</i>	<i>666</i>	<i>340</i>	<i>167</i>		



TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	SNIKERS			DATE	4/12/2016	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
16N	05E	33	SNIKERS	00RW	1.90	2	4	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL	2	4	2.0	69		5.8				
CRUISE	2	4	2.0							
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
R ALDER	4	36.3	20.1	55	17.8	80.0	8,888	8,888	2,288	2,288
<b>TOTAL</b>	<b>4</b>	<b>36.3</b>	<b>20.1</b>	<b>55</b>	<b>17.8</b>	<b>80.0</b>	<b>8,888</b>	<b>8,888</b>	<b>2,288</b>	<b>2,288</b>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	<b>SAMPLE TREES - BF</b>					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
R ALDER	23.6	13.5	216	250	284					
<b>TOTAL</b>	<b>23.6</b>	<b>13.5</b>	<b>216</b>	<b>250</b>	<b>284</b>	<b>29</b>	<b>15</b>	<b>7</b>		
CL: 68.1 %	COEFF	<b>TREES/ACRE</b>					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
R ALDER	72.2	67.6	12	36	61					
<b>TOTAL</b>	<b>72.2</b>	<b>67.6</b>	<b>12</b>	<b>36</b>	<b>61</b>	<b>365</b>	<b>186</b>	<b>91</b>		
CL: 68.1 %	COEFF	<b>BASAL AREA/ACRE</b>					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
R ALDER	70.7	66.2	27	80	133					
<b>TOTAL</b>	<b>70.7</b>	<b>66.2</b>	<b>27</b>	<b>80</b>	<b>133</b>	<b>351</b>	<b>179</b>	<b>88</b>		
CL: 68.1 %	COEFF	<b>NET BF/ACRE</b>					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10		
R ALDER	59.3	55.5	3,953	8,888	13,822					
<b>TOTAL</b>	<b>59.3</b>	<b>55.5</b>	<b>3,953</b>	<b>8,888</b>	<b>13,822</b>	<b>247</b>	<b>126</b>	<b>62</b>		

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

T16N R05E S33 Ty0001	95.9
T16N R05E S33 Ty0002	.2
T16N R05E S33 Ty00R	1.9

**Project SNIKERS**  
**Acres 98.05**

**Page No 1**  
**Date: 4/12/2016**  
**Time 4:32:52PM**

Species	s T	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
		Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
DOUG FIR		14,857	26,722	15,381	36.33	20.20	0.61	5,397	5,397	2,257	2,187
R ALDER		3,464	6,195	3,423	35.92	20.09	0.69	1,245	1,244	495	478
WHEMLOCK		716	981	556	24.28	17.71	0.54	174	174	49	49
COTWOOD		97	195	167	70.14	35.07	1.10	68	68	25	24
<b>Totals</b>		19,135	34,094	19,528	35.97	20.19	0.63	6,884	6,883	2,826	2,738

Wood Type Species	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
C	15,573	27,704	15,937	35.77	20.11	0.61	5,571	5,571	2,307	2,236
H	3,562	6,390	3,590	36.85	20.54	0.71	1,313	1,313	519	502
<b>Totals</b>	19,135	34,094	19,528	35.97	20.19	0.63	6,884	6,883	2,826	2,738



FPA/N No: 2418683

Effective Date: 7/18/2016

Expiration Date: 7/18/2019

Shut Down Zone: 657

EARR Tax Credit:  Eligible  Non-eligible

Reference: **SNIKERS**

## Forest Practices Application/Notification Notice of Decision

### Decision

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

### FPA/N Classification

### Number of Years Granted on Multi-Year Request

- Class II
- Class III
- Class IVG
- Class IVS
- 4 yrs
- 5 yrs

### Conditions on Approval / Reasons for Disapproval

Issued By: Bruce Meyer

Region: South Puget Sound

Title: Resource Protection Forester

Date: 7/18/2016

Copies to:  Landowner, Timber Owner and Operator.

Issued in person:  Landowner  Timber Owner  Operator By: \_\_\_\_\_

*AEM  
7-18-16*

**Appeal Information**

You have thirty (30) days to appeal this Decision and any related State Environmental Policy Act determinations to the Pollution Control Hearings Board in writing at the following addresses:

**Physical address: 1111 Israel Rd. SW, Ste 301, Tumwater, WA 98501**

**Mailing address: P.O. BOX 40903, OLYMPIA, WA 98504-0903**

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

At the same time you file an appeal with the Pollution Control Hearings Board, also send a copy of the appeal to the Department of Natural Resources' region office and the Office of the Attorney General at the following addresses:

Office of the Attorney General  
Natural Resources Division  
1125 Washington Street SE  
PO Box 40100  
Olympia, WA 98504-0100

And

Department Of Natural Resources  
South Puget Sound Region  
950 Farman Ave. N  
Enumclaw, WA 98022

**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.

**Hydraulic Project Approval (HPA) (Chapter 77.55RCW and WAC 222-50-020(2))**

The Department of Fish and Wildlife (WDFW), as the jurisdictional agency issuing HPAs, has final authority for approving water crossing structures in Type S and F waters. WDFW continues to have authority on Type N waters and may exercise that authority on some Type N waters.

Notice: The HPA water crossing requirements supersede what is indicated on the FPA. Landowners are required by law to follow the provisions as directed on the HPA.

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

Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website: : [http://file.dnr.wa.gov/publications/fp\\_form\\_fpantransfer.pdf](http://file.dnr.wa.gov/publications/fp_form_fpantransfer.pdf). Notify DNR of new Operators within 48 hours.

**Continuing Forest Land 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 forest land 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 land 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.

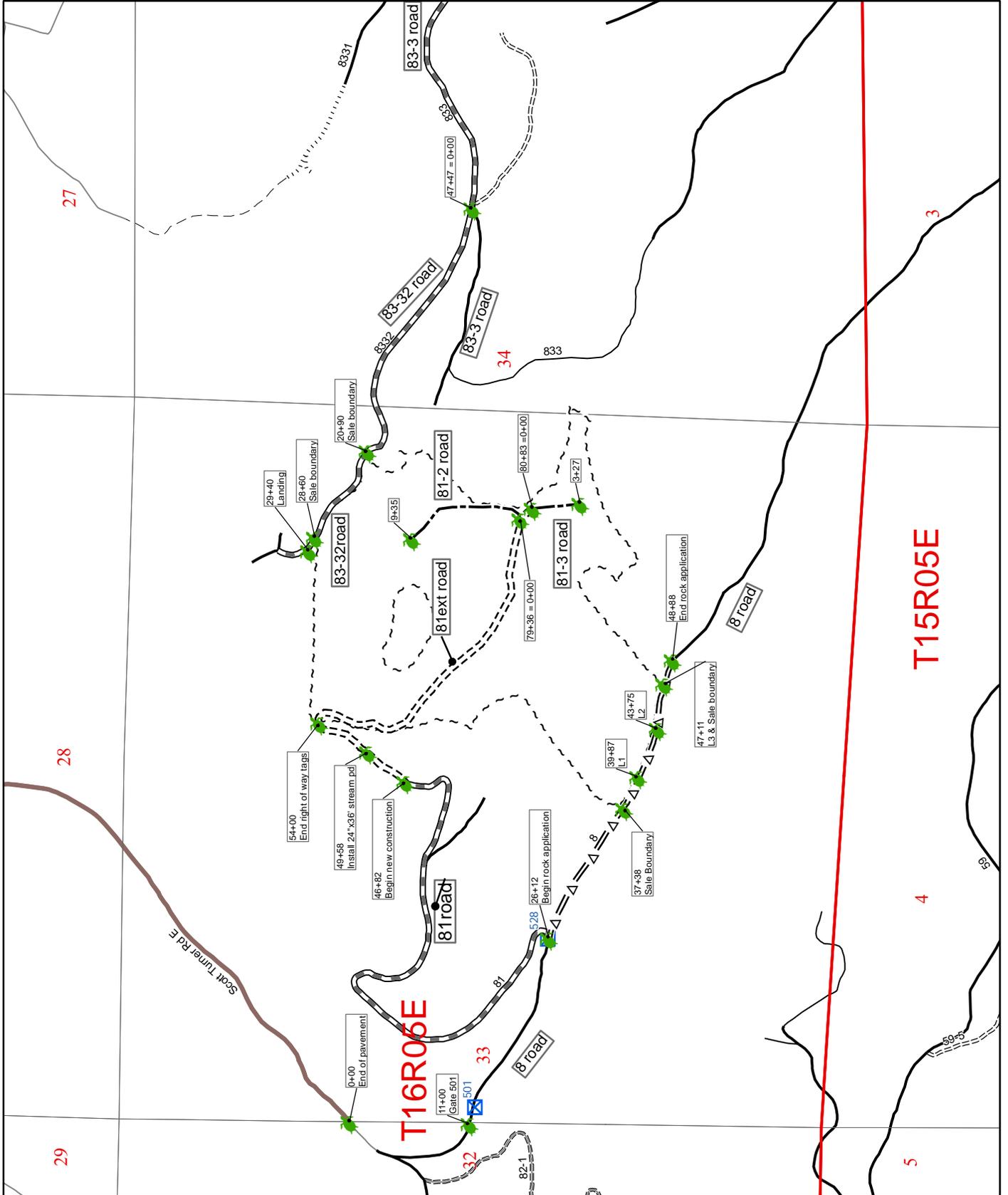
If the seller fails to notify the buyer about the continuing forest land obligation, the seller must pay the buyer's costs related to continuing forest land obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forest land obligation against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

Failure by the seller to send the required notice to the 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 forest land obligation prior to sale.

**DNR affidavit of mailing:**

On this day 7/18/2016, I placed in the United States mail at Enumclaw, WA,  
(date mm/dd/yyyy) (post office location)  
postage paid, a true and accurate copy of this document, Notice of Decision EPA #2418683  
Sherry Tomlinson (Signature)  
(Printed name)

# Snikers Road Plan Views, pg 1 of 3

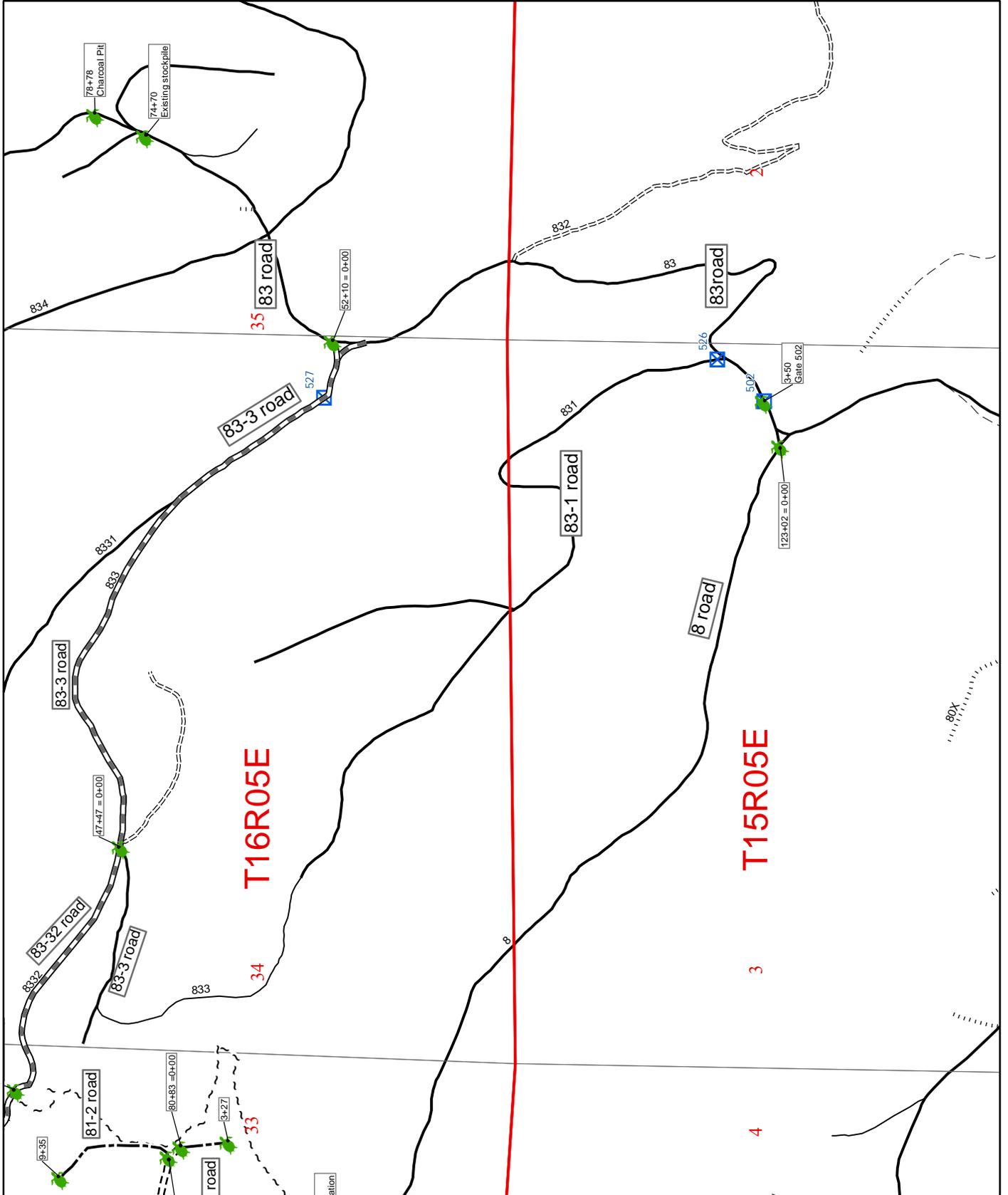


## Legend

- Stationing
- Post-haul Maintenance
- Pre-haul Maintenance
- Optional Construction
- Required Construction
- Sale Boundary
- Public Land Survey Townships
- Public Land Survey Sections

1 inch = 1,000 feet

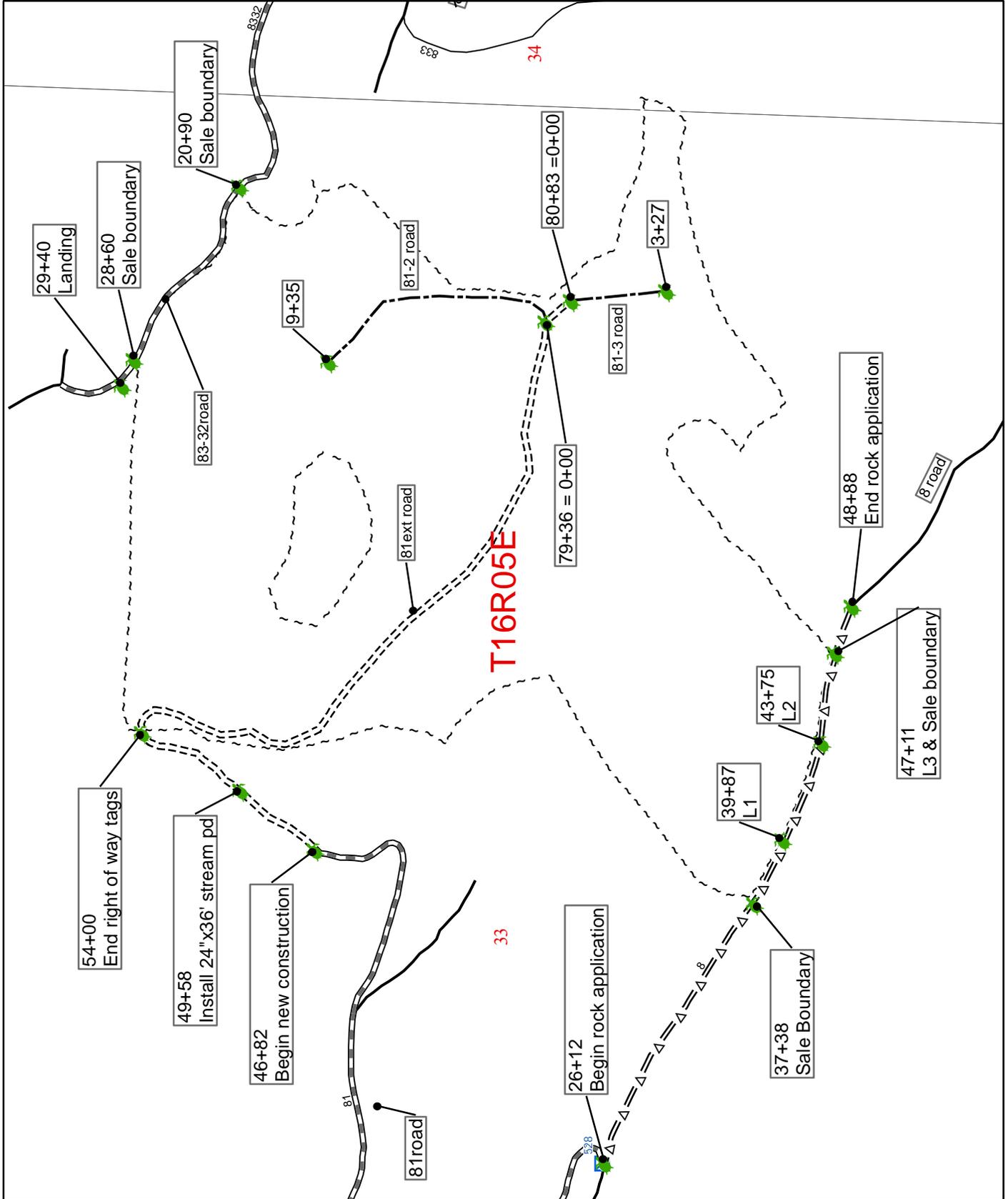
# Snikers Road Plan Views, pg 2 of 3



- Legend**
- Stationing
  - Post-haul Maintenance
  - Pre-haul Maintenance
  - Optional Construction
  - Required Construction
  - Sale Boundary
  - Public Land Survey Townships
  - Public Land Survey Sections

1 inch = 1,000 feet

# Snikers Road Plan Views, pg 3 of 3



## Legend

- Stationing
- Post-haul Maintenance
- Pre-haul Maintenance
- Optional Construction
- Required Construction
- Sale Boundary
- Public Land Survey Townships
- Public Land Survey Sections

1 inch = 500 feet

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

SNIKERS TIMBER SALE ROAD PLAN  
PIERCE COUNTY  
RAINIER DISTRICT  
ELBE UNIT

AGREEMENT NO.: 30-092941

STAFF ENGINEER: M. BELL

DATE: 4/04/2016

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>
81	0+00 to 46+82	Pre-haul maintenance
83-3	0+00 to 47+47	Pre-haul maintenance
83-32	0+00 to 29+40	Pre-haul maintenance
81 ext.	46+82 to 80+83	Construction
8	26+12 to 47+11	Post-haul maintenance
L1	39+87	Decommissioning, if built
L2	43+75	Decommissioning, if built
L3	47+11	Decommissioning, if built

**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>
81-2	0+00 to 9+35	Construction
81-3	0+00 to 3+27	Construction
L1	39+87	Construction
L2	43+75	Construction
L3	47+11	Construction

**0-4 CONSTRUCTION**

Construction includes, but is not limited to:

- Clearing.
- Grubbing.
- Right of way debris disposal.
- Excavation and/or embankment to subgrade.
- Landing construction.
- Acquisition and installation of drainage structures.
- Manufacture and application of rock.
- Acquisition and application of grass seed.

**0-6 PRE-HAUL MAINTENANCE**

Pre-haul maintenance includes, but is not limited to:

- Brushing.
- Grading.
- Ditch cleaning and reconstruction
- Culvert cleaning and headwall reconstruction.

**0-7 POST-HAUL MAINTENANCE**

This project includes, but is not limited to post-haul road maintenance listed in Clause 9-5 POST-HAUL MAINTENANCE.

**0-9 DECOMMISSIONING**

This project includes decommissioning listed in Clause 9-20ROAD DECOMMISSIONING.

**0-12 DEVELOP ROCK SOURCE**

Purchaser may develop an existing rock source. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

**SECTION 1 – GENERAL**

**1-1 ROAD PLAN CHANGES**

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

**1-2 UNFORESEEN CONDITIONS**

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions, or Purchaser's choice of construction season or techniques, will be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

**1-3 ROAD DIMENSIONS**

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan, unless controlled by construction stakes 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.

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**

On the following road(s), Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before the closure of any of the listed road(s). Construction may not close road(s) on weekends or state recognized holidays, unless authorized in writing by the Contract Administrator. Additionally road(s) shall be open the Wednesday prior to Memorial Day through Memorial Day of any given year.

<u>Road</u>
8

**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.

**SUBSECTION ROAD MARKING**

**1-15 ROAD MARKING**

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

- Centerline is marked with orange pin flags and orange flagging for new construction.
- Centerline is referenced using metal tags on trees with horizontal and vertical offsets to designed subgrade elevation at centerline.

**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.

SUBSECTION TIMING

**1-20 COMPLETE BY DATE**

Purchaser shall complete pre-haul road work before the start of timber haul, unless approved in writing by the Contract Administrator.

**1-21 HAUL APPROVAL**

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

**1-23 ROAD WORK PHASE APPROVAL**

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

- Subgrade construction.
- Drainage installation.
- Subgrade compaction.
- Rock application.
- Rock compaction.

SUBSECTION RESTRICTIONS

**1-25 ACTIVITY TIMING RESTRICTION**

No operation of road construction equipment or rock haul will be allowed on weekends or state recognized holidays, unless authorized in writing by the Contract Administrator.

The specified activities are not permitted during the listed closure periods unless authorized in writing by the Contract Administrator.

<u>Activity</u>	<u>Closure Period</u>
Operation of road construction equipment or rock haul	November 1 to May 15

**1-26 OPERATING DURING CLOSURE PERIOD**

If permission is granted to operate during a seasonal closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION, the Purchaser shall comply with a maintenance plan to include further protection of water, soil, roads, and other forest assets at the Purchaser’s expense. Preventative measures shall be in place prior to operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these roads, a joint operating plan must be developed. All parties shall follow this plan.

**1-27 TIMING RESTRICTION FOR MARBLED MURRELET**

On the following road(s), road construction, reconstruction, maintenance, right-of-way timber falling and yarding, rock pit operations, or operation of heavy equipment is not permitted from one hour before official sunrise to two hours after official sunrise, and from one hour before official sunset to one hour after official sunset from April 1 through August 31. This restriction does not apply to the hauling of timber, rock, or equipment.

<u>Road</u>	<u>Stations</u>	<u>Comment</u>
81ext	79+36 to 80+83	
81-3	0+00 to 3+27	
83	74+74	Charcoal Pit

**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.
- Wheel track rutting exceeds 6 inches on new construction rocked roads.

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

**1-32 BRIDGE AND ASPHALT SURFACE RESTRICTIONS**

Metal tracked equipment shall not be used on asphalt surfaces at any time. If equipment must be run on asphalt surfaces, then rubber tired equipment or other methods, as approved in writing by Contract Administrator, shall be used.

Any dirt, rock, or other material tracked or spilled on the asphalt surface shall be removed immediately. Any damage to the surface(s) shall 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.

SUBSECTION OTHER INFRASTRUCTURE

**1-40 ROAD APPROACHES TO COUNTY AND/OR STATE**

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

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

The following county road is affected by this sale:

<u>Road Name</u>
Scott Turner Road

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.

**2-5 MAINTENANCE GRADING – EXISTING ROAD**

On the following road(s), Purchaser shall use a grader to shape the existing surface before timber haul unless an alternative time is approved in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
81	0+00 to 46+82
83-3	0+00 to 47+47
83-32	0+00 to 29+40

**2-6 CLEANING CULVERTS**

On the following road(s), Purchaser shall clean the inlets and outlets of all culverts and shall obtain written approval from the Contract Administrator before timber haul.

<u>Road</u>	<u>Stations</u>
81	0+00 to 46+82
83-3	0+00 to 47+47
83-32	0+00 to 29+40

**2-7 CLEANING AND RECONSTRUCTING DITCHES, HEADWALLS, AND CATCH BASINS**

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

<u>Road</u>	<u>Stations</u>
81	0+00 to 46+82
83-3	0+00 to 47+47
83-32	0+00 to 29+40

**SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL**

**SUBSECTION CLEARING**

**3-5 CLEARING**

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

**3-8 PROHIBITED DECKING AREAS**

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

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing trees unless approved by the Contract Administrator.

**SUBSECTION GRUBBING**

### **3-10 GRUBBING**

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

## **SUBSECTION ORGANIC DEBRIS**

### **3-20 ORGANIC DEBRIS DEFINITION**

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

### **3-21 DISPOSAL COMPLETION**

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

### **3-23 PROHIBITED DISPOSAL AREAS**

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 55%.
- 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.
- In location that would impede drainage.

### **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 the clearing limits.

## **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 18 percent favorable and 12 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 6% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

**4-5 CUT SLOPE RATIO**

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

<u>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Excavation Slope Percent</u>
Common Earth (on side slopes up to 55%)	1:1	100
Common Earth (56% to 70% side slopes)	¾:1	133
Common Earth (on slopes over 70%)	½:1	200
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.

**4-12 FULL BENCH CONSTRUCTION**

Where side slopes exceed 45%, full bench construction shall be utilized for the entire subgrade width except as construction staked or designed.

SUBSECTION INTERSECTIONS, TURNOUTS AND TURNAROUNDS

**4-21 TURNOUTS**

Purchaser shall construct turnouts as designated on the TURNOUT LIST. Locations may be adjusted to fit the final subgrade alignment and sight distances. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

**4-22 TURNAROUNDS**

Purchaser shall construct turnouts as designated on the TURNAROUND LIST. Turnarounds shall be 30 feet long and 30 feet wide. Location changes are subject to written approval by the Contract Administrator.

SUBSECTION DITCH CONSTRUCTION

**4-25 DITCH CONSTRUCTION AND RECONSTRUCTION**

The Purchaser shall construct and reconstruct ditches into the subgrade as specified on the TYPICAL SECTION SHEET. Excavated slopes shall be consistent with Clause 4-5 CUT SLOPE RATIO. Ditches shall be constructed concurrently with construction of the subgrade.

**4-27 DITCH WORK – MATERIAL USE PROHIBITED**

On the following road(s), 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.

<u>Road</u>	<u>Stations</u>
81	0+00 to 46+82
83-3	0+00 to 47+47
83-32	0+00 to 29+40

**4-28 DITCH DRAINAGE**

Ditches must drain to cross-drain culverts or ditchouts.

SUBSECTION WASTE MATERIAL (DIRT)

**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 55% if the waste material is compacted and free of organic debris.

**4-37 WASTE AREA LOCATION**

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

<u>Road</u>	<u>Waste Area Location</u>	<u>Comments</u>
8	39+87	Waste may be deposited on the old road grade adjacent to the 8 road. Old grade starts at 39+87 off the 8 road.

**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 55%.
- 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.

SUBSECTION BORROW

**4-46 COMMON BORROW**

Common borrow consists of soil, and/or aggregate that is non-plastic and contains no more than 5% clay, organic debris, or trash by volume. The material is considered non-plastic if the fines in the sample cannot be rolled, between the hand and a smooth surface, into a thread at any moisture content.

SUBSECTION SHAPING

**4-55 ROAD SHAPING**

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free.

**4-56 DRY WEATHER SHAPING**

At any time of year, 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.

SUBSECTION COMPACTION

**4-60 FILL COMPACTION**

Purchaser shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift. A plate compactor must be used for areas

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

**4-61 SUBGRADE COMPACTION**

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

**4-62 DRY WEATHER COMPACTION**

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

SECTION 5 – DRAINAGE

SUBSECTION CULVERTS

**5-5 CULVERTS**

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and meet the specifications in Clauses 10-15 through 10-23.

**5-11 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.

SUBSECTION CULVERT INSTALLATION

**5-15 CULVERT INSTALLATION**

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations.

**5-17 CROSS DRAIN SKEW AND SLOPE**

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

**5-18 CULVERT DEPTH OF COVER**

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

SUBSECTION ENERGY DISSIPATERS

**5-20 ENERGY DISSIPATERS**

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock. Energy dissipater installation is subject to approval by the Contract Administrator.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT LIST. Energy dissipaters must extend a minimum of 1 foot to each side of the culvert at the outlet and a minimum of 2 feet beyond the outlet. Rock must be set in place by machine. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

SUBSECTION CATCH BASINS, HEADWALLS, AND ARMORING

**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 used for headwalls must be QUARRY SPLLS or LIGHT LOOSE RIP RAP. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed. QUARRY SPALLS and LIGHT LOOSE RIP RAP shall meet the specifications in CLAUSE 6-43 QUARRY SPALLS and CLAUSE 6-50 LIGHT LOOSE RIP RAP.

**5-27 ARMORING FOR STREAM CROSSING CULVERTS**

Purchaser shall place listed rock type(s) in conjunction with or immediately following construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the ROCK LIST and attached culvert design(s) or as directed by the Contract Administrator. 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 by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

SUBSECTION SURFACE DRAINAGE

**5-33 NATIVE SURFACE ROADS**

If overwintered, native surface roads must be waterbarred by November 1. Purchaser shall construct waterbars according to the attached DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.

**SECTION 6 – ROCK AND SURFACING**

**SUBSECTION ROCK SOURCE**

**6-2 ROCK SOURCE ON STATE LAND**

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

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
Charcoal Pit	SE ¼ NW ¼ Section 35 Township 16 North Range 5 East	3 Inch Jaw Run 2-1/2 Inch Minus Crushed Quarry Spalls

**6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE**

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following existing stockpile(s) on state land at no charge to the Purchaser. Purchaser shall not remove more than 800 cubic yards of 2-1/2 Inch Minus Crushed rock without prior written approval from the Contract Administrator.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
Charcoal Pit	SE ¼ NW ¼ Section 35 Township 16 North Range 5 East	2-1/2 Inch Minus Crushed

**SUBSECTION ROCK SOURCE DEVELOPMENT**

**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 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 3 calendar days before starting any operations in the rock source.

<u>Source</u>
Charcoal Pit

## 6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications, unless otherwise specified in the ROCK SOURCE DEVELOPMENT PLAN:

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

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

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

## 6-14 DRILL AND SHOOT

Rock drilling and shooting must meet the following specifications:

- Oversize material remaining in the rock source at the conclusion of the timber sale may not exceed 5% of the total volume mined in that source.
- Oversize material is defined as rock fragments larger than two feet in any dimension.
- Oversized rock that exceeds the maximum allowable amount must be reduced to a smaller size within the rock source.
- Purchaser shall notify the Contract Administrator a minimum of 3 working days before blasting operations.
- Purchaser shall submit an informational drilling and shooting plan to the Contract Administrator 3 working days before any drilling.
- All operations must be carried out in compliance with the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and the Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- Purchaser shall block access roads before blasting operations.

SUBSECTION ROCK MANUFACTURE

**6-20 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 or during manufacture and placement into a stockpile. Purchaser shall provide a sieve analysis upon request from the Contract Administrator.

**6-23 ROCK CRUSHING OPERATIONS**

Rock crushing operations must conform to the following specifications:

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

SUBSECTION ROCK GRADATIONS

**6-34 3-INCH JAW RUN ROCK**

% Passing 3" square sieve	100%
% Passing 1 1/2" square sieve	45 - 65%
% Passing U.S. #40 sieve	16% maximum
% Passing U.S. #200 sieve	5% maximum

Rock may contain no more than 5 percent organic debris, dirt, and trash. All percentages are by weight.

**6-43 QUARRY SPALLS**

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

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

**6-50 LIGHT LOOSE RIP RAP**

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

<u>At Least/Not More Than</u>	<u>Size Range</u>
20% / 90%	20" - 36"
80% / --	12" - 30"
10% / 20%	3" - 8"

SUBSECTION ROCK MEASUREMENT

**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 compacted

yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements and are not subject to reduction.

**6-56 ROCK MEASUREMENT BY TRUCK VOLUME**

Measurement of 2-1/2 INCH MINUS CRUSHED, QUARRY SPALLS and LIGHT LOOSE RIP RAP rock 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 for each truck as shown in ROCK ACCOUNTABILITY DETAIL and shall give them to the Contract Administrator on a weekly basis during rocking operations.

SUBSECTION ROCK APPLICATION

**6-70 APPROVAL BEFORE ROCK APPLICATION**

Purchaser shall obtain written approval from the Contract Administrator for subgrade including: ditches, headwalls, catch basins, culverts, energy dissipaters, ditch-outs, subgrade shaping and compacting before rock application.

**6-71 ROCK APPLICATION**

Purchaser shall apply rock in accordance with the specifications and quantities shown on the ROCK LIST. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator will direct locations for rock that is to be applied as spot patching. Road surfaces must be compacted in accordance with the COMPACTION LIST by routing equipment over the entire width.

**6-72 ROCK APPLICATION AFTER HAULING**

On the following road(s), upon completion of all hauling operations, Purchaser shall apply 2-1/2 INCH MINUS CRUSHED rock in accordance with the quantities shown on the ROCK LIST.

<u>Road</u>	<u>Stations</u>	<u>Rock Type</u>
8	26+12 to 47+11	2-1/2 Inch Minus Crushed

**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.

SECTION 7 – STRUCTURES

SUBSECTION SIGNS

**7-1 SIGN INSTALLATION**

Purchaser shall purchase, install, and maintain the following road signs. Signs must be installed a minimum of 5 days before road closure.

<u>Road</u>	<u>Station</u>	<u>Sign</u>
8	11+00	Road Closed Due to Logging
8	48+88	

SUBSECTION GATE CLOSURE

**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>	<u>Gate No.</u>
81	2+00	528

**7-71 GATE CLOSURE DURING HAUL**

On the following road(s), Purchaser shall keep gates closed and locked except for passing vehicles. If Purchaser elects to use an alternate plan for gate security, Purchaser shall submit a detailed plan to the Contract Administrator for written approval.

<u>Road</u>	<u>Station</u>	<u>Gate No.</u>
83	3+50	502

**7-71B OPTIONAL GATE CLOSURE DURING HAUL**

On the following road(s), Purchaser may keep gate closed and locked except for passing vehicles during road closure specified in CLAUSE 1-7 TEMPORARY ROAD CLOSURE.

<u>Road</u>	<u>Station</u>	<u>Gate No.</u>
8	11+00	501

SECTION 8 – EROSION CONTROL

**8-2 PROTECTION FOR EXPOSED SOIL**

Purchaser shall provide and evenly spread a 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.

SUBSECTION REVEGETATION

**8-15 REVEGETATION**

On the following road(s), Purchaser shall spread grass seed on all exposed soils within the grubbing limits resulting from road work activities. Cover all exposed soils using hand method. Other methods of covering must be approved in writing by the Contract Administrator.

<u>Road</u>	<u>Location</u>
81 ext	46+82 to 80+83

**8-16 REVEGETATION SUPPLY**

The Purchaser shall provide the seed and mulch.

**8-17 REVEGETATION TIMING**

Purchaser shall revegetate immediately after road work is completed unless alternative plan approved in writing by the Contract Administrator. 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.

**SUBSECTION SEED AND MULCH**

**8-25 GRASS SEED**

Purchaser shall evenly spread the seed mixture listed below on all soil specified in CLAUSE 8-15 REVEGETATION at a rate of 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

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

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

**SECTION 9 – POST-HAUL ROAD WORK**

**SUBSECTION POST-HAUL MAINTENANCE**

**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>
8	26+12 to 47+11	Clean road surface, ditches, culvert inlets and culvert outlets as per clause 11-3 EXISTING ROAD CLEAN-UP. Grade, shape and compact road surface. Replace lost or worn away surface material per clause 11-3 EXISTING ROAD CLEAN-UP. Apply rock as specified in clause 6-72 ROCK APPLICATION AFTER HAULING. Compact rock per COMPACTION LIST.

SUBSECTION POST-HAUL LANDING MAINTENANCE

**9-10 LANDING DRAINAGE**

Purchaser shall provide for drainage of the landing surface.

SUBSECTION DECOMMISSIONING

**9-20 ROAD DECOMMISSIONING**

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

<u>Road</u>	<u>Stations</u>
L1	39+87
L2	43+75
L3	47+11

**9-22 DECOMMISSIONING**

- Install waterbars as needed to provide positive drainage. Outlets must be on stable locations.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.
- Scatter woody debris onto abandoned road surfaces. Block access to landings with woody debris.
- Exact decommissioning specifications will be determined by the Contract Administrator dependant on how the landings are constructed.

SECTION 10 MATERIALS

SUBSECTION CULVERTS

**10-17 CORRUGATED PLASTIC CULVERT**

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

**10-22 PLASTIC BAND**

Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used. Couplings must be bell and spigot connector, or split coupling band. Split coupling bands must have a minimum of four corrugations, two on each side of the pipe joint.

SECTION 11 SPECIAL NOTES

**11-1 LANDING CONSTRUCTION**

On the following locations, landings may be built adjacent to the 8 road per the 8RD LANDING CONSTRUCTION DETAIL.

<u>Road</u>	<u>Location</u>	<u>Comment</u>
L1	8 rd @ station 39+87	Existing old grade
L2	8rd @ station 43+75	Existing turnout
L3	8rd @ station 47+11	Existing throughcut

**11-2 DITCH MAINTENANCE**

The Purchaser shall maintain ditches in accordance with Forest Access Road Maintenance Specifications. Any landing construction, especially which crosses ditches, shall provide for drainage, as approved by the Contract Administrator.

**11-3 EXISTING ROAD CLEAN-UP**

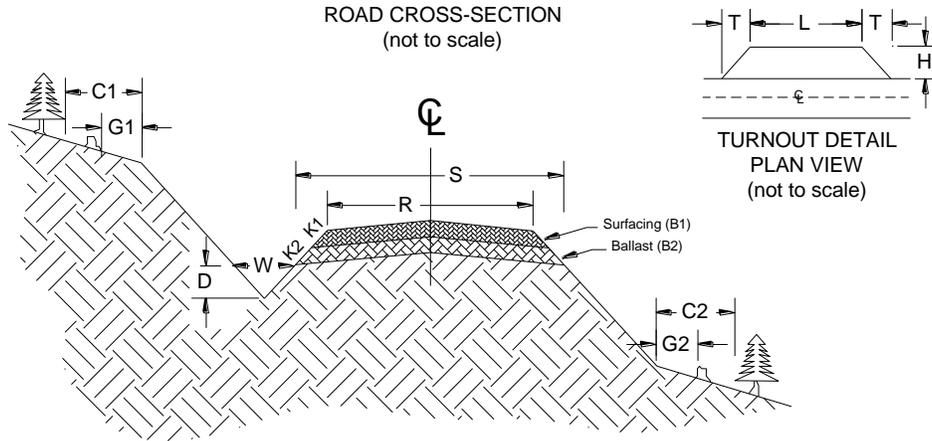
If Purchaser elects to use the following roads as a landing or loading location the road shall be cleaned of all organic debris, all lost or worn away surface material will be replaced, and all ditches and drainage channels at culvert outlet and inlets shall be cleaned and cleared of obstructions.

<u>Road</u>
8

**11-4 LANDING DEBRIS**

Purchaser shall reduce or relocate debris generated by road and landing construction, in a manner approved, in writing, by the Contract Administrator, to avoid landing failures and potential debris slides. All landing debris off the 8 road, except as approved by the Contract Administrator, shall be endhauled to the 81 road or the 81 ext. road to a location approved in wrtining by the Contract Administrator.

# TYPICAL SECTION SHEET



Road Number	From Station	To Station	Tolerance Class	Subgrade Width (feet)	Road Width (feet)	Ditch**		Crown in. @ CL	Grubbing Limits (feet)		Clearing Limits* (feet)	
						Width (feet)	Depth (feet)		G1	G2	C1	C2
				S	R	W	D		G1	G2	C1	C2
8	0+00	123+02	C	-	14	4	2	4	-	-	-	-
81	0+00	46+82	C	-	-	4	2	4	-	-	-	-
83	0+00	78+78	C	-	-	4	2	4	-	-	-	-
83-3	0+00	47+47	C	-	-	4	2	4	-	-	-	-
83-32	0+00	29+40	C	-	-	4	2	4	-	-	-	-
81ext.	46+82	54+00	C	15	12	2	1	4	2	2	tags	tags
81ext	54+00	80+83	C	15	12	2	1	4	2	2	5	5
81-2	0+00	9+35	C	15	12	2	1	4	2	2	5	5
81-3	0+00	3+27	C	15	12	2	1	4	2	2	5	5

\*Tags are Right of Way Tags

\*\*On existing roads: Ditch depth will be measured vertically from the bottom of the ditch to the edge of the road surface. Ditch width will be measured horizontally from the closest edge of the road surface to the cut slope.

### TURNOUT LIST

Road Number	Begin L- Station	End L- Station	Turnout Width (H)	Full Width Length (L)	Taper Length (T)	Comments
81ext	51+50	52+50	12'	50'	25'	Turnout Right
81ext	55+98	56+98	12'	50'	25'	Turnout Left
81ext	60+06	61+06	12'	50'	25'	Turnout Right
81ext	72+61	73+61	12'	50'	25'	Turnout Left

### TURNAROUND LIST

Road Number	L- Station	Width (ft)	Length (ft)	Comments
81-2	9+35	30	30	Create turnaround at end of road
81-3	3+27	30	30	Create turnaround at end of road
83-32	29+40	30	30	Create turnaround at landing

### COMPACTION LIST

Road	From Station	To Station	Type	Max Depth Per Lift (inches)	Equipment Type	Equipment Weight (lbs)	Minimum Number of Passes	Maximum Operating Speed (mph)
All new construction			Culvert Installations	12	Vibratory Smooth Drum	14,000	4	3
			Embankment	12				
			Fill	12				
			Subgrade					
			Rock	12				
			Waste Area	12				
81	0+00	46+82	After grading existing road surface					
83-3	0+00	47+47						
83-32	0+00	29+40						
8	26+12	47+11	After grading existing road surface and prior to rocking					
			Rock	9				

## ROCK LIST

### BALLAST

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y. Station	# of Stations	C.Y. Subtotal	Rock Source	
			K2	B2	3 Inch Jaw Run				
81ext	46+82	80+83	1.5:1	12"	50	34	1700	Charcoal Pit	
81 ext turnouts			1.5:1	12"	46 (each)	4 (each)	184		
81-2	0+00	9+35	1.5:1	12"	50	9.4	470		
81-3	0+00	3+27	1.5:1	12"	50	3.3	165		
Quarry Spalls or smaller									
L1*	39+87						50		
L2*	43+75						50		
L3*	47+11						50		
Quarry Spalls or Light Loose Rip Rap									
For culvert Installations. See Culvert List for locations							11		

\*Optional Rock

3 Inch Jaw Run BALLAST TOTAL: 2519 Cubic ards  
Quarry Spalls BALLAST TOTAL: 161 Cubic yards

### SURFACE

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y. Station	# of Stations	C.Y. Subtotal	Rock Source
			K2	B2	2-1/2" Minus Crushed			
8**	26+12	47+11	1.5:1	6"	28	21	583	Charcoal Pit 2-1/2" Minus Crushed Stockpile
8 turnout**			1.5:1	6"	21 (each)	1 (each)	21	

\*\* 2-1/2 Inch Minus Crushed SURFACE TOTAL: 604 \* 1.3 = 785 Truck Cubic Yards

\*\*Compliance of 2-1/2 Inch Minus Crushed with be on a Truck Yard basis based on Surface Total. Compaction Factor of 1.3 included in Surface Total.

**NOTE: 3 INCH JAW RUN yardages are estimated on a compacted (In-Place) basis. Compliance of 3 INCH MINUS JAW RUN required rock will be based on compacted depth measurement. Apply appropriate factors to determine loose amounts for estimating purposes.** Roads and rock quantities are designed for dry weather use. If Purchaser elects to haul in wet weather additional rock may be obtained from the rock pits listed in Section 6 at the Purchaser's expense and with prior written approval from the Contract Administrator.

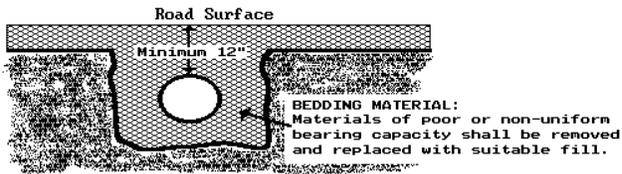
## CULVERT LIST

Road Number	Location	Culvert		Length (ft)			Riprap (C.Y.)			Backfill Material*	Placement Method*	Const. Staked*	Remarks
		Dia. (in)	Type	Culvert	Downspt	Flume	Inlet	Outlet	Type				
81ext	47+32	18	PD	30			0.5	0.5	QS			Ns stream	
	49+58	24	PD	36			0.5	0.5	QS				
	50+04	18	PD	30			0.5	0.5	QS				
	52+79	18	PD	40			0.5	0.5	QS				
	58+70	18	PD	30			0.5	0.5	QS				
	62+44	18	PD	30			0.5	0.5	QS				
	66+49	18	PD	30			0.5	0.5	QS				
	70+79	18	PD	30			0.5	0.5	QS				
	74+29	18	PD	30			0.5	0.5	QS				
81-2	2+13	18	PD	30			0.5	0.5	QS			Trench outlet	
	6+36	18	PD	30			0.5	0.5	QS				

\* SEE CULVERT AND DRAINAGE SPECIFICATION DETAIL

PD = Polyethylene Pipe Dual Wall AASHTO No. M294 Type S or ASTM F2648

**CULVERT BACKFILL AND BASE PREPARATION**  
(For culverts less than 36")

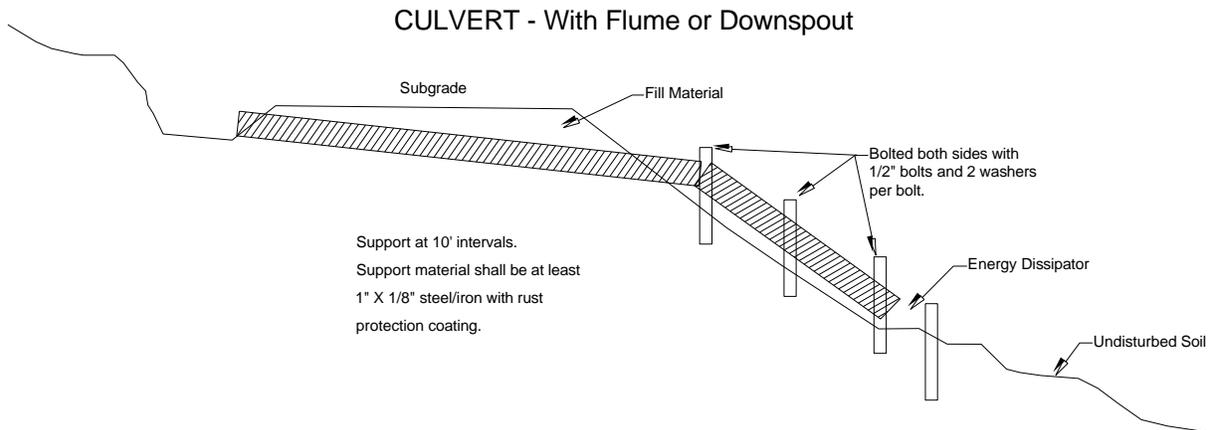
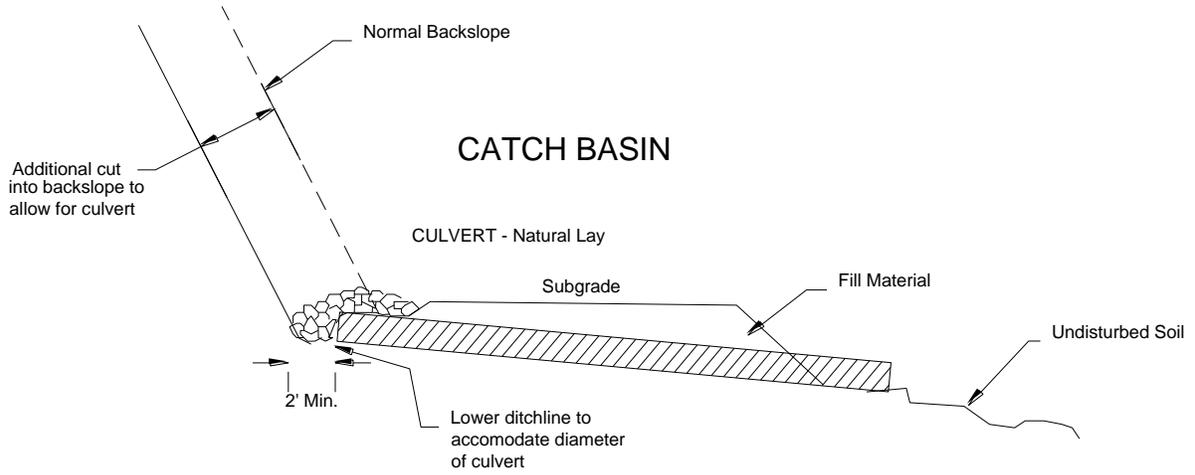


**Key:**

- QS - Quarry Spalls or Light Loose Riprap
- SR - Shot Rock
- NT - Native (bank run)
- SL - Select Fill
- HL - Heavy Loose Riprap
- Flume - Half round pipe
- Downsput - Full round pipe

# CULVERT AND DRAINAGE SPECIFICATION DETAIL

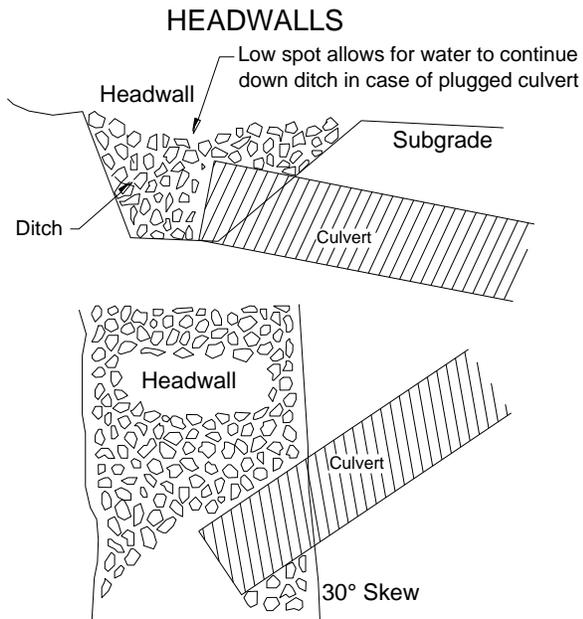
(Page 1 of 3)



## CULVERT AND DRAINAGE SPECIFICATION DETAIL

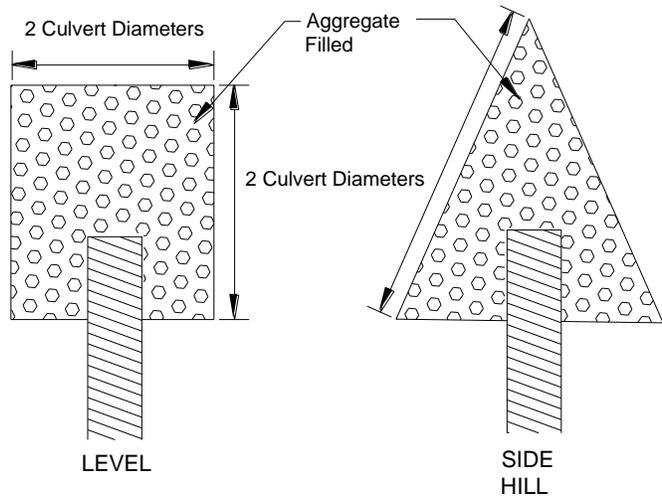
(Page 2 of 3)

Proper preparation of foundation and placement of bedding material shall precede the installation of all culvert pipe. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform dense unyielding base. The backfill material shall be placed so that the pipe is uniformly supported along the barrel.



Headwalls to be constructed of material that will resist erosion.

## ENERGY DISSIPATORS



Dissipator Specifications:  
Depth: 1 culvert diameter  
Aggregate: as specified in the CULVERT LIST.

## CULVERT AND DRAINAGE SPECIFICATION DETAIL

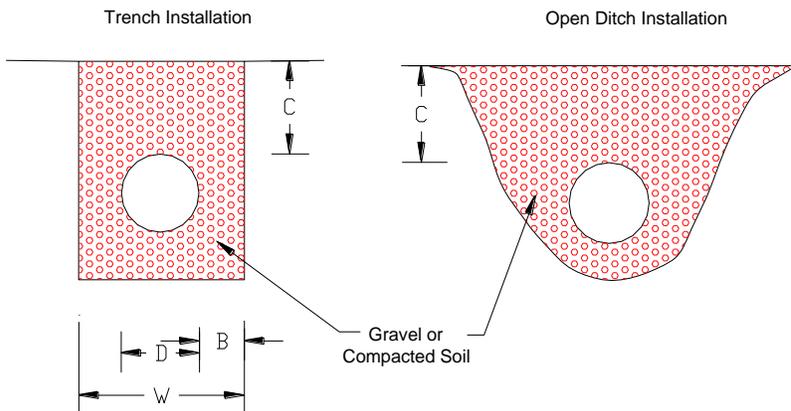
(Page 3 of 3)

### POLYETHYLENE PIPE INSTALLATION

#### INSTALLATION REQUIREMENTS:

1. Crushed stone, gravel, or compacted soil backfill material shall be used as the bedding and envelope material around the culvert. The aggregate size shall not exceed 1/6 pipe diameter or 4" diameter, whichever is smaller.
2. The corrugated pipe shall be laid on grade, on a layer of bedding material as shown for the two types of installations. If native soil is used as the bedding and backfill material, it shall be well compacted in six inch layers under the haunches, around the sides and above the pipe to the recommended minimum height of cover.
3. Either crushed aggregate or flexible (asphalt) pavement may be laid as part of the minimum cover requirements.
4. Site conditions and availability of bedding materials often dictate the type of installation method used.
5. The load bearing capability of flexible conduits is dependent on the type of backfill material used and the degree of compaction achieved. Crushed stone and gravel backfill materials typically reach a compaction level of 90-95% AASHTO standard density without compaction. When native soils are used as backfill material, a compaction level of 85% is required. This minimum compaction can be achieved by either hand or mechanical tamping.

#### MINIMUM DIMENSIONS Trench or Open Ditch Installation



Nominal Diameter	Minimum Thickness	Minimum Cover	Min. Trench Width
D	B	C	W
18"	6"	12"	36"
24"	6"	12"	42"
30"	6"	12"	48"
36"	6"	12"	54"

## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS, page 1 of 2

### Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the cut slope/fill slope ratios. Remove slides from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

### Surface

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

### Drainage

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

### 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.

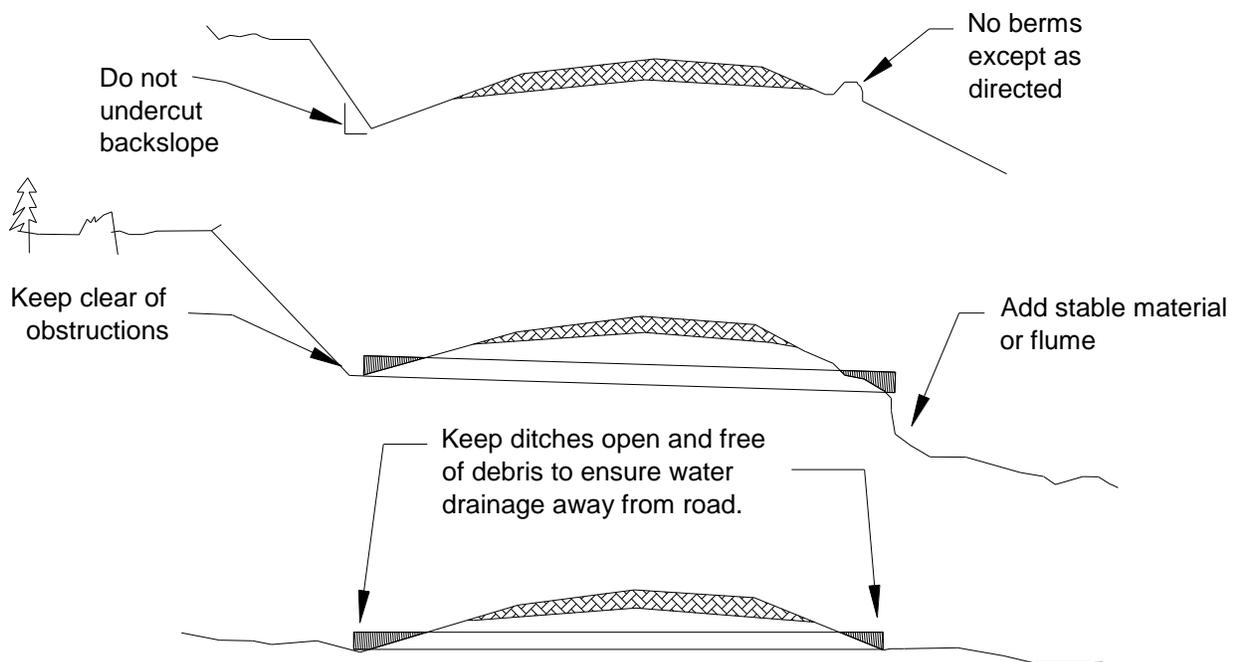
## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS, page 2 of 2

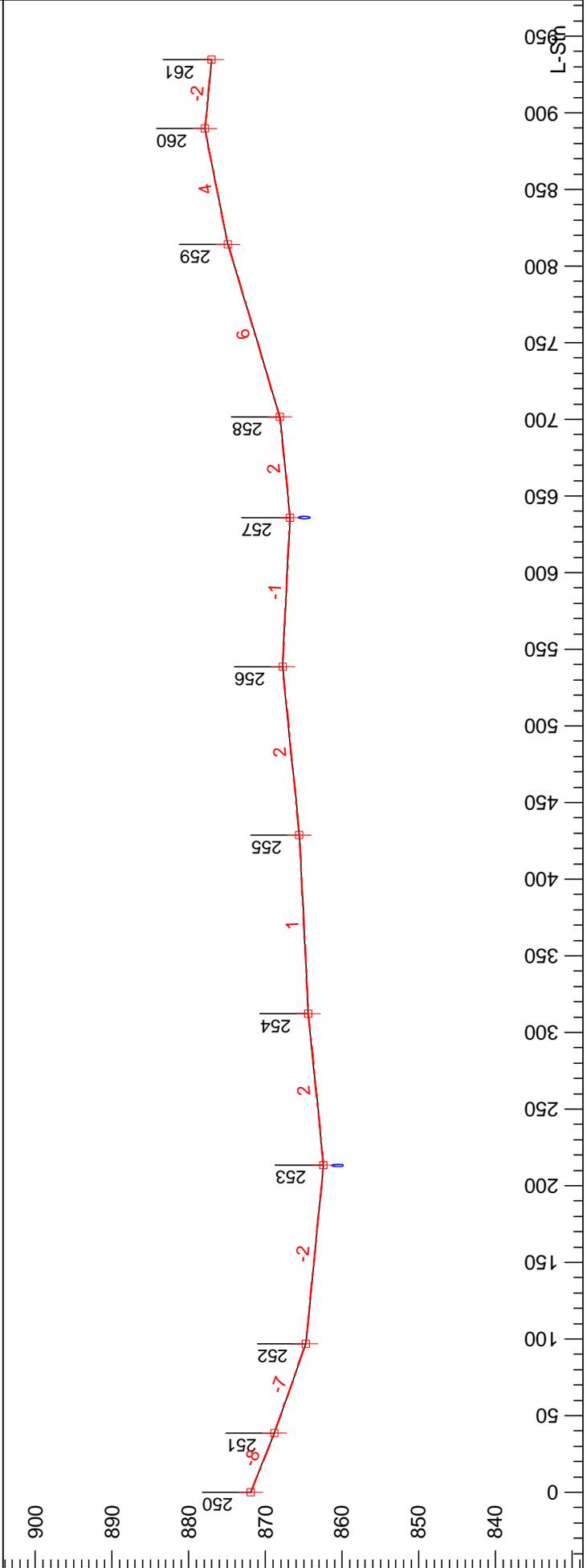
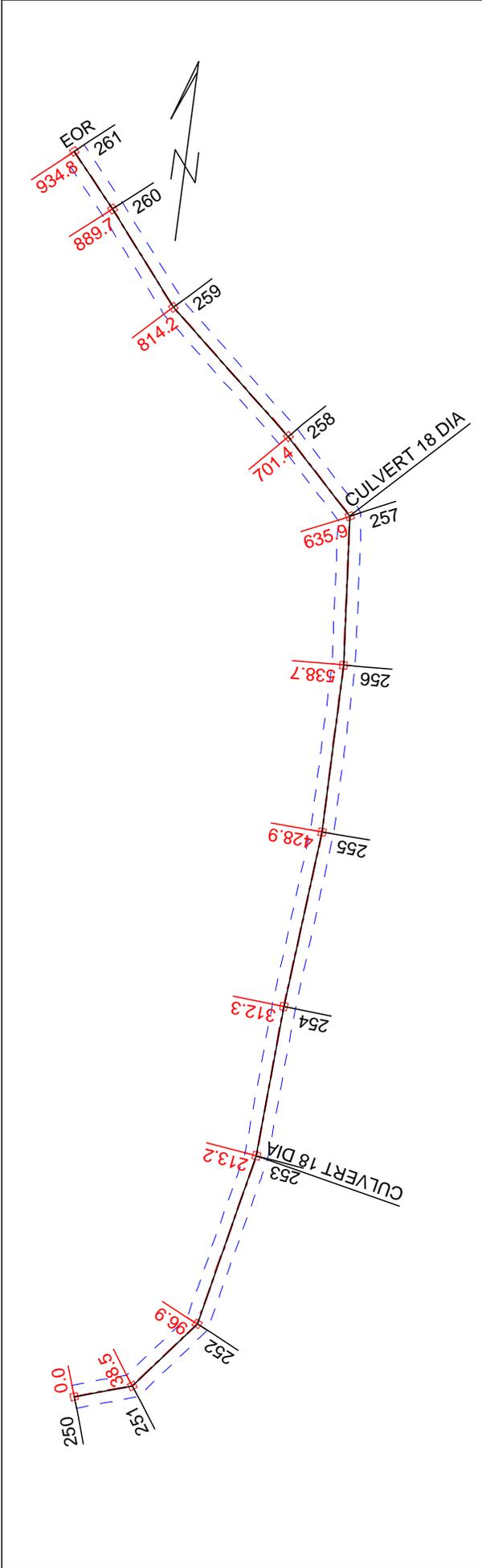
### Termination of Use or End of Season

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

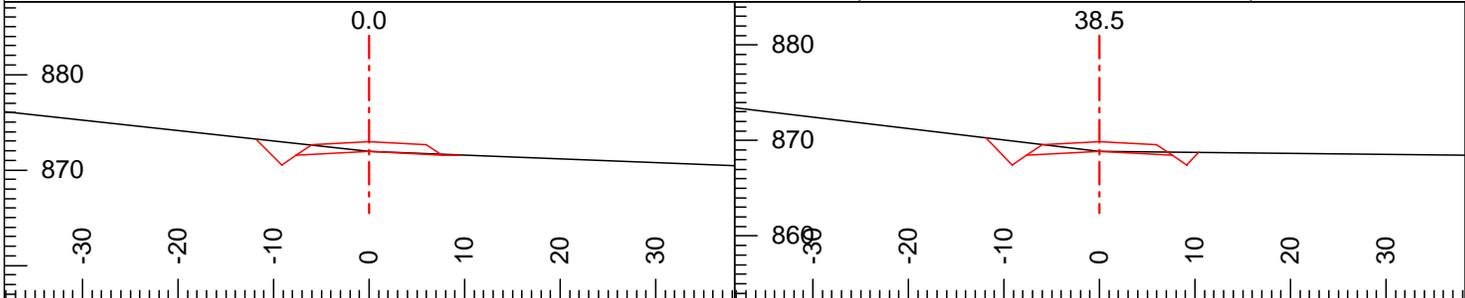
### Debris

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

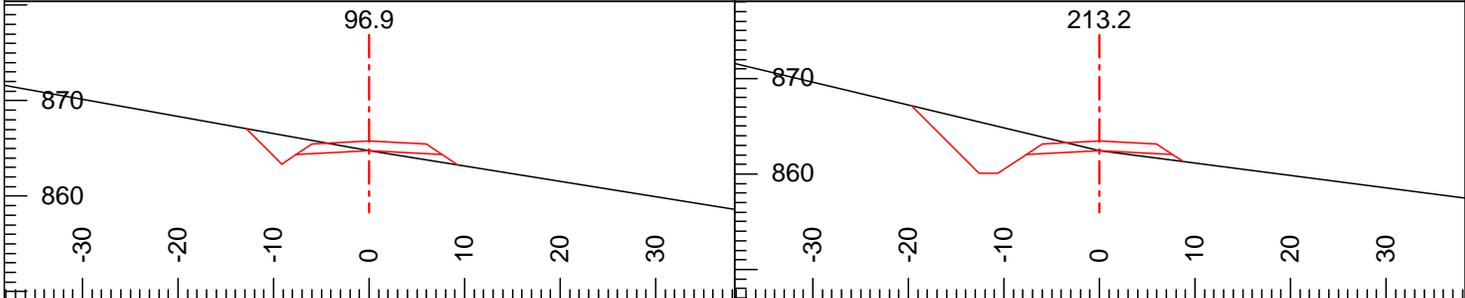




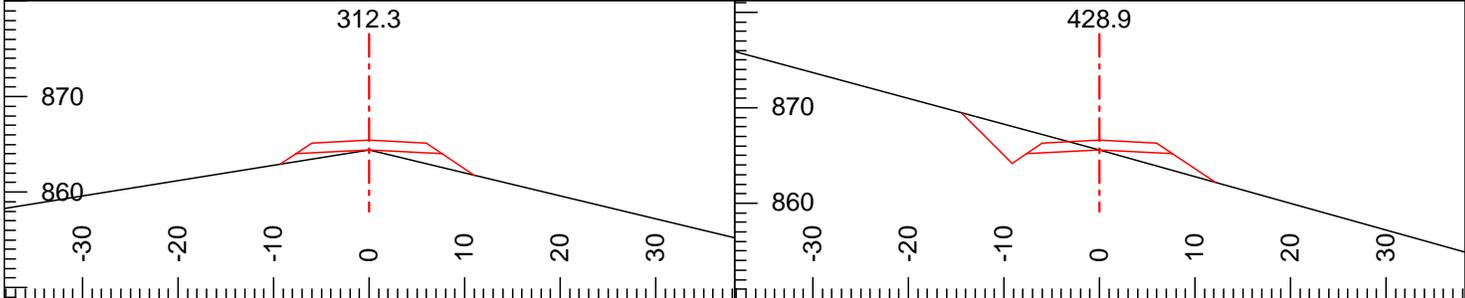
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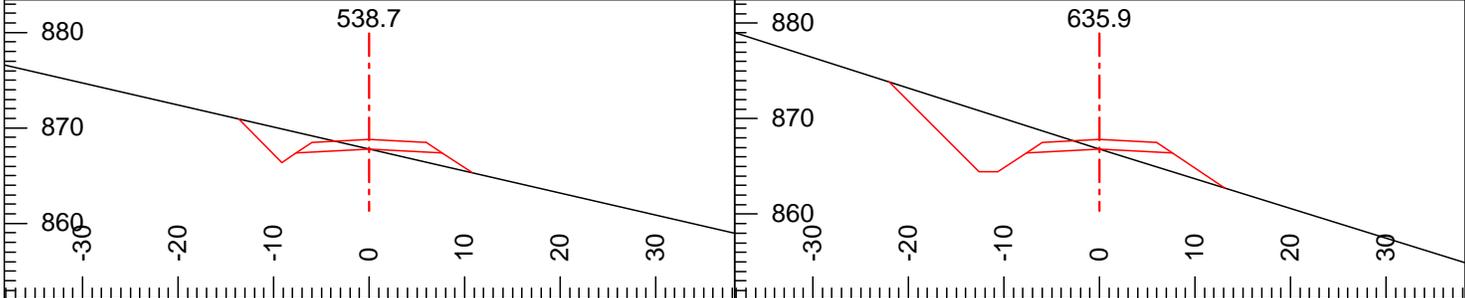
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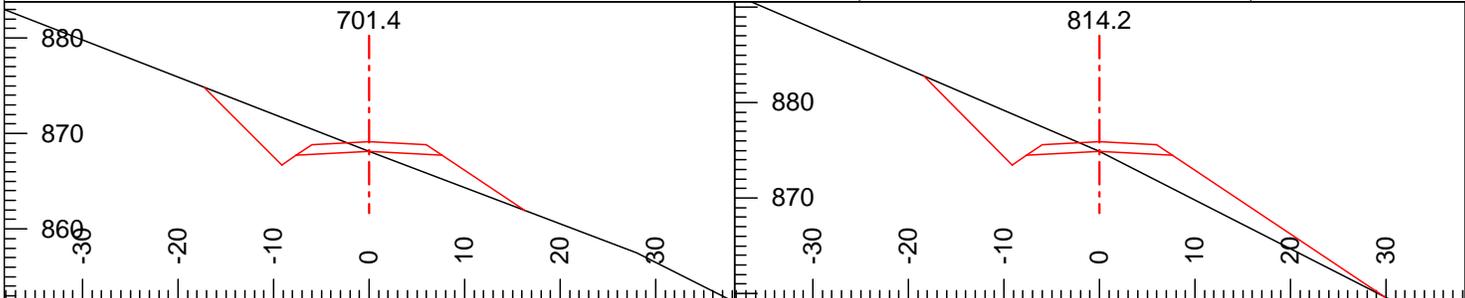
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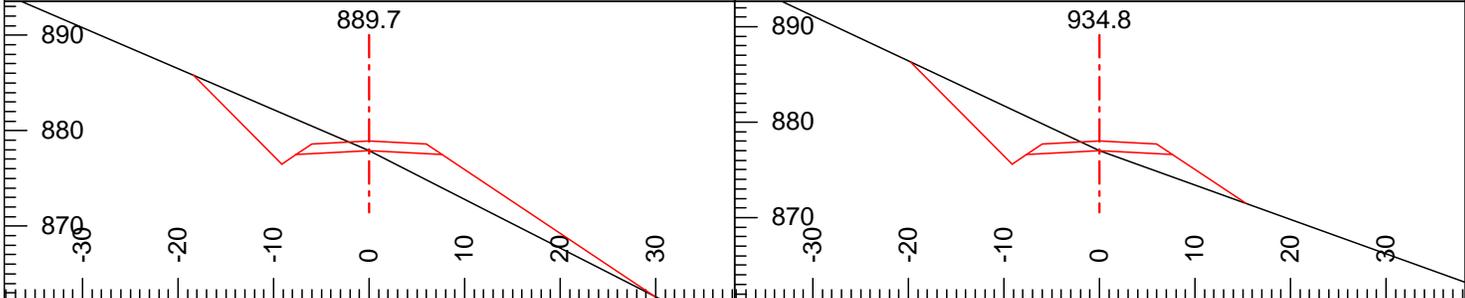
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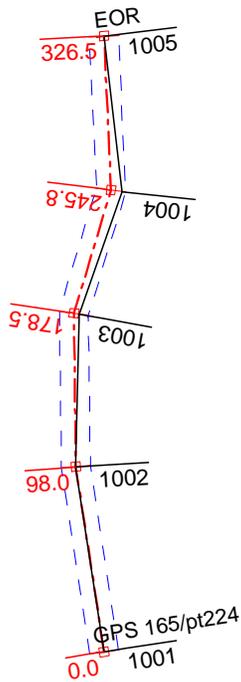
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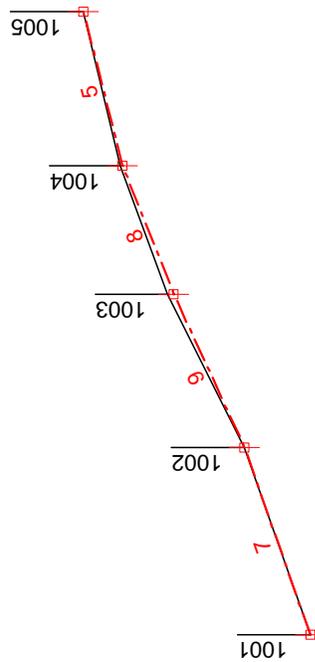
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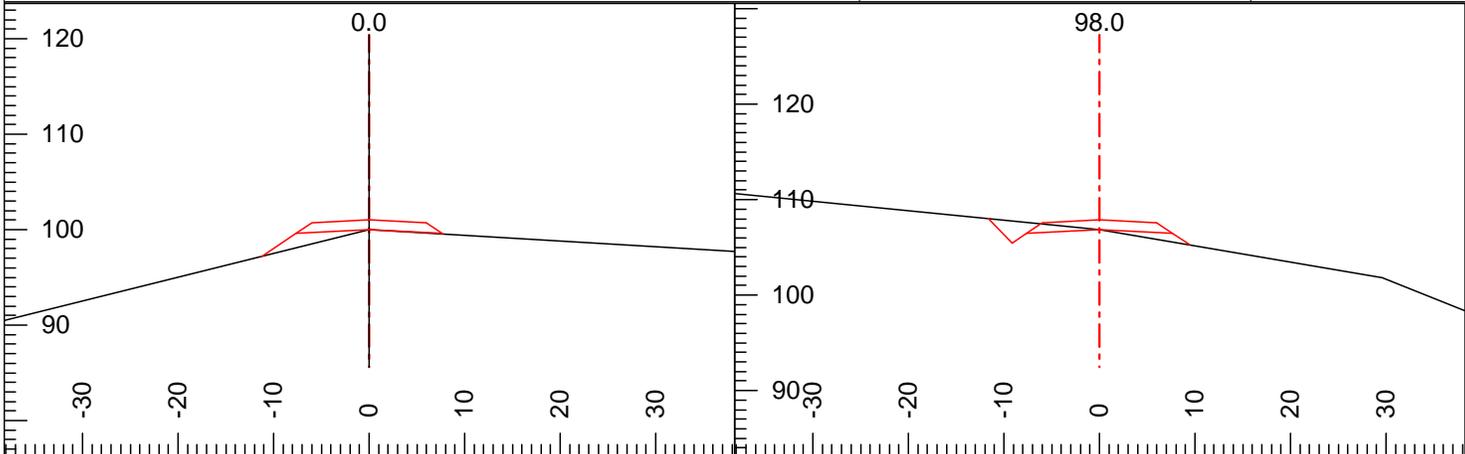


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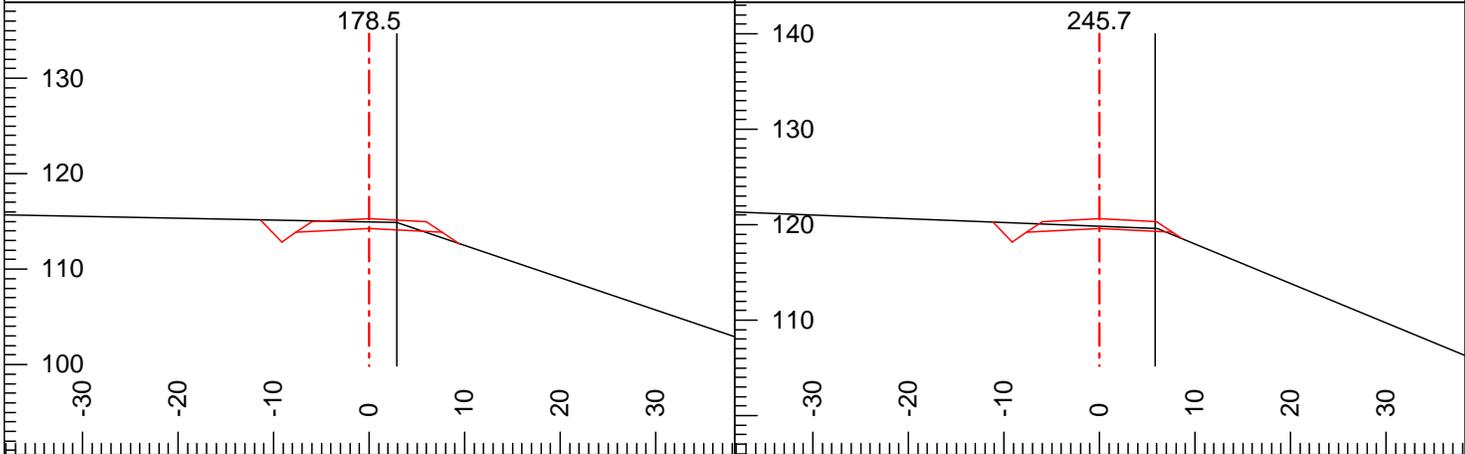
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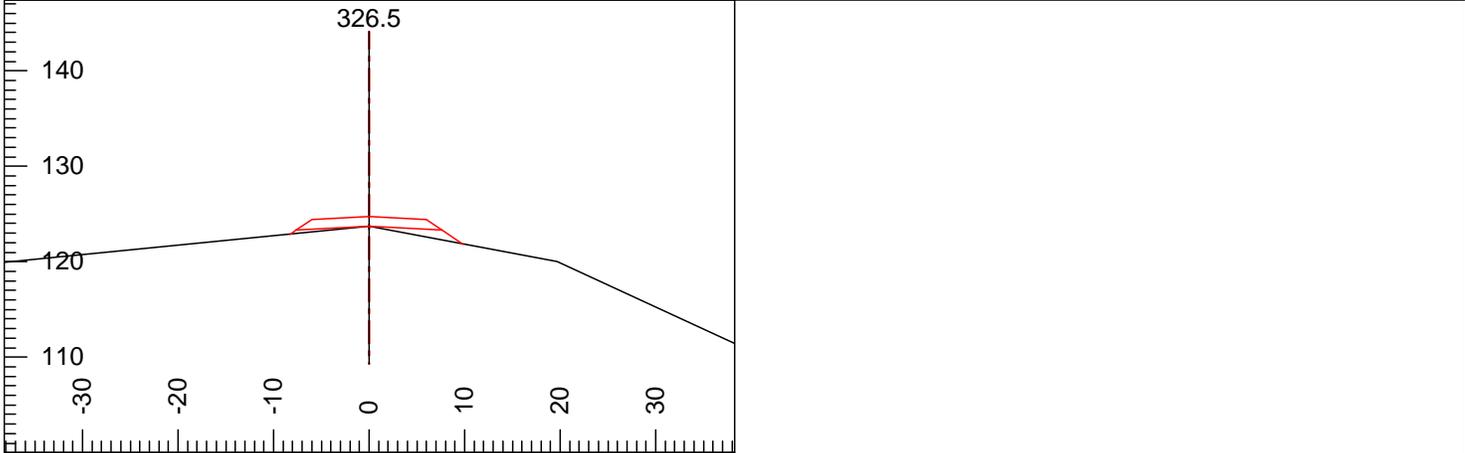
Snikers Timber Sale  
81-3. road April 4, 2016  
Contract #: 30-092941



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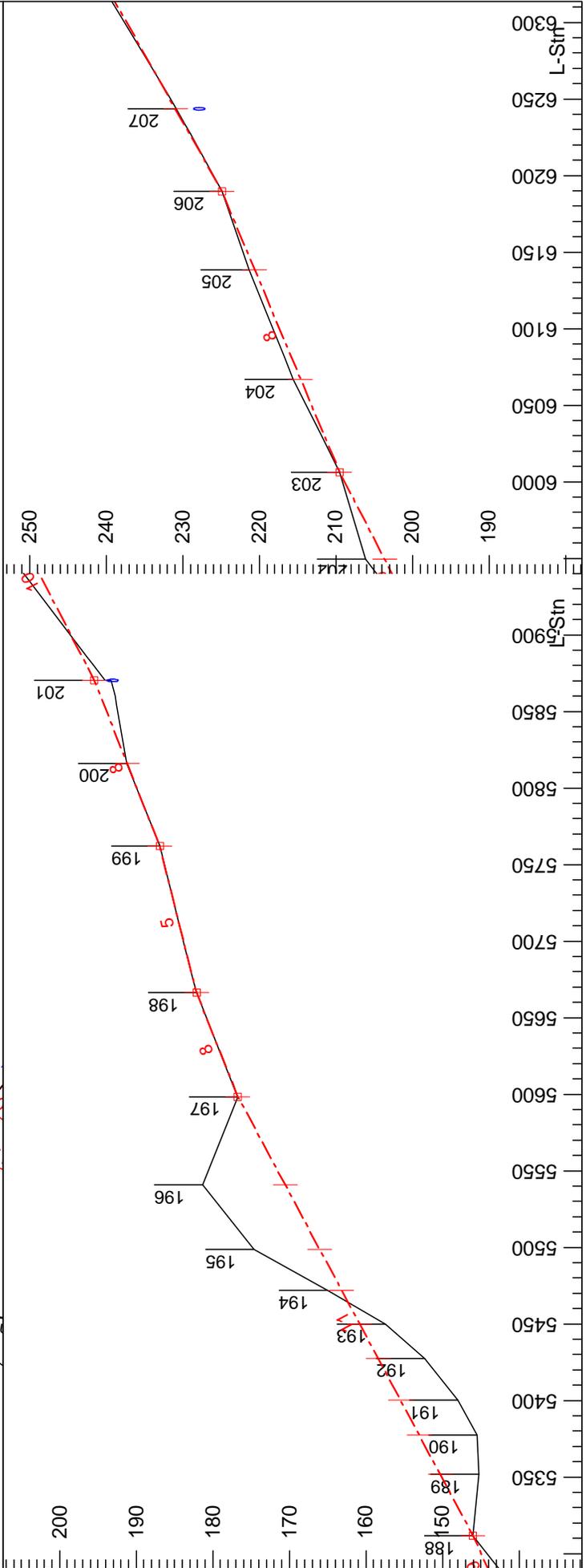
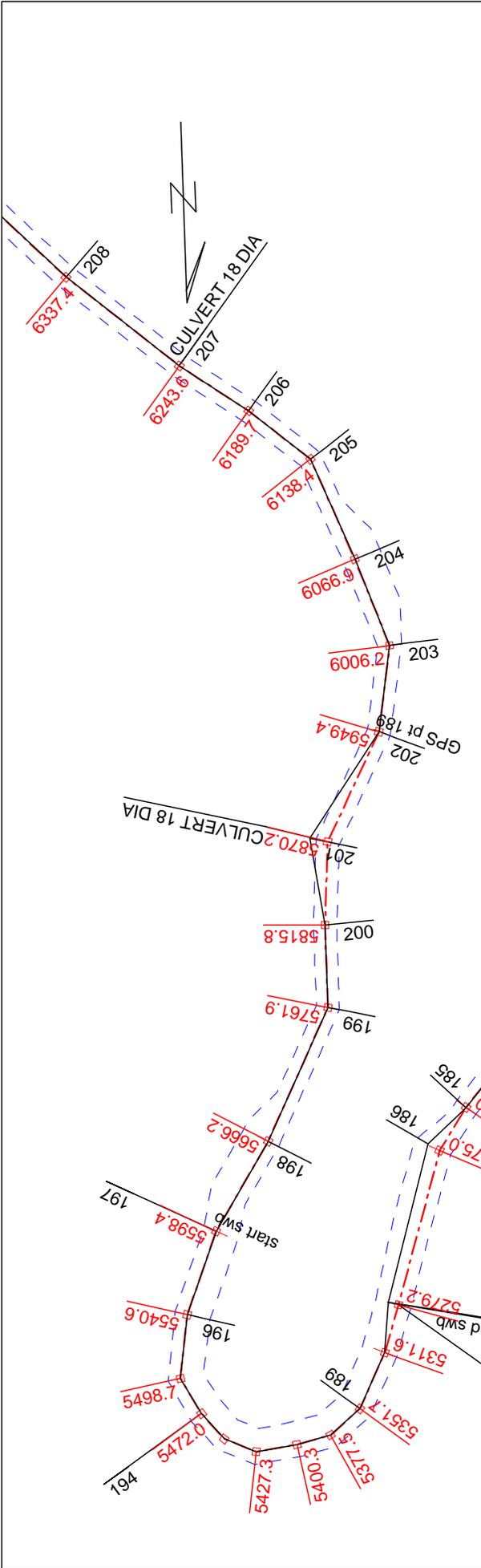


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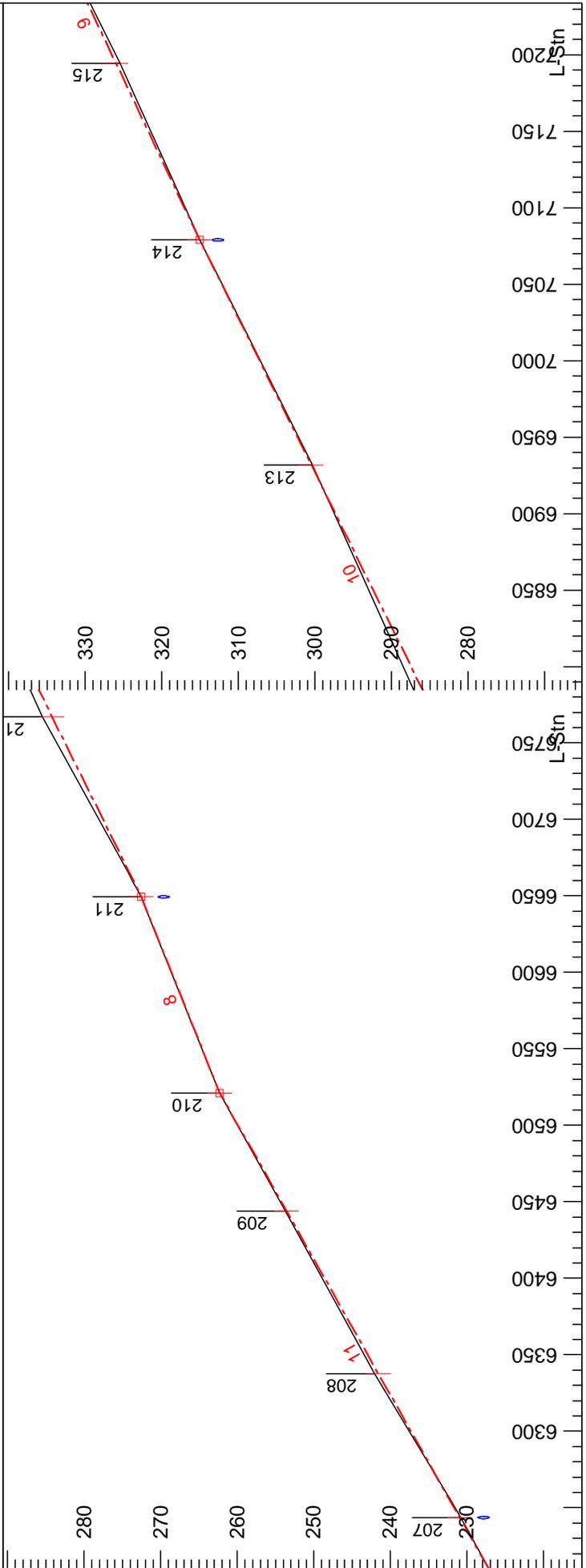
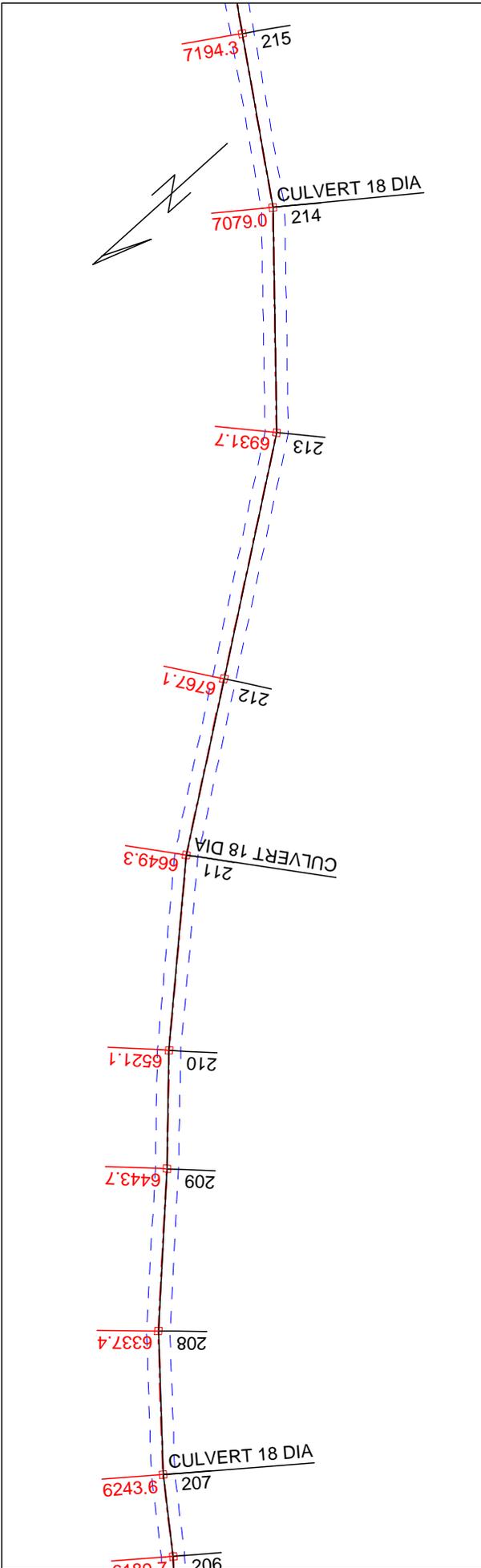
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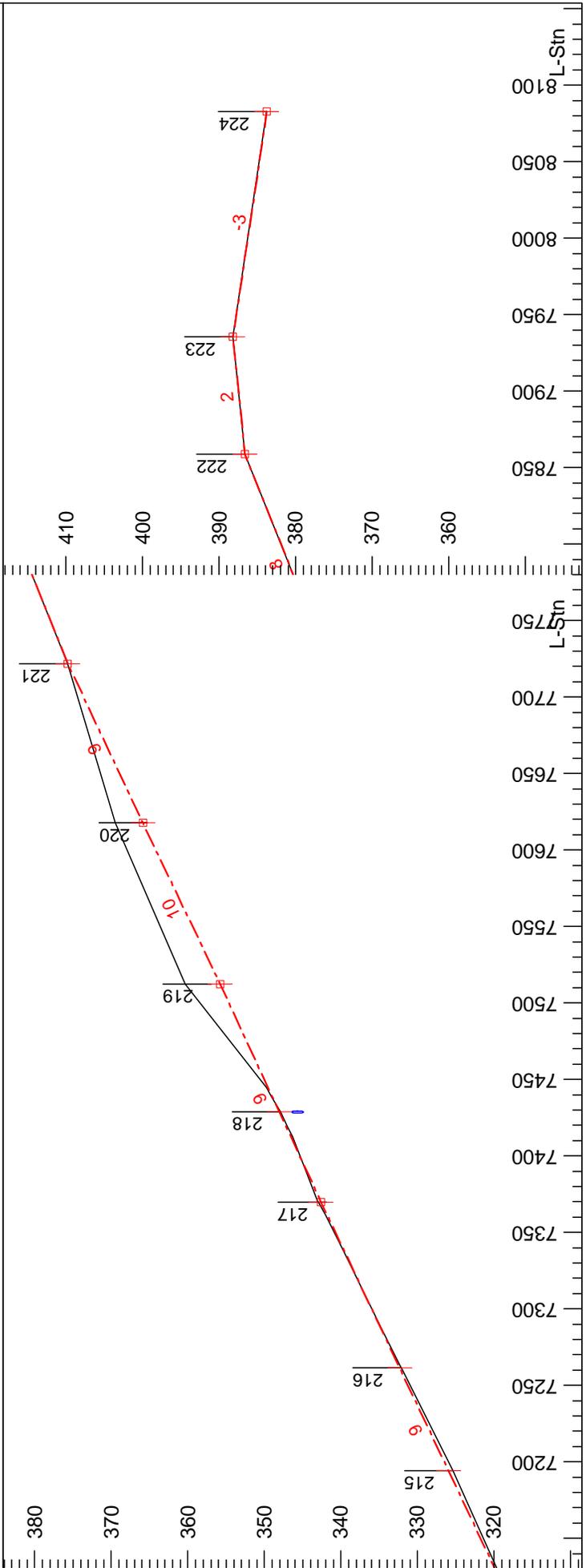
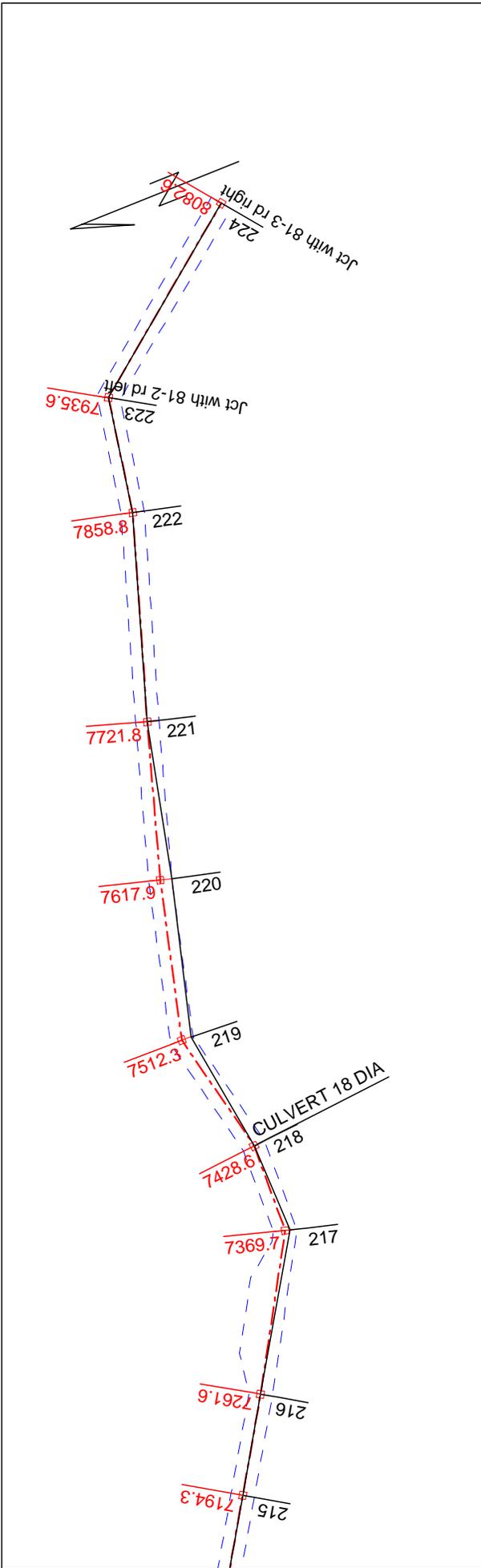
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Snikers Timber Sale  
81ext. road April 4, 2016  
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	Snikers Timber Sale 81ext. road April 4, 2016 Contract #: 30-092941



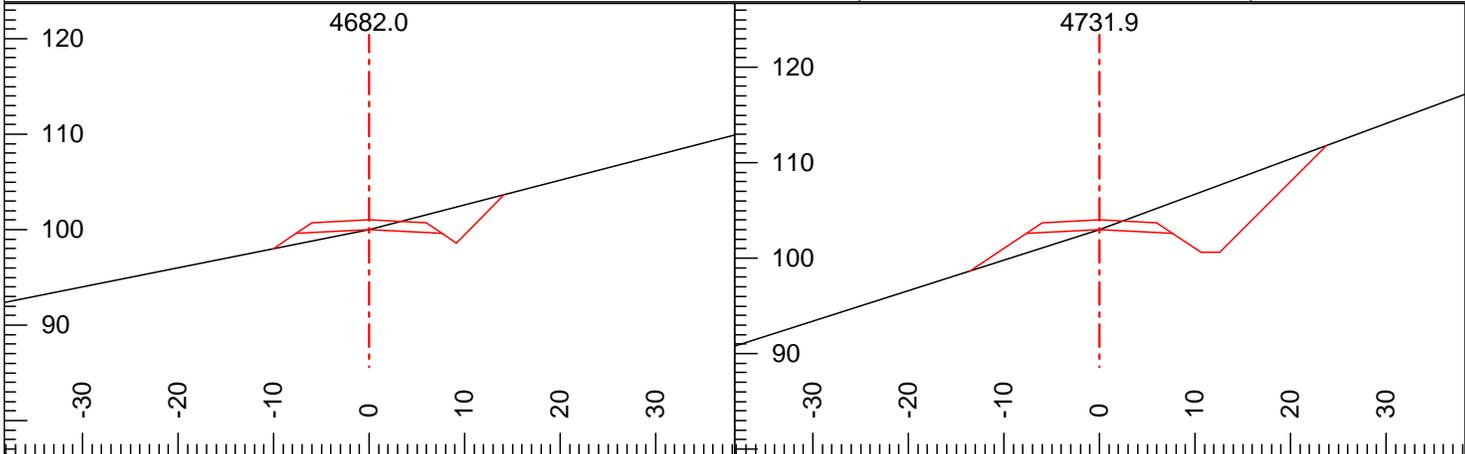
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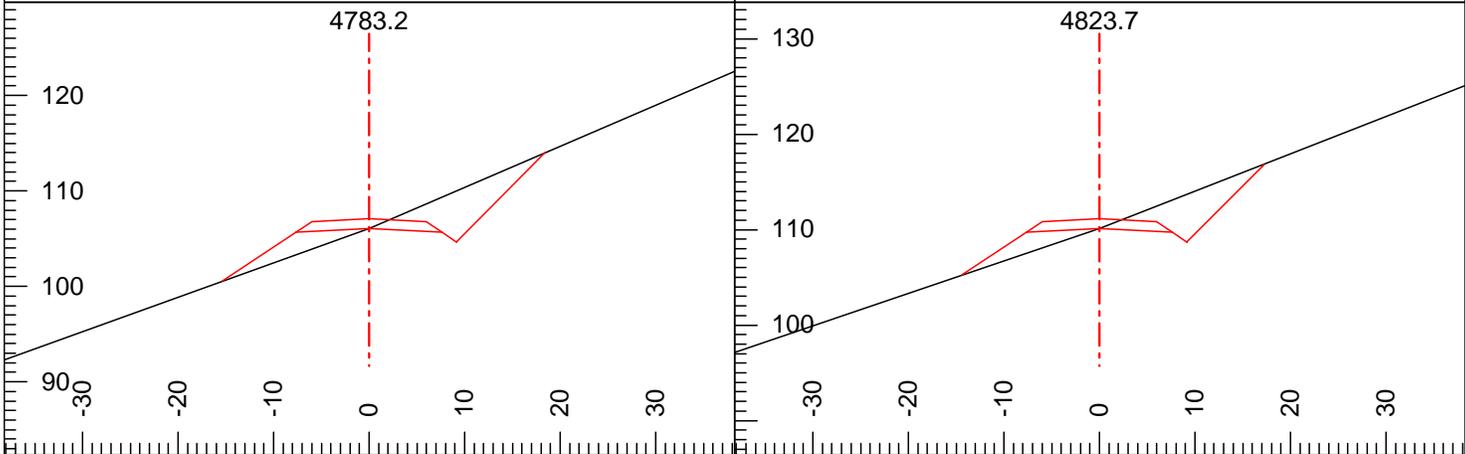
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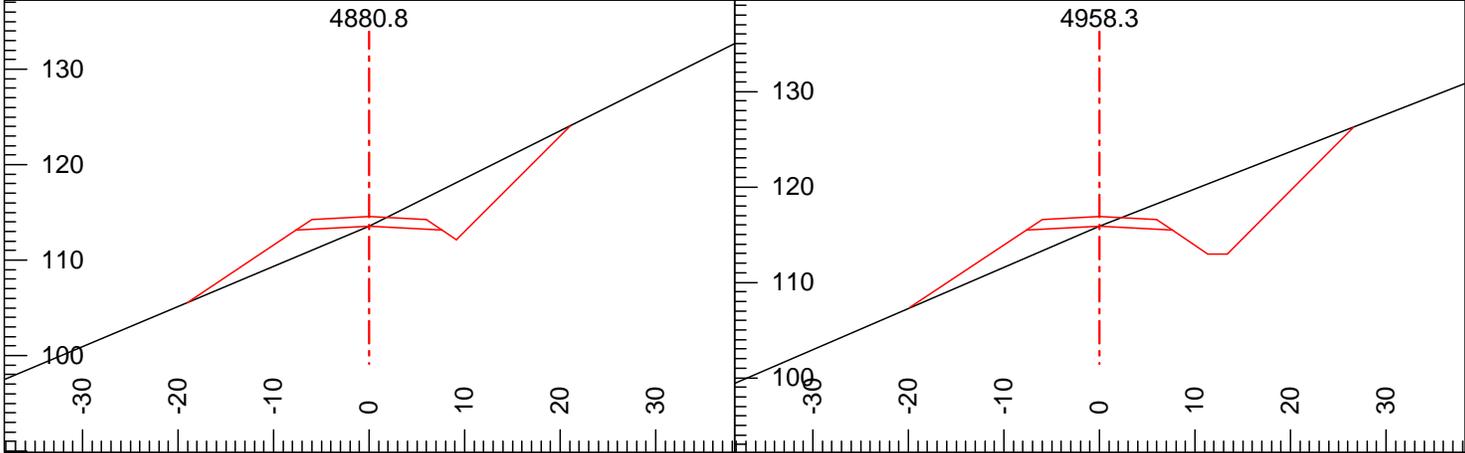
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 81ext. road April 4, 2016  
 Contract #: 30-092941



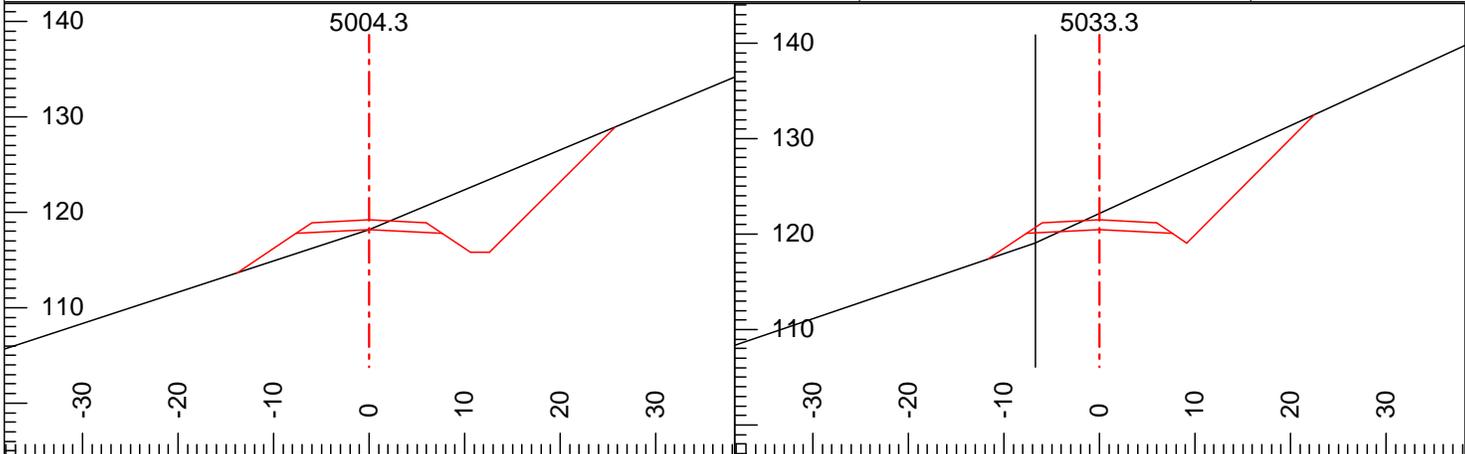
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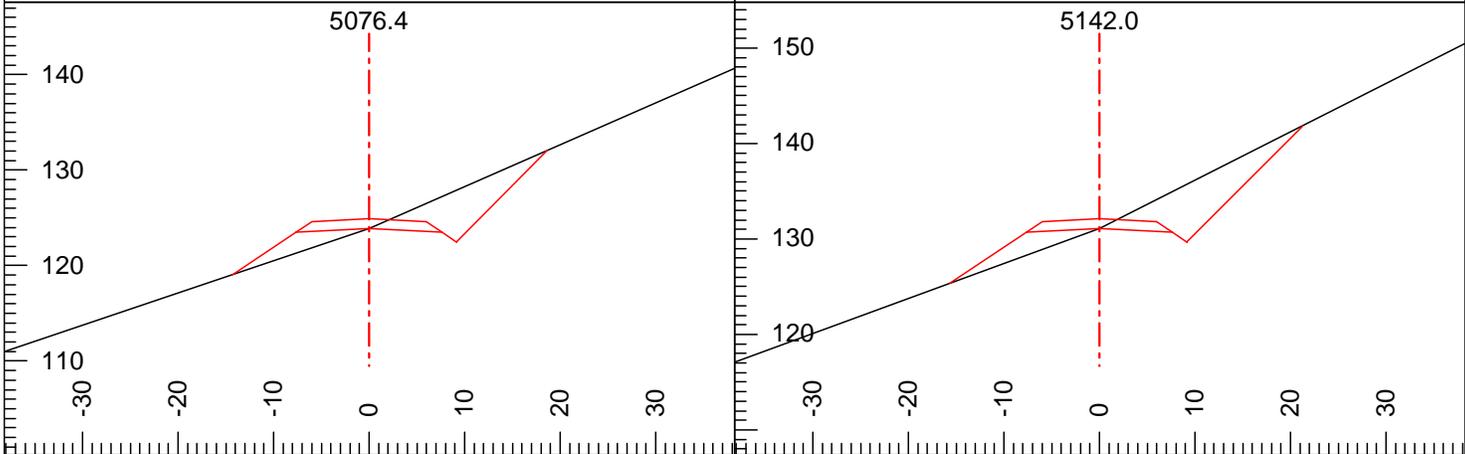
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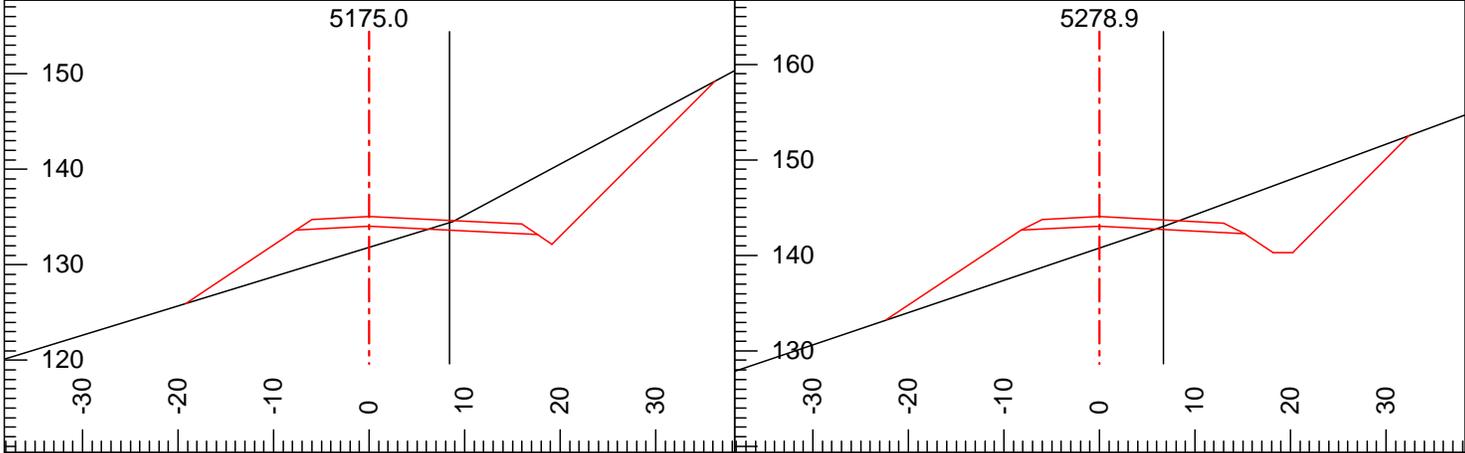
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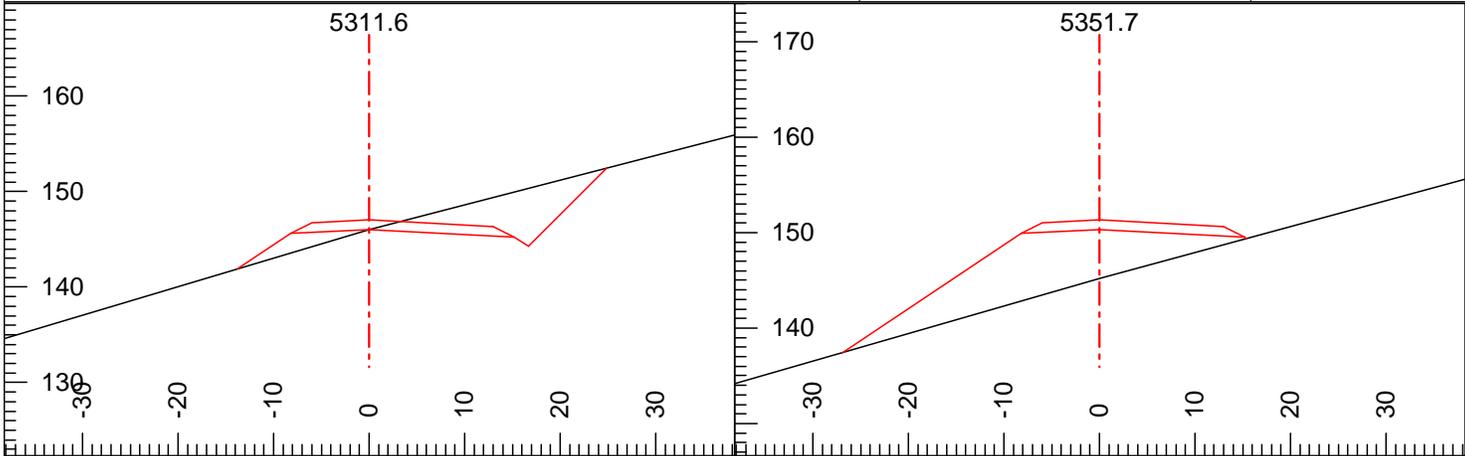
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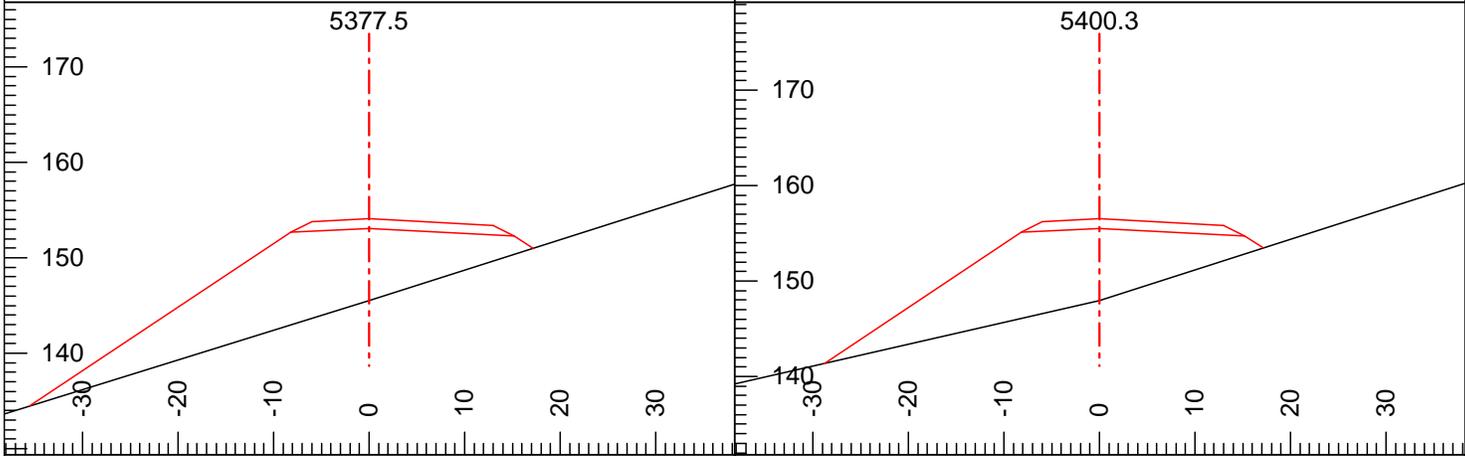
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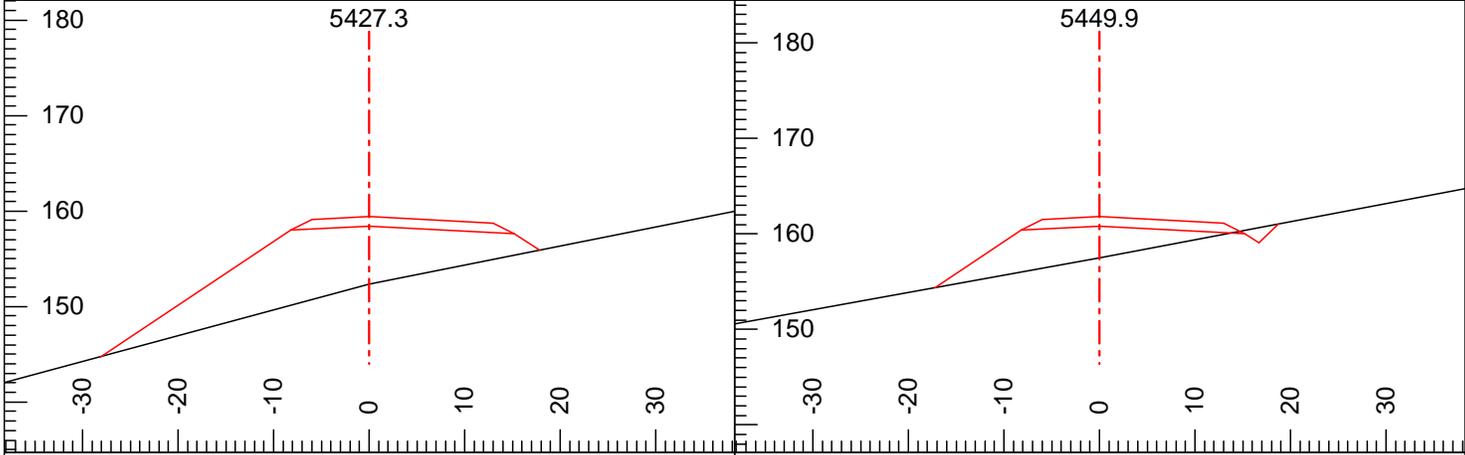
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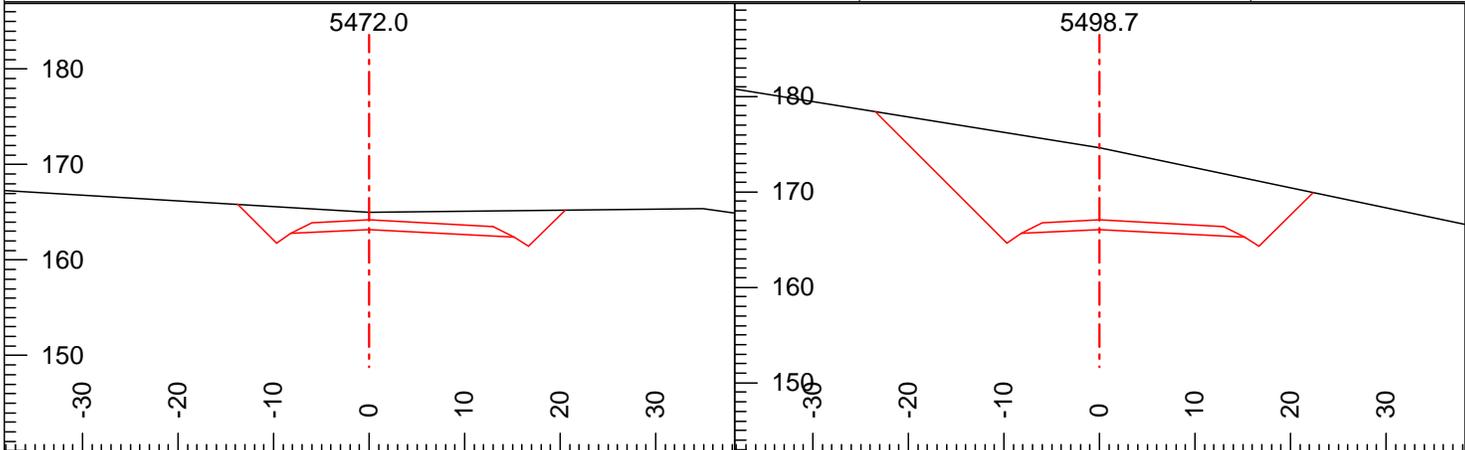
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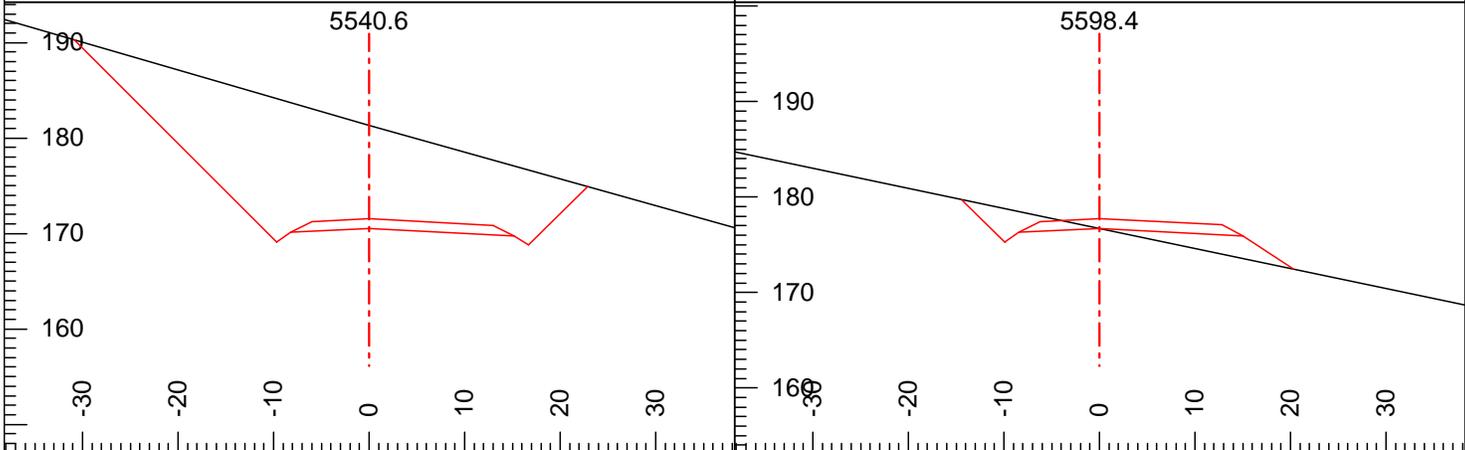
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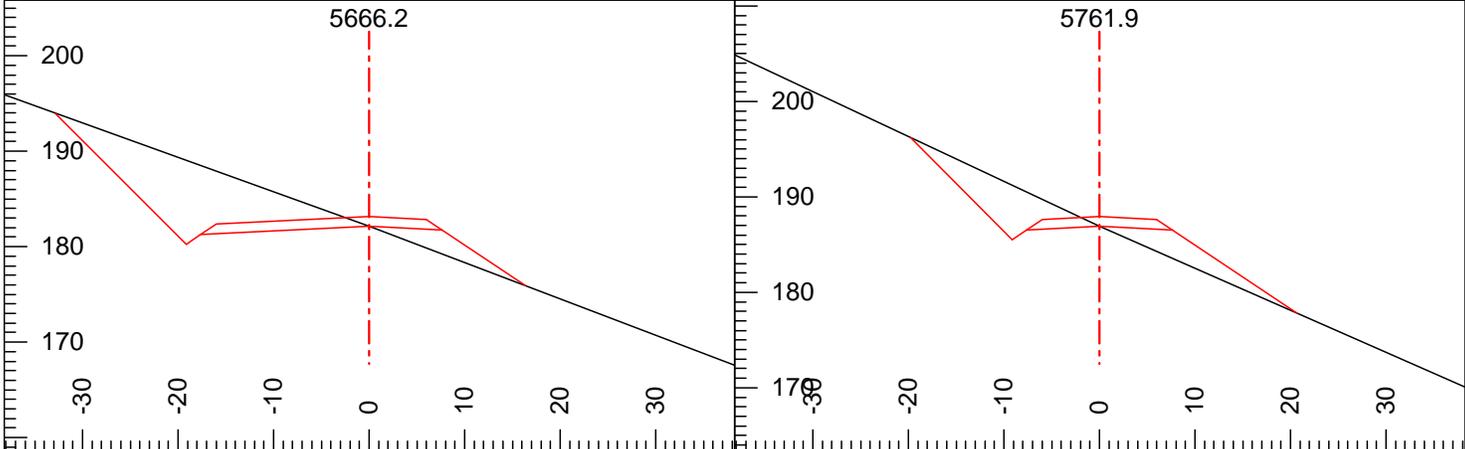
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Grd.Lst:	11	Cut Dp:	-6.1	Rd. Wd. R:	15.2	Grd.Lst:	11	Cut Dp:	-3.3	Rd. Wd. R:	15.2



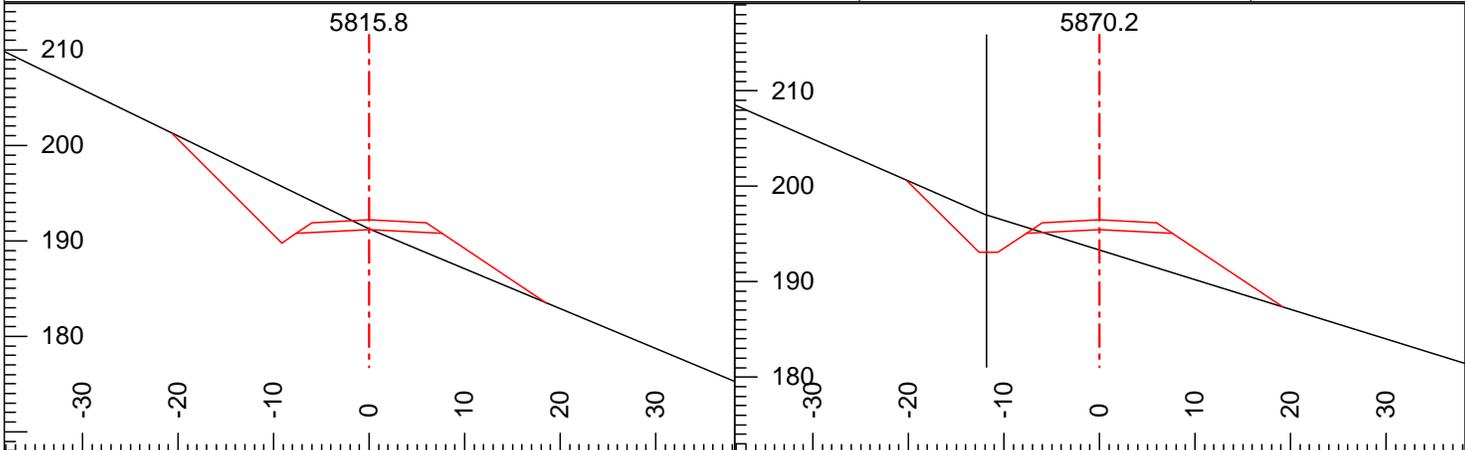
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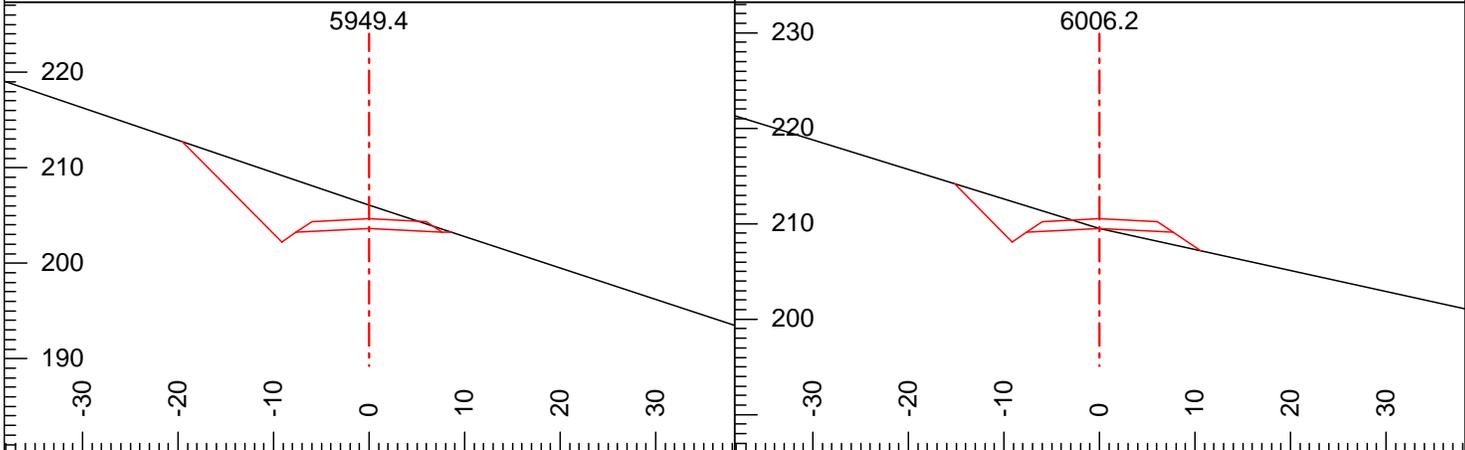
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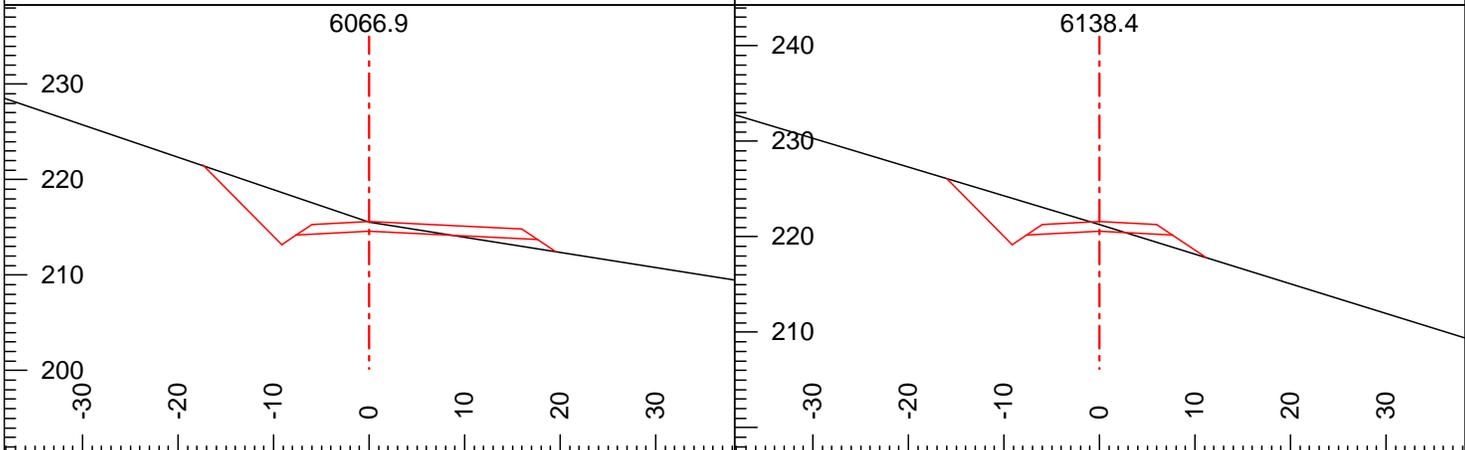
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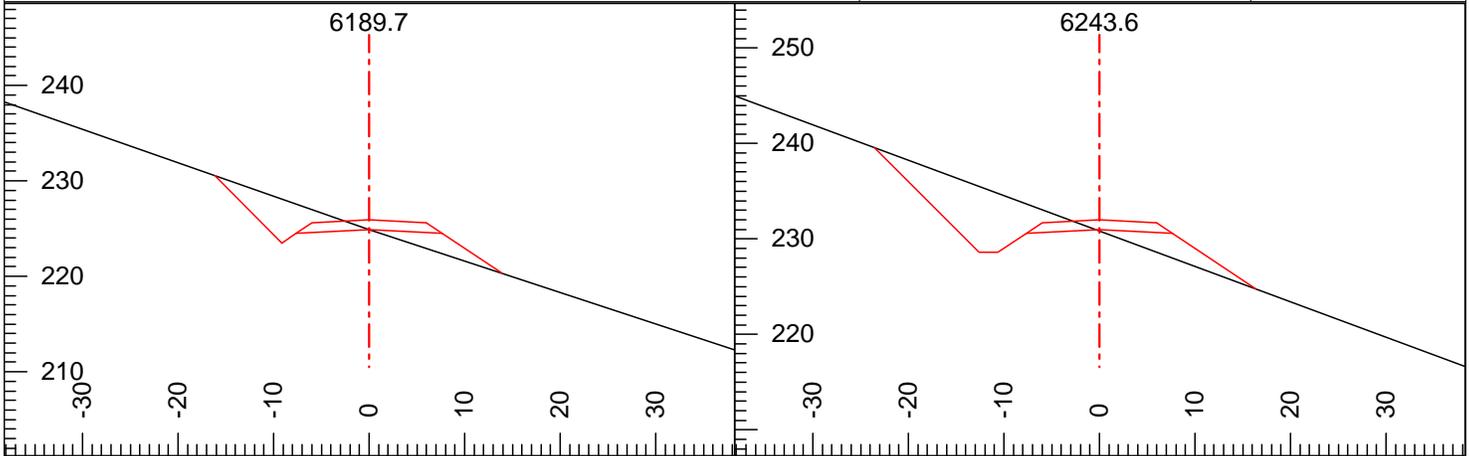
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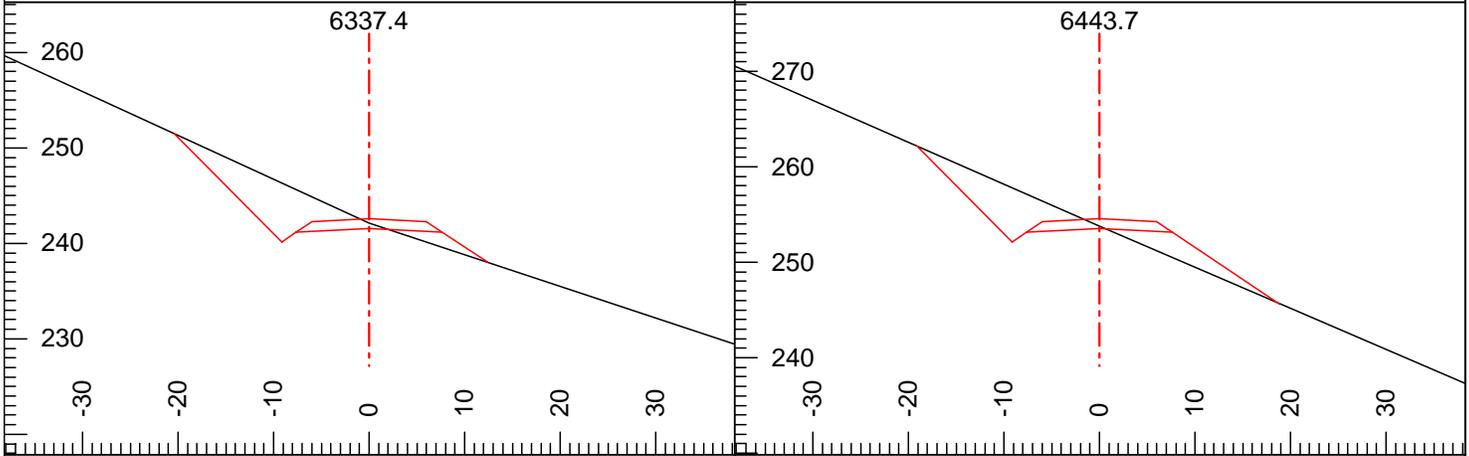
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Grd.Lst: 10 Cut Dp: 2.5 Rd. Wd. R: 7.6	Grd.Lst: 10 Cut Dp: 0.0 Rd. Wd. R: 7.7



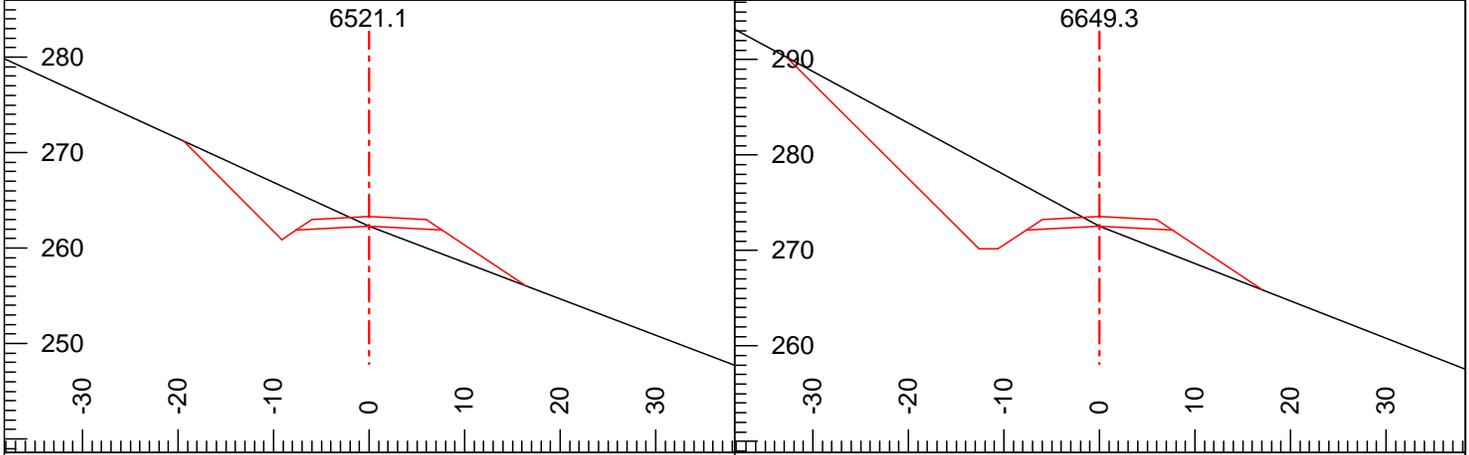
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Grd.Lst: 8 Cut Dp: 1.0 Rd. Wd. R: 17.6	Grd.Lst: 8 Cut Dp: 0.7 Rd. Wd. R: 7.6



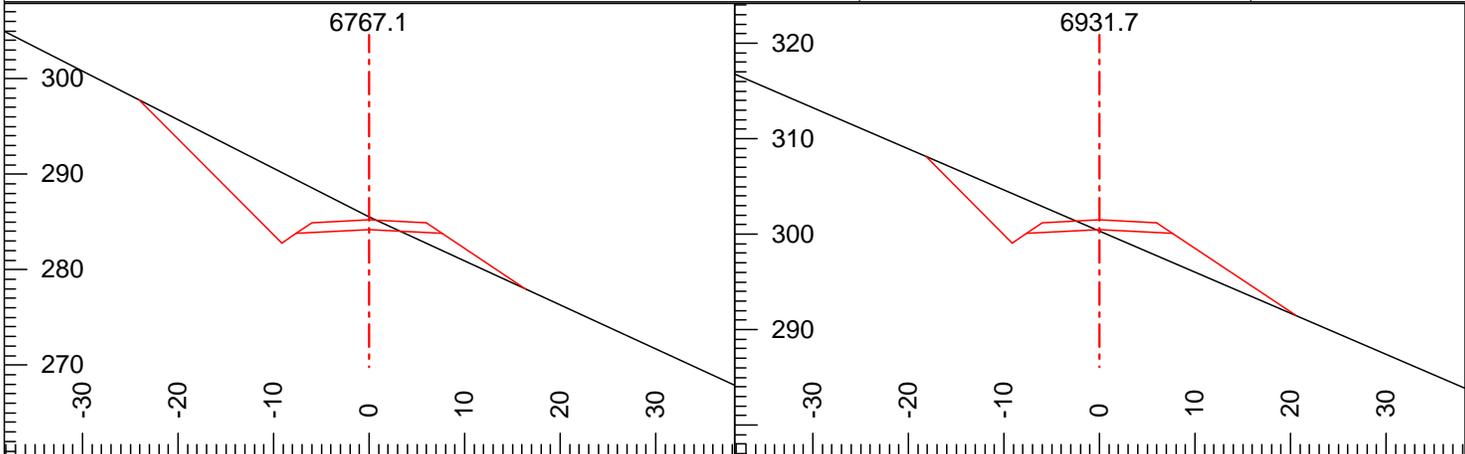
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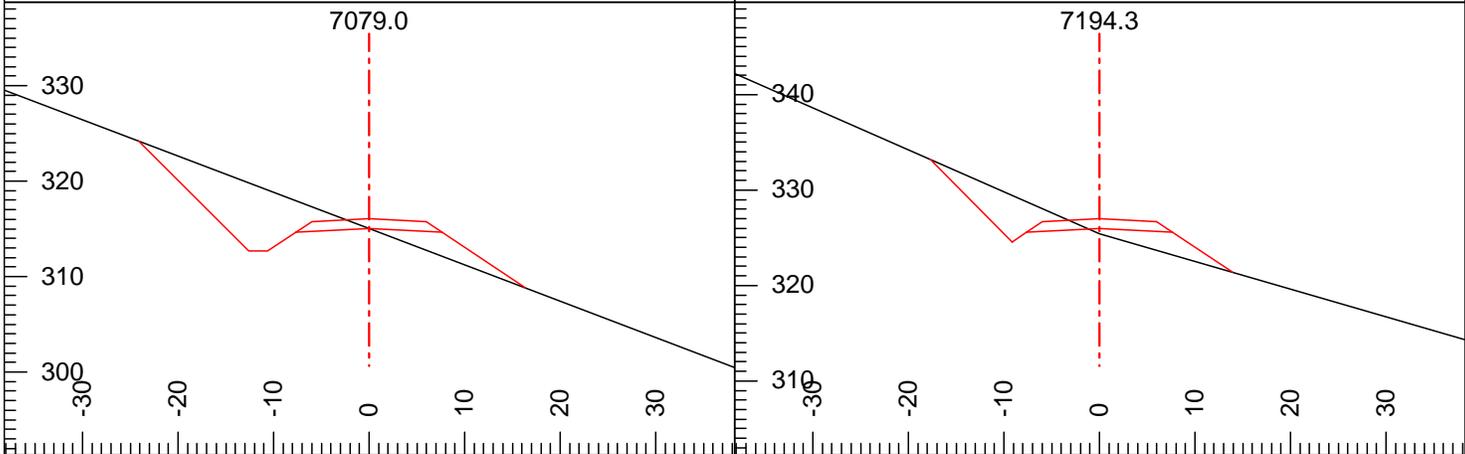
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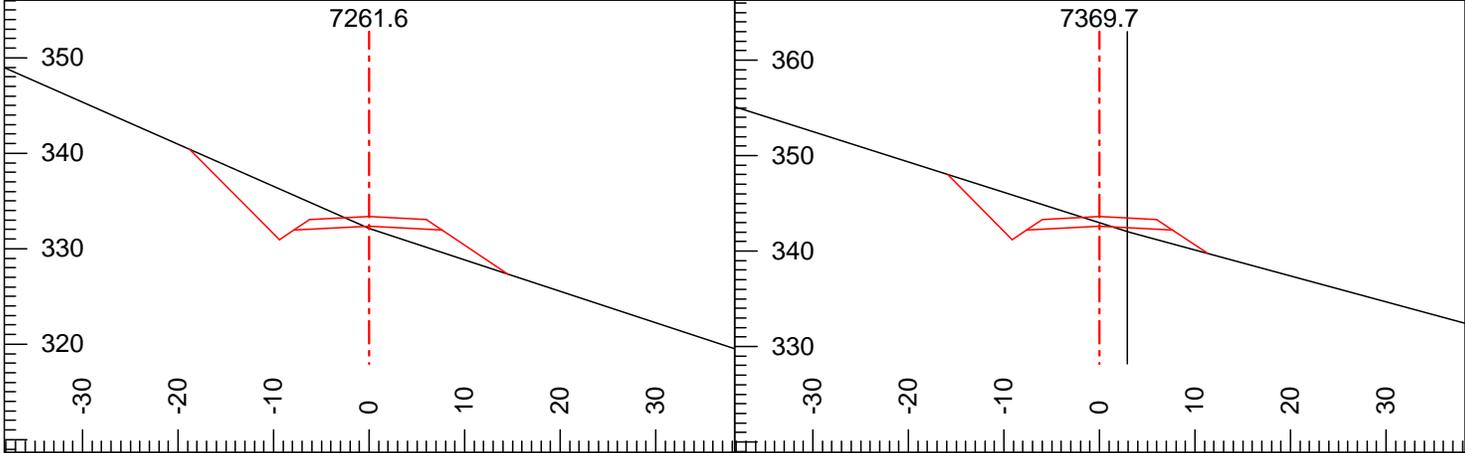
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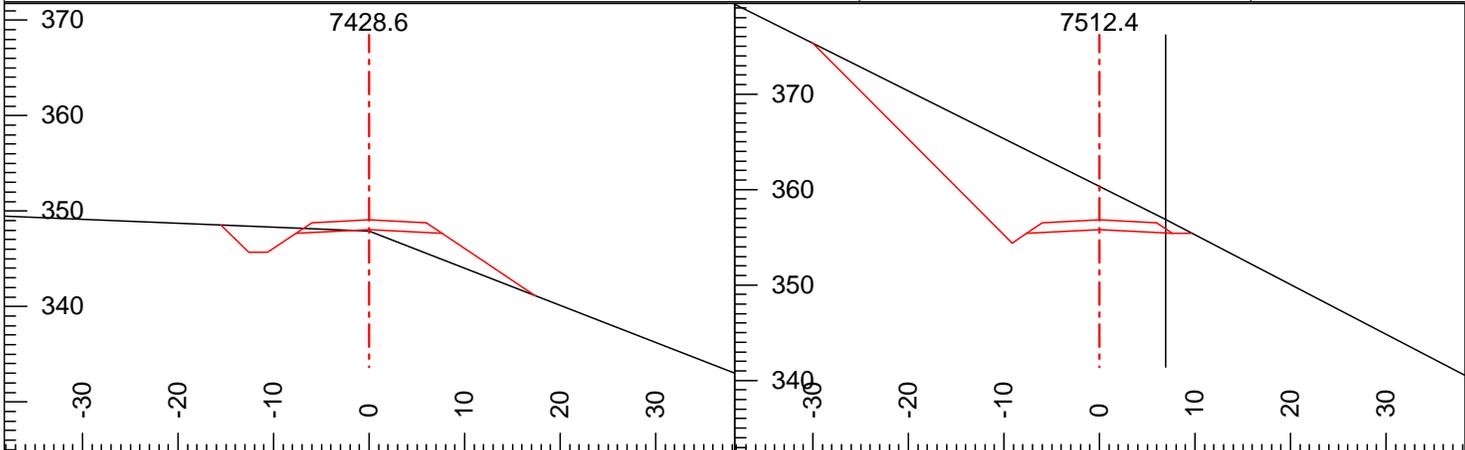
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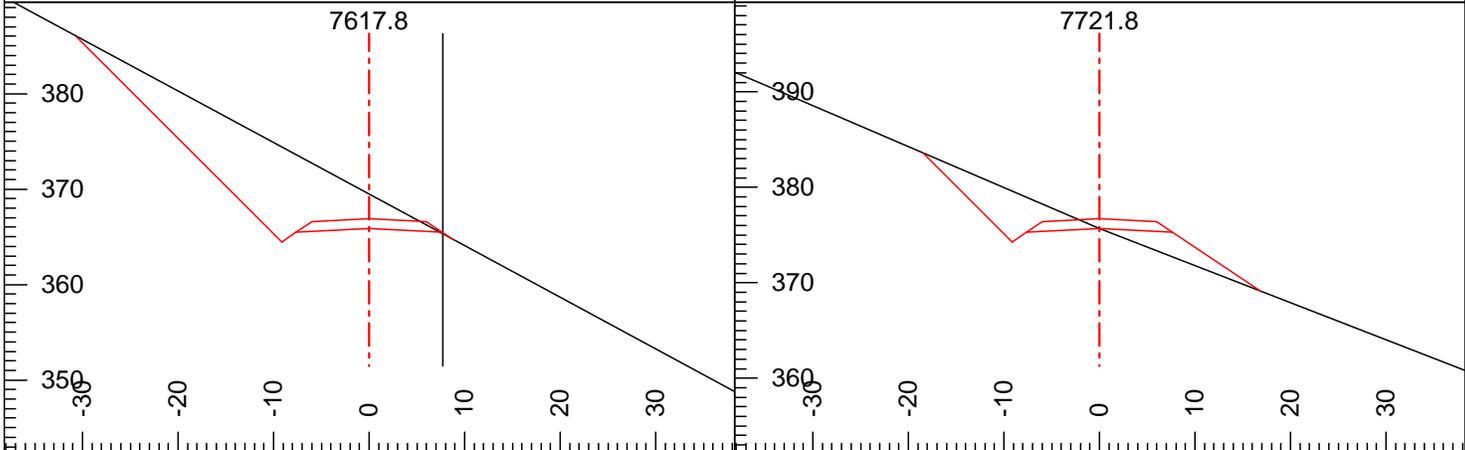
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Grd.Lst:	10	Cut Dp:	0.0	Rd. Wd. R:	7.6	Grd.Lst:	9	Cut Dp:	-0.6	Rd. Wd. R:	7.6



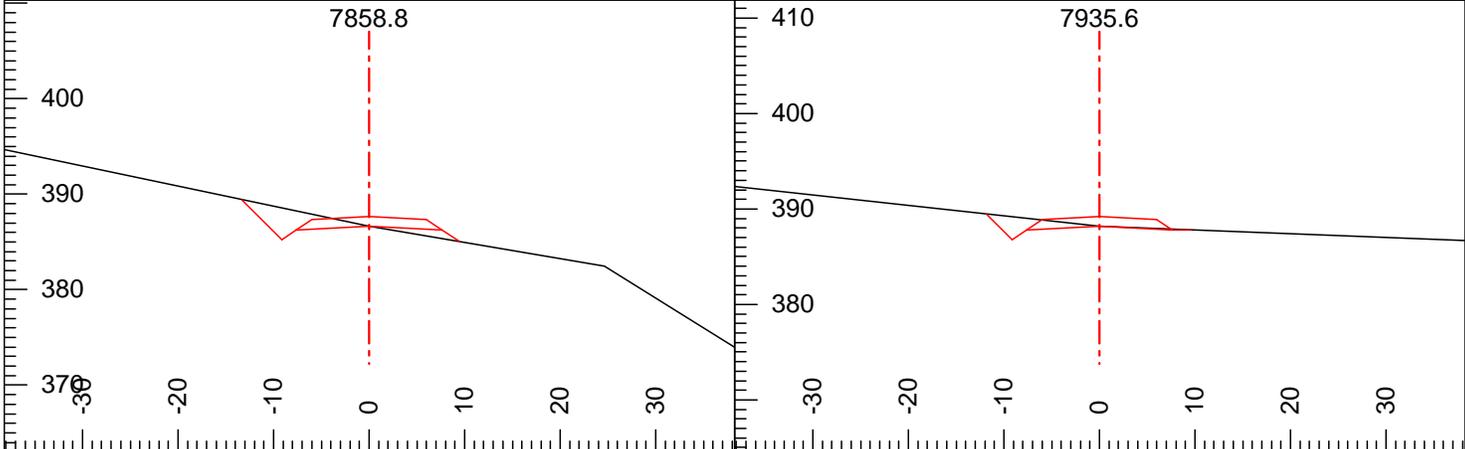
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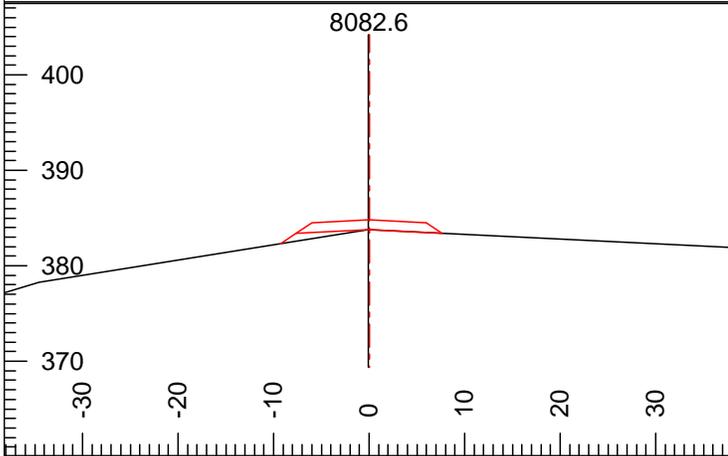
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Grd.Lst:	9	Cut Dp:	-0.1	Rd. Wd. R:	7.6	Grd.Lst:	10	Cut Dp:	4.5	Rd. Wd. R:	7.6



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L-Strn:	7858.8	Ssl:	21	CL Elev:	386.7	L-Strn:	7935.6	Ssl:	11	CL Elev:	388.2
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Grd.Lst:	8	Cut Dp:	0.0	Rd. Wd. R:	7.6	Grd.Lst:	2	Cut Dp:	0.0	Rd. Wd. R:	7.6



L-Strn:	8082.6	Ssl:	-16	CL Elev:	383.8
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**Rock Pit Name: Charcoal Pit**

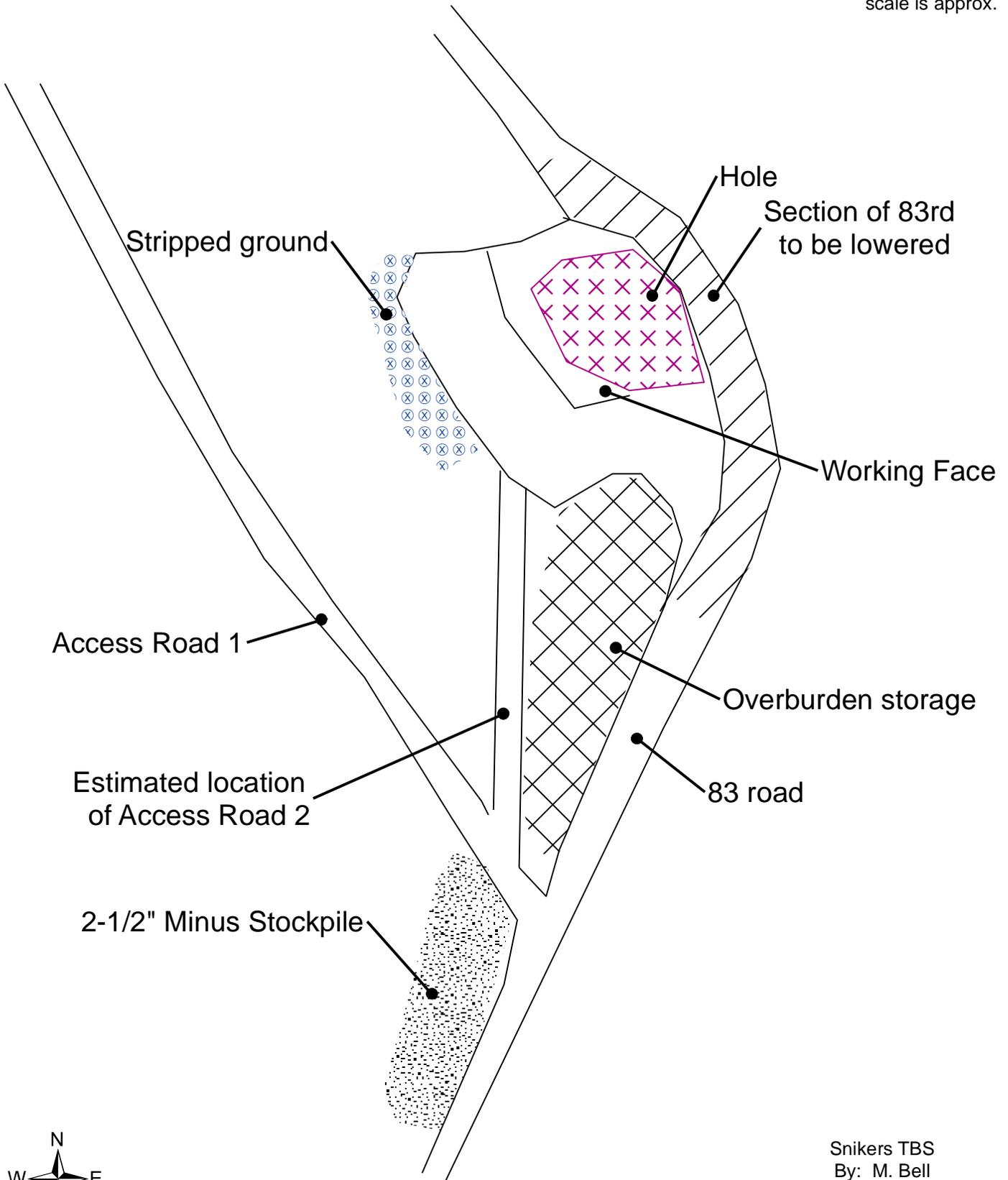
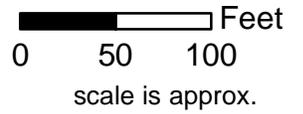
**Legal Description: SE ¼ NW ¼ Section 35 Township 16 North Range 5 East**

### **PIT DEVELOPMENT PLAN**

- 1) Pile debris in clean, burnable piles as directed by the Contract Administrator.
- 2) Removal of rock from the stockpile must have prior written approval from the Contract Administrator.
- 3) A minimum stripping width of 20 feet must be maintained from all pit faces and at the termination of operations pit shall be left in said condition. No undercutting shall be permitted.
- 4) Pile all reject rock and overburden away from pit working area as shown and separate from debris.
- 5) Pit floor shall be sloped to allow drainage into either the existing hole or across the 83 road.
- 6) Maximum face height shall be 20 feet.
- 7) The width of pit benches shall be a minimum of 1.5 times the maximum length of the largest machine used or 20 feet, whichever is greater.
- 8) Working face is the hole. Purchaser may enlarge the hole to within 20 feet of the existing pit face. Hole elevation shall not be lowered without prior written approval from the Contract Administrator.
- 9) When the pit floor next to the 83 road is lowered the 83 road shall be lowered the same amount. 83 road shall be sloped to allow passage of vehicles. Road grade shall not exceed 16%.
- 10) Prior to the completion of operation, rip rap shall be placed around the hole as directed by the Contract Administrator.
- 11) At the completion of operations, Purchaser shall request written approval from the Contract Administrator for final rock source condition and compliance with the terms of this plan.
- 12) Quantity and quality of ballast pit are not guaranteed by the State.
- 13) See "Charcoal Pit Plan View" drawing for additional information.

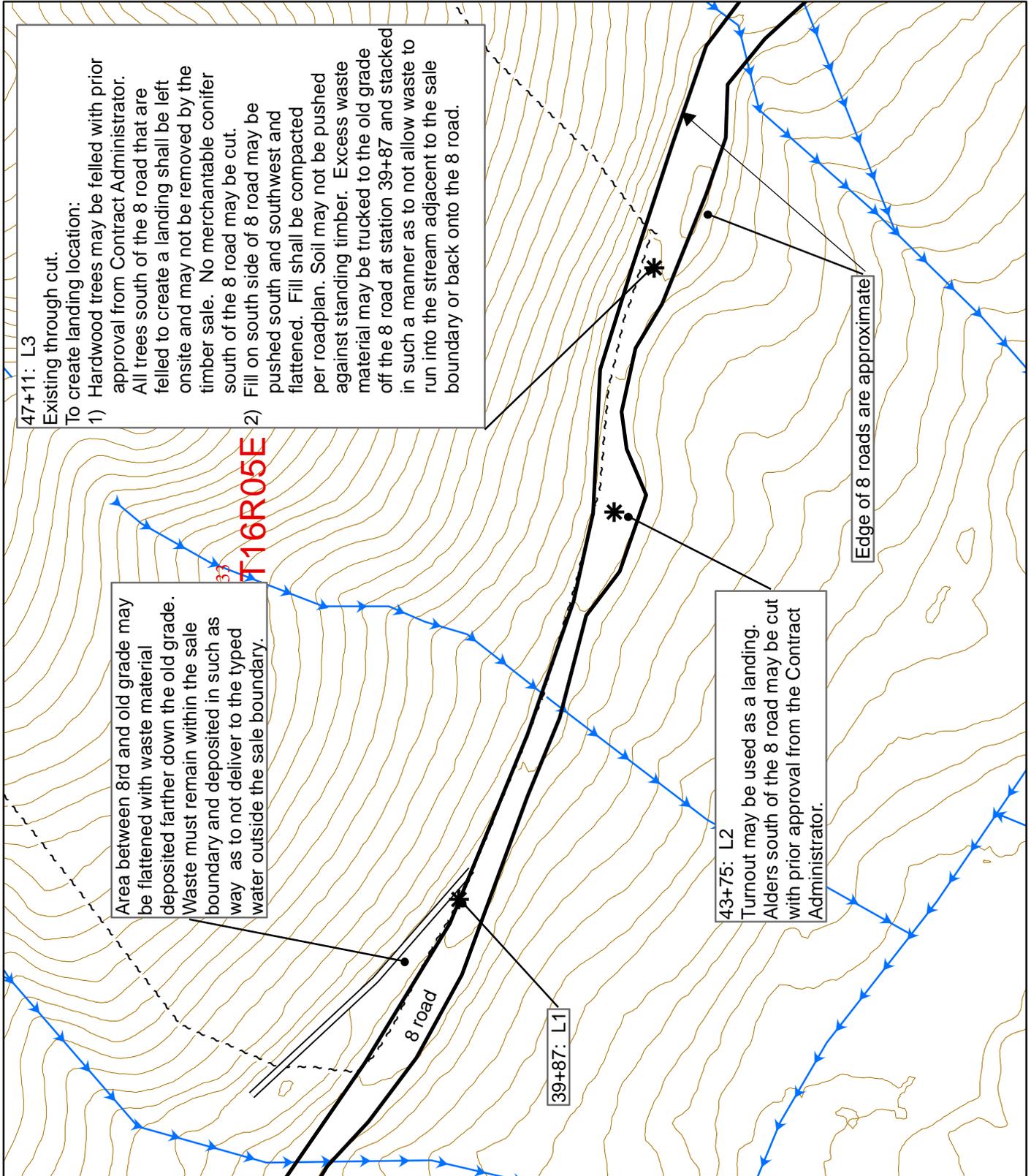
# Charcoal Pit Plan View

1 inch equals 100 feet



Snikers TBS  
By: M. Bell  
Updated: 4-26-16

# Snikers TBS - 8Rd Landing Construction Detail



47+11: L3  
Existing through cut.  
To create landing location:  
1) Hardwood trees may be felled with prior approval from Contract Administrator. All trees south of the 8 road that are felled to create a landing shall be left onsite and may not be removed by the timber sale. No merchantable conifer south of the 8 road may be cut.  
2) Fill on south side of 8 road may be pushed south and southwest and flattened. Fill shall be compacted per roadplan. Soil may not be pushed against standing timber. Excess waste material may be trucked to the old grade off the 8 road at station 39+87 and stacked in such a manner as to not allow waste to run into the stream adjacent to the sale boundary or back onto the 8 road.

Area between 8rd and old grade may be flattened with waste material deposited farther down the old grade. Waste must remain within the sale boundary and deposited in such a way as to not deliver to the typed water outside the sale boundary.

43+75: L2  
Turnout may be used as a landing. Alders south of the 8 road may be cut with prior approval from the Contract Administrator.

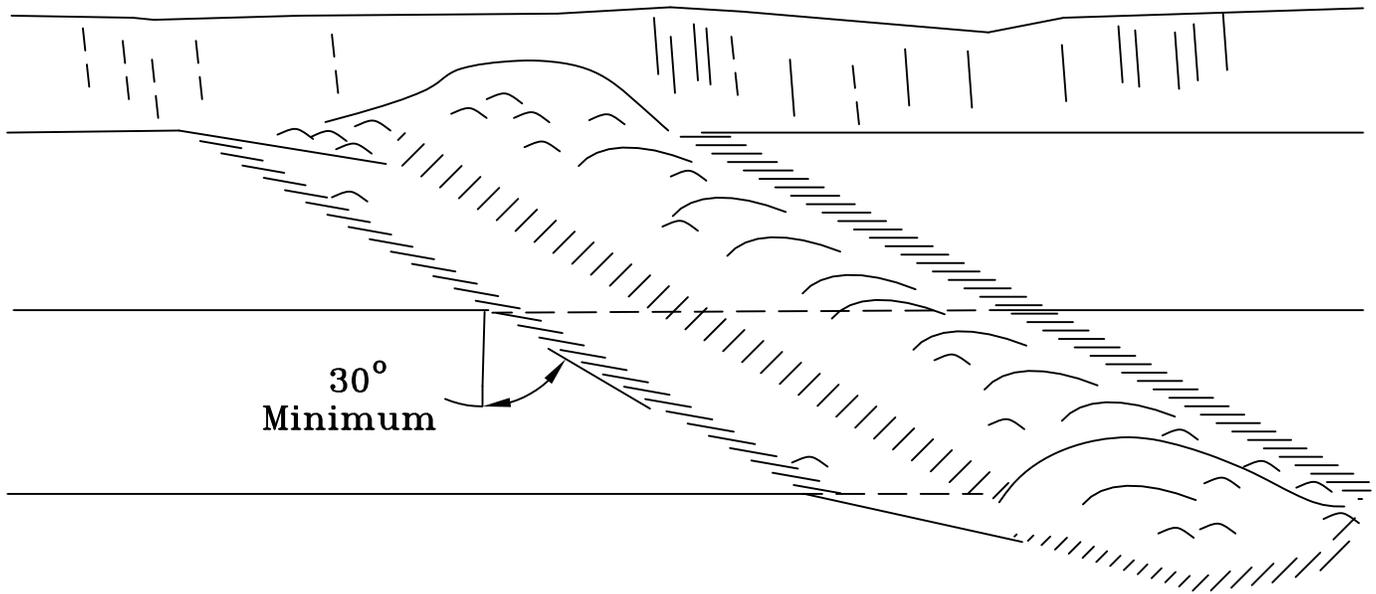
Edge of 8 roads are approximate

- Notes:
- 1) Quarry Spalls or smaller rock may be used at each landing location. Any rock larger than 2-1/2" Minus Crushed placed on the 8 road shall be removed prior to the end of the sale unless directed otherwise by the Contract Administrator.
  - 2) Landings built shall be decommissioned prior to the end of the sale. Decommissioning shall be completed as directed by the Contract Administrator.
  - 3) All landing debris located at these landing locations shall be hauled away to a location approved by the Contract Administrator along the 81 or 81 ext. road.

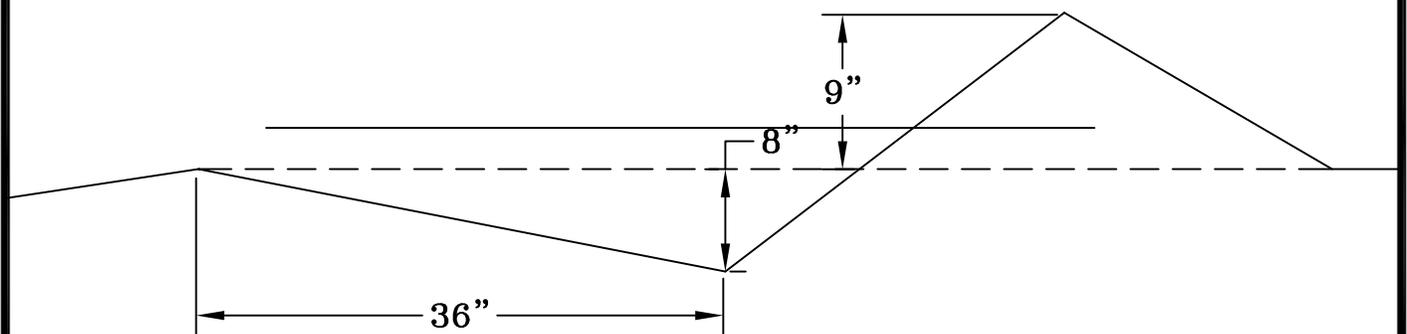
- Legend
- Pre-haul Maintenance
  - Optional Construction
  - Required Construction
  - Sale Boundary
  - Public Land Survey Townships
  - Public Land Survey Sections
  - streams
  - Contours 10 ft
- 1 inch = 147 feet

# Drivable Water Bar Detail

## Cross Ditch



## Cross Section at Centerline



Scale : None  
Drawn by: M.A.D.

Drivable Water Bar Detail	
	WASHINGTON STATE DEPARTMENT OF Natural Resources
SPS Region	

DEPARTMENT OF NATURAL RESOURCES - SOUTH PUGET SOUND REGION

FORM 9-87(Rev. 05-03)

**SUMMARY - ROAD DEVELOPMENT COSTS**

**(COSTS ARE ESTIMATES ONLY & ARE NOT GUARANTEED BY THE STATE OR PART OF THE ROAD PLAN.)**

SALE/PROJECT NAME: **Snikers**

CONTRACT NUMBER: **30-092941**

TYPE:	Construction	Reconstruction	Pre-Haul Maintenance
NUMBER OF STATIONS:	46.63	0.00	123.69 pre-haul
AVG. SIDESLOPE:	26	0	
CLEARING AND GRUBBING:	\$8,858	\$0	
EXCAVATION AND FILL:	\$11,467	\$0	
MISC. MAINTENANCE:			\$831
ROCK TOTALS (Cu. Yds.):			
Ballast:	\$55,048	\$0	\$0
Surfacing:	\$0	\$0	\$7,311
Riprap/Quarry Spalls:	\$1,499	\$0	\$0
Stockpiles:			\$0
CULVERTS AND FLUMES:	\$7,123	\$0	\$0
STRUCTURES:	\$0	\$0	\$0
GENERAL EXPENSES:	\$6,720	\$0	\$896
MOBILIZATION:	\$2,300	\$0	\$2,300
TOTAL COSTS:	\$93,014	\$0	\$11,338
COST PER STATION:	\$1,995		\$92

ROAD DEACTIVATION AND ABANDONMENT COSTS: \$1,194

NOTE1: This appraisal has no allowance for profit and risk.

NOTE2: This appraisal does not account for optional rock.

TOTAL (All Roads) =	\$105,546
SALE VOLUME MBF =	2,738
TOTAL COST PER MBF =	\$38.55

Plans to be furnished by:

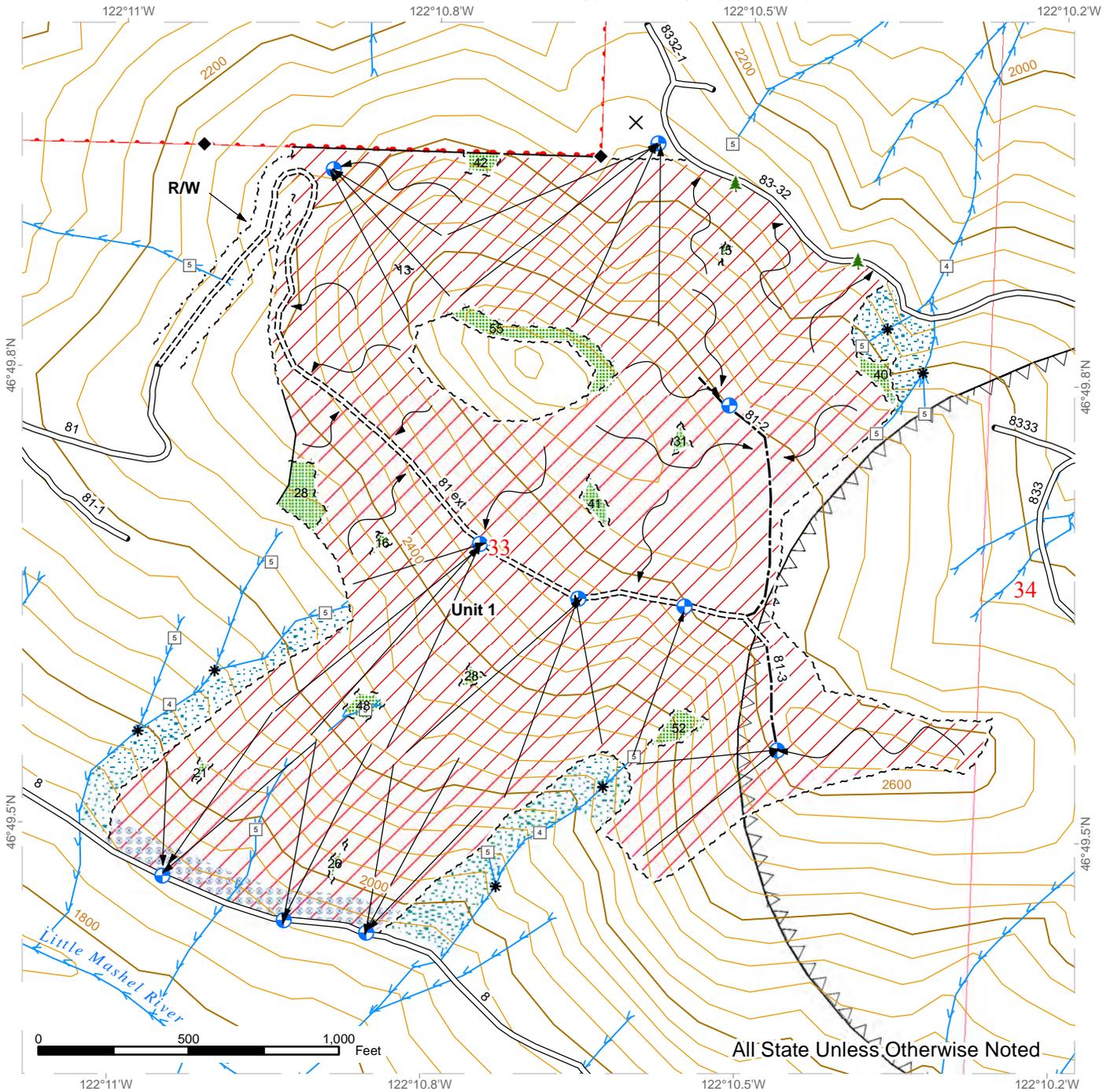
Compiled by: M. Bell

Date: 04/04/16

# LOGGING PLAN MAP

SALE NAME: SNIKERS  
 AGREEMENT#: 30-092941  
 TOWNSHIP(S): T16R05E  
 TRUST(S): State Forest Purchase(2), Common School and Indemnity(3), University Repayment(41)

REGION: South Puget Sound Region  
 COUNTY(S): PIERCE  
 ELEVATION RGE: 1,863 - 2,769 feet



All State Unless Otherwise Noted

Sale Area	Leave Tree Area	Existing Roads
Ground Harvest	Riparian Mgt Zone	Required Construction
Cable Harvest	Timing Restriction Zone	Optional Construction
Sale Boundary Tags	Double Band Blue Painted Leave Trees	Monumented Corners
Leave Tree Tags	Landing - Proposed	Contours 40-foot
Right of Way Tags	Single Band Pink Painted Take Trees	
Pink Flagging	Streams	
Extreme Hazard Abatement	Stream Type	
	Stream Type Break	