



TIMBER NOTICE OF SALE

SALE NAME: Q GLASCO

AGREEMENT NO: 30-104599

AUCTION: September 26, 2023 starting at 10:00 a.m., COUNTY: Stevens
Northeast Region Office, Colville, WA

SALE LOCATION: Sale located approximately 6 miles southwest of Fruitland, WA.

PRODUCTS SOLD AND SALE AREA: All conifer species except for leave trees banded with purple paint and two standing snags per acre in Units 1, 2, 3, 4, 5, 6, 7 and 8 bounded by white timber sale boundary tags; and all right of way timber bounded by orange right of way boundary tags.

All forest products above located on part(s) of Sections 6, 8, 10 and 16 all in Township 29 North, Range 36 East, W.M., containing 785 acres, more or less.

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

ESTIMATED SALE VOLUMES AND QUALITY:

Table with columns: Species, Avg Ring DBH, Ring Count, Total MBF, MBF by Grade (P, SM, 1S, 2S, 3S, 4S, 5S, 6S, UT). Rows include Ponderosa pine, Douglas fir, Larch, and Sale Total.

MINIMUM BID: \$1,099,000.00 BID METHOD: Sealed Bids

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

EXPIRATION DATE: November 1, 2026 ALLOCATION: Export Restricted

BID DEPOSIT: \$109,900.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable, Tethered, and Ground based equipment. Falling and Yarding will not be permitted from February 1 to August 1 unless authorized in writing by the Contract Administrator due to spring breakup and beetle timing restrictions.

ROADS: 31.41 stations of required construction. 246.07 stations of required reconstruction. 8.15 stations of optional reconstruction. 114.15 stations of required prehaul maintenance. 23.18 stations of optional prehaul maintenance. Road construction will not be permitted from March 1 to June 1 unless authorized in writing by the Contract Administrator due to spring breakup. The hauling of forest products will not be permitted from February 1 to August 1 unless authorized in writing by the Contract Administrator due to spring breakup and beetle timing restrictions

ACREAGE DETERMINATION

CRUISE METHOD: Acreage determined using GPS methods. Acreage shown above is net harvest acres in harvest units. Ponderosa pine: 8.0 - 17.5 inches dbh has a minimum top of 4.6 inch dib.



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All other species: 7.0 - 17.5 inches dbh has minimum top of 4.6 inch dib. All species 17.6 inches and greater dbh have a minimum top dib of 40% of dob at 16 feet or a 6 inch top whichever is greater.

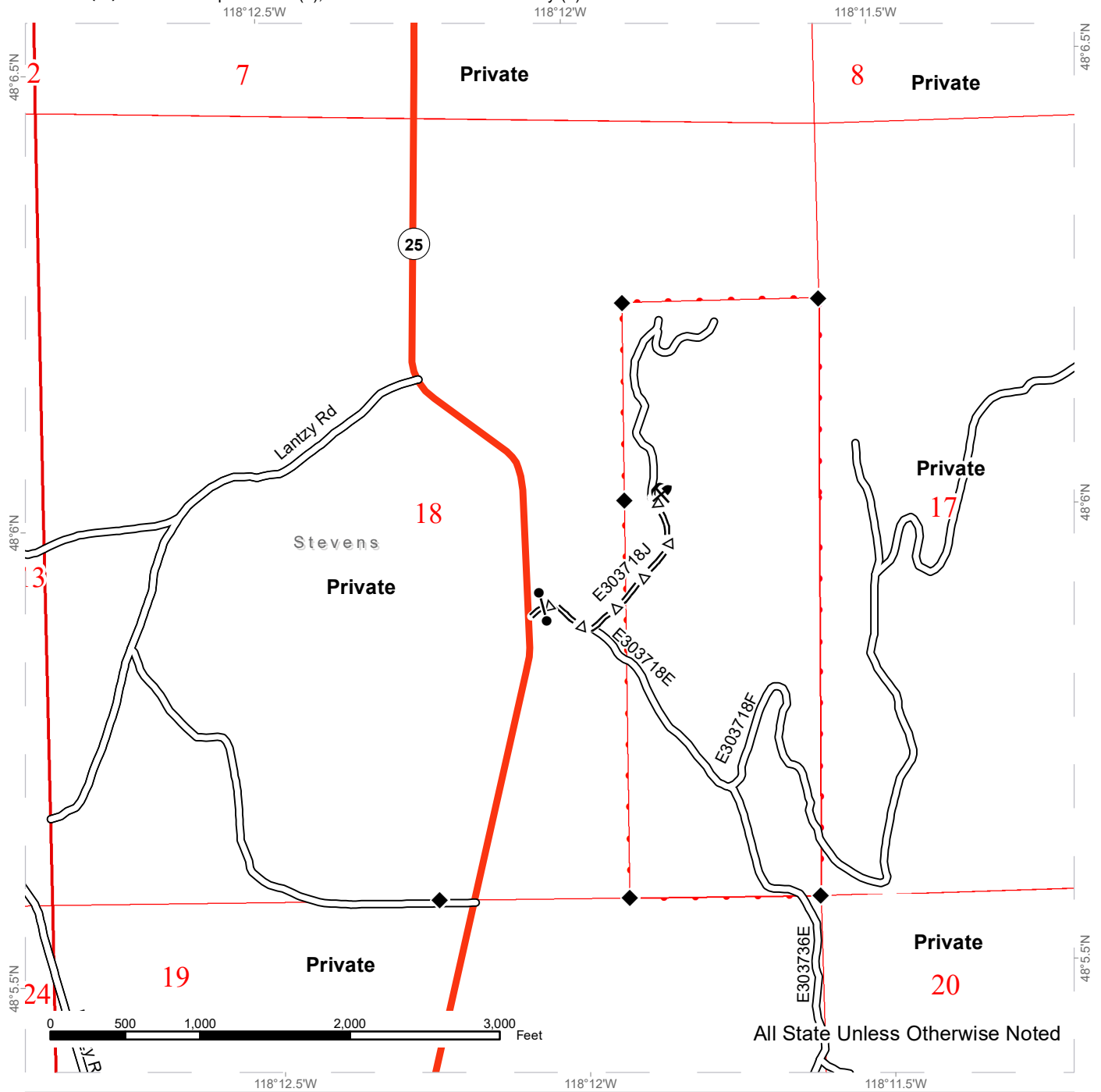
FEES: Within 10 days of day of sale, Purchaser shall provide payment for 4,000 board feet of private right of way timber at the purchaser's per mbf bid price. \$117,181.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: Cable or tethered equipment is required in portions of Units 2, 3 and 5, approximately 65 acres. Locked gate restricts access to Units 1, 2 and 3. Contact the Northeast Region Office at (509) 684-7474 for access.

TIMBER SALE MAP

SALE NAME: Q GLASCO
AGREEMENT #: 30-104599
TOWNSHIP(S): T29R35E, T29R36E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 1360-2086



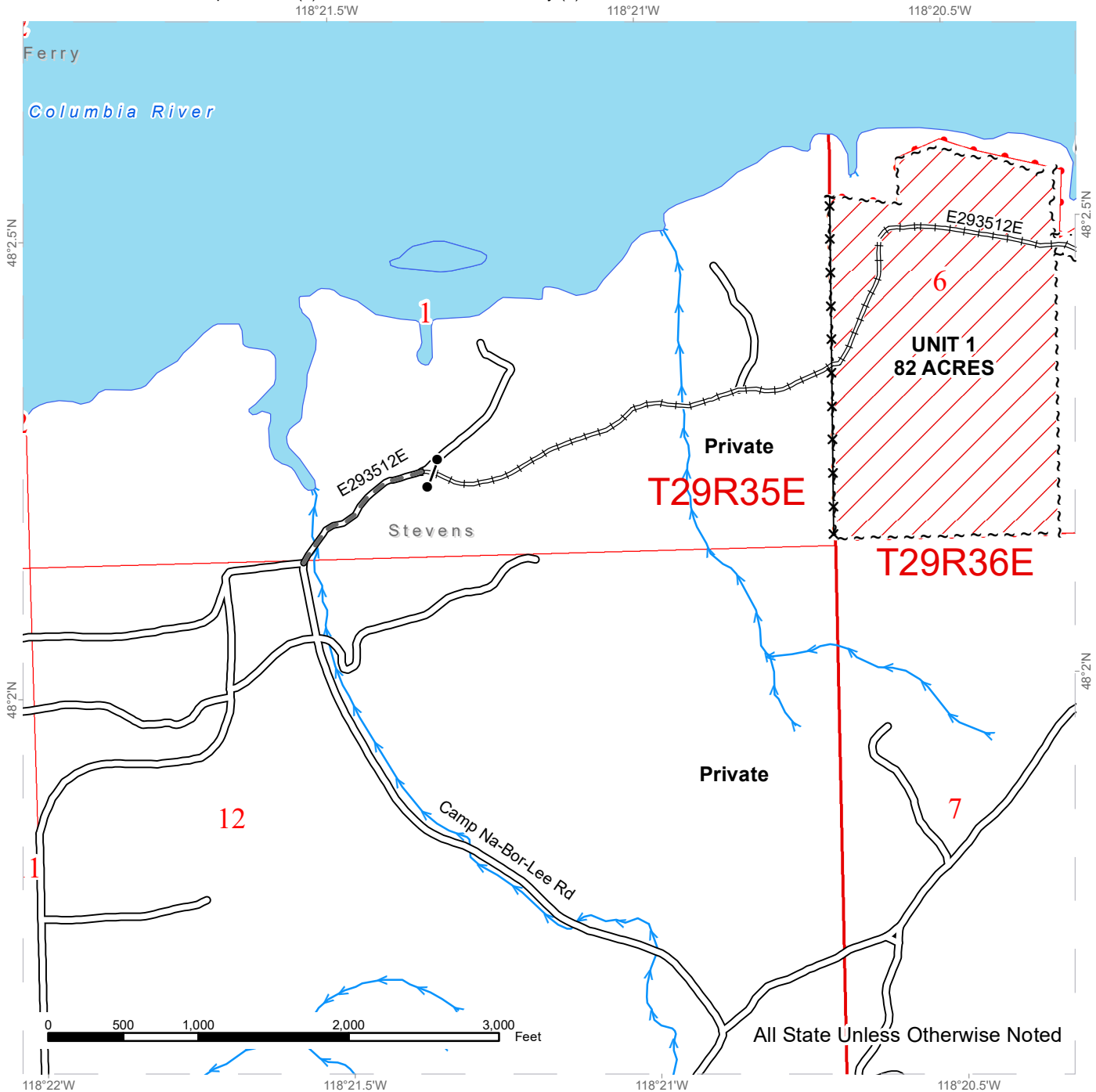
Public Land Survey Townships	Existing Roads
DNR Managed Lands	Optional Pre-Haul Maintenance
Survey Monument	Gate
Rock Pit	



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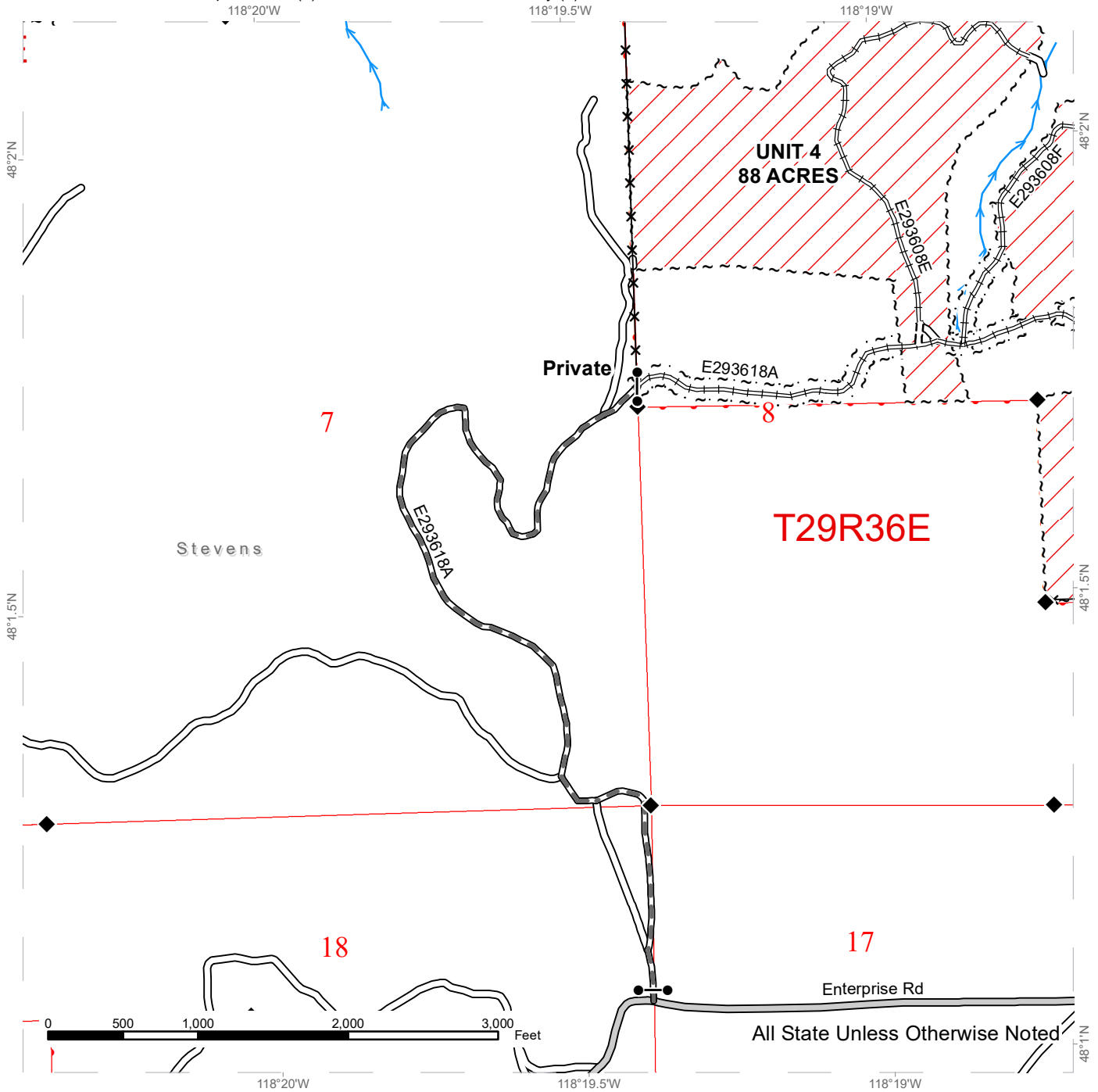
Public Land Survey Townships	Existing Roads	Streams
DNR Managed Lands	Required Pre-Haul Maintenance	Gate
Ground Harvest	Required Reconstruction	Fence
Sale Boundary Tags		
Right of Way Tags = 6 Acres		



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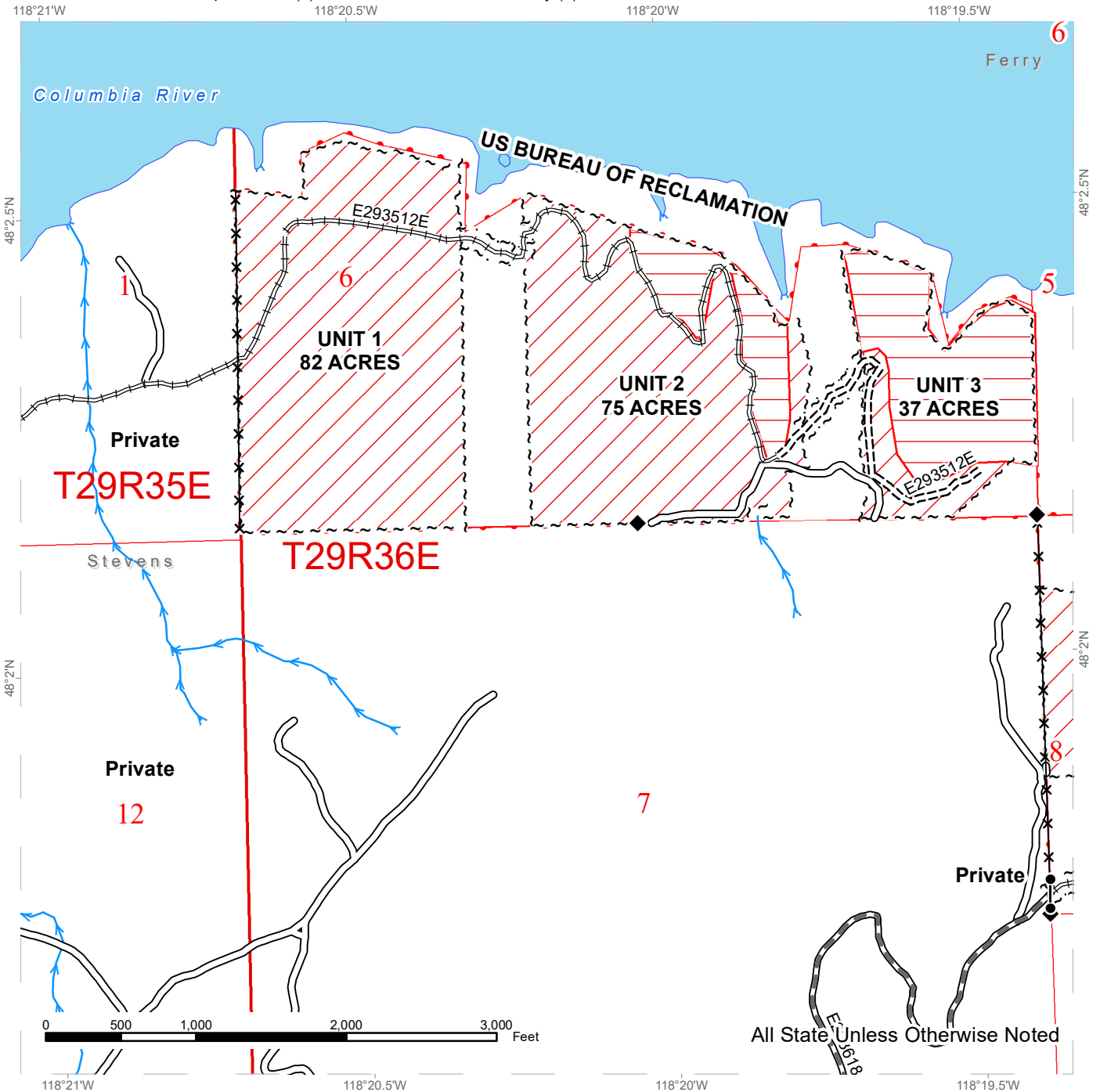
Public Land Survey Townships	County Road	Streams
DNR Managed Lands	Existing Roads	Survey Monument
Ground Harvest	Required Pre-Haul Maintenance	Gate
Sale Boundary Tags	Required Construction	Fence
Right of Way Tags = 6 Acres	Required Reconstruction	



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All State Unless Otherwise Noted

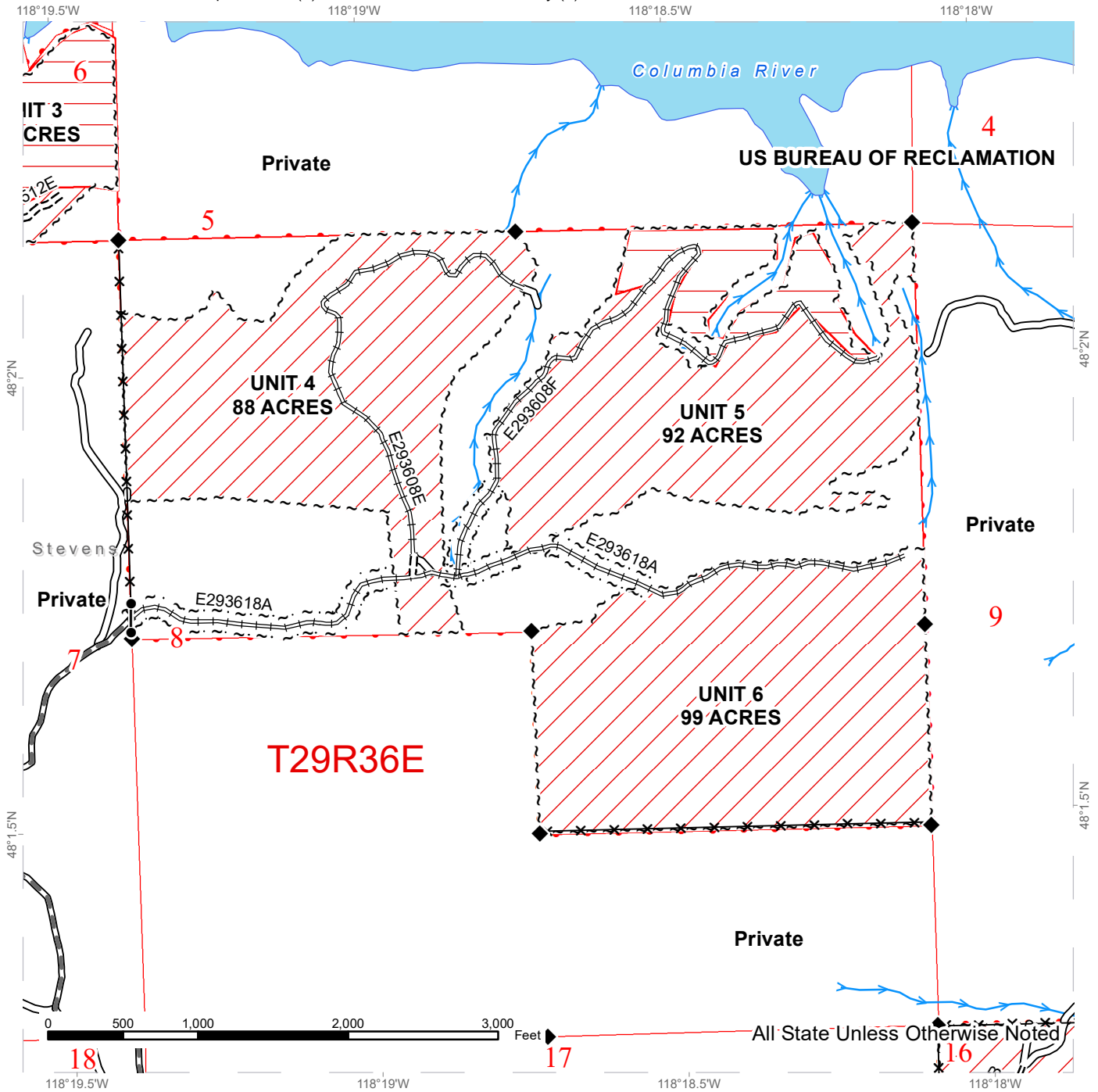
Public Land Survey Townships	Existing Roads	Streams
DNR Managed Lands	Required Pre-Haul Maintenance	Survey Monument
Ground Harvest	Required Construction	Gate
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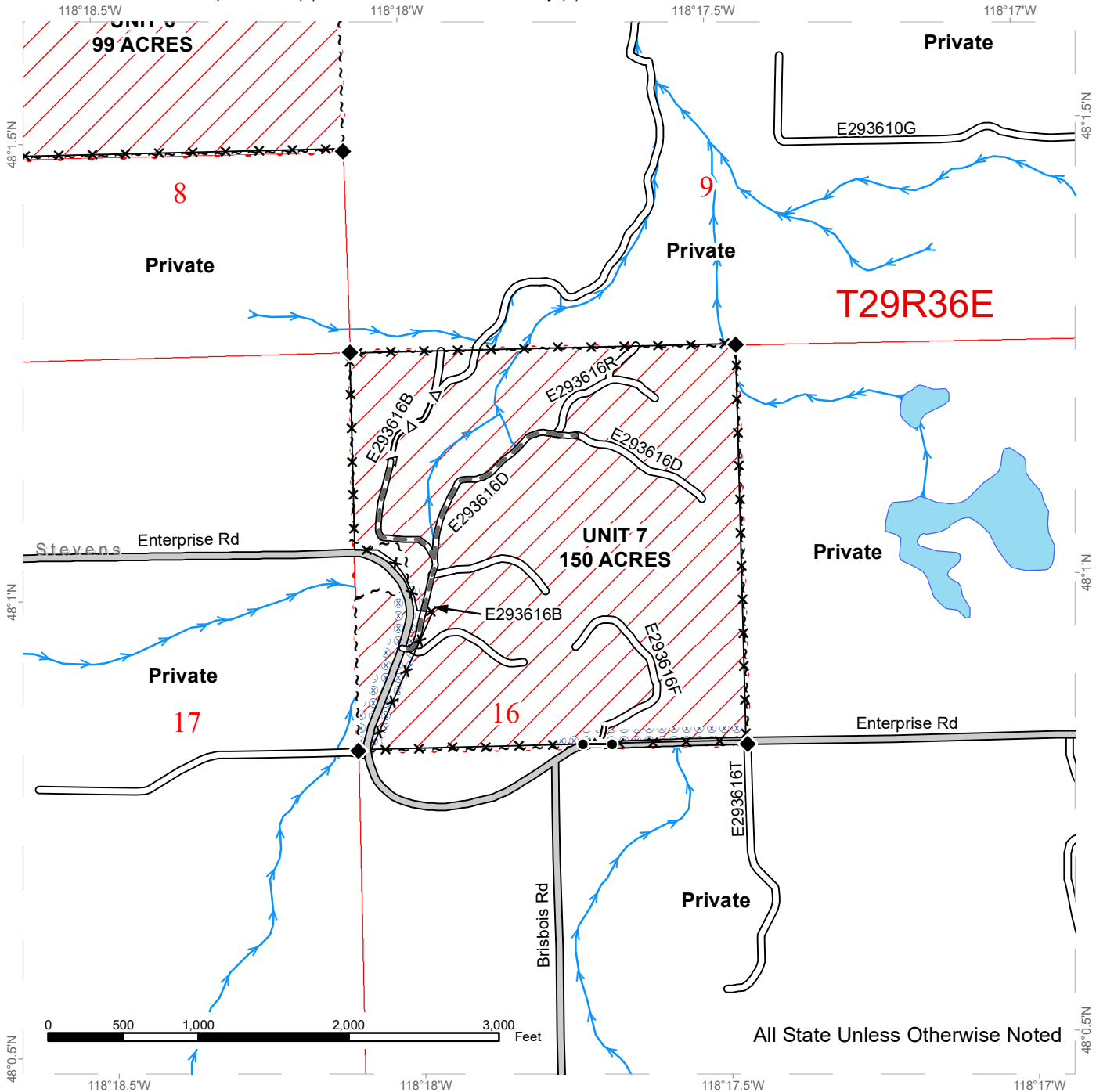


Public Land Survey Townships	Existing Roads	Streams
DNR Managed Lands	Required Pre-Haul Maintenance	Survey Monument
Ground Harvest	Required Construction	Gate
Cable Harvest	Required Reconstruction	Fence
Sale Boundary Tags	Optional Pre-Haul Maintenance	
Right of Way Tags = 6 Acres		

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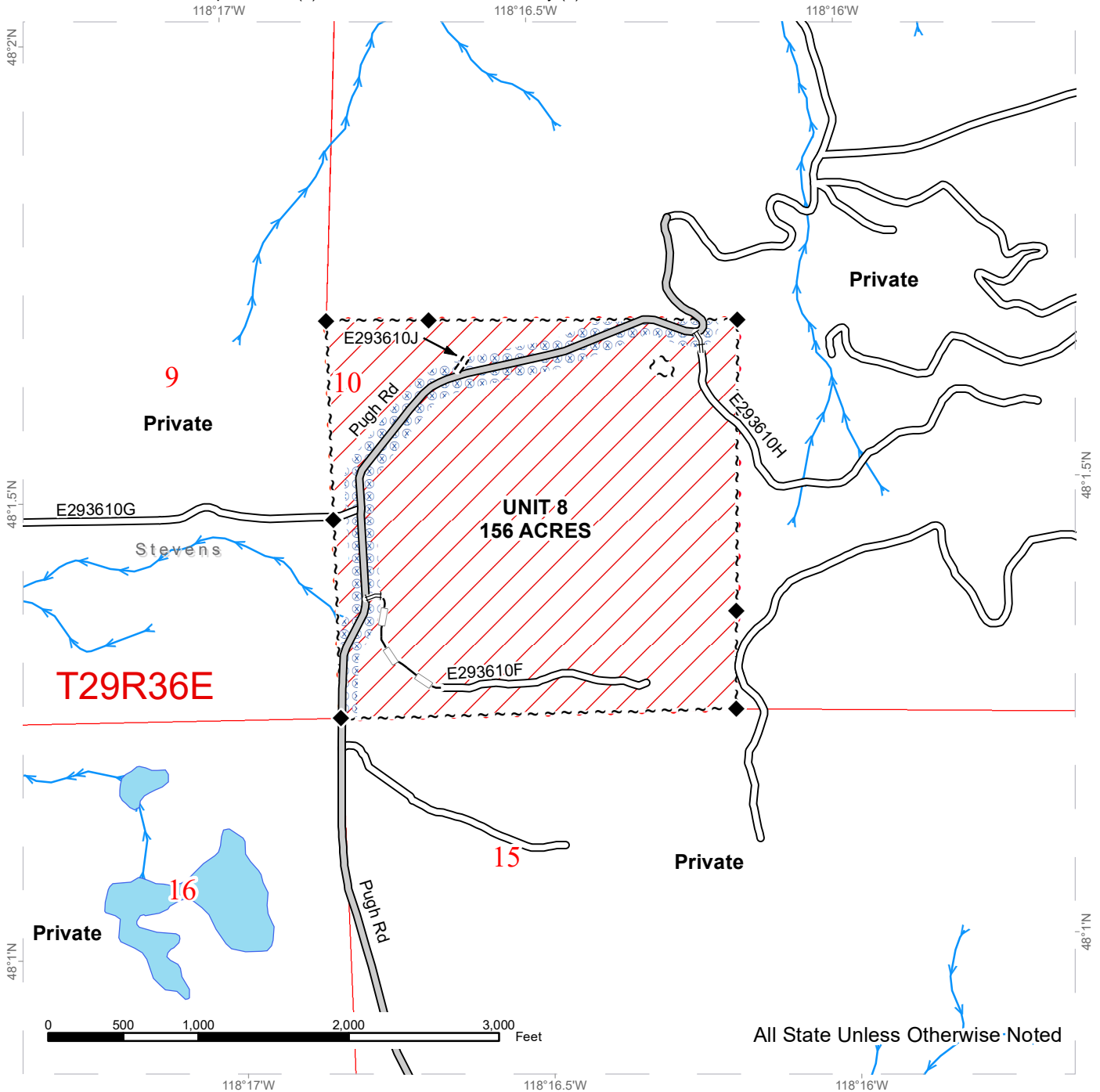
All State Unless Otherwise Noted

	Public Land Survey Townships		County Road		Streams
	DNR Managed Lands		Existing Roads		Survey Monument
	Ground Harvest		Required Pre-Haul Maintenance		Gate
	Hazard Abatement Area		Optional Pre-Haul Maintenance		Fence
	Sale Boundary Tags				

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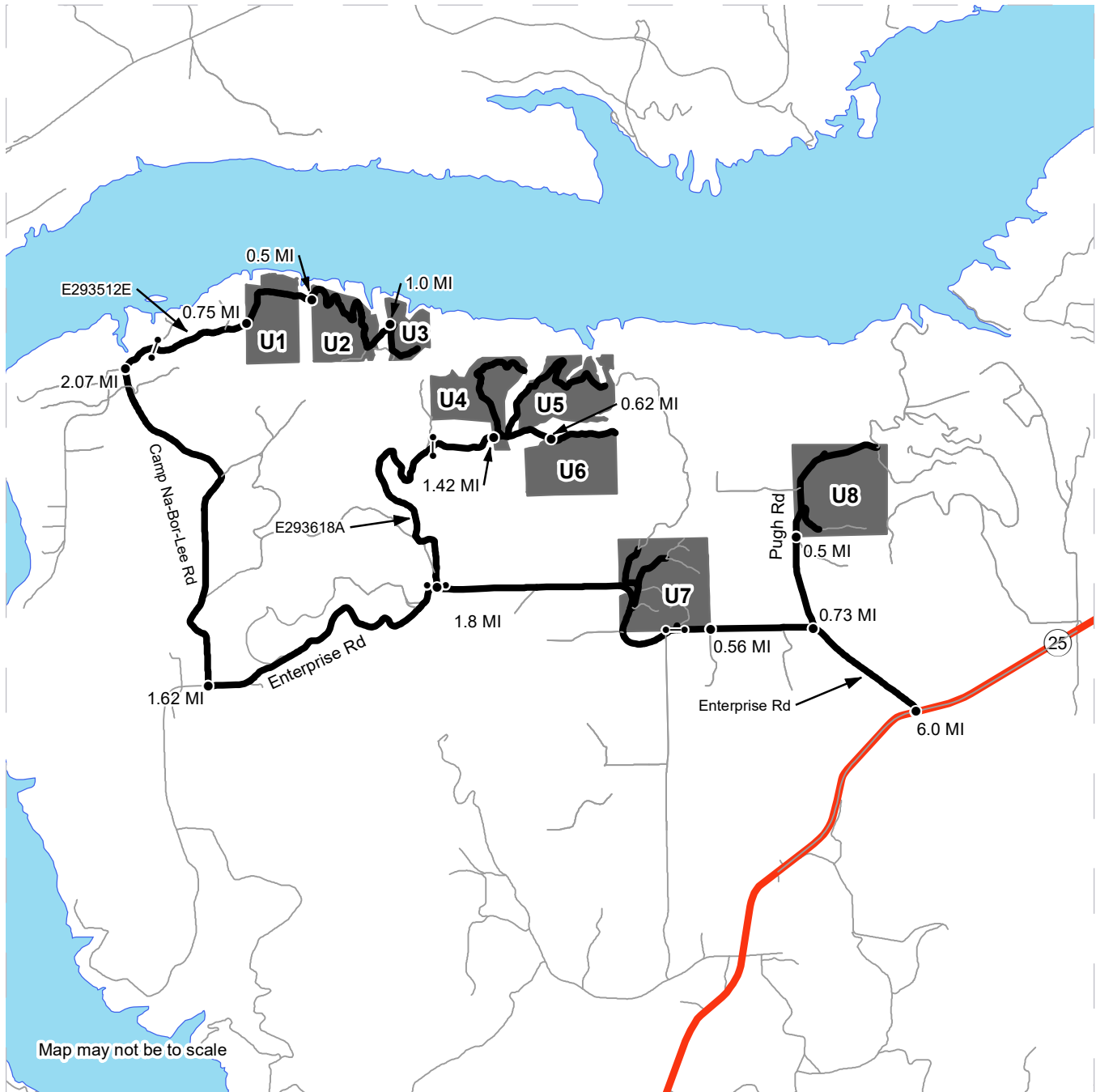
Public Land Survey Townships	County Road	Streams
DNR Managed Lands	Existing Roads	Survey Monument
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Hazard Abatement Area	Required Reconstruction	
Sale Boundary Tags	Optional Reconstruction	



DRIVING MAP

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	Timber Sale Unit
	Haul Route
	Other Route
	Highway
	Distance Indicator
	Gate

DRIVING DIRECTIONS:

From the junction of Highway 25 and Springdale-Hunters road located near Hunters, travel south on Highway 25 for 6.0 miles and then turn right onto Enterprise road. Travel on Enterprise road for 0.73 miles and turn right onto Pugh road, travel for 0.5 miles on Pugh road to reach unit 8. From the junction of Enterprise and Pugh roads, travel west on Enterprise road for 0.56 miles to reach unit 7. From unit 7, travel west on Enterprise road for 1.8 miles and turn right onto E293618A and continue for 1.42 miles on E293618A to reach unit 4; proceed for another 0.62 miles to reach units 5 and 6. From the junction of Enterprise road and E293618A, travel west on Enterprise road for 1.62 miles and turn right onto Camp Na-Bor-Lee road. Travel for 2.07 miles on Camp Camp Na-Bor-Lee road and turn right onto the E293512E road, continue on road E293512E for 0.75 miles to reach unit 1; proceed for another 0.5 miles to reach unit 2 and another 1.0 miles to reach unit 3.



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	Timber Sale Unit
	Haul Route
	Highway
	Distance Indicator
	Gate
	Rock Pit
	Town

DRIVING DIRECTIONS:

From the junction of Highway 25 and Springdale-Hunters road located near Hunters, travel south on Highway 25 for 6.0 miles and then turn right onto Enterprise road. Travel on Enterprise road for 0.73 miles and turn right onto Pugh road, travel for 0.5 miles on Pugh road to reach unit 8. From the junction of Enterprise and Pugh roads, travel west on Enterprise road for 0.56 miles to reach unit 7. From unit 7, travel west on Enterprise road for 1.8 miles and turn right onto E293618A and continue for 1.42 miles on E293618A to reach unit 4; proceed for another 0.62 miles to reach units 5 and 6. From the junction of Enterprise road and E293618A, travel west on Enterprise road for 1.62 miles and turn right onto Camp Na-Bor-Lee road. Travel for 2.07 miles on Camp Camp Na-Bor-Lee road and turn right onto the E293512E road, continue on road E293512E for 0.75 miles to reach unit 1; proceed for another 0.5 miles to reach unit 2 and another 1.0 miles to reach unit 3.



**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

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

Export Restricted Lump Sum AGREEMENT NO. 30-0104599

SALE NAME: Q GLASCO

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

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

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

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on September 26, 2023 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All conifer species except for leave trees banded with purple paint and two standing snags per acre in Units 1, 2, 3, 4, 5, 6, 7 and 8 bounded by white timber sale boundary tags; and all right of way timber bounded by orange right of way boundary tags.

All forest products above located on approximately 785 acres on part(s) of Sections 6, 8, 10, and 16 all in Township 29 North, Range 36 East W.M. in Stevens 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 November 1, 2026.

G-040 Contract Term Adjustment - No Payment

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

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

G-051 Contract Term Extension - Payment

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

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

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

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

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

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

- e. Payment of \$373.00 per acre per annum for the acres on which an operating release has not been issued .
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

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

G-060 Exclusion of Warranties

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

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any

threatened or endangered species, or the presence of their habitat, within the sale area.

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

G-061 Inadvertent Discovery of Cultural Resources

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

G-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-102 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 shall become a part of this contract and the Scribner log scale volume, as defined by the Northwest Log Rules Eastside, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per MBF Scribner log scale.

The pricing schedule has not been set for the sale.

G-111 Title and Risk of Loss

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

G-116 Sustainable Forestry Initiative® (SFI) Certification

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

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

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

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

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

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

G-140 Indemnity

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

actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

G-150 Insurance

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

G-160 Agents

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

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

G-170 Assignment and Delegation

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

G-180 Modifications

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

G-190 Contract Complete

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

G-200 Notice

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

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

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

G-210 Violation of Contract

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

G-220 State Suspends Operations

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

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

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

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

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

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

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

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

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; E293610F, E293610J, E293610H, E293616J, E293616B, E293616D, E293618A, E293608E, E293608F, E293512E, E293616F, E303718E and E303718J. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-320 Erosion Control

Purchaser shall deliver 200 pounds of grass seed to a location designated by the Contract Administrator. Seed provided shall meet the following specifications.

40% Smooth Brome, 40% Alsike Clover, 20% Timothy

Seed shall be certified weed free, premixed and delivered to the Northeast Region Office in 50 pound bags clearly labeled with the timber sale name on each bag.

G-330 Pre-work Conference

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

the plan of operations is adequate for Purchaser's purposes or complies with applicable laws.

G-340 Preservation of Markers

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

G-360 Road Use Reservation

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

G-370 Blocking Roads

Purchaser shall not block the Pugh and Enterprise county roads, unless authority is granted in writing by the Contract Administrator.

G-380 Road Easement and Road Use Permit Requirements

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

Easement 347 with Emerson dated January 25, 1967

Easement 2428 with Larson dated August 19, 1992

G-430 Open Fires

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

G-450 Encumbrances

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

DATA MISSING

Section P: Payments and Securities

P-011 Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without Purchaser's payment of the full amount specified in Clause P-020, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full

payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

P-020 Payment for Forest Products

Purchaser agrees to pay the total, lump sum contract price of \$179,218.00. The total contract price consists of a \$0.00 contract bid price plus \$179,218.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

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

P-045 Guarantee of Payment

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

P-050 Billing Procedure

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

P-080 Payment Account Refund

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

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the

performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section H: Harvesting Operations

H-010 Cutting and Yarding Schedule

Falling and Yarding will not be permitted from February 1 to August 1 in all units unless authorized in writing by the Contract Administrator.

H-013 Reserve Tree Damage Definition

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

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

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

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

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

H-015 Skid Trail Requirements

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

Purchaser shall comply with the following during the yarding operation:

- a. Skid trails will not exceed 14 feet in width, including rub trees.
- b. Skid trails shall not cover more than 10 percent of the total acreage on one unit.
- c. Skid trail location will be pre-approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- g. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

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

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 10 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-025 Timing Requirements for Timber Removal

All forest products must be removed within 14 days of being felled.

H-035 Fall Trees Into Sale Area

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

H-040 Purchaser Harvest Plan

Purchaser shall, as part of the plan of operations, prepare an acceptable harvest plan for cable yarder or tethered equipment operations in Units 2, 3 and 5. The plan shall address the tailholds, trails and landing locations, which are part(s) of this contract. The harvest plan shall be approved by the Contract Administrator prior to beginning the harvest operation. Purchaser shall not deviate from the harvest plan without prior written approval by the Contract Administrator.

H-050 Rub Trees

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

H-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-110 Stump Height

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

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using hand falling and cable or tether equipment in the designated cable areas in Units 2, 3 and 5. Non-cable areas forest products shall be harvested and removed using D6 equivalent or smaller ground skidding equipment and ground based harvesting equipment. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-126 Tailholds on State Land

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

H-127 Tailholds on Private Land

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

H-130 Hauling Schedule

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

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- a. Whole tree yarding is required in Units 2, 3 and 5.
- b. No operations associated with timber harvest, hauling, or road work will be permitted within 1/2 mile of an active northern goshawk nest from March 1 to August 1 or later if young are still on the nest.

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

H-230 Tops and Limbs Outside the Sale Boundary

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

H-260 Fall Leaners

Trees within all units that have been pushed over in falling or skidding operations shall be felled.

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

Road construction and associated work provisions of the Road Plan for this sale, dated 5/10/2023 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on E293610F, E293610J, E293610H, E293616J, E293616B, E293616D, E293618A, E293608E, E293608F, E293512E, E293616F, E303718E and E303718J roads. All work shall be completed to the specifications detailed in the Road Plan.

C-080 Landing Locations Approved Prior to Construction

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

C-090 Landing Location

Landings shall be built 110 feet off the Pugh and Enterprise county road(s).

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-040 Noxious Weed Control

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

S-050 Cessation of Operations for Low Humidity

When the humidity is 12 percent or lower on the sale area, all operations must cease unless authority to continue is granted by the State in writing.

S-060 Pump Truck or Pump Trailer

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

S-100 Stream Cleanout

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

S-110 Resource Protection

No skidding or harvesting equipment may operate within Riparian Management Zones or Equipment Limitation 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 stream.

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

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

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

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

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

d. Hazardous Material Release Reporting

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

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

S-131 Refuse Disposal

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

S-140 Fence Repair

Purchaser shall immediately repair all fence damage resulting from operations on this sale to an equal or better condition than existed at the time of sale.

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

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

D-041 Reserve Tree Excessive Damage

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

SIGNATURES

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

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser

Patrick Ryan
Northeast Region Manager

Print Name

Date: _____

Date: _____

Address: _____

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

STATE OF _____)

COUNTY OF _____)

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

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

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

Notary Public in and for the State of

My appointment expires _____



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Northeast

Timber Sale Name: Q GLASCO

Application Number: 30- 104599

EXCISE TAX APPLICABLE ACTIVITIES

Construction: 3,141 linear feet
Road to be constructed (optional and required) but not abandoned

Reconstruction: 25,422 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

Decommission: 0 linear feet
Road to be made undriveable but not officially abandoned.

Pre-Haul Maintenance: 13,733 linear feet
Existing road to receive maintenance work (optional and required) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

Temporary Construction: 0 linear feet
Roads to be constructed (optional and required) and then abandoned

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

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

(Revised 9/18)

PRE-CRUISE NARRATIVE

Sale Name: Glasco	Region: Northeast
Agreement #: 30-104599	District: North Columbia
Contact Forester: Nathan Simpkins Phone / Location: 509-675-3191	County(s): Choose a county, Stevens
Alternate Contact: Braden Britt Phone / Location: 509-481-8032 Click here to enter text.	Other information: Click here to enter text.

Type of Sale: Lump Sum	
Harvest System: Ground based Click here to enter text.	83%
Harvest System: Other(Specify) Tethered harvester & forwarder	7%
Harvest System: Select harvest system Click here to enter text.	Click here to enter percent sale acres.

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	S6/T29/R36	07	83.3			1		82.3	GPS (Garmin)
2	S6/T29/R36	07	77.1			2		75.1	GPS (Garmin)
3	S6/T29/R36	07	36.5			0		36.5	GPS (Garmin)
4	S8/T29/R36	07	90			1.8		88.2	GPS (Garmin)
5	S8/T29/R36	07	95.4			2.2		93.2	GPS (Garmin)
6	S8/T29/R36	07	99.9			1.1		98.8	GPS (Garmin)
7	S16/T29/R36	03	154.7			4.8		149.9	GPS (Garmin)
8	S10/T29/R36	07	161.3			5.8		155.5	GPS (Garmin)
RW		07	8.3			0		8.3	GPS (Garmin)
TOTAL ACRES			806.5			18.7		787.8	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Harvest all timber not banded with purple paint, including dead standing and down		6 TPA

	DF and WL. Leave all hardwoods.		
2	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
3	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
4	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
5	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
6	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
7	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
8	Harvest all timber not banded with purple paint, including dead standing and down DF and WL. Leave all hardwoods.		6 TPA
RW	Harvest all timber within right-of-way tags or timber marked with orange paint.		0 TPA

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	PP/DF 800mbf	Accessible by Camp Naborlee Rd./E293606A Cable gate on private secured with hurd lock.	
2	PP/DF 790mbf	Accessible by Camp Naborlee Rd./E293606A Cable gate on private secured with hurd lock.	
3	PP/DF 400mbf	Accessible by Camp Naborlee Rd./E293606A Cable gate on private secured with hurd lock.	
4	PP/DF 880mbf	Accessible by Enterprise Rd./E293618A Easement on private driveway	
5	PP/DF 1,000mbf	Accessible by Enterprise Rd./E293618A Easement on private driveway	
6	PP/DF 990mbf	Accessible by Enterprise Rd./E293618A Easement on private driveway	
7	PP/DF 1,100mbf	Accessible by Enterprise Rd.	
8	PP/DF 700mbf	Accessible by Pugh Rd.	

RW	PP/DF 20mbf		
TOTAL MBF	6,680mbf		

REMARKS:

An ATV is recommended for accessing Units 1 through 6.
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Prepared By: Nathan Simpkins Date: 12/27/2022	Title: NRS 2	CC: Jake Culp
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Timber Sale Cruise Report Glasco

Sale Name: Q GLASCO

Sale Type: LUMP SUM

Region: NORTHEAST,NORTHEAST

District: NO COLUMBIA,NO COLUMBIA

Lead Cruiser: Jake Culp

Other Cruisers:Hailey Howard

Cruise Narrative:

Location:

Legal – Sections 6, 8, 10, 16 of Township 29N, Range 36E WM

General – Approximately 6 miles southwest of Fruitland, WA in Stevens County.

Access – Units 1-3 access will be off Camp Na-bor-lee Rd via Enterprise Rd. Units 4-6 access will be off of private easement via Enterprise Rd. Unit 7 is directly off of Enterprise Rd. Unit 8 is access off of Pugh Rd via Enterprise Rd.

Cruise Design:

-This sale was cruised using variable radius plots, utilizing the cruise-count method. The walk-through method was used on plots near boundaries.

-Minor species cruise intensity: We grade the first tree of all minor species encountered; then follow the set cruise design.

-Min. DBH: 8" DBH for PP, 7" DBH for all other species

-Log Length: 32' logs where possible, minimum of 12' lengths

-Top DIB: Trees less than 17.5" DBH have a minimum top of 4.6" DIB for all species; Trees 17.6" and greater DBH have a minimum top DOB of 40% of DOB at 16' or a 6" top, whichever is greater.

Take/Leave Prescription:

Cut all trees not marked with purple paint. Leave all hardwoods.

Cruise Acres determination:

FMA unit acreages with existing road acreages removed.

Stand composition:

The stands are second growth, even aged ponderosa pine and Douglas-fir with minor components of western larch. Large residual trees and legacy trees are found within the sale area. Areas of the sale had been selectively harvested approximately 20-25 years ago.

Timber quality:

Timber to be harvested is comprised of domestic quality ponderosa pine (52%), Douglas-fir (47%), western larch (1%).

Stand health/defect:

Older timber in the sale area can be rough, with branch clusters, sweep, and crooks. Other defects noted include forks, spike knots, wind and snow damage. Defect throughout the sale is minimal. Dwarf mistletoe was observed minor amounts throughout the sale. Recent Western pine beetle mortality was observed in areas of Unit 2 and Unit 5.

Aspect:

North, Northeast, Northwest.

Elevation:
1,300' – 2,150'

Harvesting methods:
83% ground based, 7% tethered harvester and forwarder

Slope:
Unit 1- Max 50%, Avg 12%
Unit 2- Max 56%, Avg 24%
Unit 3- Max 59%, Avg 34%
Unit 4- Max 41%, Avg 10%
Unit 5- Max 61%, Avg 18%
Unit 6- Max 20%, Avg 5%
Unit 7- Max 22%, Avg 6%
Unit 8- Max 33%, Avg 10%

Other considerations/remarks:
Unit 3 and 5 contained most of the cable ground for the sale. All other units are generally mild and good operator ground.

Trust:
The sale is 81% Trust 7 and 19% Trust 3.

Unit	Trust	Volume (MBF)
1	7	776
2	7	780
3	7	427
4	7	875
5	7	1,176
6	7	925
7	3	1,007
8	7	902
RW1	7	26

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
PP	16.4			3,575			1,437	2,138
DF	14.5			3,234	1,385	1,445	404	
WL	11.9			84	21	37	26	
ALL	15.0			6,893	1,406	1,482	1,868	2,138

Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	5 Saw
DF	21,301	7,689	10,400	3,212	

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	5 Saw
PP	20,540			6,956	13,584
WL	529	146	228	155	
ALL	42,370	7,835	10,628	10,323	13,584

Timber Sale Overall Cruise Statistics (Cut + Leave Trees)

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
92.0	2.8	118.2	3.1	10,876	4.0

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
GLASCO U1	B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	82.3	83.3	52	13	1
GLASCO U2	B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	75.1	77.1	47	12	0
GLASCO U3	B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	36.5	36.5	29	10	0
GLASCO U4	B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	88.2	90.0	44	11	0
GLASCO U5	B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	92.0	94.1	47	13	3
GLASCO U6	B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	98.8	99.9	51	13	2
GLASCO U7	B1C: VR, 1 BAF (20) Measure/Count Plots, Sighting Ht = 4.5 ft	149.9	154.7	52	12	1
GLASCO U8	B1C: VR, 1 BAF (20) Measure/Count Plots, Sighting Ht = 4.5 ft	155.5	161.3	54	14	0
GLASCO RW1	B1: VR, 1 BAF (20) Measure All, Sighting Ht = 4.5 ft	6.7	8.3	10	10	2
All		785.0	805.2	386	108	9

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	14.7	32	1,796	1,765	1.8	7,688.5	1,385.1
DF	LIVE	3 SAW	Domestic	8.1	32	1,877	1,840	1.9	10,400.0	1,444.6
DF	LIVE	4 SAW	Domestic	5.3	22	520	515	0.9	3,212.1	404.6
PP	LIVE	4 SAW	Domestic	13.5	32	1,854	1,831	1.3	6,955.5	1,437.0

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
PP	LIVE	5 SAW	Domestic	7.4	27	2,813	2,724	3.2	13,584.3	2,138.2
WL	LIVE	2 SAW	Domestic	12.4	32	26	26	0.0	146.2	20.5
WL	LIVE	3 SAW	Domestic	8.9	32	50	47	6.2	228.0	36.9
WL	LIVE	4 SAW	Domestic	5.1	25	33	33	0.0	155.1	26.2

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	Domestic	5.9	26	1,256	1.1	7,398.1	985.6
DF	9 - 11	LIVE	Domestic	10.0	32	1,200	2.2	6,644.1	942.3
DF	12 - 14	LIVE	Domestic	12.9	32	663	1.8	3,137.3	520.2
DF	15 - 19	LIVE	Domestic	16.7	32	869	1.8	3,634.6	682.4
DF	20+	LIVE	Domestic	22.4	32	132	2.9	486.6	103.7
PP	5 - 8	LIVE	Domestic	6.7	25	1,512	2.9	8,047.6	1,186.7
PP	9 - 11	LIVE	Domestic	9.8	32	1,285	3.2	5,799.7	1,009.1
PP	12 - 14	LIVE	Domestic	12.7	32	1,058	1.3	4,196.6	830.3
PP	15 - 19	LIVE	Domestic	16.1	32	670	1.4	2,419.6	526.1
PP	20+	LIVE	Domestic	20.8	32	29	0.0	76.3	23.0
WL	5 - 8	LIVE	Domestic	6.0	27	46	1.6	214.6	36.1
WL	9 - 11	LIVE	Domestic	10.6	32	34	6.5	168.6	27.0
WL	12 - 14	LIVE	Domestic	12.4	32	26	0.0	146.2	20.5

Cruise Unit Report GLASCO U1

Unit Sale Notice Volume (MBF): GLASCO U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
PP	14.9			625			212	413
DF	15.6			151	82	55	14	
ALL	15.1			776	82	55	226	413

Unit Cruise Design: GLASCO U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	82.3	83.3	52	13	1

Unit Cruise Summary: GLASCO U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP	38	170	3.3	0
DF	11	29	0.6	0
ALL	49	199	3.8	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
PP	82.2	45.4	6.3	111.3	44.0	7.1	9,155	63.2	9.5
DF	14.0	175.4	24.3	165.2	44.0	13.3	2,317	180.9	27.7
ALL	96.2	38.6	5.4	119.2	49.4	7.1	11,471	62.7	8.9

Unit Summary: GLASCO U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	11	ALL	15.6	64	80	1,844	1,837	0.4	8.4	11.1	2.8	151.2
PP	LIVE	CUT	38	ALL	14.9	63	82	7,745	7,593	2.0	56.3	68.2	17.7	624.9
ALL	LIVE	CUT	49	ALL	15.0	63	82	9,589	9,430	1.7	64.7	79.3	20.5	776.1
ALL	ALL	ALL	49	ALL	15.0	63	82	9,589	9,430	1.7	64.7	79.3	20.5	776.1

Cruise Unit Report GLASCO U2

Unit Sale Notice Volume (MBF): GLASCO U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
DF	16.4			445	188	220	37	
PP	15.2			335			142	193
ALL	15.7			780	188	220	178	193

Unit Cruise Design: GLASCO U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	75.1	77.1	47	12	0

Unit Cruise Summary: GLASCO U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	18	86	1.8	0
PP	22	106	2.3	0
ALL	40	192	4.1	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	46.0	131.6	19.2	143.9	34.8	8.2	6,622	136.1	20.9
PP	56.7	92.2	13.4	111.2	48.3	10.3	6,306	104.1	16.9
ALL	102.7	59.7	8.7	125.8	42.9	6.8	12,928	73.5	11.0

Unit Summary: GLASCO U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	18	ALL	16.4	67	84	6,053	5,929	2.0	28.1	41.2	10.2	445.3
PP	LIVE	CUT	22	ALL	15.2	59	76	4,569	4,462	2.3	31.8	40.1	10.3	335.1
ALL	LIVE	CUT	40	ALL	15.8	63	80	10,622	10,391	2.2	59.9	81.3	20.5	780.4
ALL	ALL	ALL	40	ALL	15.8	63	80	10,622	10,391	2.2	59.9	81.3	20.5	780.4

Cruise Unit Report GLASCO U3

Unit Sale Notice Volume (MBF): GLASCO U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
DF	15.7			342	113	203	27	
PP	14.5			84			13	71
ALL	15.4			427	113	203	40	71

Unit Cruise Design: GLASCO U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	36.5	36.5	29	10	0

Unit Cruise Summary: GLASCO U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	23	75	2.6	0
PP	8	43	1.5	0
ALL	31	118	4.1	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U3

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	65.0	101.0	18.8	152.4	23.5	4.9	9,911	103.7	19.4
PP	37.3	101.4	18.8	85.9	52.8	18.7	3,202	114.3	26.5
ALL	102.3	54.1	10.1	128.1	37.4	6.7	13,112	65.8	12.1

Unit Summary: GLASCO U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	23	ALL	15.7	73	92	9,470	9,382	0.9	45.8	61.6	15.5	342.4
PP	LIVE	CUT	8	ALL	14.5	56	73	2,499	2,308	7.6	23.4	26.9	7.1	84.2
ALL	LIVE	CUT	31	ALL	15.3	67	85	11,969	11,690	2.3	69.2	88.5	22.6	426.7
ALL	ALL	ALL	31	ALL	15.3	67	85	11,969	11,690	2.3	69.2	88.5	22.6	426.7

Cruise Unit Report GLASCO U4

Unit Sale Notice Volume (MBF): GLASCO U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
DF	13.6			483	105	308	70	
PP	14.3			376			79	297
WL	15.5			16		16		
ALL	14.1			875	105	324	149	297

Unit Cruise Design: GLASCO U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	88.2	90.0	44	11	0

Unit Cruise Summary: GLASCO U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	14	87	2.0	0
PP	25	108	2.5	0
WL	1	2	0.0	0
ALL	40	197	4.5	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	49.7	100.8	15.2	124.4	33.6	9.0	6,186	106.3	17.7
PP	61.7	77.8	11.7	83.7	41.5	8.3	5,167	88.2	14.4
WL	1.1	663.3	100.0	159.5	0.0	0.0	182	663.3	100.0
ALL	112.6	42.4	6.4	102.4	41.2	6.5	11,535	59.1	9.1

Unit Summary: GLASCO U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	14	ALL	13.6	58	72	5,598	5,475	2.2	43.6	44.0	11.9	482.9
PP	LIVE	CUT	25	ALL	14.5	60	77	4,463	4,258	4.6	44.4	50.9	13.4	375.6
WL	LIVE	CUT	1	ALL	15.5	74	91	182	182	0.0	0.9	1.1	0.3	16.1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	40	ALL	14.1	59	75	10,243	9,915	3.2	88.9	96.0	25.6	874.5
ALL	ALL	ALL	40	ALL	14.1	59	75	10,243	9,915	3.2	88.9	96.0	25.6	874.5

Cruise Unit Report GLASCO U5

Unit Sale Notice Volume (MBF): GLASCO U5

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
DF	14.6			762	364	333	65	
PP	15.8			408			112	296
WL	18.0			7		7		
ALL	15.3			1,176	364	340	177	296

Unit Cruise Design: GLASCO U5

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	92.0	94.1	47	13	3

Unit Cruise Summary: GLASCO U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	14	85	1.8	0
PP	21	78	1.7	0
WL	1	1	0.0	0
ALL	36	164	3.5	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U5

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	60.8	126.1	18.4	141.2	44.2	11.8	8,582	133.6	21.9
PP	55.8	116.7	17.0	103.3	42.1	9.2	5,759	124.1	19.3
WL	0.7	685.6	100.0	100.2	0.0	0.0	72	685.6	100.0
ALL	117.3	64.9	9.5	122.9	43.7	7.3	14,413	78.2	11.9

Unit Summary: GLASCO U5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	14	ALL	14.6	62	77	8,435	8,280	1.8	50.4	58.6	15.3	761.7
PP	LIVE	CUT	21	ALL	15.8	65	84	4,597	4,430	3.6	31.5	42.9	10.8	407.6
WL	LIVE	CUT	1	ALL	18.0	78	98	92	72	22.0	0.4	0.7	0.2	6.6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	36	ALL	15.1	63	80	13,123	12,781	2.6	82.3	102.3	26.3	1,175.9
ALL	ALL	ALL	36	ALL	15.1	63	80	13,123	12,781	2.6	82.3	102.3	26.3	1,175.9

Cruise Unit Report GLASCO U6

Unit Sale Notice Volume (MBF): GLASCO U6

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
PP	16.2			712			344	368
DF	17.4			213	110	90	13	
ALL	16.5			925	110	90	357	368

Unit Cruise Design: GLASCO U6

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	98.8	99.9	51	13	2

Unit Cruise Summary: GLASCO U6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP	22	156	3.1	0
DF	7	30	0.6	0
ALL	29	186	3.6	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U6

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
PP	76.9	66.5	9.3	115.0	41.2	8.8	8,850	78.2	12.8
DF	14.8	192.9	27.0	161.9	38.1	14.4	2,396	196.6	30.6
ALL	91.7	52.8	7.4	122.6	44.1	8.2	11,246	68.8	11.0

Unit Summary: GLASCO U6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	7	ALL	17.4	71	89	2,208	2,156	2.3	8.1	13.3	3.2	213.0
PP	LIVE	CUT	22	ALL	10.9	61	79	7,281	7,205	1.0	96.7	62.6	19.0	711.9
ALL	LIVE	CUT	29	ALL	11.5	61	80	9,489	9,361	1.3	104.8	75.9	22.2	924.9
ALL	ALL	ALL	29	ALL	11.5	61	80	9,489	9,361	1.3	104.8	75.9	22.2	924.9

Cruise Unit Report GLASCO U7

Unit Sale Notice Volume (MBF): GLASCO U7

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
DF	13.1			529	293	145	92	
PP	16.7			424			170	253
WL	10.3			54	21	12	21	
ALL	13.8			1,007	314	157	283	253

Unit Cruise Design: GLASCO U7

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (20) Measure/Count Plots, Sighting Ht = 4.5 ft	149.9	154.7	52	12	1

Unit Cruise Summary: GLASCO U7

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP	11	118	2.3	0
DF	19	81	1.6	0
WL	2	9	0.2	0
ALL	32	208	4.0	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U7

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
PP	45.4	83.3	11.6	102.1	44.9	13.5	4,634	94.6	17.8
DF	31.2	127.4	17.7	124.0	52.3	12.0	3,863	137.7	21.4
WL	3.5	317.9	44.1	116.4	45.0	31.8	403	321.1	54.4
ALL	80.0	54.7	7.6	111.3	52.1	9.2	8,900	75.5	11.9

Unit Summary: GLASCO U7

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	19	ALL	13.1	51	63	3,598	3,530	1.9	30.4	28.5	7.9	529.1
PP	LIVE	CUT	11	ALL	16.7	58	76	2,918	2,827	3.1	18.2	27.7	6.8	423.8
WL	LIVE	CUT	2	ALL	11.7	56	75	358	358	0.0	4.1	3.1	0.9	53.7

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	32	ALL	14.4	54	68	6,874	6,715	2.3	52.7	59.2	15.5	1,006.6
ALL	ALL	ALL	32	ALL	14.4	54	68	6,874	6,715	2.3	52.7	59.2	15.5	1,006.6

Cruise Unit Report GLASCO U8

Unit Sale Notice Volume (MBF): GLASCO U8

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	5 Saw
PP	20.6			590			357	233
DF	11.7			308	130	91	87	
WL	8.7			4			4	
ALL	14.2			902	130	91	448	233

Unit Cruise Design: GLASCO U8

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (20) Measure/Count Plots, Sighting Ht = 4.5 ft	155.5	161.3	54	14	0

Unit Cruise Summary: GLASCO U8

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP	14	124	2.3	0
DF	14	60	1.1	0
WL	1	4	0.1	0
ALL	29	188	3.5	0

Unit Cruise Statistics (Cut + Leave Trees): GLASCO U8

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
PP	45.9	64.2	8.7	133.0	24.0	6.4	6,109	68.6	10.8
DF	22.2	124.4	16.9	104.7	73.4	19.6	2,327	144.5	25.9
WL	1.5	442.9	60.3	75.1	0.0	0.0	111	442.9	60.3
ALL	69.6	46.6	6.3	122.7	47.6	8.8	8,547	66.6	10.9

Unit Summary: GLASCO U8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	14	ALL	11.7	49	60	2,002	1,978	1.2	25.3	18.9	5.5	307.5
PP	LIVE	CUT	14	ALL	20.6	74	98	3,826	3,793	0.8	12.3	28.5	6.3	589.9
WL	LIVE	CUT	1	ALL	8.7	49	60	28	28	0.0	0.9	0.4	0.1	4.3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	29	ALL	15.1	57	73	5,855	5,799	1.0	38.5	47.8	11.9	901.7
ALL	ALL	ALL	29	ALL	15.1	57	73	5,855	5,799	1.0	38.5	47.8	11.9	901.7

Cruise Unit Report GLASCO RW1

Unit Sale Notice Volume (MBF): GLASCO RW1

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	3 Saw	4 Saw	5 Saw
PP	15.9			22		8	14
WL	11.6			3	2	1	
DF	8.8			1		1	
ALL	13.9			26	2	10	14

Unit Cruise Design: GLASCO RW1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (20) Measure All, Sighting Ht = 4.5 ft	6.7	8.3	10	10	2

Unit Cruise Summary: GLASCO RW1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP	16	16	1.6	0
WL	2	2	0.2	0
DF	2	2	0.2	0
ALL	20	20	2.0	0

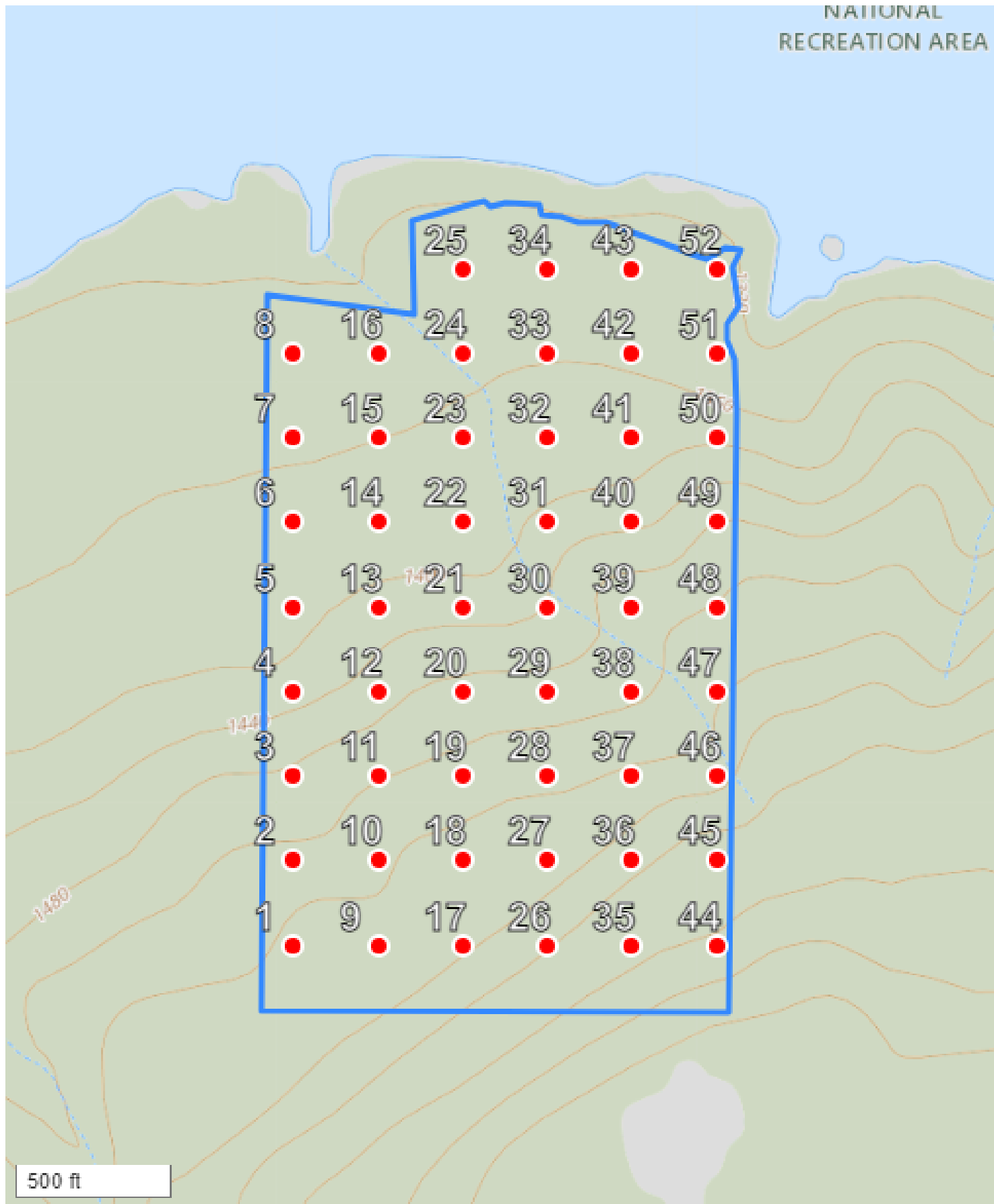
Unit Cruise Statistics (Cut + Leave Trees): GLASCO RW1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
PP	32.0	67.2	21.2	103.6	40.1	10.0	3,314	78.2	23.5
WL	4.0	316.2	100.0	108.7	0.1	0.1	435	316.2	100.0
DF	4.0	316.2	100.0	42.6	4.6	3.3	170	316.3	100.1
ALL	40.0	74.5	23.6	98.0	42.4	9.5	3,919	85.7	25.4

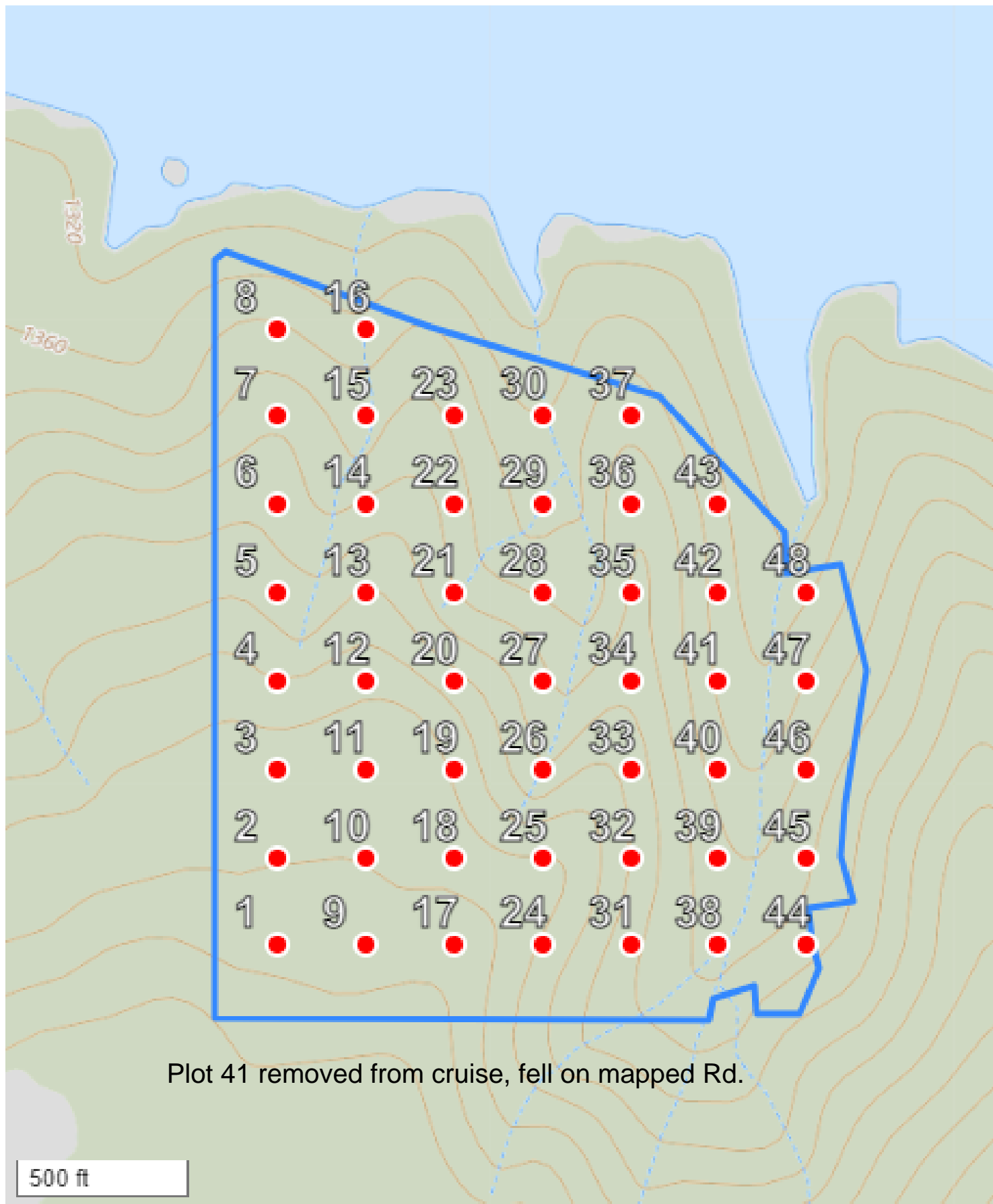
Unit Summary: GLASCO RW1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	2	ALL	8.8	39	47	170	170	0.0	9.5	4.0	1.3	1.1
PP	LIVE	CUT	16	ALL	15.9	62	81	3,500	3,314	5.3	23.2	32.0	8.0	22.2
WL	LIVE	CUT	2	ALL	11.6	69	87	521	435	16.6	5.5	4.0	1.2	2.9

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	20	ALL	13.9	57	74	4,192	3,919	6.5	38.2	40.0	10.5	26.3
ALL	ALL	ALL	20	ALL	13.9	57	74	4,192	3,919	6.5	38.2	40.0	10.5	26.3

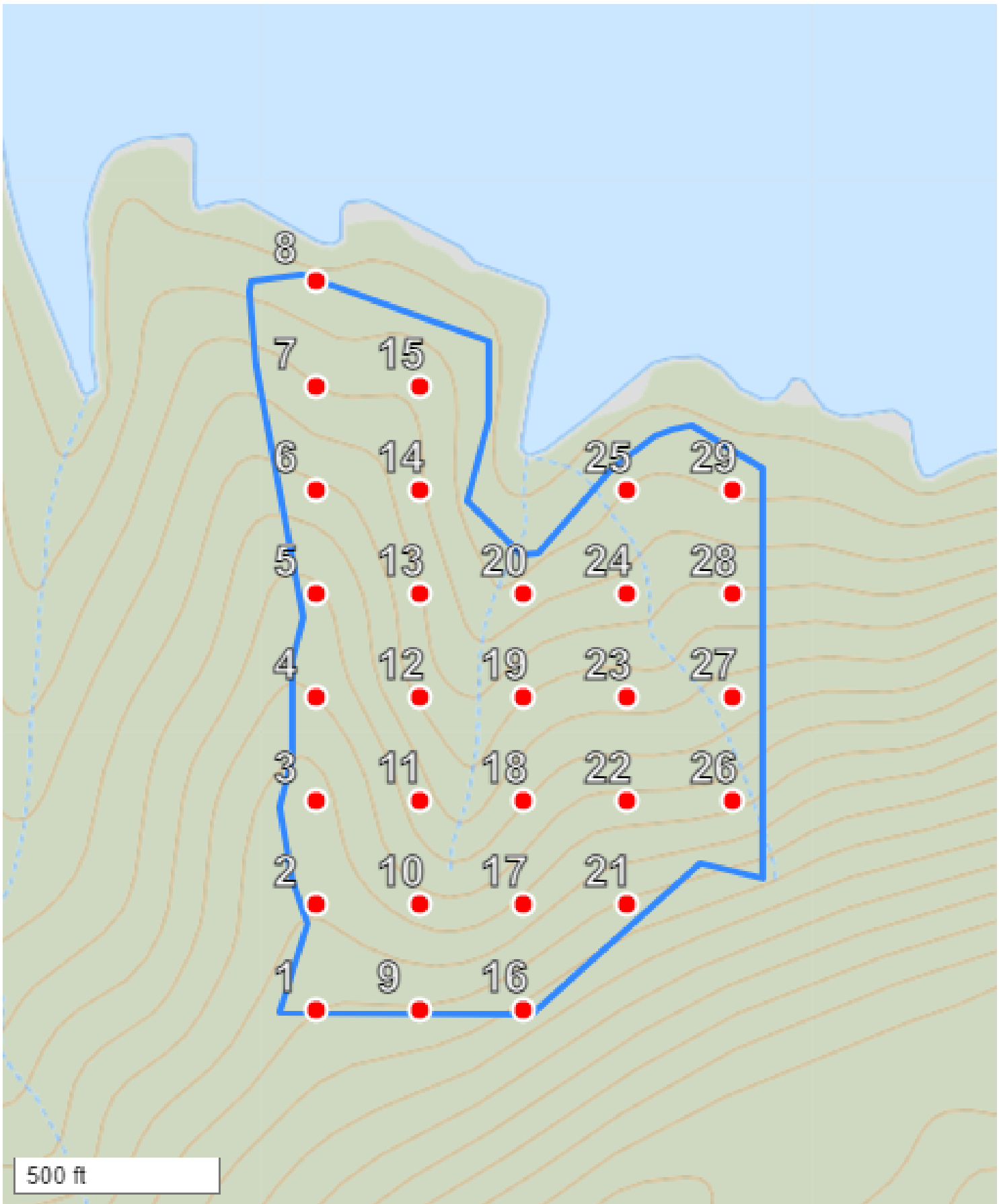


FMA Name: GLASCO U1	N Plots: 52	Plot Spacing: 269.1 ft
Grid Name: GLASCO U1 - 1	Acres Treated: 82.3	Main Azimuth: 0 deg

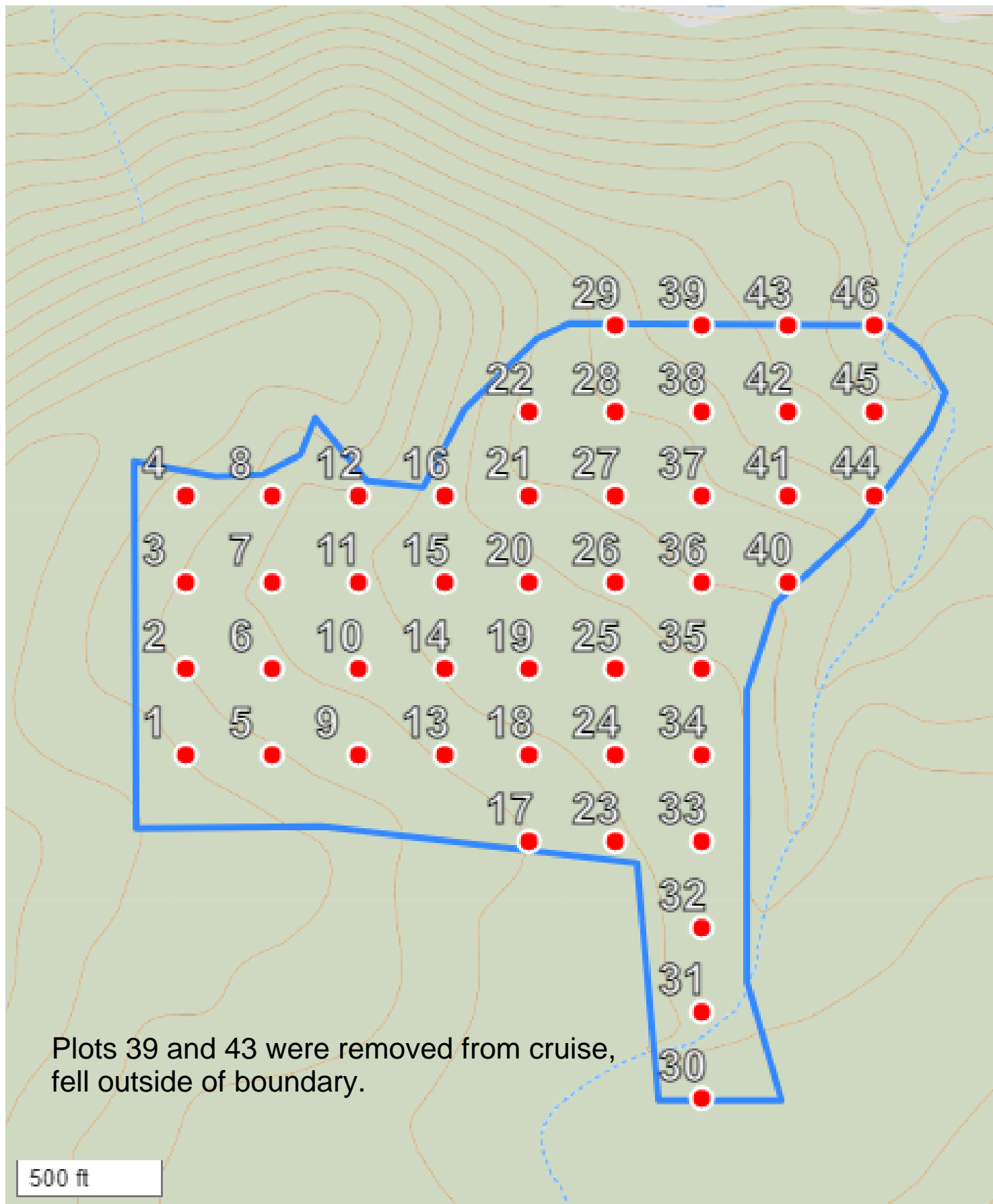


Plot 41 removed from cruise, fell on mapped Rd.

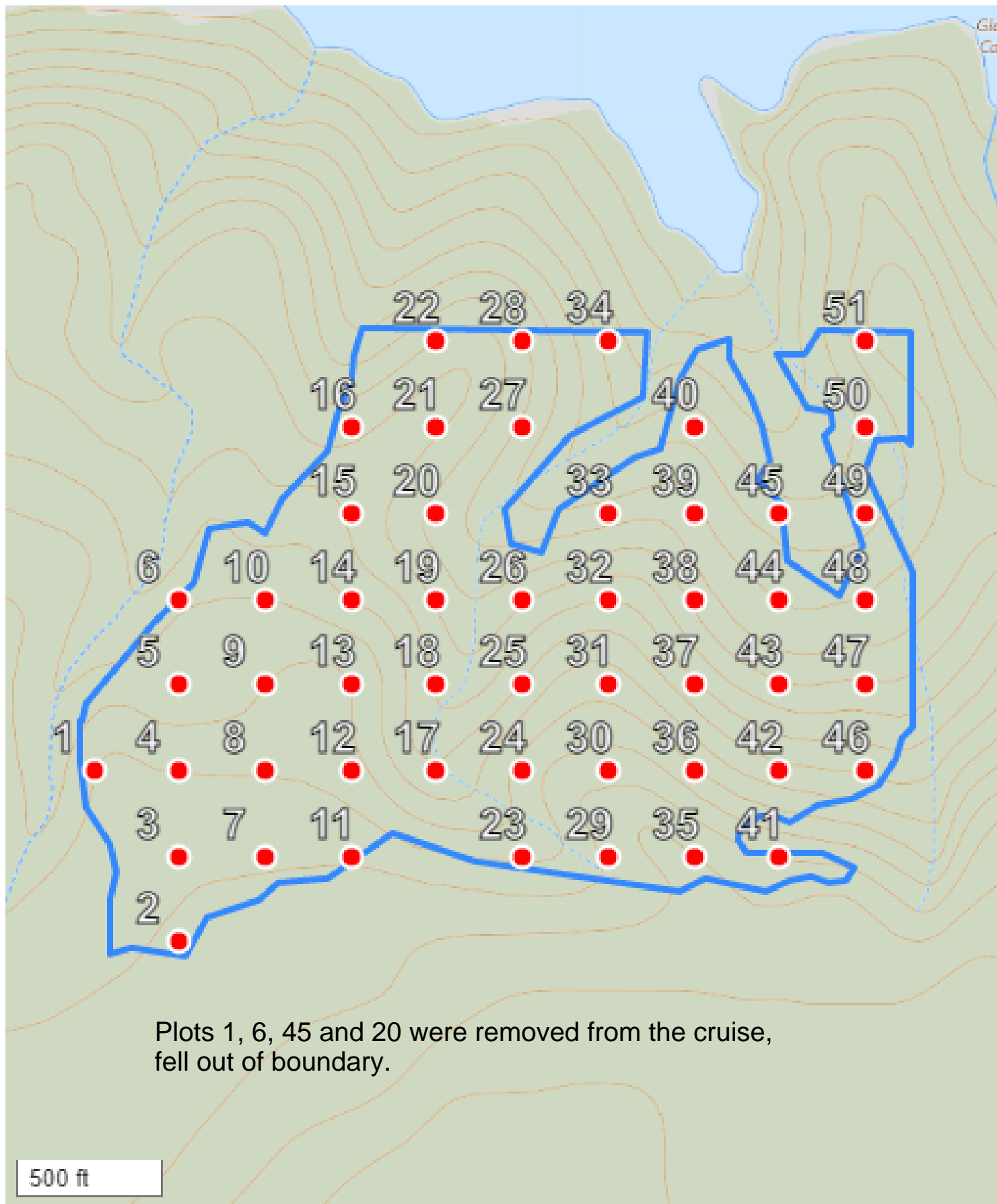
FMA Name: GLASCO U2	N Plots: 48	Plot Spacing: 254 ft
Grid Name: GLASCO U2 - 1	Acres Treated: 75.1	Main Azimuth: 0 deg



FMA Name: GLASCO U3	N Plots: 29	Plot Spacing: 252.1 ft
Grid Name: GLASCO U3 - 1	Acres Treated: 36.5	Main Azimuth: 0 deg



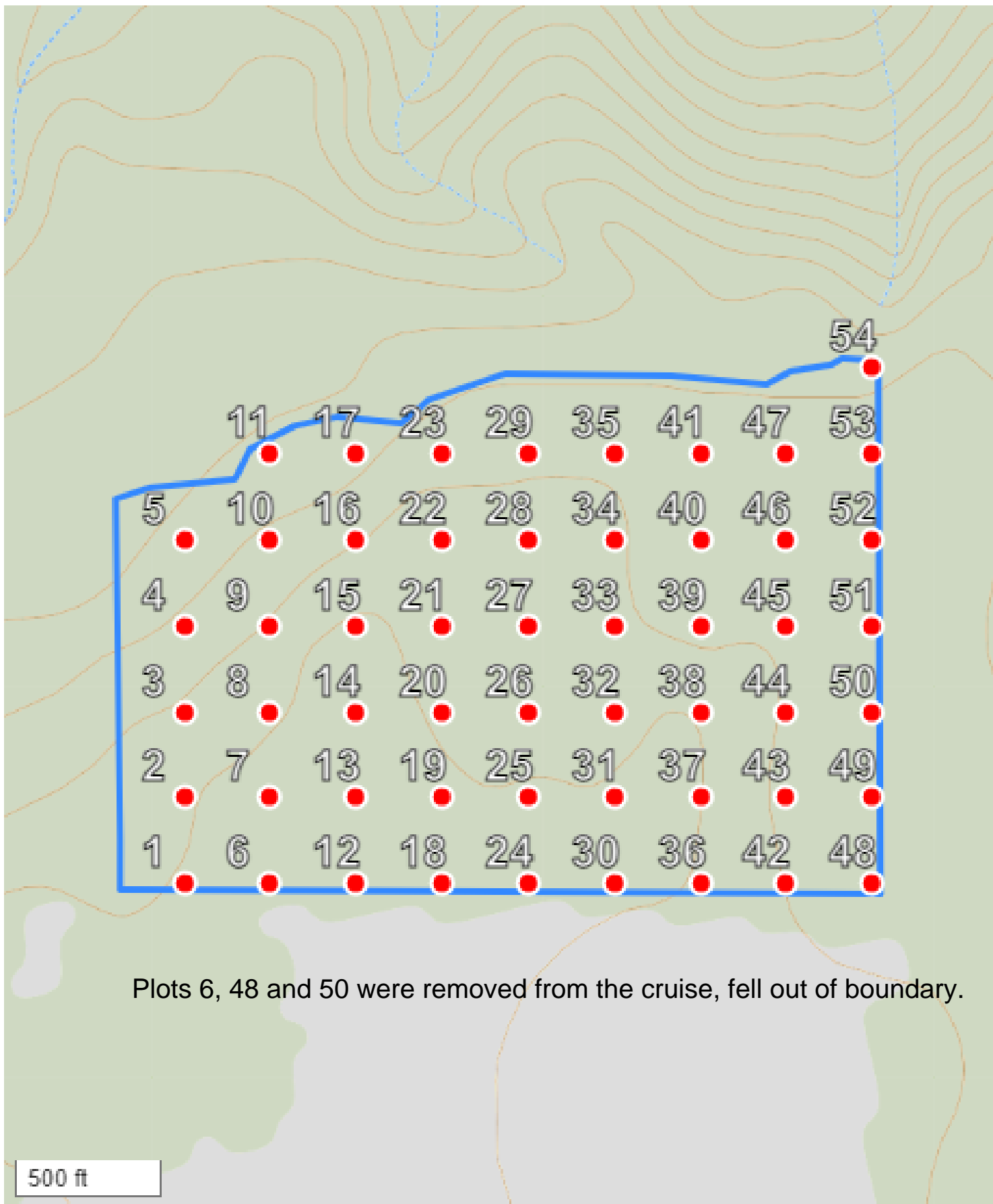
FMA Name: GLASCO U4	N Plots: 46	Plot Spacing: 294.9 ft
Grid Name: GLASCO U4 - 1	Acres Treated: 88.2	Main Azimuth: 0 deg



Plots 1, 6, 45 and 20 were removed from the cruise, fell out of boundary.

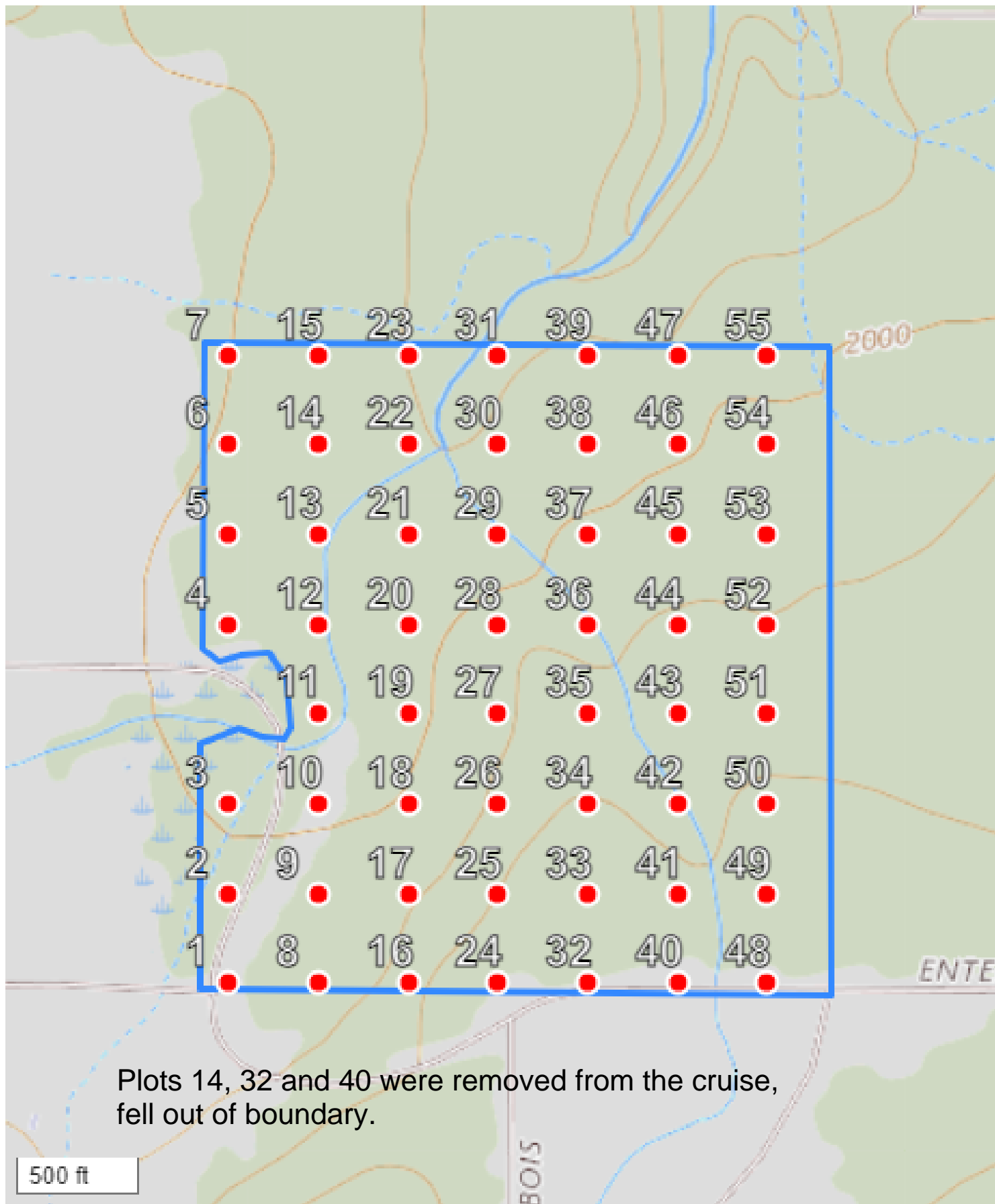
500 ft

FMA Name: GLASCO U5	N Plots: 51	Plot Spacing: 293.9 ft
Grid Name: GLASCO U5 - 1	Acres Treated: 93.2	Main Azimuth: 0 deg

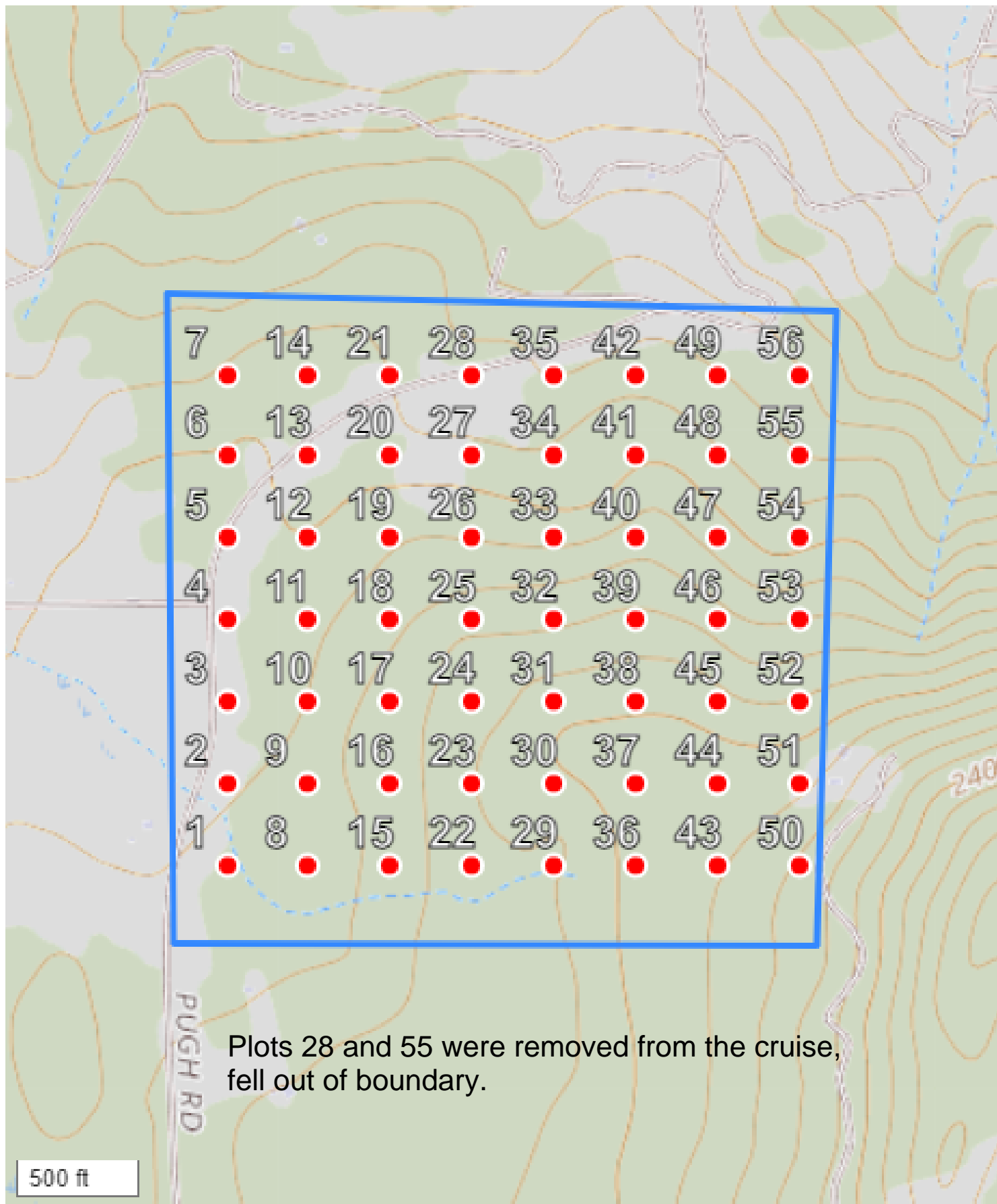


Plots 6, 48 and 50 were removed from the cruise, fell out of boundary.

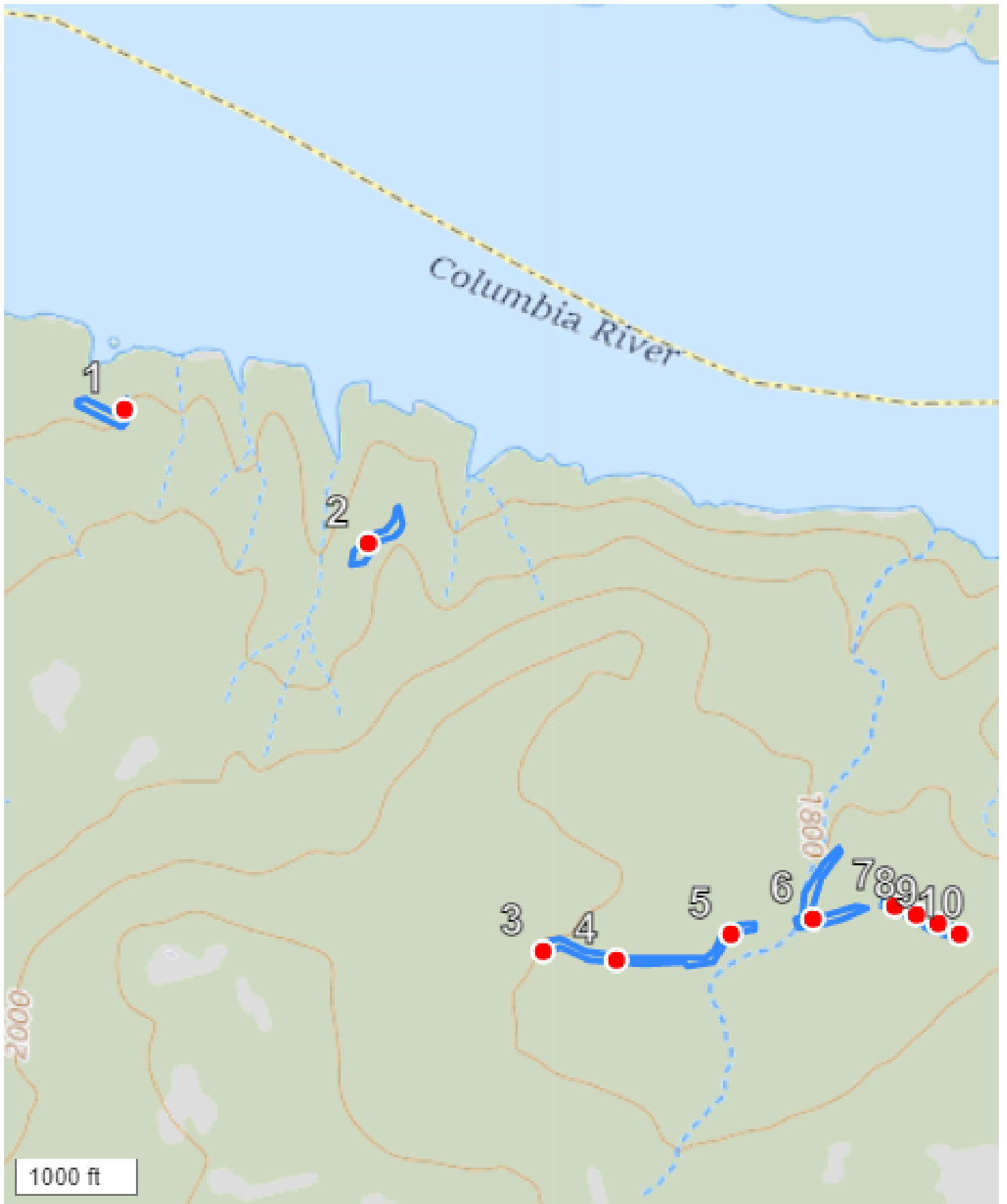
FMA Name: GLASCO U6	N Plots: 54	Plot Spacing: 294.8 ft
Grid Name: GLASCO U6 - 1	Acres Treated: 98.8	Main Azimuth: 0 deg



FMA Name: GLASCO U7	N Plots: 55	Plot Spacing: 366.8 ft
Grid Name: GLASCO U7 - 1	Acres Treated: 149.9	Main Azimuth: 0 deg



FMA Name: GLASCO U8	N Plots: 56	Plot Spacing: 333.6 ft
Grid Name: GLASCO U8 - 1	Acres Treated: 155.5	Main Azimuth: 0 deg



FMA Name: GLASCO RW1	N Plots: 10	Plot Spacing: 189.7 ft
Grid Name: GLASCO RW1 - 1	Acres Treated: 8.3	Main Azimuth: 24 deg



Forest Practices Application/Notification
Notice of Decision

FPA/N No: 3026224

Effective Date: 05/17/2023

Expiration Date: 05/17/2026

Shut Down Zone: 686

EARR Tax Credit: Eligible Non-eligible

Reference: Q Glasco

1-29-35 6,7,8,10,16-29-36

Decision

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

FPA/N Classification

- Class II
- Class III
- Class IVG
- Class IVS

Number of Years Granted on Multi-Year Request

- 4 years
- 5 years

Conditions on Approval/Reasons for Disapproval

No timing limitations apply.
 No additional conditions apply.
 Notify your Forest Practices Forester, Matt Binder, two business days prior to beginning work.
 509-680-7930.

Issued By: Matt Binder

Region: Northeast

Title: Forest Practices Forester

Date: 05/17/2023

Copies to: Landowner, Timber Owner and Operator

Issued in person: LO TO OP

By: *Saladil Hook*

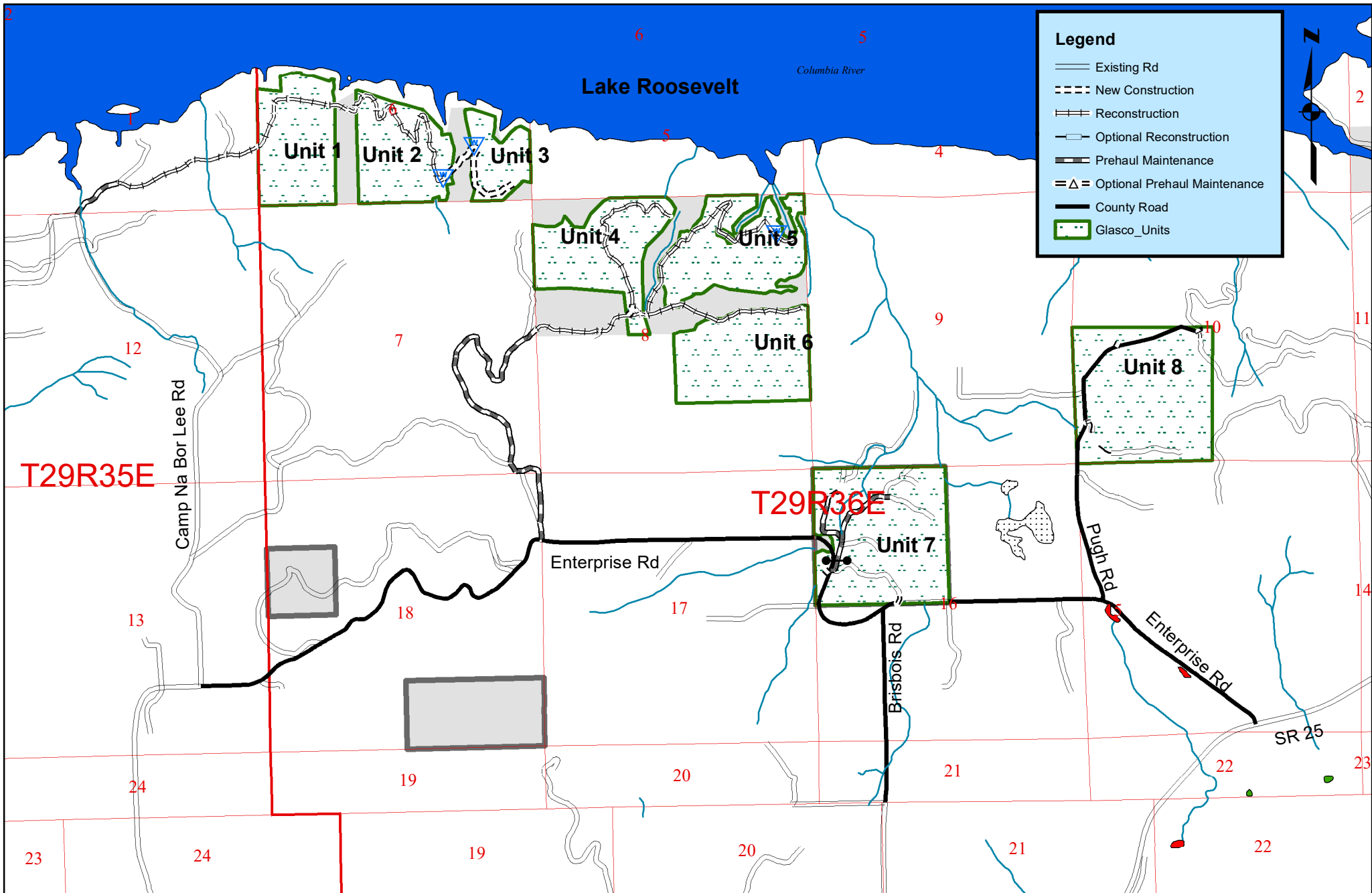
Date: 5/17/23

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

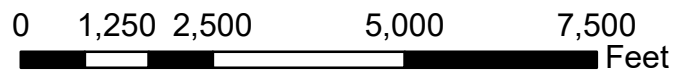
Road Plan Map
Page 1 of 9

Region: Northeast
County: Stevens



Legend

- Existing Rd
- New Construction
- Reconstruction
- Optional Reconstruction
- Prehaul Maintenance
- Optional Prehaul Maintenance
- County Road
- Glasco_Units



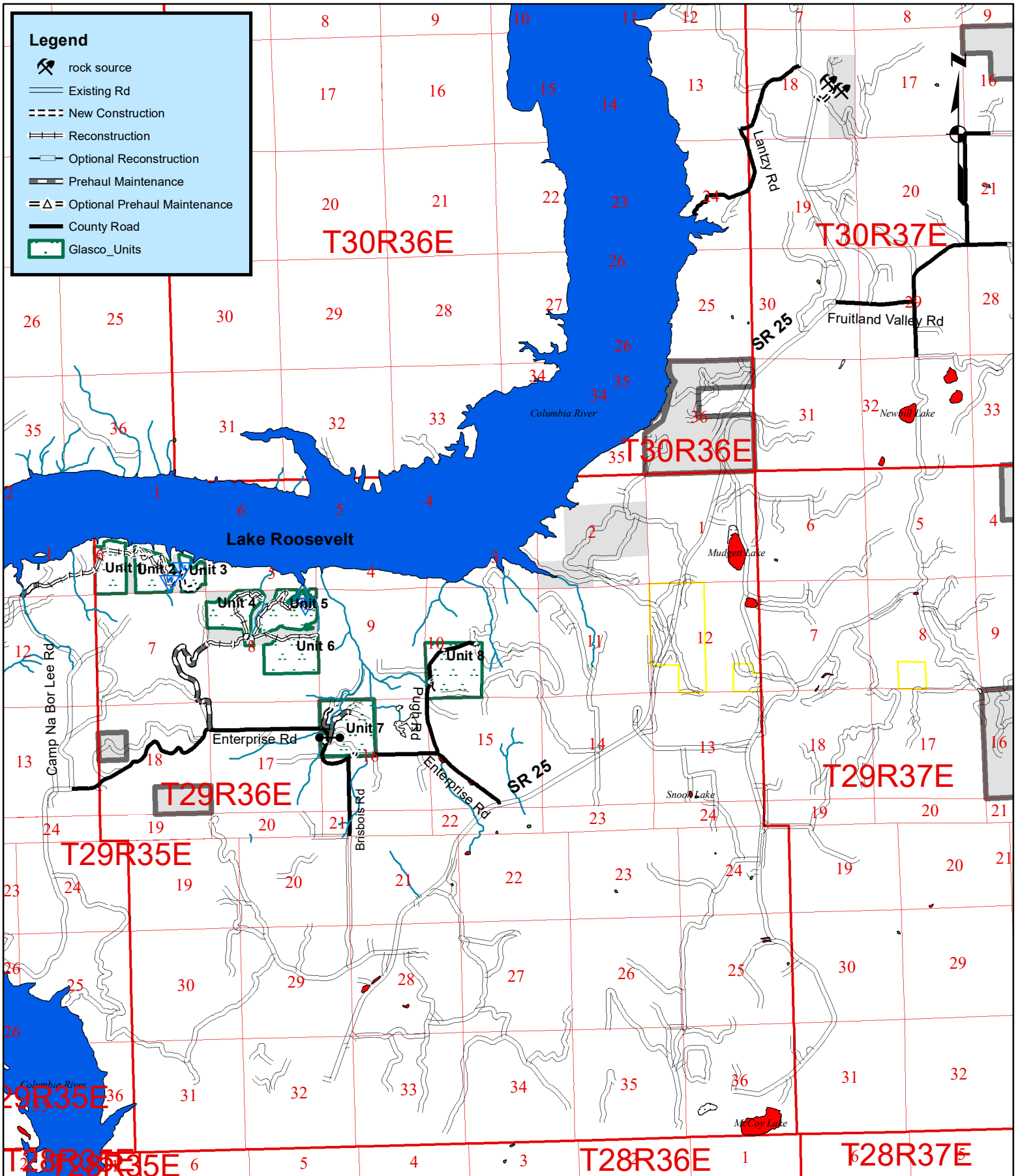
1 inch = 2,500 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

Road Plan Map
Page 2 of 9

Region: Northeast
County: Stevens



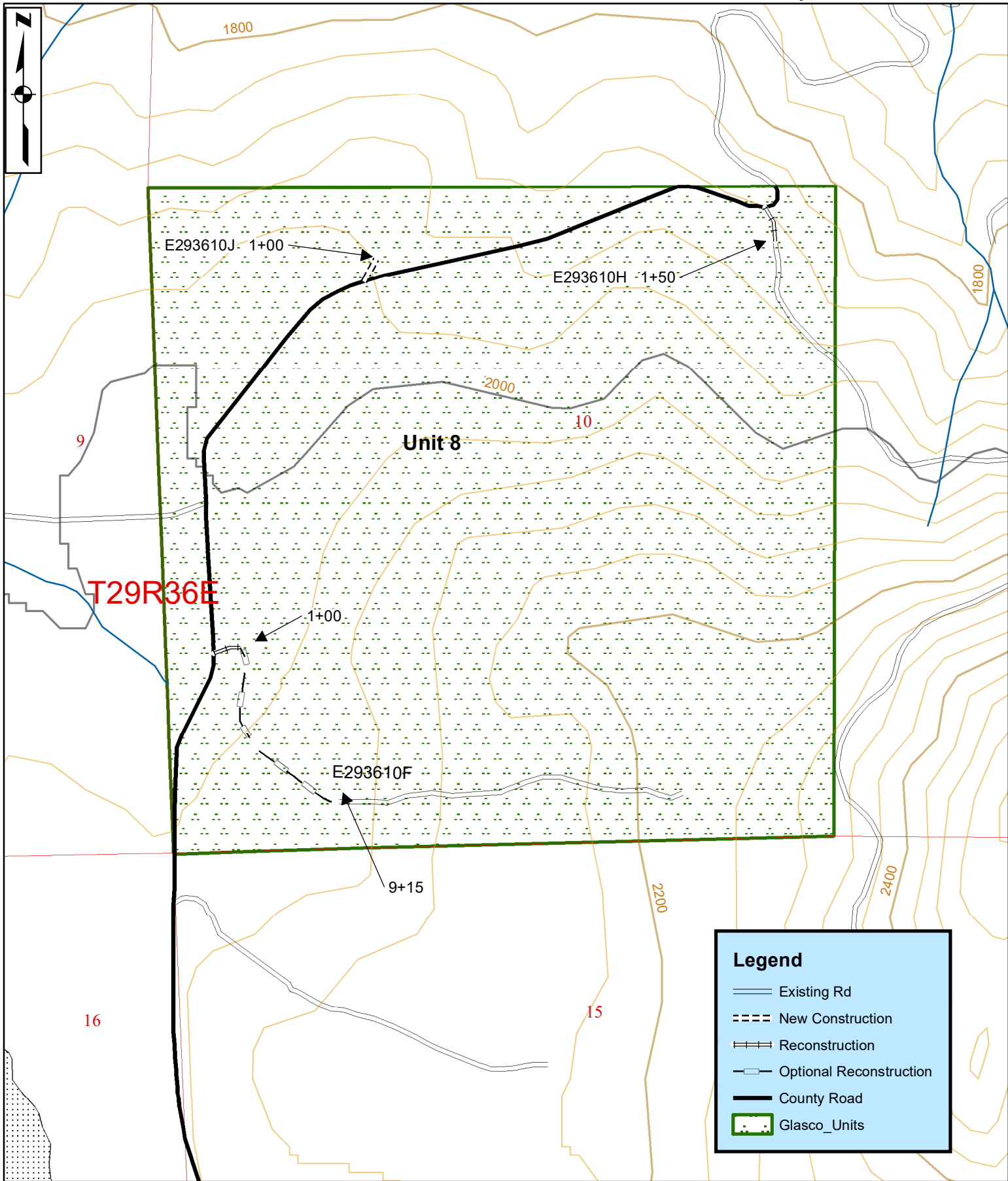
1 inch = 6,000 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

Road Plan Map
Page 3 of 9

Region: Northeast
County: Stevens



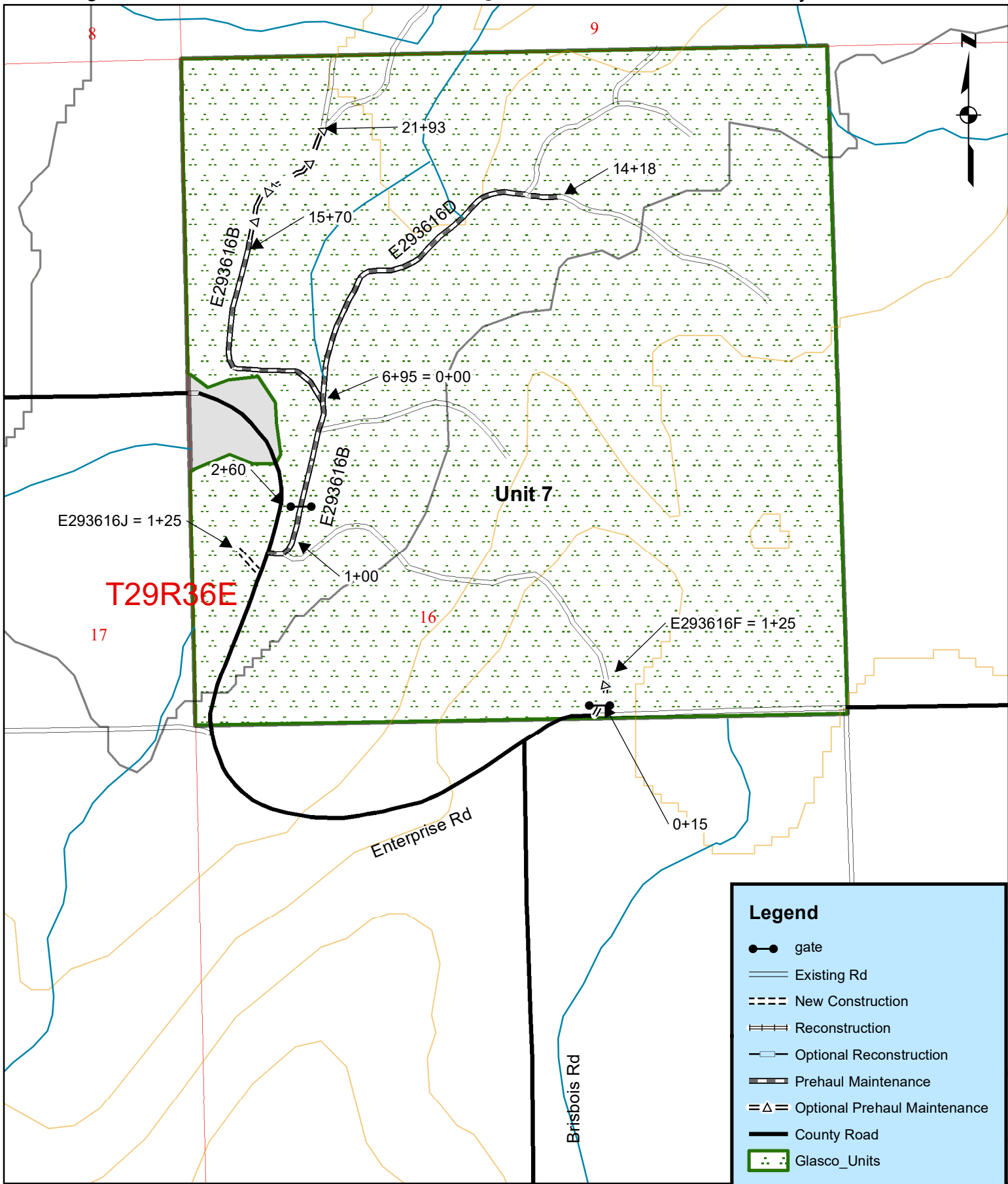
1 inch = 500 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

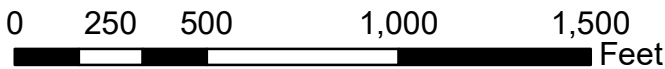
Road Plan Map
Page 4 of 9

Region: Northeast
County: Stevens



Legend

- gate
- Existing Rd
- - - New Construction
- == Reconstruction
- - - Optional Reconstruction
- == Prehaul Maintenance
- ==△ Optional Prehaul Maintenance
- County Road
- Glasco_Units



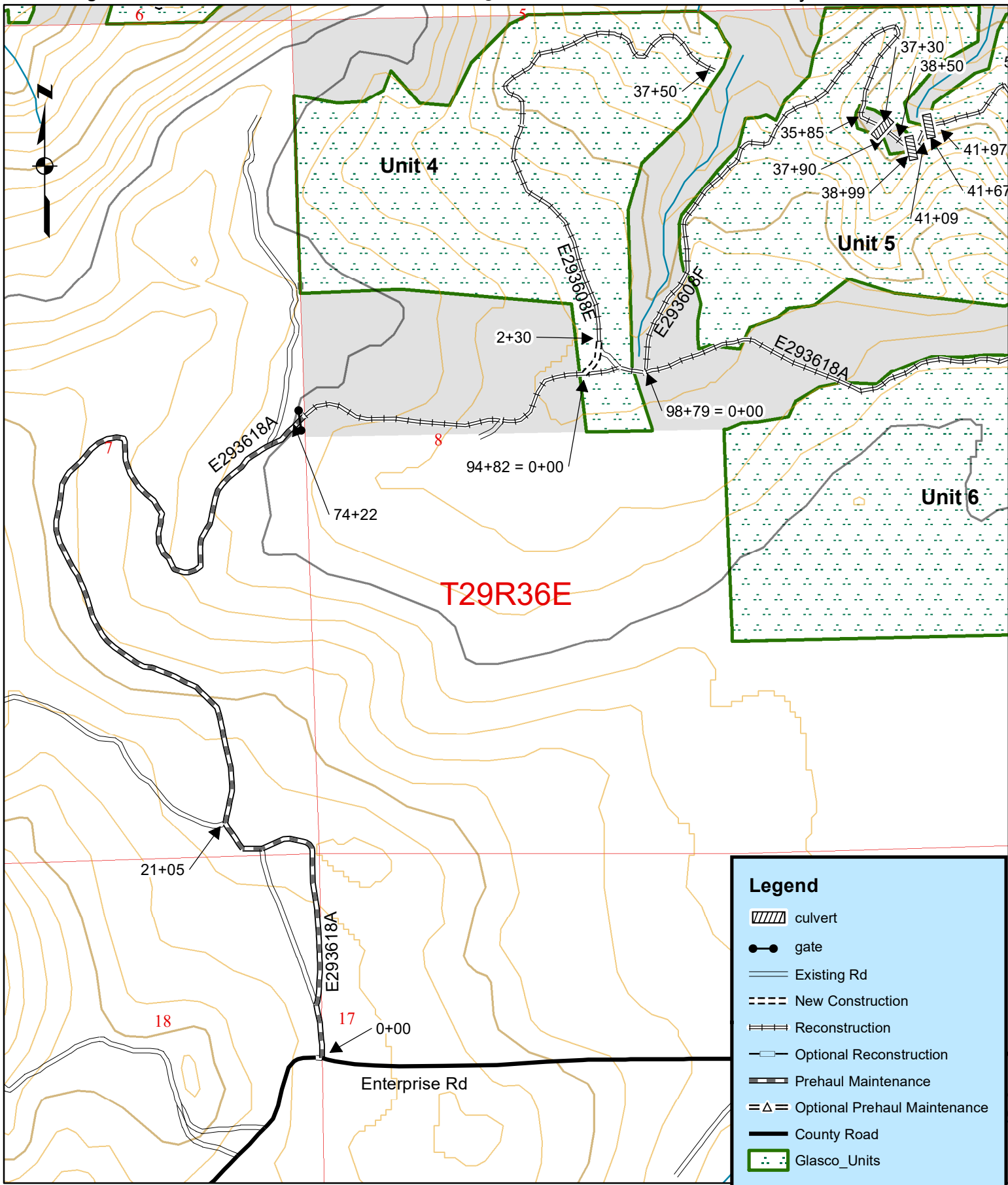
1 inch = 500 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

Road Plan Map
Page 5 of 9

Region: Northeast
County: Stevens



0 400 800 1,600 2,400 Feet

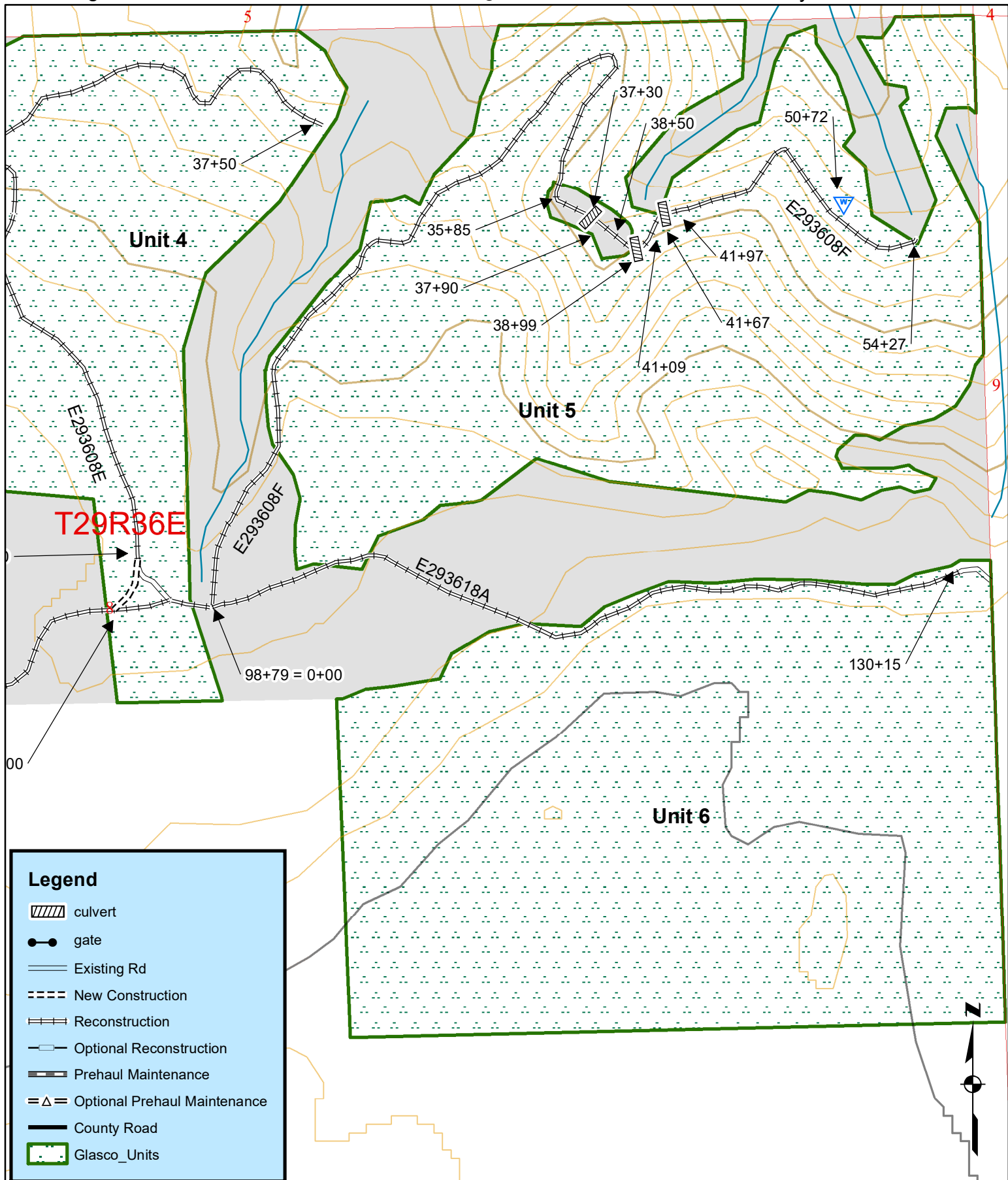
1 inch = 800 feet

Washington State Department of Natural Resources

Sale Name: Glasco
 Agreement No.: 30-104599

Road Plan Map
 Page 6 of 9

Region: Northeast
 County: Stevens



Legend

- culvert
- gate
- Existing Rd
- New Construction
- Reconstruction
- Optional Reconstruction
- Prehaul Maintenance
- Optional Prehaul Maintenance
- County Road
- Glasco Units

0 250 500 1,000 1,500 Feet

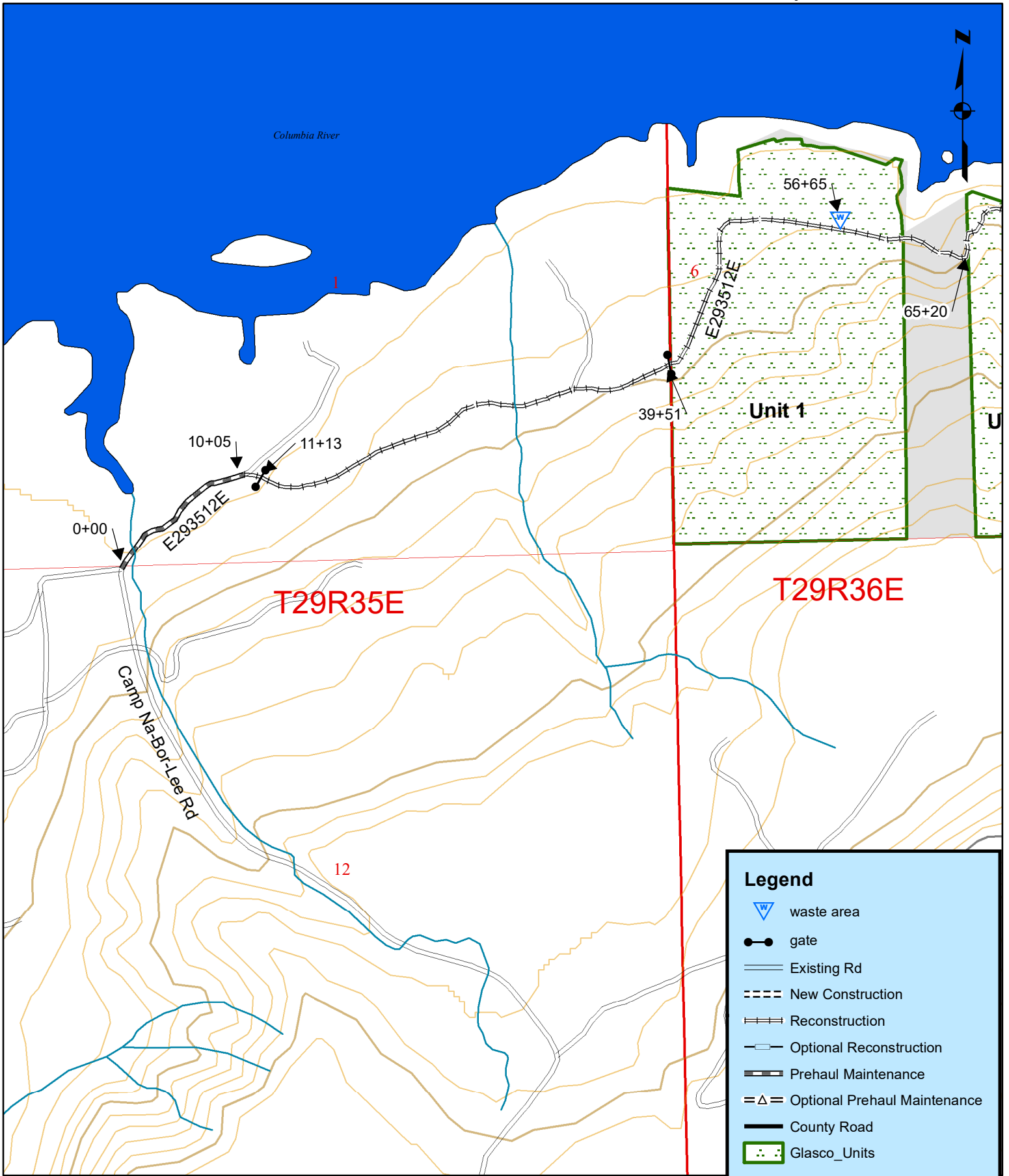
1 inch = 500 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

Road Plan Map
Page 7 of 9

Region: Northeast
County: Stevens



0 400 800 1,600 2,400 Feet

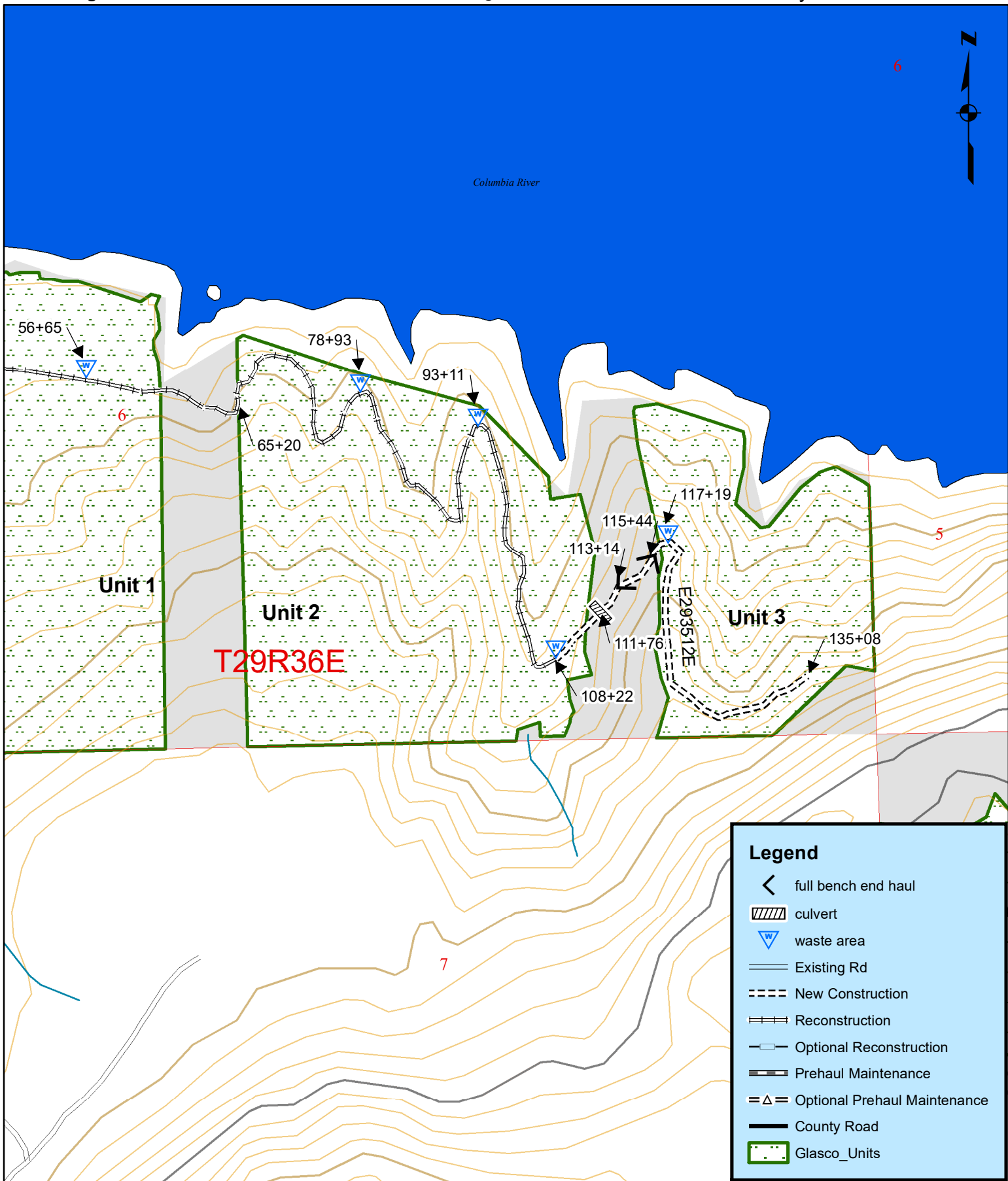
1 inch = 800 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

Road Plan Map
Page 8 of 9

Region: Northeast
County: Stevens



Legend

- full bench end haul
- culvert
- waste area
- Existing Rd
- New Construction
- Reconstruction
- Optional Reconstruction
- Prehaul Maintenance
- Optional Prehaul Maintenance
- County Road
- Glasco_Units

0 250 500 1,000 1,500 2,000 Feet

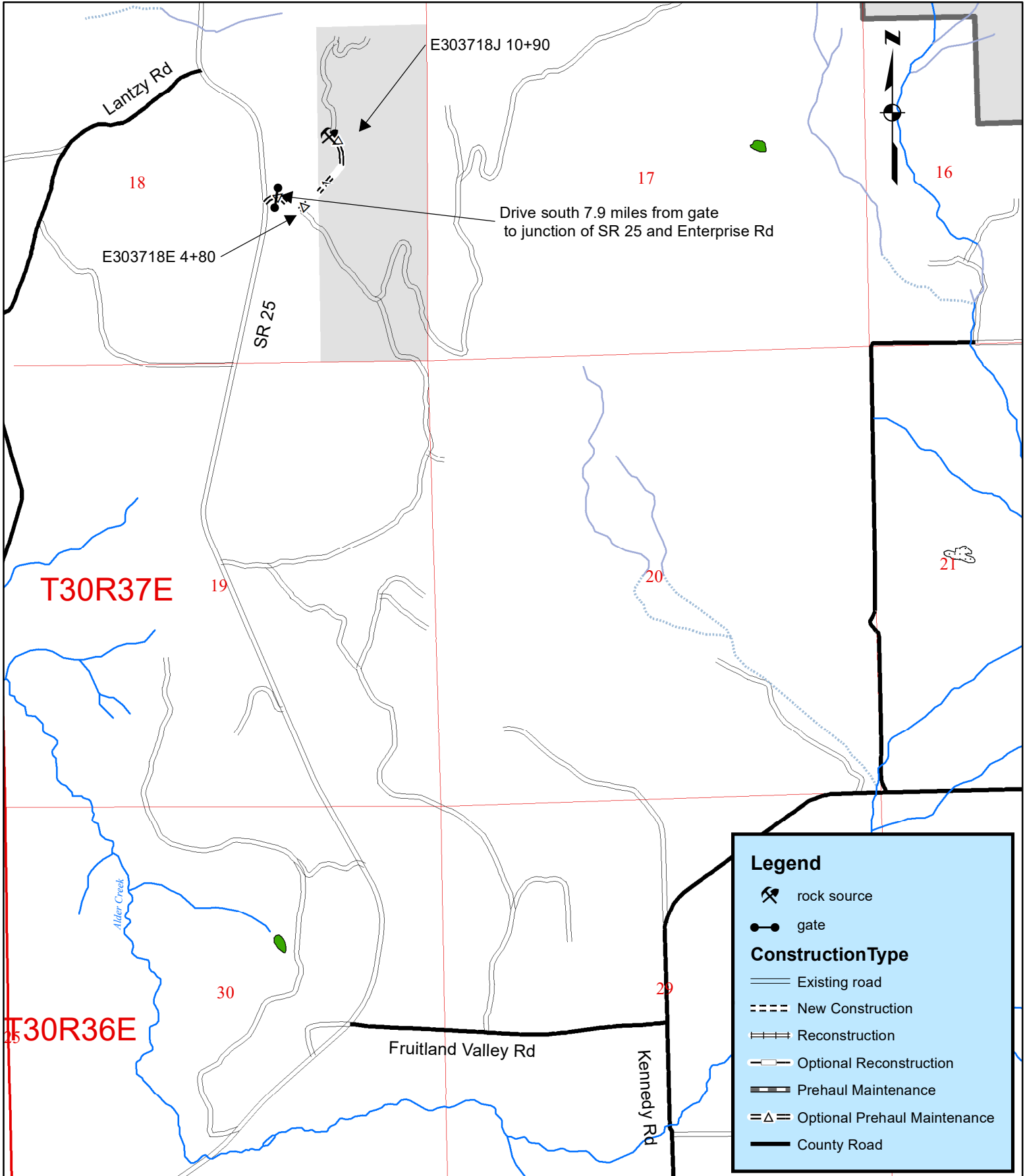
1 inch = 673 feet

Washington State Department of Natural Resources

Sale Name: Glasco
Agreement No.: 30-104599

Road Plan Map
Page 9 of 9

Region: Northeast
County: Stevens



E303718J 10+90

Lantzy Rd

18

17

16

E303718E 4+80

SR 25

Drive south 7.9 miles from gate
to junction of SR 25 and Enterprise Rd

T30R37E

19

20

21

T30R36E

30

29

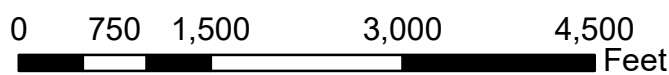
Fruitland Valley Rd

Kennedy Rd

Alder Creek

Legend

- rock source
- gate
- Construction Type**
- Existing road
- New Construction
- Reconstruction
- Optional Reconstruction
- Prehaul Maintenance
- Optional Prehaul Maintenance
- County Road



1 inch = 1,500 feet

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

GLASCO TIMBER SALE ROAD PLAN
STEVENS COUNTY
EAST ZONE DISTRICT NORTH COLUMBIA WORK UNIT
NORTHEAST REGION

AGREEMENT NO.: 30-104599

STAFF ENGINEER: GENE GIBBS

DATE: 5/10/2023

DRAWN & COMPILED BY: GENE GIBBS

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>
E293610F	0+00 to 1+00	Reconstruction
E293610J	0+00 to 1+00	New Construction
E293610H	0+00 to 1+50	Reconstruction
E293616J	0+00 to 1+25	New Construction
E293616B	0+00 to 15+70	Prehaul Maintenance
E293616D	0+00 to 14+18	Prehaul Maintenance
E293618A	0+00 to 74+22	Prehaul Maintenance
E293618A	74+22 to 130+15	Reconstruction
E293608E	0+00 to 2+30	New Construction
E293608E	2+30 to 37+50	Reconstruction
E293608F	0+00 to 54+27	Reconstruction
E293512E	0+00 to 10+05	Prehaul Maintenance
E293512E	10+05 to 108+22	Reconstruction
E293512E	108+22 to 135+08	New Construction

0-3 OPTIONAL ROADS

The specified work on the following roads is not required. Any optional roads built by the Purchaser shall meet all the specifications in the road plan.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
E293610F	1+00 to 9+15	Reconstruction
E293616B	15+70 to 21+93	Prehaul Maintenance
E293616F	0+00 to 1+25	Prehaul Maintenance
E303718E	0+00 to 4+80	Prehaul Maintenance
E303718J	0+00 to 10+90	Prehaul Maintenance

0-4 CONSTRUCTION

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
E293610J	0+00 to 1+00	Construct road in accordance to typical section.
E293616J	0+00 to 1+25	Construct road in accordance to typical section.
E293608E	0+00 to 2+30	Construct show Fly. Construct road in accordance to typical section.
E293512E	108+22 to 135+08	Construct road in accordance to typical section. Favorable haul, potential truck assist, proposed constructed grades up to 16%. See Clause 4-12 Full Bench Construction. See Clause 4-36 Disposal of Waste Material.
	111+76	Install 18"x30' cross drain in swail.
	113+14 to 115+44	No side cast permitted. Estimated 3,200 bank yards to be pushed or end hauled to waste area approved by the contract administrator. See clause 4-37 Waste area locations and clause 4-38 Prohibited waste disposal areas.

Construction includes, but is not limited to clearing & grubbing, pioneering & decking logs, subgrade construction and compaction, rolling dip, cross drain, and culvert installation, Fish passage structure installation, cut & fill, embankment construction, riprap and rock application. Construct to the TYPICAL SECTION SHEET, ROCK LIST, and CULVERT & DRAINAGE LIST, for general specifications, unless otherwise specified in design details.

0-5 RECONSTRUCTION

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
E293610F	0+00 to 1+00	Reconstruct road in accordance to typical section.

E293610F optional	1+00 to 9+15	Reconstruct road in accordance to typical section.
E293610H	0+00 to 1+50	Reconstruct road in accordance to typical section.
E293618A	74+22 to 130+15	Reconstruct road in accordance to typical section.
E293608E	2+30 to 37+50	Reconstruct road in accordance to typical section. See clause 4-8 Curve Widening. See Clause 4-36 Disposal of Waste Material.
E293608F	0+00 to 35+85	Reconstruct road in accordance to typical section. See clause 4-8 Curve Widening. See Clause 4-36 Disposal of Waste Material.
	35+85 to 41+67	Reconstruct road in accordance to typical section. Inslope and rock road with geotextile to drain seeping cut slope. Create ditchline by insloping and lifting subgrade with 9" lift of 4 inch in place rock.
	35+85	Install rocked rolling dip
	35+85 to 36+15	Armor seepy cut slope with 50 cubic yards light loose rip rap.
	37+30	Install 18"x44' cross drain with 10 cubic yards Rip Rap armored catch basin and 5 cy rip rap for disipator.
	37+90, 38+50	Install rolling dip
	38+25 to 38+50	Armor seepy cut slope with 30 cubic yards light loose rip rap.
	38+99	Replace existing 12 inch culvert with 18"x46' cross drain in bottom of swail.
	41+09	Install rolling dip
	41+67	Install 18"x40' cross drain with 4 cubic yards Rip Rap armored catch basin and 1 cubic yard energy dissipater at outlet
	41+67 to 54+27	Reconstruct road in accordance to typical section. See clause 4-8 Curve Widening. See Clause 4-36 Disposal of Waste Material.
	41+97	Install rolling dip
E293512E	10+05 to 108+22	Reconstruct road in accordance to typical section. See clause 4-8 Curve Widening.

		See Clause 4-36 Disposal of Waste Material.
	10+05 to 39+51	Any timber removed will be decked parallel to the road in a manner as to protect regeneration trees as much as possible and in a manner as to not impede on log hauling activities.
	11+13	Existing cable gate
	39+51	Existing wire stretch gate

Reconstruction includes, but is not limited to clearing & grubbing, subgrade reconstruction, rolling dip, cross drain, and culvert installation, cut & fill, embankment construction, culvert and ditch cleaning, riprap and rock application. Reference the TYPICAL SECTION SHEET, ROCK LIST, and CULVERT & DRAINAGE LIST, for general specifications.

0-6 PRE-HAUL MAINTENANCE

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
<i>E293616F optional</i>	<i>0+00 to 1+25</i>	<i>Reshape road to provide drainage as needed.</i>
	<i>0+15</i>	<i>Existing wire stretch gate.</i>
E293616B	0+00 to 15+70	Reshape road to provide drainage as needed.
E293616B	0+00 to 1+00	Install 9" lift of 4" in place rock on the approach to Enterprise county road.
	2+60	Existing wire stretch gate.
<i>E293616B Optional</i>	<i>15+70 to 21+93</i>	<i>Light brushing required, brush road in accordance to brushing detail.</i>
E293616D	0+00 to 14+18	Reshape road to provide drainage as needed. Light brushing required, brush road in accordance to brushing detail.
E293618A	0+00 to 74+22	Reshape road to provide drainage as needed.
	21+05 to 74+22	Light brushing required, brush road in accordance to brushing detail. Any timber removed will be decked parallel to the road in a manner as to protect regeneration trees as much

		as possible and in a manner as to not impede on log hauling activities.
	74+22	Existing wire stretch gate.
E293512E	0+00 to 10+05	Reshape road to provide drainage as needed. Light brushing required, brush road in accordance to brushing detail.
<i>E303718E Optional</i>	<i>0+00 to 4+80</i>	<i>Reshape road to provide drainage as needed.</i>
<i>E303718J Optional</i>	<i>0+00 to 10+90</i>	<i>Reshape road to provide drainage as needed.</i>

Maintenance includes, but is not limited to brushing, clearing, grubbing, subgrade reshaping, rolling dip, cross drain, and culvert installation, cleaning culverts and ditches, grading, and riprap and rock application. Reference the TYPICAL SECTION SHEET, ROCK LIST, and CULVERT & DRAINAGE LIST, for general specifications.

0-7 POST-HAUL MAINTENANCE

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

0-12 DEVELOP ROCK SOURCE

Purchaser may use 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 shall be submitted, in writing, to the Contract Administrator for consideration. The State must approve the submitted plans before road work begins.

1-2 UNFORESEEN CONDITIONS

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

1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan, unless controlled by construction stakes or design data (plan, profile, and cross-sections).

1-4 ROAD TOLERANCES

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

<u>Tolerance Class</u>	<u>A</u>	<u>B</u>	<u>C</u>
Road and Subgrade Width (feet)	+1.5	+1.5	+2.0
Subgrade Elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

1-6 ORDER OF PRECEDENCE

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

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

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

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

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

1-9 DAMAGED METALLIC COATING

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

1-15 ROAD MARKING

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

- Road centerline marked with orange ribbon
- Road stationing marked on orange ribbon and/or pink tags.
- Slope stakes with reference points

1-18 REFERENCE POINT DAMAGE

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

1-21 HAUL APPROVAL

Purchaser shall not use roads under this road plan for timber hauling, rock 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

1-25 ACTIVITY TIMING RESTRICTION

Construction restrictions apply to this contract. All construction, reconstruction and transportation of heavy equipment and/or trucks is prohibited between the following dates, except as may be authorized in writing by the Contract Administrator.

November 15 to August 1

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTIONS, the Contractor shall provide a maintenance plan to include further protection of state resources. The Contract Administrator must approve the maintenance plan, in writing, before operation in the closure period. The Contractor shall be required to maintain all haul roads including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER.

1-29 SEDIMENT RESTRICTION

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

1-30 CLOSURE TO PREVENT DAMAGE

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

- Wheel track rutting exceeds 3 inches on jaw run roads.
- Wheel track rutting exceeds 3 inches on crushed rock roads.
- Wheel track rutting exceeds 6 inches on native surface roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- In the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

1-32 ASPHALT SURFACE RESTRICTION

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

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

1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contact Administrator upon request.

1-40 ROAD APPROACHES TO COUNTY ROADS

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

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

SECTION 2 – MAINTENANCE

2-1 GENERAL ROAD MAINTENANCE

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

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

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

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

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

2-4 PASSAGE OF LIGHT VEHICLES

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

2-5 MAINTENANCE GRADING – EXISTING ROAD

Purchaser shall use a grader to shape the existing surface before commencement of haul and upon completion of the sale. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

2-6 CLEANING CULVERTS

Purchaser shall clean the inlets and outlets of all culverts and shall obtain written approval from the Contract Administrator before beginning hauling activities or rock application.

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

Purchaser shall clean ditches, headwalls, and catch basins. Work shall be completed before commencement of haul and upon completion of the sale and shall be subject to the written approval of the Contract Administrator. Work shall be done in accordance with the Culvert and Drainage Detail. Pulling ditch material across crushed rock road surfaces or mixing in with the road surface is not allowed.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-1 BRUSHING

Purchaser shall cut vegetative material up to 3 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by manual or mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation may not be disturbed unless directed by the Contract Administrator. Contractor shall remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets.

3-2 BRUSHING RESTRICTION

Pulling, digging, pushing over, and other non-cutting methods used for vegetation removal may not be used for brushing, brushing unless otherwise approved in writing by the Contract Administrator.

3-5 CLEARING

Purchaser shall fall all vegetative material larger than 3 inches DBH or over 6 feet high between the marked right-of-way boundaries and within waste and debris areas. If not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-7 RIGHT-OF-WAY DECKING

Purchaser shall deck all right-of-way timber. Decks must be parallel to the road centerline and placed within the cleared right-of-way. Decks must be free of dirt, limbs, and other right-of-way debris, and removable by standard log loading equipment from the roadbed.

3-8 PROHIBITED DECKING AREAS

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

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 40%.
- Against standing trees.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Those stumps outside the grubbing limits but with undercut roots shall also be removed. Stumps over 22 inches diameter shall be split. Stumps over 40 inches shall be quartered. Grubbing shall be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps outside of the grubbing limits or as directed by the Contract Administrator. Stumps must be placed on stable locations.

3-14 STUMPS WITHIN DESIGNATED WASTE AREAS

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

3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clauses 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 grubbing 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, except by burning, before the application of rock or timber haul.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris shall be located within the cleared right-of-way or in natural openings, or in areas approved in writing by the Contract Administrator.

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, wetland, or within the riparian management zone.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 40%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-30 EXCLUSION OF DOZER BLADES

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

3-31 PILING

Purchaser shall pile organic debris no closer than 20 feet from standing timber and no higher than 10 feet. Piles must be free of rock and soil. Debris piles shall be placed within the cleared right-of-way, or in natural openings, or as designated by the Contract Administrator. Placement of debris piles outside of the right-of-way limits is subject to

the written approval of the Contract Administrator. No piling within the Riparian Management Zone (RMZ).

SECTION 4 – EXCAVATION

4-1 EXCAVATOR CONSTRUCTION

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

4-2 PIONEERING

Pioneering shall not extend past construction that will be completed during the current construction season. Pioneering shall not extend more than 1000 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions shall be taken as pioneering progresses:

- Drainage shall be provided on all uncompleted construction.
- Road pioneering operations shall not undercut the final cut slope or restrict drainage.
- Culverts at live stream crossings shall 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 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

4-4 SWITCHBACK STANDARDS

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

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

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

4-5 CUT SLOPE RATIO

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

- 7 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 1 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

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

4-10 WIDEN THE EXISTING SUBGRADE

Purchaser shall widen the subgrade and fill slopes to the dimensions shown on the TYPICAL SECTION SHEET, plus appropriate curve widening. If necessary, Purchaser shall reconstruct excavation slopes to provide sufficient width for the road surface and any ditches.

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.

4-21 TURNOUTS

Purchaser shall construct turnouts intervisible with a maximum distance of 1,000 feet between turnouts unless otherwise shown on drawings. 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

Turnarounds shall be no larger than 30 feet long and 30 feet wide. Locations shall be subject to approval by the Contract Administrator.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

The Purchaser shall construct or 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.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

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

4-35 WASTE MATERIAL DEFINITION

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

4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may side cast waste material on side slopes up to 55% if the waste material is compacted and free of organic debris. On side slopes greater than 55%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified.

4-37 WASTE AREA LOCATION

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

<u>Road</u>	<u>Waste Area Location</u>	<u>Comments</u>	<u>Volume</u>
E293608F	50+72	To be approved by contract administrator.	1,000 cubic yards
E293512E	56+65	To be approved by contract administrator.	2,000 cubic yards
E293512E	78+93	To be approved by contract administrator.	500 cubic yards
E293512E	93+11	To be approved by contract administrator.	500 cubic yards
E293512E	108+22	To be approved by contract administrator.	2,000 cubic yards
E293512E	117+19	To be approved by contract administrator.	4,500 cubic yards

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 35%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- Outside the clearing limits.

4-45 SELECT BORROW

Select borrow consists of granular material, either naturally occurring or processed, and contains no more than 5% clay, organic debris, or trash by volume. Select borrow material must be free of rocks greater than 6 inches in any dimension.

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. Common borrow material must be free of rocks greater than 6 inches in any dimension.

4-47 BORROW MATERIAL

Borrow material may not contain more than 5% clay, organic debris, or trash by volume. Borrow material must be free of rocks greater than 6 inches in any dimension.

4-48 NATIVE MATERIAL

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 6 inches in any dimension.

4-55 ROAD SHAPING

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

4-56 DRY WEATHER SHAPING

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

4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material. Minimum acceptable compaction is achieved by placing embankments in 1 foot or shallower lifts, and routing excavation equipment over the entire width of each lift.

Except as otherwise specified in this plan, a vibratory plate compactor or tamper shall be used for areas specifically requiring keyed embankment construction, and for embankment segments too narrow to accommodate equipment. Compaction with a plate compactor shall be made by a minimum of three full coverages; each lift shall not exceed 6 inches in depth.

4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed or reconstructed subgrades deeper than 3 feet at the road shoulder by routing equipment over the entire width. Contractor shall obtain written approval from the Contract Administrator for subgrade compaction before Rock application.

4-62 DRY WEATHER COMPACTION

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

4-63 EXISTING SURFACE COMPACTION

Purchaser shall compact maintained road surfaces by routing equipment over the entire width.

4-70 SUBGRADE REINFORCEMENT

PURCHASER SHALL PROVIDE (2 ROLLS) AND INSTALL GEOTEXTILE FABRIC AS SPECIFIED IN THE ENGINEER'S DESIGN. SUBGRADE REINFORCEMENT MUST BE INSTALLED TO A WIDTH THAT IS 2 FEET MORE THAN THE SUBGRADE WIDTH, INCLUDING TURNOUTS. GEOTEXTILE FABRIC MUST OVERLAP BY A MINIMUM OF 2 FEET AT ALL JOINTS. THE GEOTEXTILE FABRIC MUST BE COVERED WITH A MINIMUM OF 9 INCHES OF COMPACTED SIZE ROCK OR MATERIAL TYPE AS SPECIFIED IN CLAUSE 6-33 3-INCH MINUS CRUSHED ROCK. PURCHASER SHALL APPLY ROCK IN 6-INCH LIFTS OVER THE GEOTEXTILE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. GEOTEXTILE FABRIC MUST MEET THE SPECIFICATIONS IN CLAUSE

10-3 GEOTEXTILE FOR STABILIZATION

Geotextiles shall meet the following minimum requirements for strength and property qualities, and shall be designed by the manufacturer to be used for stabilization or reinforcement, and filtration. Material shall be free of defects, cuts, and tears. Purchaser shall provide 2 new rolls of geotextile, any unused materials will remain the property of the state.

	<u>ASTM Test</u>	<u>Requirements</u>
Type	--	<Woven>
Apparent opening size	D 4751	No. 40 max
Water permittivity	D 4491	0.10 sec ⁻¹
Grab tensile strength	D 4632	<315 lb>
Grab tensile elongation	D 4632	<<50%>
Puncture strength	D 6241	<620 lb>
Tear strength	D 4533	<112 lb>
Ultraviolet stability	D 4355	50% retained after 500 hours of exposure

. Unused material will remain the property of the state.

SECTION 5 – DRAINAGE

5-1 REMOVAL OF SHOULDER BERMS

Purchaser shall remove berms from road shoulders to permit the escape of runoff. The construction of ditchouts will be required where ponding will result from the effects of sidecast debris.

5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction

and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT & DRAINAGE LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts shall be new steel, aluminum, or polyethylene meeting the material specifications in Clauses 10-15 through 10-23. Culvert placement shall precede embankment construction.

5-6 CULVERT TYPE

Purchaser shall install culverts made of steel, aluminum, or plastic in accordance with Clauses 10-15 through 10-24.

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the CULVERT & DRAINAGE LIST that are not installed will become the property of the state. Contractor shall stockpile materials at Northeast Region Headquarters in Colville.

5-13 CONTINGENCY CULVERTS

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

<u>Road</u>	<u>Size</u>
As directed	18"x 40'
As directed	18"x 40'

5-15 CULVERT INSTALLATION

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

5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

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

5-17 CROSS DRAIN SKEW AND SLOPE

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

5-18 CULVERT DEPTH OF COVER

All culverts shall 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 shall be installed with a depth of cover specified in the Engineer's design, or to the minimum depth recommended by the culvert manufacturer for the type of cover material over the pipe, whichever is greater.

5-20 ENERGY DISSIPATERS

Energy dissipaters shall be installed to prevent erosion and are subject to approval by the Contract Administrator. The type of energy dissipater and the amount of material shall be consistent with the specifications listed on the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes longer than 5 feet shall be staked on both sides at maximum intervals of 10 feet with 6-foot heavy-duty steel posts, and fastened securely to the posts with No. 10 galvanized smooth wire or 1/2-inch bolts in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

5-25 CATCH BASINS

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

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts, except for temporary culverts. Headwalls shall also be constructed at all culverts identified on the CULVERT AND DRAINAGE LIST that specifies the placement of rock. Rock shall be placed by zero drop height methods. 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 diameters above the top of the culvert.

5-27 ARMORING FOR CULVERTS

Purchaser shall place LIGHT LOOSE RIP RAP 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 CULVERT AND DRAINAGE SPECIFICATIONS DETAIL 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 with a zero-drop-height only. No placement by end dumping or dropping of rock is allowed. LIGHT LOOSE RIP RAP must meet the specifications in Clause 6-50 LIGHT LOOSE RIP RAP.

5-30 DRIVABLE WATERBAR CONSTRUCTION

Purchaser shall construct drivable waterbars in accordance with the DRIVABLE WATERBAR DETAIL and as specified on the CULVERT AND DRAINAGE LIST or as marked in the field. Drivable waterbars must be installed concurrently with construction of the subgrade and must be maintained in an operable condition.

5-31 ROLLING DIP CONSTRUCTION

Purchaser shall construct Rolling dips in accordance with the ROLLING DIP DETAIL and as specified on the CULVERT & DRAINAGE LIST or marked in the field. Rolling dips must be installed concurrently with construction of the subgrade and shall be maintained in an operable condition. Minimum frequency of rolling dips shall be at a maximum spacing of 400 feet horizontal or one for every 10 feet of vertical change or as directed by the Contractor Administrator.

5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be water barred by November 15. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the ROCKLIST may be obtained from the following source(s) on state land at no charge to the Contractor. Use of material from any other source must have prior written approval from the Contract Administrator. If other operators are using, or desire to use the rock source(s), a joint operating plan shall be developed. All parties shall follow this plan. The Contractor 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>
Stockpile	E303718J 10+90	Fractured native rock
Stockpile	E303718J 10+90	Light Loose Rip Rap

6-5 ROCK FROM COMMERCIAL SOURCE

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

6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications:

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

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

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- 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 shall not exceed 5% of the total volume mined in that source.
- Oversize material is defined as rock fragments larger than three feet in any dimension.
- Oversized rock that exceeds the maximum allowable amount shall be reduced and stockpiled.
- Contractor shall notify the Contract Administrator a minimum of 3 working days before blasting operations.
- Contractor shall submit an informational drilling and shooting plan to the Contract Administrator 5 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 and trails before blasting operations.

6-21 IN-PLACE PROCESSING

Purchaser may use in-place processing, such as a grid roller or other method, if suitable crushing can be demonstrated to meet the surfacing size restrictions specified in Clause 6-38 4-INCH IN-PLACE ROCK. Purchaser shall remove any existing organic debris before the start of in-place crushing operations. The use of in-place processing methods is subject to written approval by the Contract Administrator.

6-22 FRACTURE REQUIREMENT FOR ROCK

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

6-23 ROCK GRADATION TYPES

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

6-38 4-INCH IN-PLACE ROCK

4-inch in-place rock must have a minimum of 90 percent of the top 4 inches of the running surface pass a 4-inch square opening.

In-place rock may not contain more than 5 percent by weight of organic debris and trash. No more than 40 percent of rock may be larger than 8 inches in any dimension and no rock may be larger than 10 inches in any dimension.

6-41 SELECT PIT RUN ROCK

No more than 10 percent of the rock may be larger than 8 inches in any dimension and no rock may be larger than 12 inches in any dimension. Select Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

6-50 LIGHT LOOSE RIP RAP

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

<u>At Least/Not More Than</u>	<u>Weight Range</u>	<u>Size Range</u>
20% / 90%	300 lbs. to 1 ton	20" - 36"
80% / --	50 lbs. to ½ ton	12" - 30"

10% / 20%

50 lbs. max

3" - 8"

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

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

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator 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 by routing equipment over the entire width.

6-73 ROCK FOR WIDENED PORTIONS

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

6-76 DRY WEATHER ROCK COMPACTION

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

6-80 WATERING FOR DUST ABATEMENT

Purchaser shall use water for dust abatement as directed by the Contract Administrator.

SECTION 7 – STRUCTURES

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

Purchaser shall install steel pipe, pipe arches, and structural plate culverts in accordance with the National Corrugated Steel Pipe Association "Installation Manual for Corrugated Steel Pipe, Pipe Arches, and Structural Plate." Installation is subject to the inspection

and approval of the Contract Administrator before placement and backfill. The latest edition of the NCSA Installation Manual can be found at www.ncspa.org.

7-57 CULVERT SHAPE CONTROL

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

7-70 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 shall be locked or securely fastened in the open position. All gates shall be closed at termination of use.

<u>Road</u>	<u>Station</u>	<u>Gate Type.</u>	<u>Comment</u>
E293616F	0+15	Wire stretch	Keep gate closed as directed by the Contract Administrator.
E293616B	2+60	Wire Stretch	Keep gate closed as directed by the Contract Administrator.
E293618A	74+22	Wire stretch	Keep gate closed as directed by the Contract Administrator.
E293512E	11+13	Cable gate	Keep gate closed as directed by the Contract Administrator.
E293512E	39+51	Wire stretch	Keep gate closed as directed by the Contract Administrator.
E303718E	0+20	Cable gate	Keep gate closed as directed by the Contract Administrator.

SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES

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

SECTION 9 – POST-HAUL ROAD WORK

9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culvert material removed from roads becomes the property of the Purchaser and must be removed from state land.

9-5 POST-HAUL MAINTENANCE

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

<u>Road</u>	<u>Stations</u>	<u>Additional Requirements</u>
E293610F	0+00 to 1+00	Reshape road to provide drainage.
E293610J	0+00 to 1+00	Reshape road to provide drainage.
E293610H	0+00 to 1+50	Reshape road to provide drainage.
E293616B	0+00 to 21+93	Reshape road to provide drainage.
E293616D	0+00 to 14+18	Reshape road to provide drainage.
E293618A	0+00 to 130+15	Reshape road to provide drainage.
E293608E	0+00 to 37+50	Reshape road to provide drainage.
E293608F	0+00 to 35+85	Reshape road to provide drainage.
E293608F	35+85 to 41+97	<u>Install drivable water bar connecting to the cut slope at a 30 degree angle every 40 feet.</u>
E293608F	41+97 to 54+27	Reshape road to provide drainage.
E293512E	0+00 to 78+93	Reshape road to provide drainage.
E293512E	65+20 to 117+19	<u>Install drivable water bar connecting to the cut slope at a 30 degree angle every 100 feet.</u>
E293512E	117+19 to 135+08	Reshape road to provide drainage.
E293610F	1+00 to 9+15	Reshape road to provide drainage if used.
E293616F	0+00 to 1+25	Reshape road to provide drainage.
E303718E	0+00 to 4+80	Reshape road to provide drainage if used.
E303718J	0+00 to 10+90	Reshape road to provide drainage if used.

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface as approved, in writing, by the Contract Administrator.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

SECTION 10 MATERIALS

10-3 GEOTEXTILE FOR STABILIZATION

Geotextiles shall meet the following minimum requirements for strength and property qualities, and shall be designed by the manufacturer to be used for stabilization or reinforcement, and filtration. Material shall be free of defects, cuts, and tears. Purchaser shall provide 2 new rolls of geotextile, any unused materials will remain the property of the state.

	<u>ASTM Test</u>	<u>Requirements</u>
Type	--	<Woven>
Apparent opening size	D 4751	No. 40 max
Water permittivity	D 4491	0.10 sec ⁻¹
Grab tensile strength	D 4632	<315 lb>
Grab tensile elongation	D 4632	<<50%>
Puncture strength	D 6241	<620 lb>
Tear strength	D 4533	<112 lb>
Ultraviolet stability	D 4355	50% retained after 500 hours of exposure

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be galvanized (zinc coated meeting AASHTO M-218) or aluminized aluminum type 2 coated meeting AASHTO M-274.

10-17 CORRUGATED PLASTIC CULVERT

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

10-18 CORRUGATED STEEL STRUCTURAL PLATE

Structural plate culverts must be galvanized steel meeting AASHTO M-167 (ASTM A-761) specifications.

10-20 FLUME AND DOWNSPOUT

Downspouts and flumes shall meet the AASHTO specification designated for the culvert. Plastic downspouts and flumes shall be Type S – double walled with a corrugated exterior and smooth interior.

10-21 METAL BAND

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

10-22 PLASTIC BAND

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

10-23 RUBBER CULVERT GASKETS

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

10-24 GAUGE AND CORRUGATION

Unless otherwise stated in the engineer's design, metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

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

SECTION 11 SPECIAL NOTES

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

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

Drainage

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

Preventative Maintenance

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

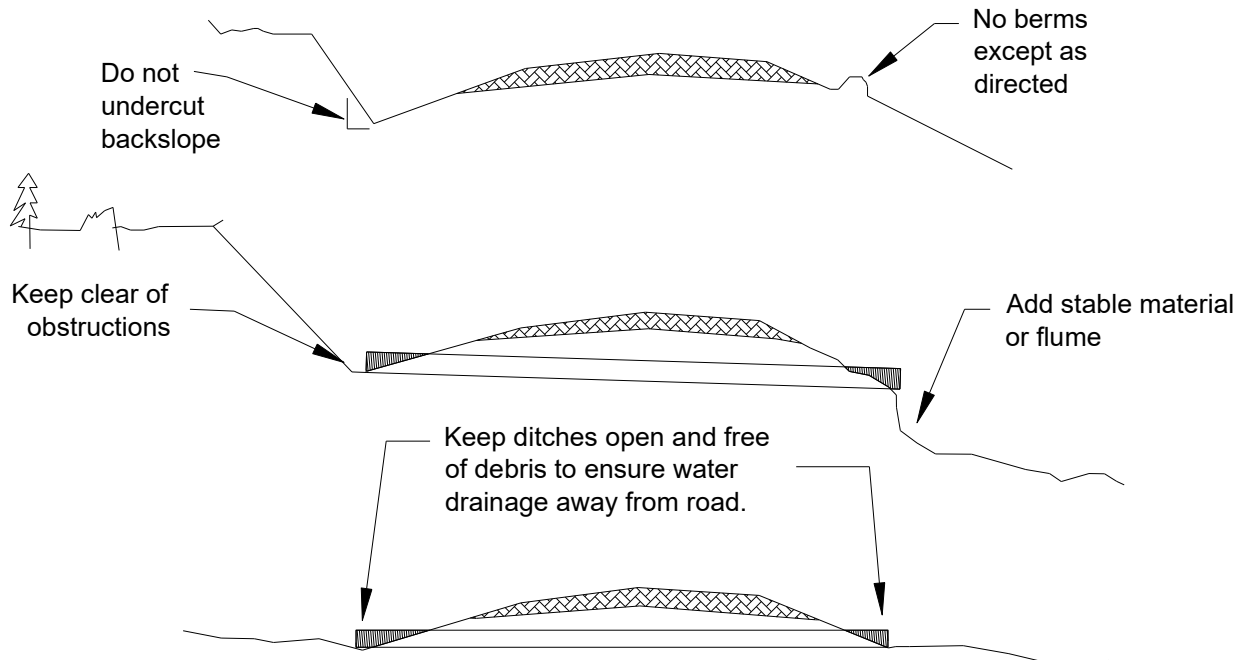
FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

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.



FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

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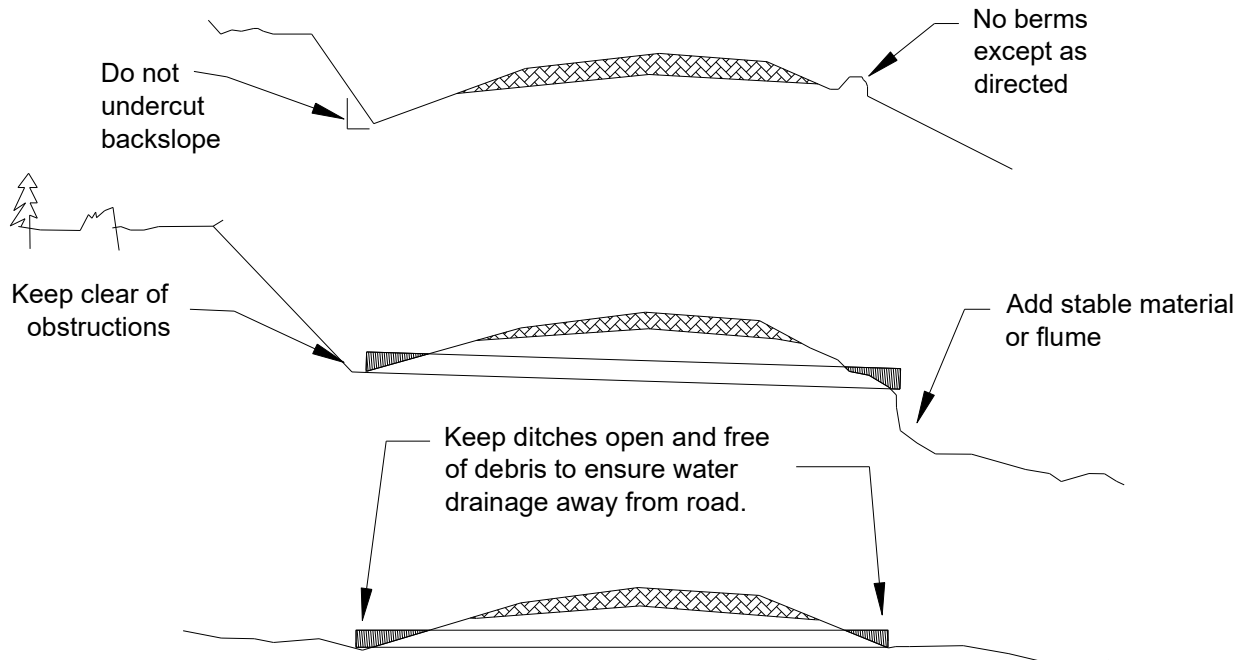
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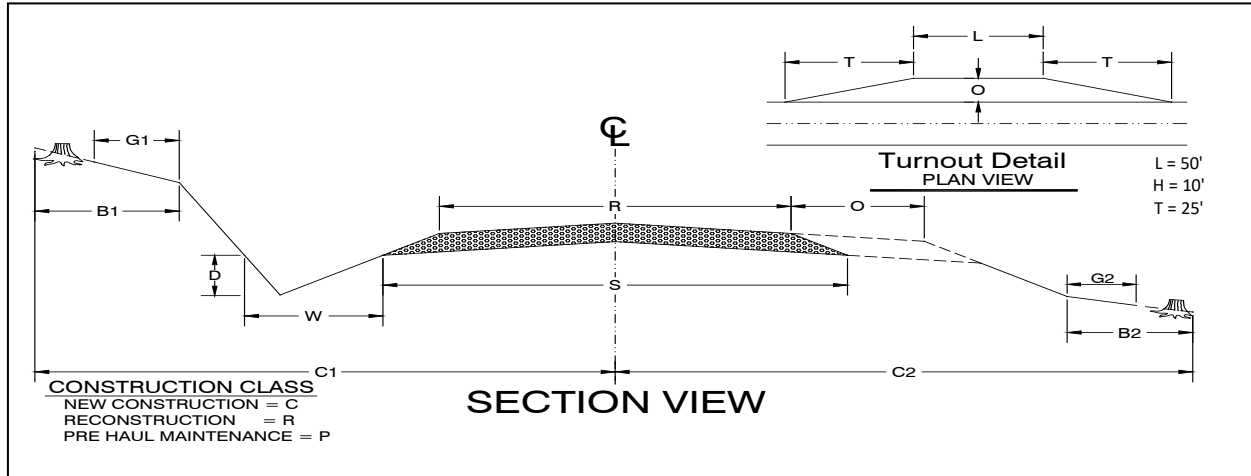


DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-104599

Name of Sale: Glasco

TYPICAL SECTION SHEET



MAINTENANCE=M

ROAD NAME	START STATION	END STATION	CONSTRUCTION CLASS	FULL BENCH	TOLERANCE CLASS	SUBGRADE WIDTH (S)	ROAD WIDTH (R)	INSLOPE "/10'	OUTSLOPE "/10'	CROWN " AT CL	DITCH WIDTH (W)	DITCH DEPTH (D)	DITCH 2 SIDES	GRUBBING CUT BANK (G1)	GRUBBING FILL TOE (G2)	ROAD CUT CLEARING (B1)	ROAD FILL CLEARING (B2)	R/W CUT CLEARING (C1)	R/W FILL CLEARING (C2)
E293610F	0+00	1+00	R		C	14	12		4					2	2	6	6		
<i>E293610F optional</i>	1+00	9+15	R		C	14	12		4					2	2	6	6		
E293610J	0+00	1+00	C		C	14	12		4					2	2	6	6		
E293610H	0+00	1+50	R		C	14	12		4					2	2	6	6		
<i>E293616F optional</i>	0+00	1+25	P		C	14	12		4										
<i>E293616J</i>	0+00	1+25	C		C	14	12		4					2	2	6	6		
E263616B	0+00	15+70	P		C	14	12		4										
<i>E293616B optional</i>	15+70	21+93	P		C	14	12		4										
E293616D	0+00	14+18	P		C	14	12		4										
E293618A	0+00	74+22	P		C	14	12		4										
E293618A	74+22	130+15	R		C	14	12		4					2	2	6	6		
E293608E	0+00	2+30	C		C	22	20		4					2	2	6	6		
E293608E	2+30	37+50	R		C	14	12		4					2	2	6	6		
E293608F	0+00	35+85	R		C	14	12		4					2	2	6	6		
E293608F	35+85	41+67	R		C	14	12	4			2	1		2	2	6	6		
E293608F	41+67	54+27	R		C	14	12		4					2	2	6	6		
E293512E	0+00	10+05	P		C	14	12		4										
E293512E	10+05	108+22	R		C	14	12		4					2	2	6	6		

cont next page

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-104599 Name of Sale: Glasco Date: 5/10/2023

CULVERT & DRAINAGE LIST

Road Name	Station	CULVERT			LENGTH			RIPRAP			Ditch	Staked	Rolling Dip	Notes
		Diameter (in)	Gauge	Skew (deg)	Culvert (ft)	Downspout	Flume	Inlet C.Y.	Outlet C.Y.	Catchbasin				
E293608F	35+85												X	
	37+30	18	16	30	44			10	5	X				5 cy disipator
	37+90												X	
	38+50												X	
	38+99	18	16		46								X	
	41+09													
	41+67	18	16	30	40			4	1	X				1 Cy disipator
	41+97												X	
E293512E	111+76	18	16		30			1						
2 additional		18	16		40									
Additional Rolling Dips shall be installed at the discretion of the Contract Administrator														

STRUCTURE NOTES

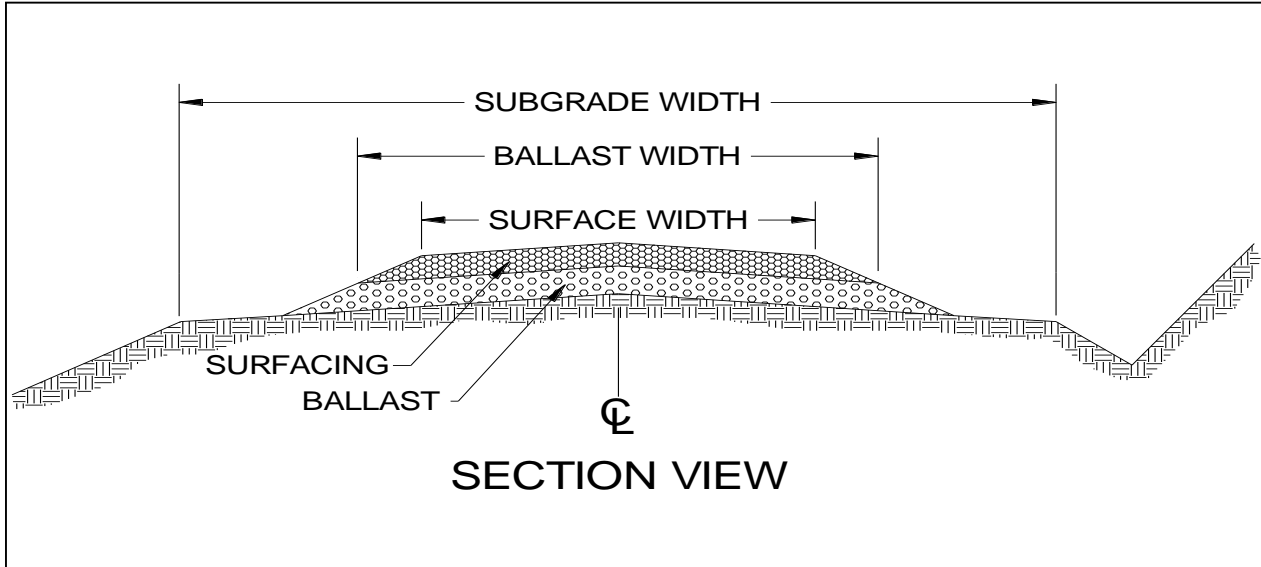
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|---|---|
| <ul style="list-style-type: none"> 1. Install Headwall - See Detail D1 2. Install Catchbasin - See Detail D1 3. Armor Catchbasin - See Detail D1 4. Armor Ditch 5. Heavy Loose Riprap 6. Light Loose Riprap 7. Step Bevel Pipe Ends 8. Remove Existing Pipe | <ul style="list-style-type: none"> 9. See Rolling Dip Detail D5 10. See Pipe Installation Detail D1 11. Install Energy dissipater - See D1 12. Install Ditchout 13. Reshape Rolling Dip 14. Install additional rolling dips as directed in section 9-5 Post Haul Maint. |
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STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-104599

Name of Sale: Glasco

ROCK LIST

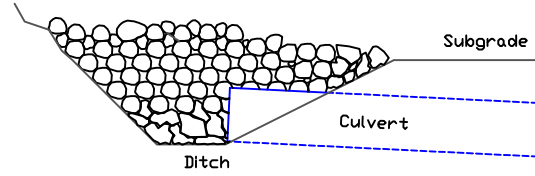
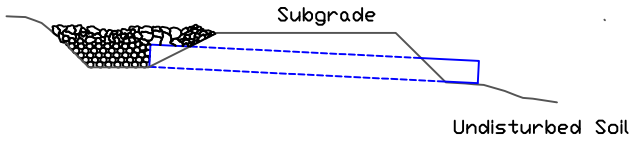


1. ROCK DEPTHS ARE DEFINED AS COMPACTED DEPTHS.
2. LOOSE YARD QUANTITIES ARE DEPENDANT ON SOURCE.
3. ROCK SLOPES SHALL BE 1.5(H) : 1(V).
4. ALL ROCK SOURCES ARE SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR.
5. THE ROCK QUANTIES SHOWN ASSUME AN EXPANSION FACTOR OF 25%

ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	BALLAST SOURCE	BALLAST WIDTH (ft)	BALLAST DEPTH (in)	BALLAST QUANTITY (cu.yd./sta)	SURFACE SOURCE	SURFACE WIDTH (ft)	SURFACE DEPTH (in)	SURFACE QUANTITY (cu.yd./sta)	FABRIC WIDTH (ft)
E293616B	0+00	1+00	22				0	D	20	9	73	
E293608F	35+85	41+67	14				0	D	12	9	46	16
50 CY rip rap	35+85	36+15					0				0	
15 CY rip rap	37+30						0				0	
30 CY rip rap	38+25	38+50					0				0	
5 CY rip rap	41+67						0				0	
							0				0	
							0				0	
							0				0	
							0				0	
							0				0	
30 additional yards of light loose Rip Rap							0				0	
200 additional yards of 4" in place to be placed as directed by the contract administrator												
Note: C = Commercial Rock 3" minus crushed; D = DNR source; S = Commercial 1.25" minus crushed												

CULVERT AND DRAINAGE SPECIFICATIONS DETAIL - D1

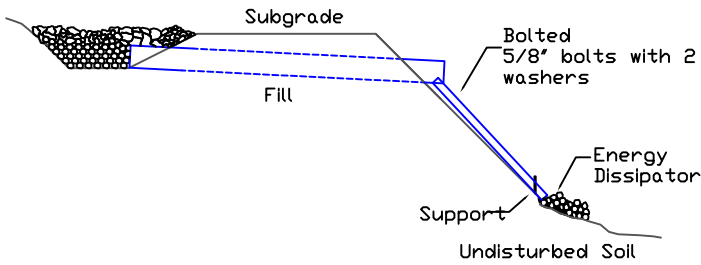
HEADWALLS



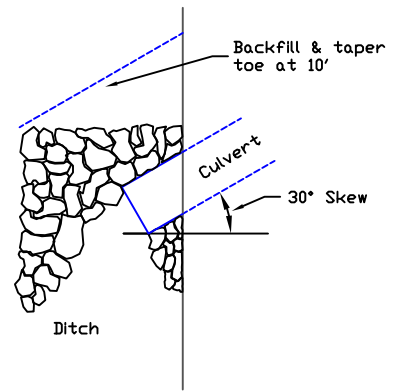
Headwall to be constructed of material that will resist erosion

FLUME

Use where ground conditions are uniform, providing for stability of flume.

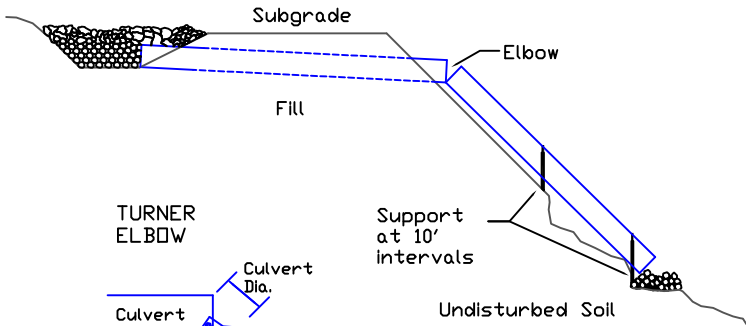


PLAN VIEW

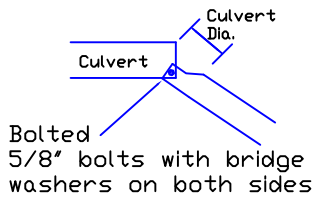


DOWNSPOUT

Use where ground conditions are irregular.



TURNER ELBOW



CULVERT BACKFILL & BASE PREPARATION (For Culverts Less Than 36")

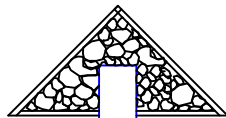
Minimum Cover	Minimum Bed Depth	Min. Trench Width	Nominal Diameter
A	B	C	D
12"	6"	36"	18"
12"	6"	42"	24"
12"	6"	48"	30"
12"	6"	54"	36"

DISSIPATOR SPEC'S Size In Culvert Diameters

Area 2 X 2
Depth 1
Aggregate 1/3



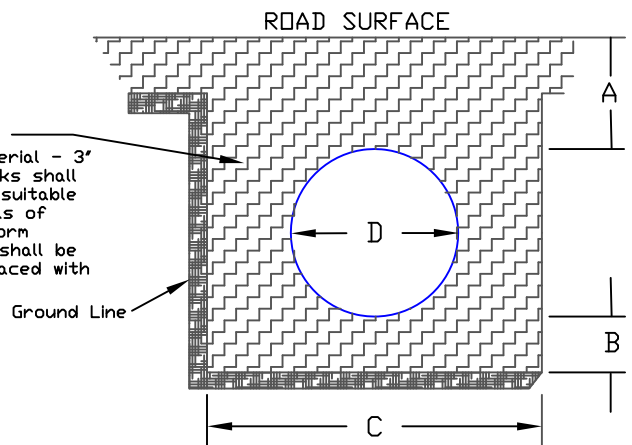
Level



Side Hill

BEDDING MATERIAL:

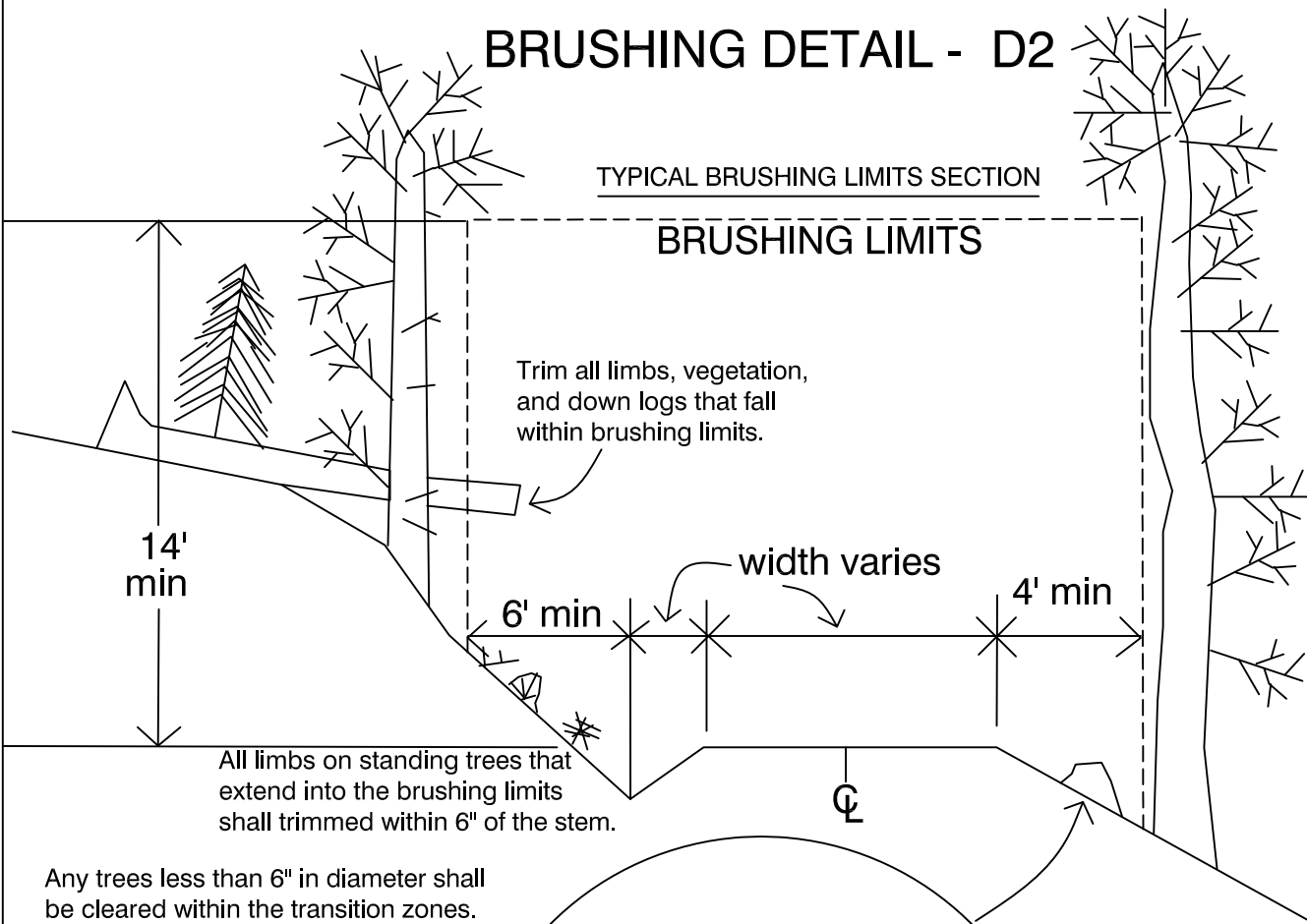
Use granular material - 3" minus. Large rocks shall be replaced with suitable material. Materials of poor or non-uniform bearing capacity shall be removed and replaced with suitable fill.



BRUSHING DETAIL - D2

TYPICAL BRUSHING LIMITS SECTION

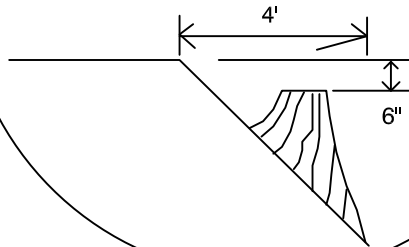
BRUSHING LIMITS



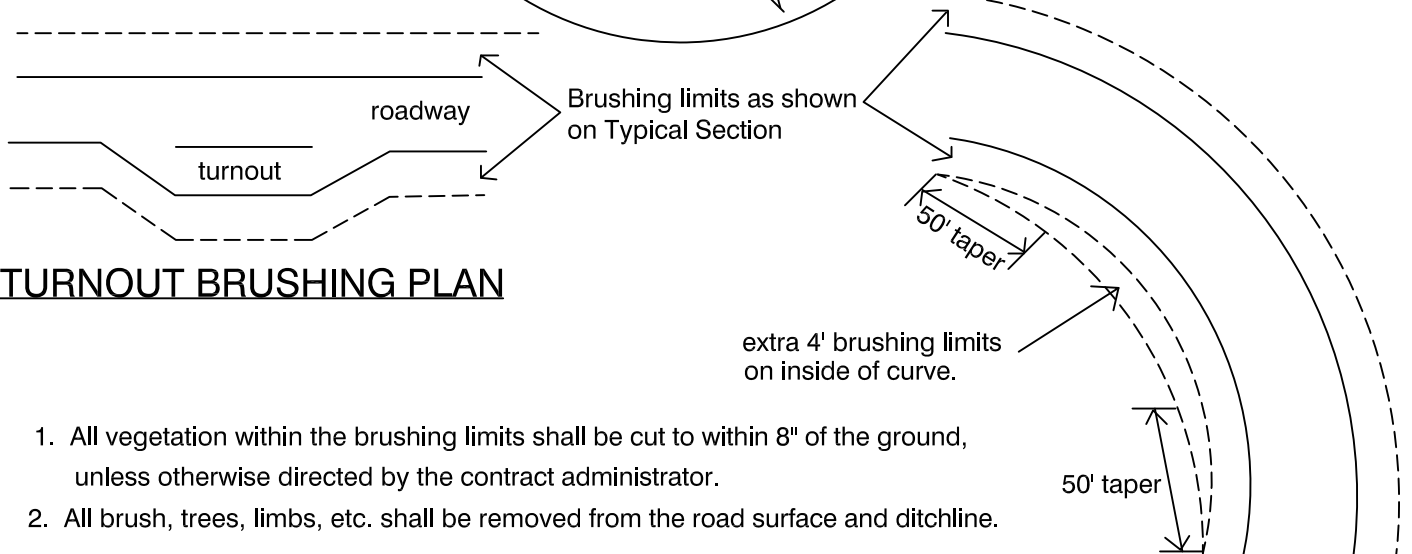
All limbs on standing trees that extend into the brushing limits shall be trimmed within 6" of the stem.

Any trees less than 6" in diameter shall be cleared within the transition zones.

Trim all stumps and vegetation within 4' of edge of road and in ditch to at least 6" below the elevation of the edge of road.



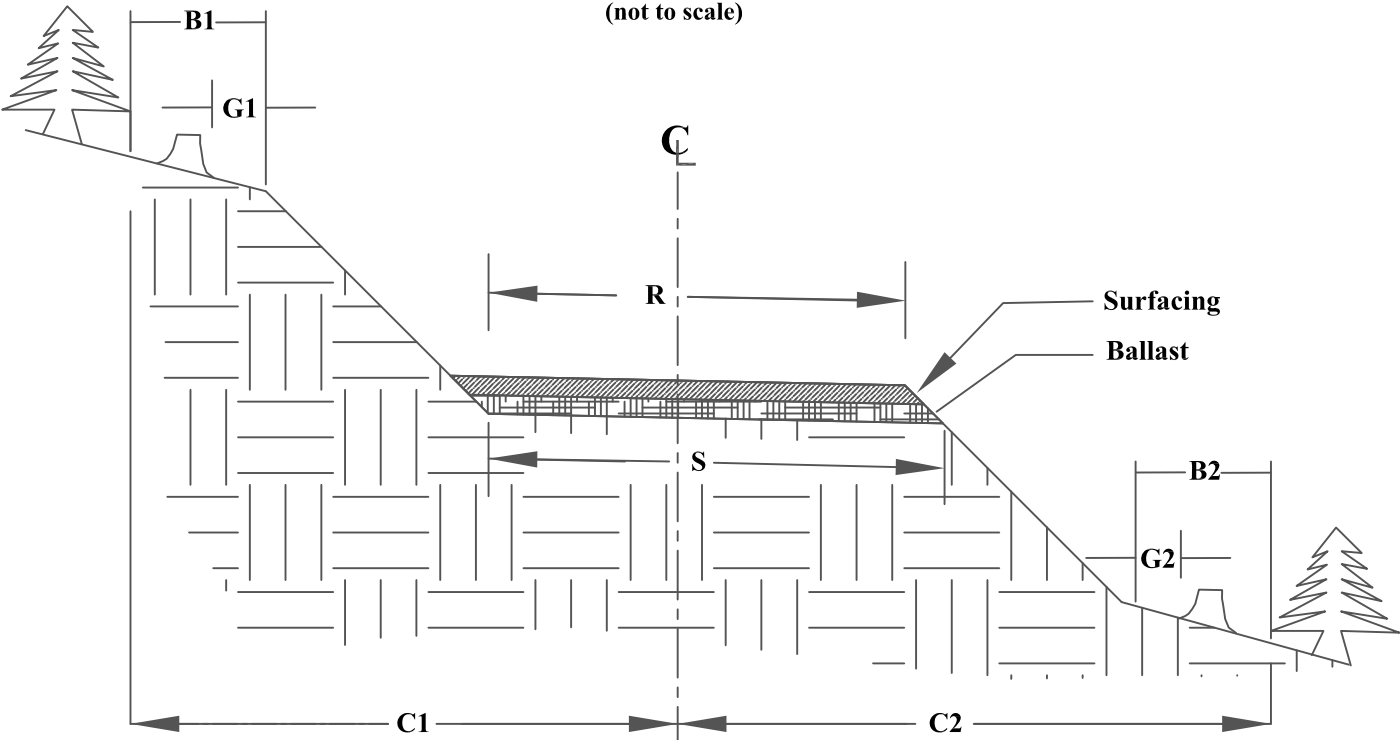
CURVE BRUSHING PLAN



TURNOUT BRUSHING PLAN

1. All vegetation within the brushing limits shall be cut to within 8" of the ground, unless otherwise directed by the contract administrator.
2. All brush, trees, limbs, etc. shall be removed from the road surface and ditchline.
3. All debris that may roll or migrate into the ditchline shall be removed.

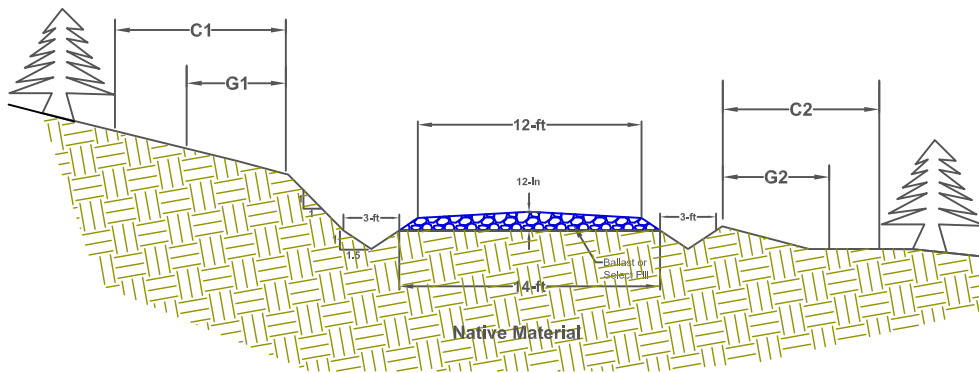
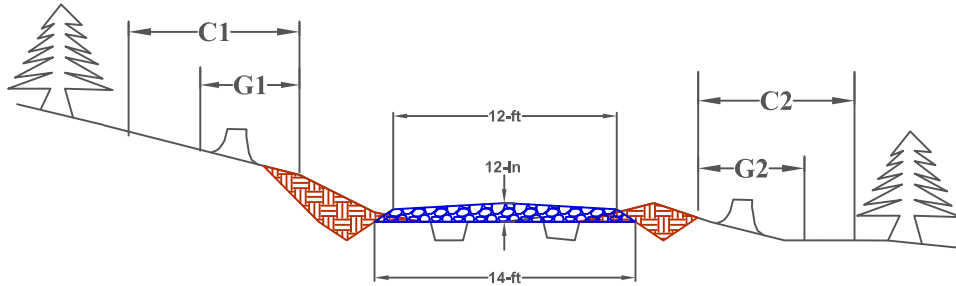
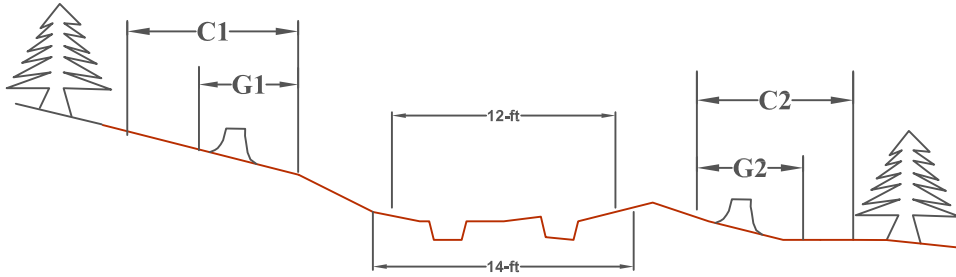
OUTSLOPED ROAD CROSS-SECTION DETAIL D3



Drawn by: JBB 2/18/03
Revised: JE 01/14/20162

TURNPIKE ROAD DETAIL

ROAD CROSS-SECTIONS



STANDARD 30° ROLLING DIP - D5

Note: Plan of dip shown is for an outsloped rolling dip. Dips may be either insloped or outsloped. When insloped, dips shall discharge into a culvert, drop inlet, overside drain, or drainage ditch. When outsloped, they shall discharge into an overside drain or on to natural ground. Minimum skew is 30°, and the maximum skew is 45°.

The minimum cross grade from "B" to "E" is 1% greater than the original road grade.

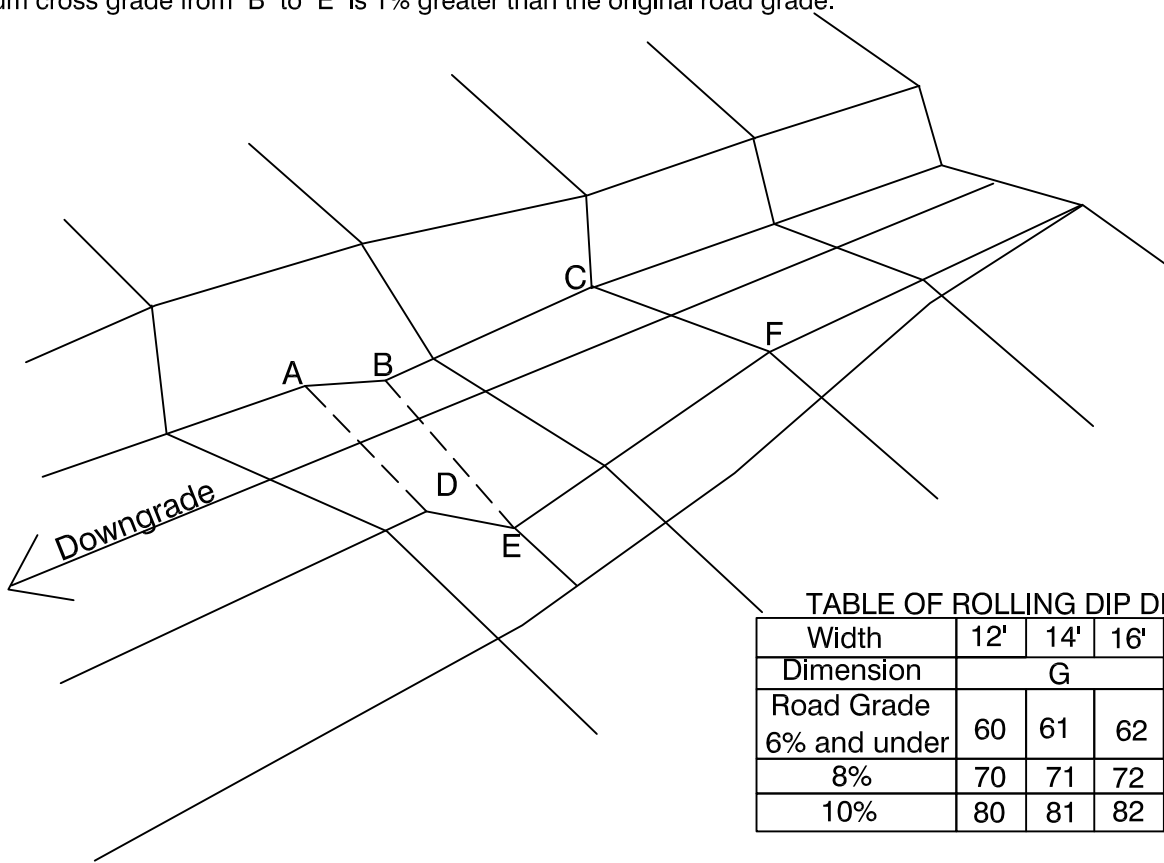
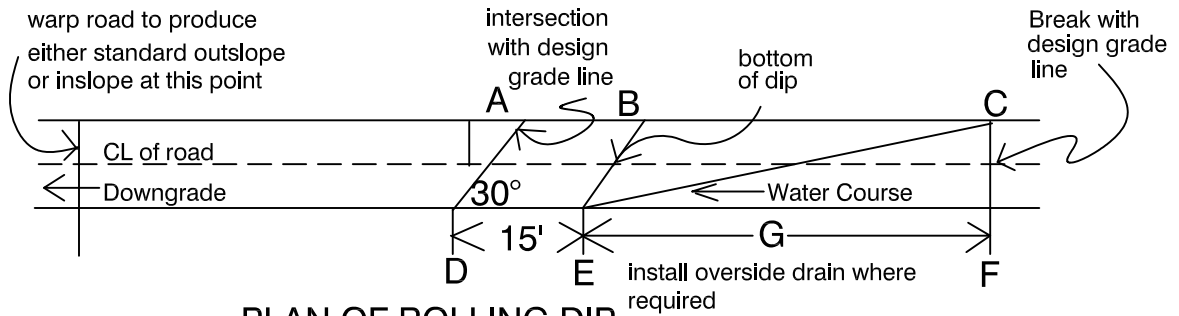
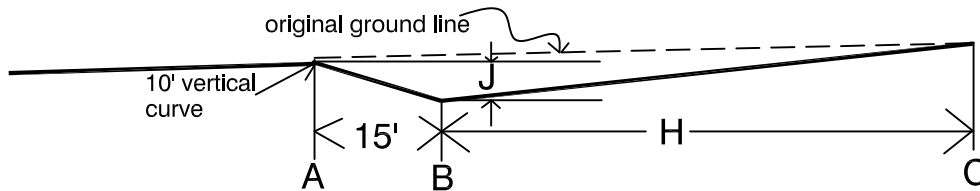


TABLE OF ROLLING DIP DIMENSIONS

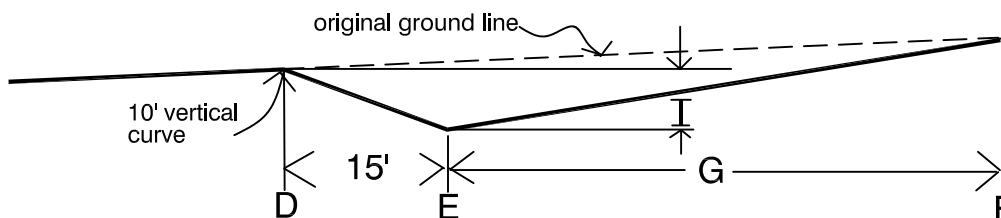
Width	12'	14'	16'	ALL		
Dimension	G			H	I	J
Road Grade 6% and under	60	61	62	52	.8	0.3
8%	70	71	72	62	1.0	0.2
10%	80	81	82	72	1.1	0.1



PLAN OF ROLLING DIP



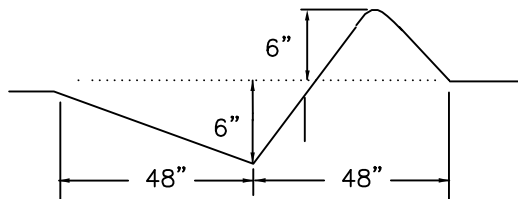
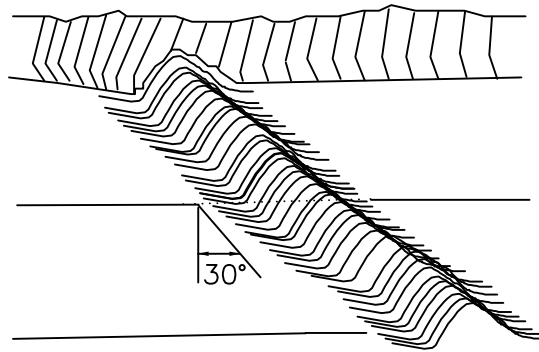
ROAD PROFILE ALONG A-B-C OF ROLLING DIP



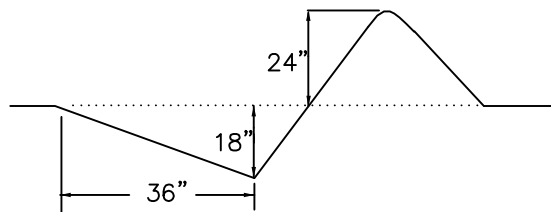
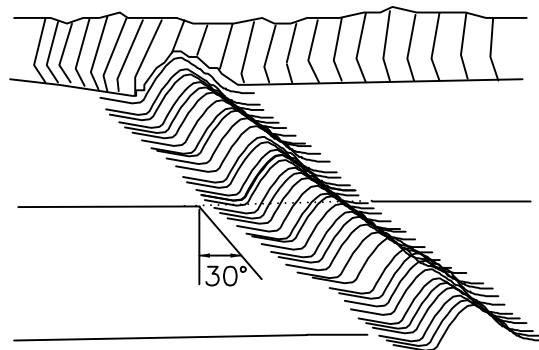
ROAD PROFILE ALONG D-E-F OF ROLLING DIP

WATERBAR DETAIL—D6

DRIVABLE WATERBAR



NON DRIVABLE WATERBAR

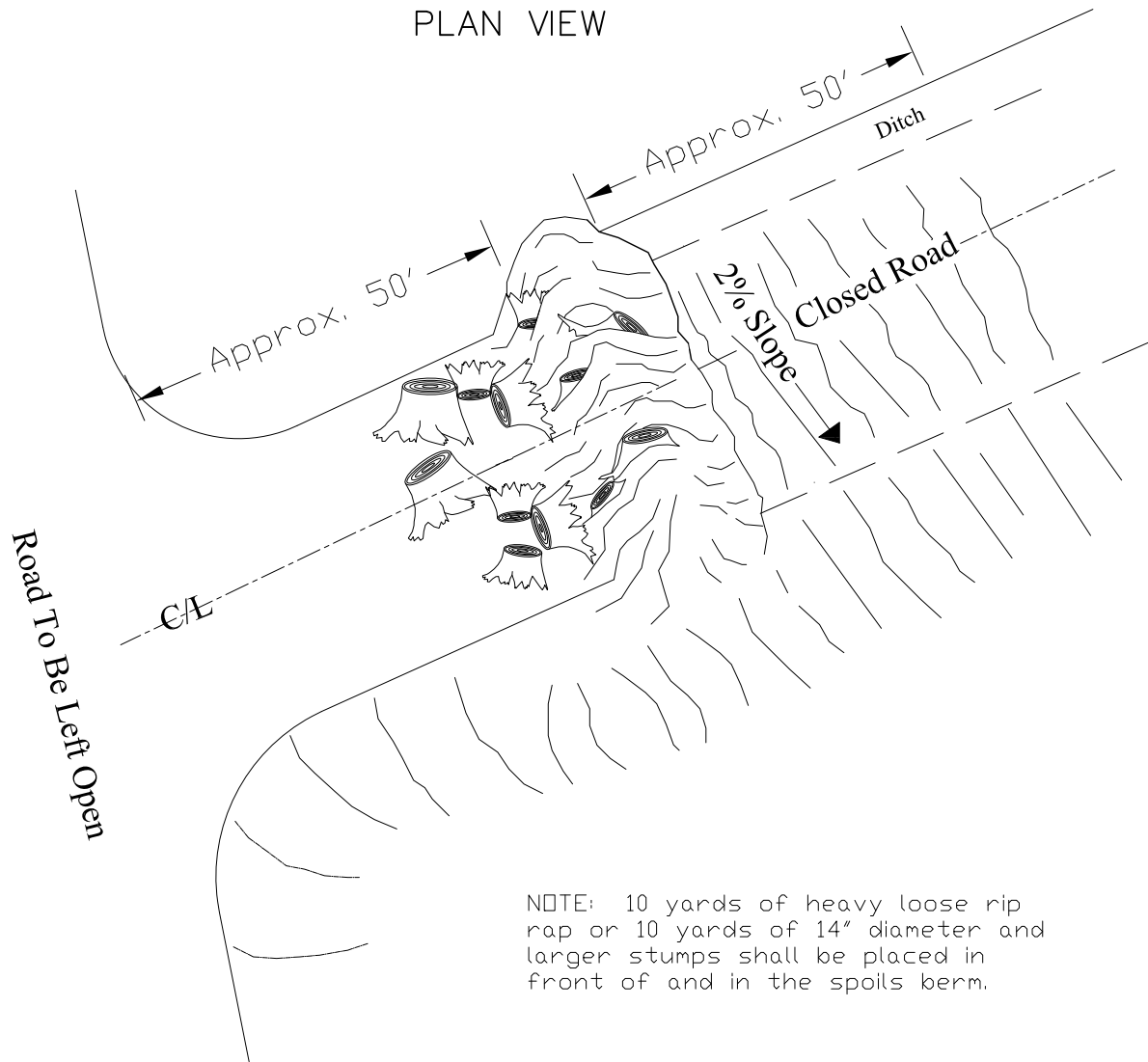


1. Waterbar construction for forest roads Specifications are average and may be adjusted to conditions.
2. Waterbar shall keyed into the bank.
3. The waterbar shall be outsloped for proper drainage.
4. Rock outlet if fill slope is present.

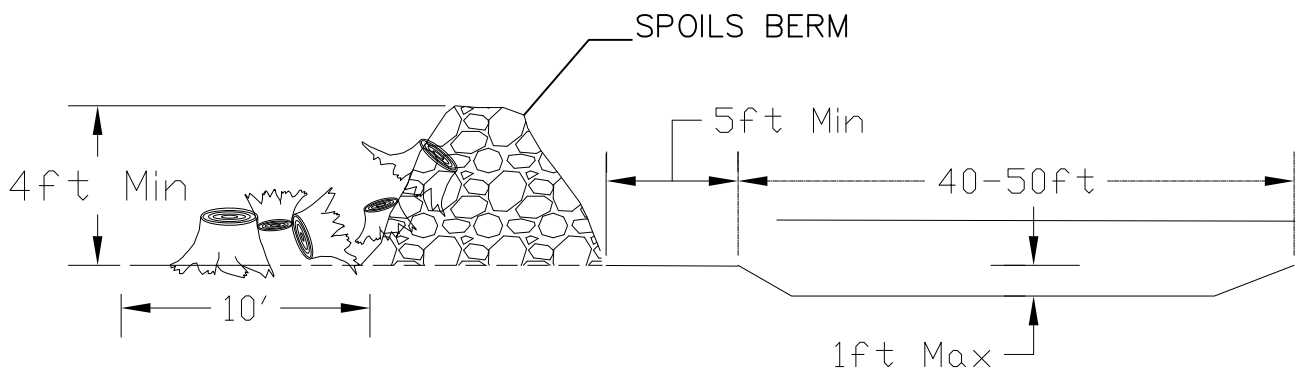
Revised: 05/21/2012

SPOILS BERM DETAIL-D8

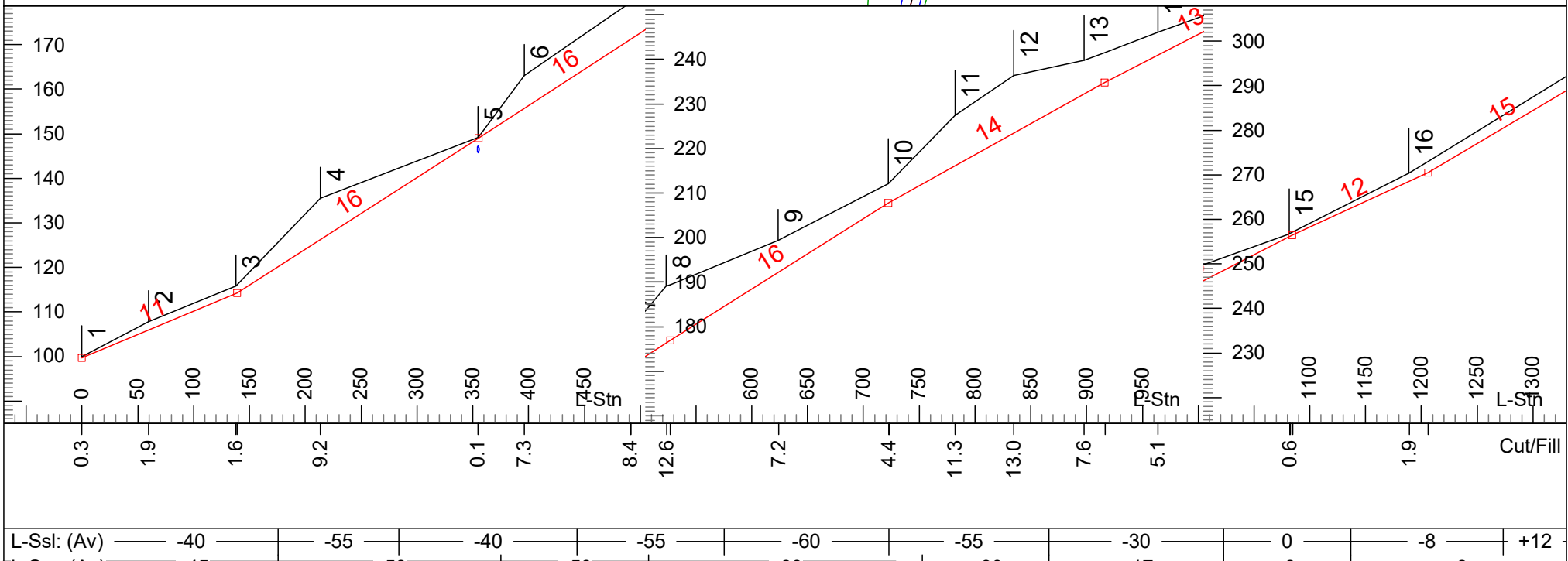
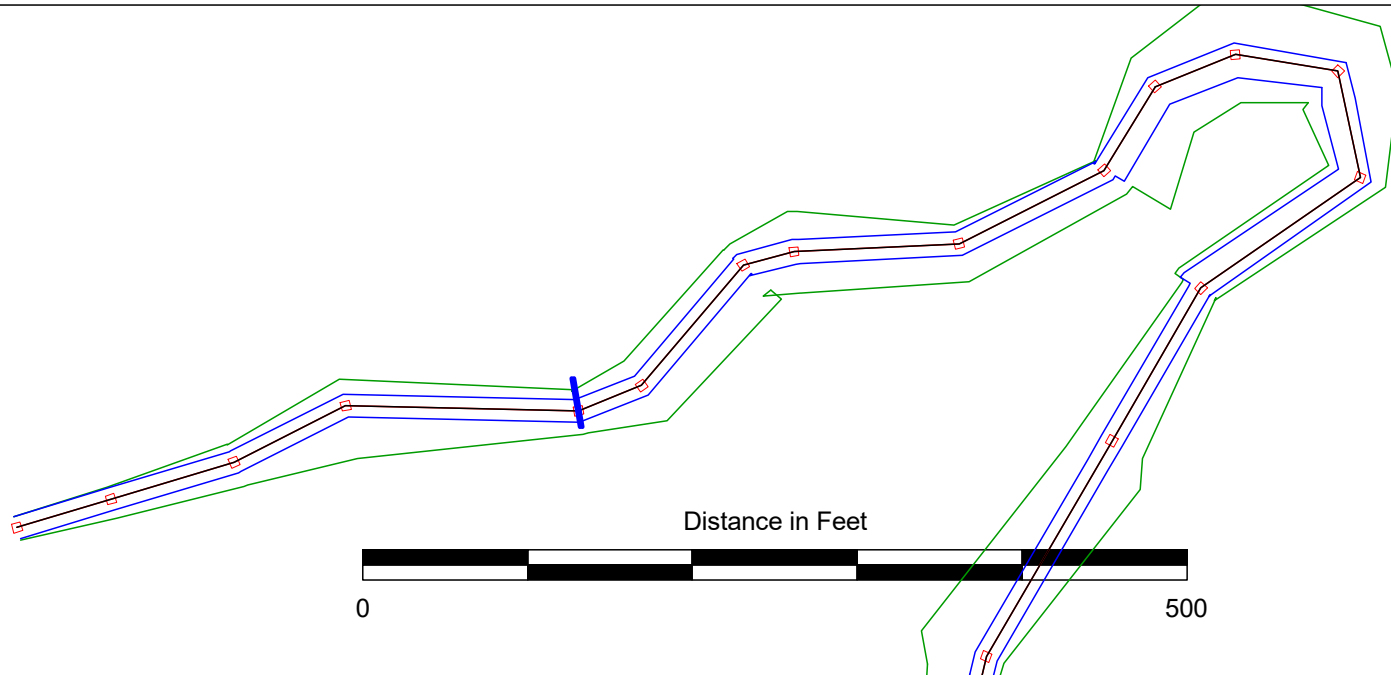
PLAN VIEW



NOTE: 10 yards of heavy loose rip rap or 10 yards of 14" diameter and larger stumps shall be placed in front of and in the spoils berm.

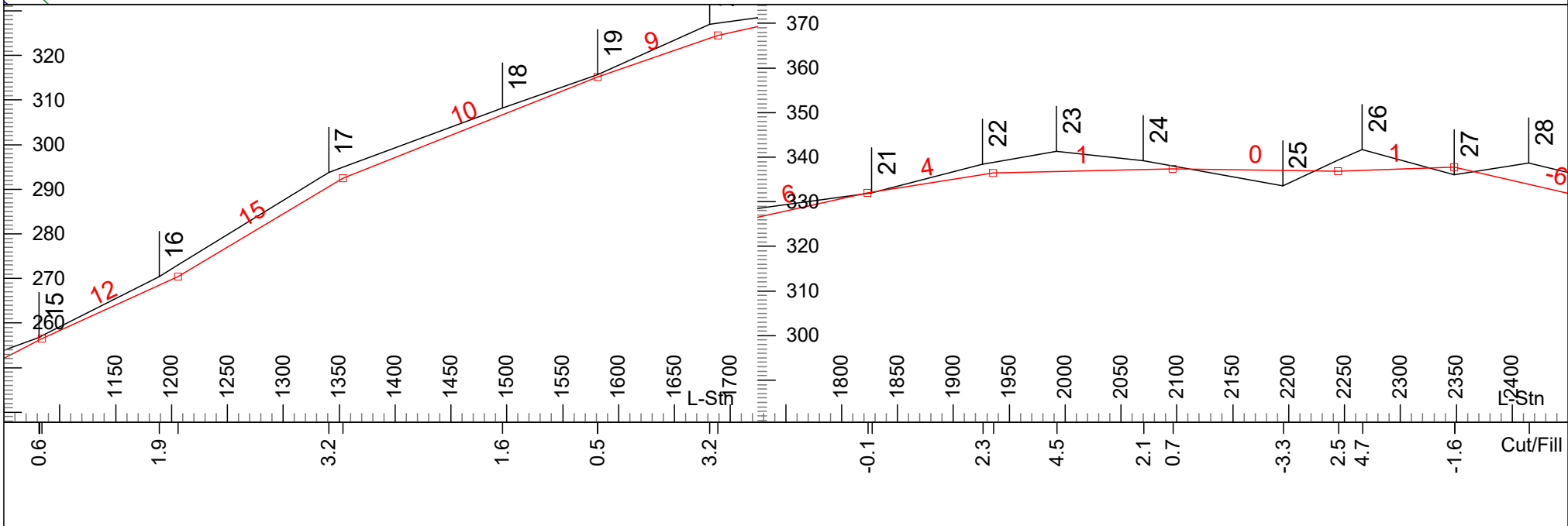
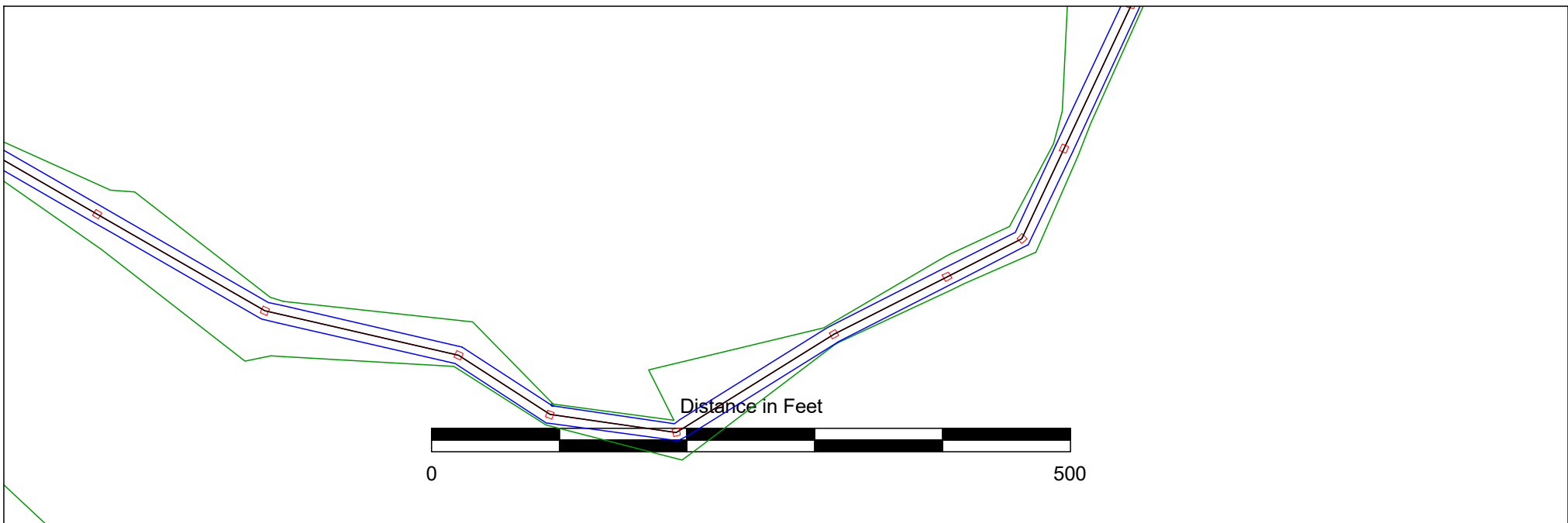


Note: $\frac{1}{3}$ of stumps or rip rap shall be partially buried in the spoils berm and/or road surface.



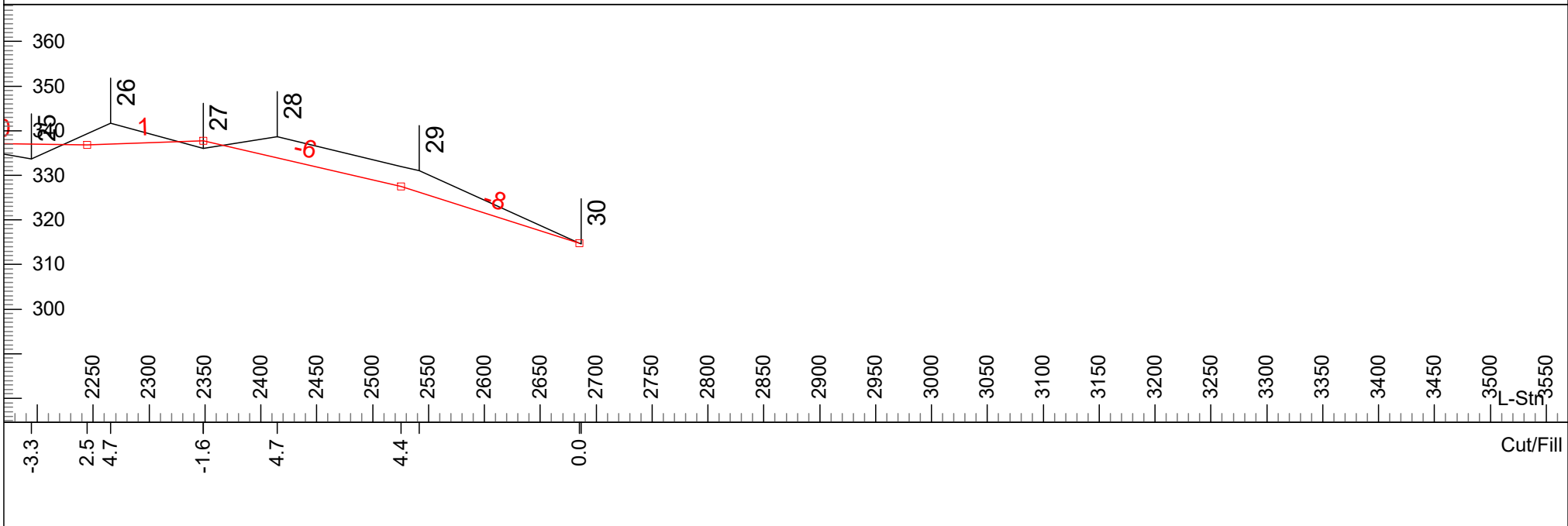
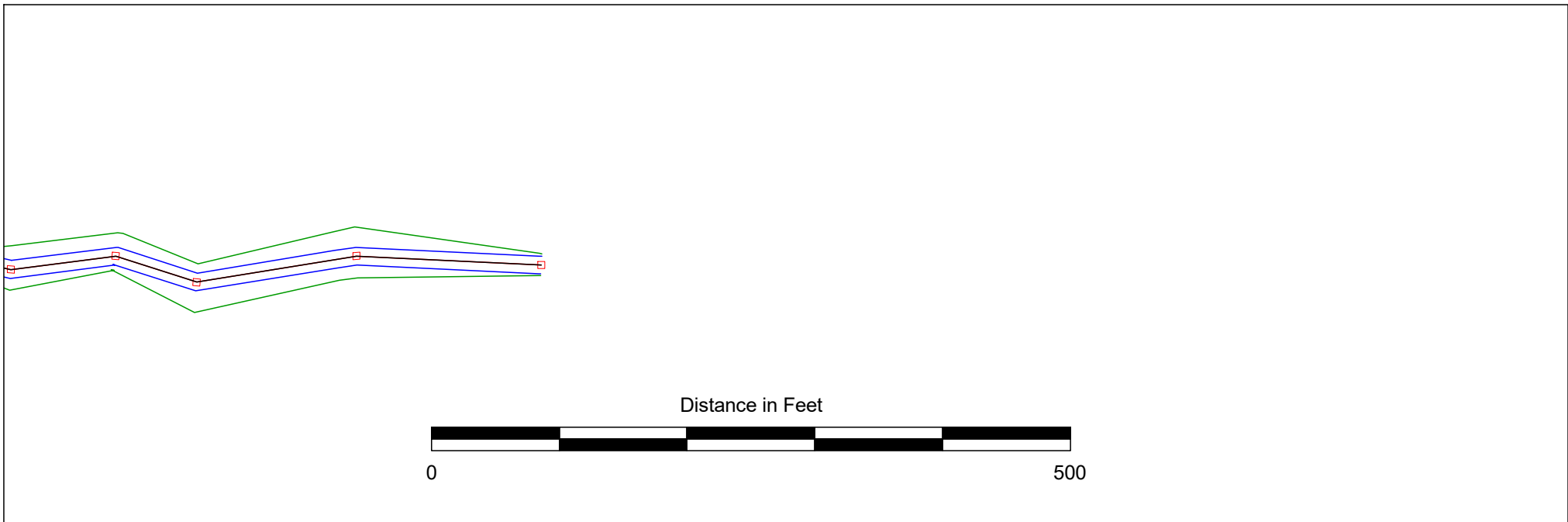
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
 E293512E Road - Plan/Profile View - Sta 108+22 to
 Dept. of Natural Resources - Northeast Region - North Columbia District

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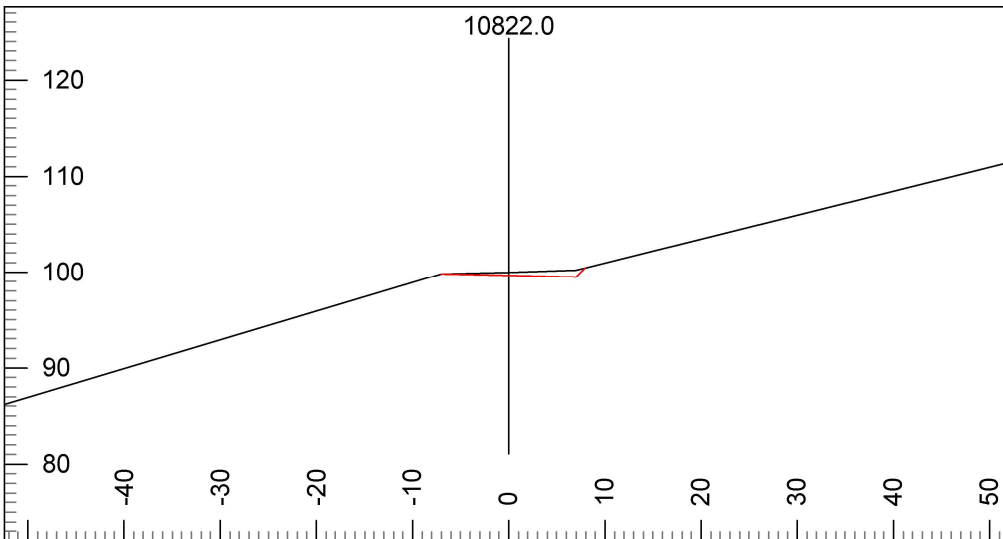
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
 E293512E Road - Plan/Profile View - Sta 108+22 to
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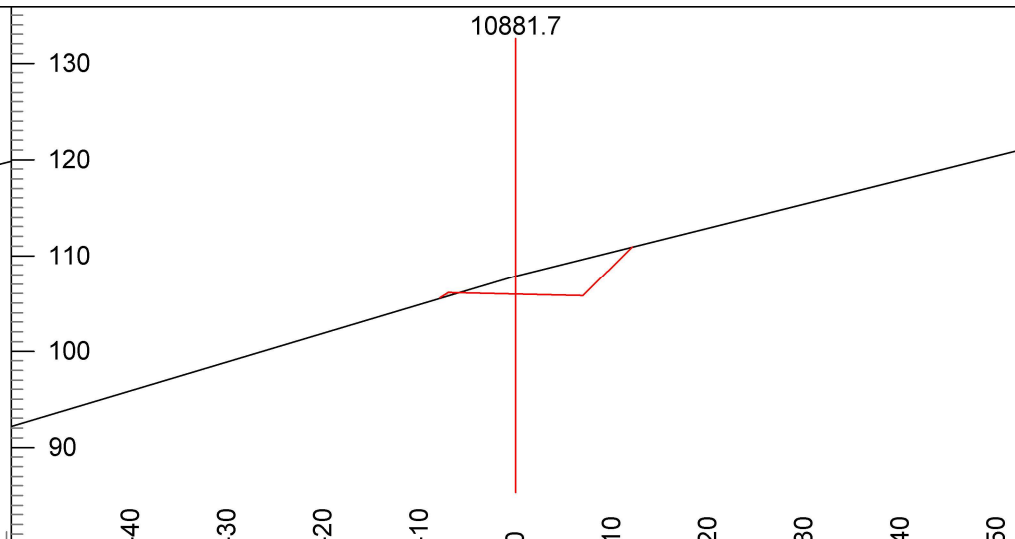


L-Ssl: (Av)	-32	-20	-13
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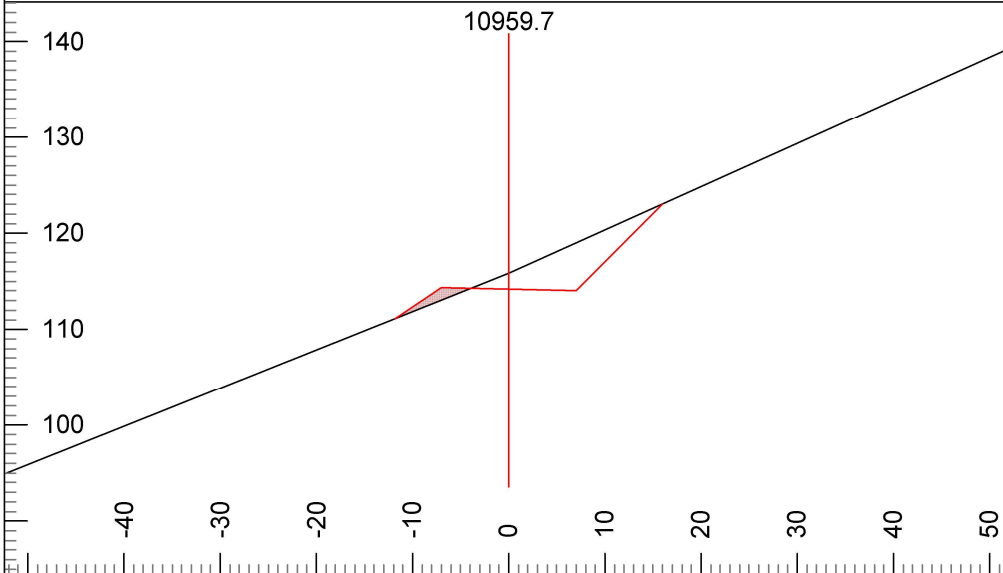
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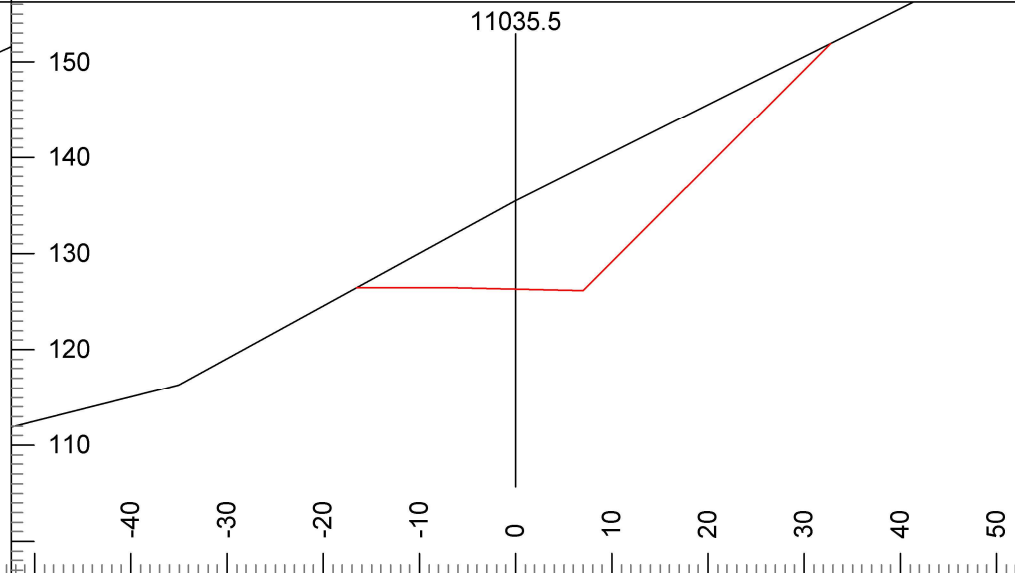
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Trav.Cmnt:	2307/1109	L-Ssr:	10	Rd. Wd. L:	7.0
Grd.Nxt.:	11	Cut Dp:	0.3	Rd. Wd. R:	7.0
Grd.Lst:	n/a	Cul DIA:		CL Elev:	99.7



Index:	2	Grd.Lst:	11	Cut Dp:	1.9	Rd. Wd. L:	7.0
Trav.Cmnt:	2308	L-Ssl:	-30	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	11	L-Ssr:	25	Cul Length:		CL Elev:	105.9

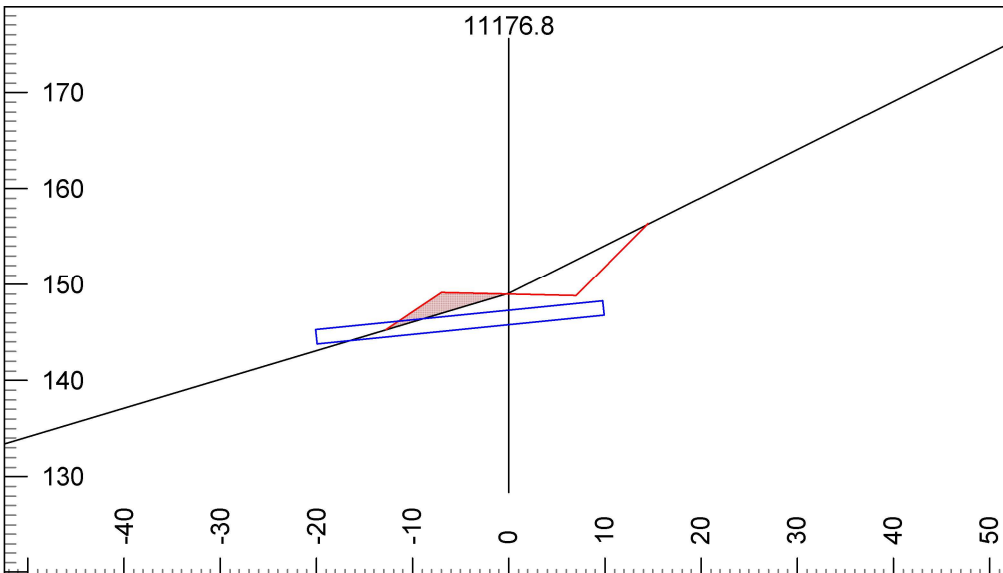


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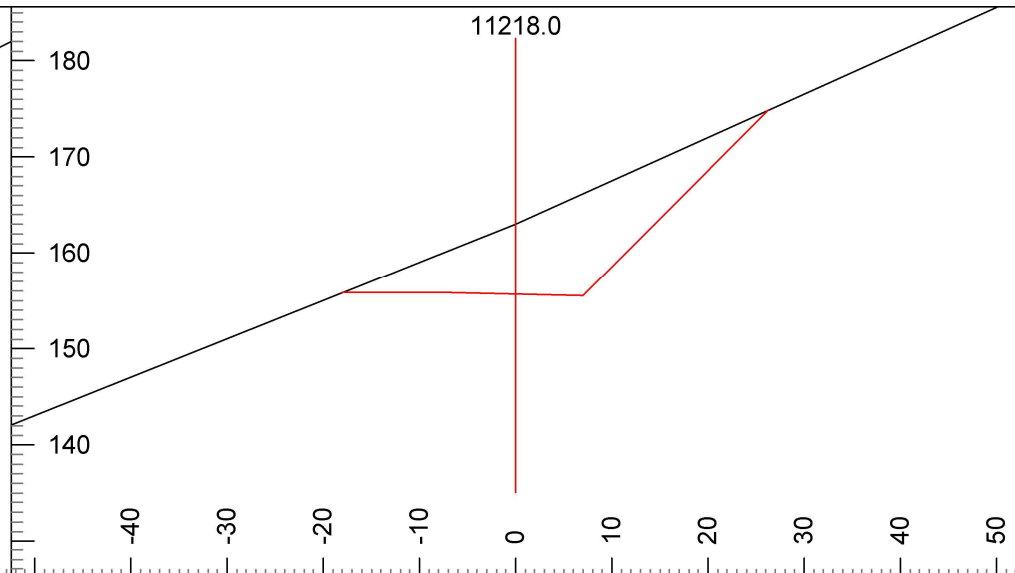


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Trav.Cmnt:	2310	L-Ssl:	-55	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	16	L-Ssr:	50	Cul Length:		CL Elev:	126.3

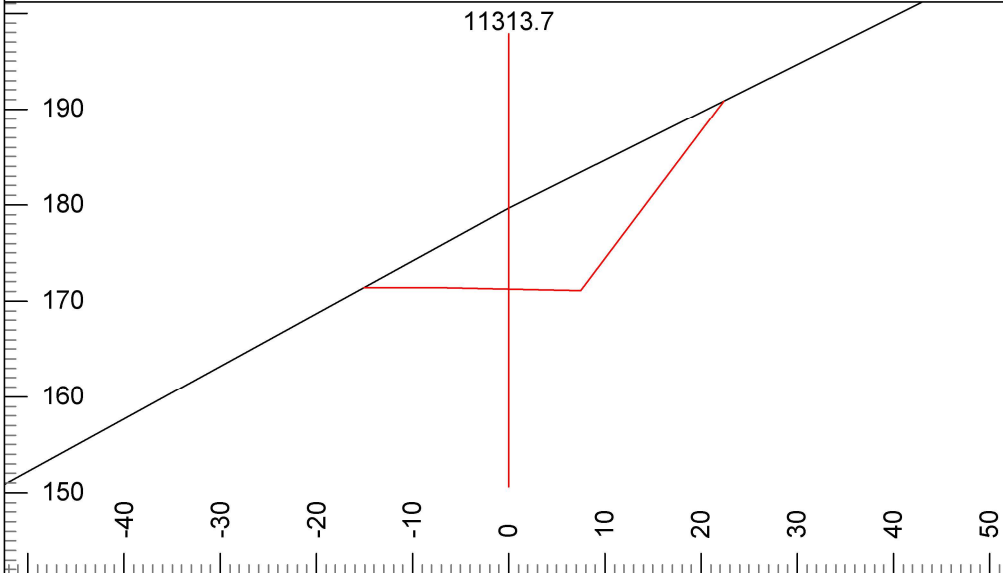
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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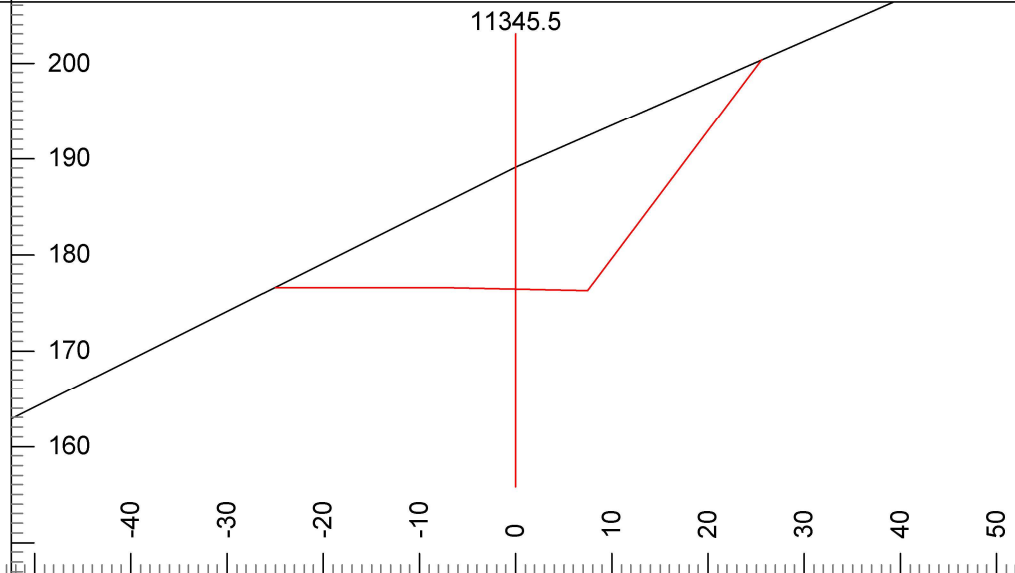
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Grd.Nxt.:	16	L-Ssr:	50	Cul Length:	30.0	CL Elev:	149.0



Index:	6	Grd.Lst:	16	Cut Dp:	7.3	Rd. Wd. L:	7.0
Trav.Cmnt:	2312	L-Ssl:	-40	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	16	L-Ssr:	45	Cul Length:		CL Elev:	155.7

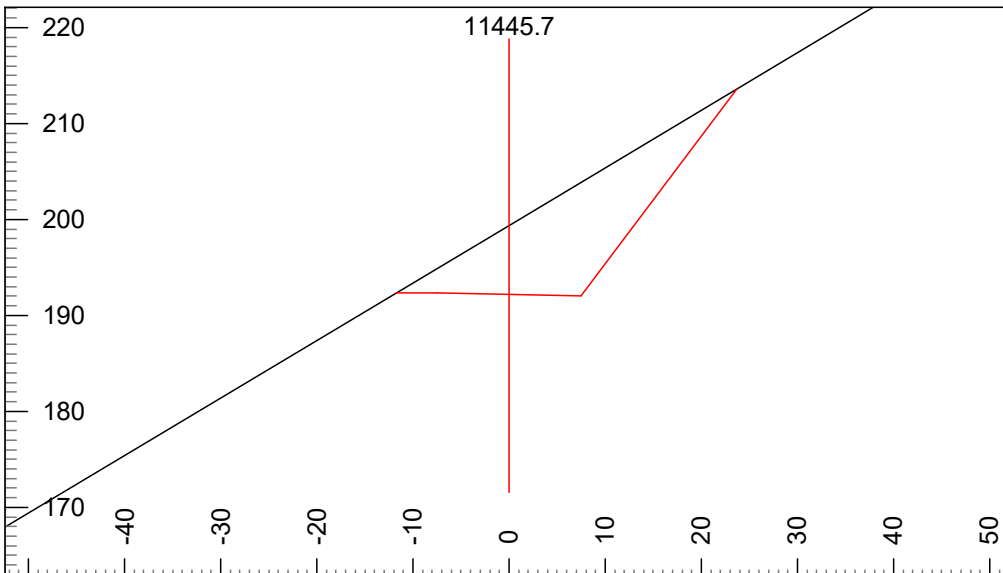


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Grd.Nxt.:	16	L-Ssr:	50	Cul Length:		CL Elev:	171.3

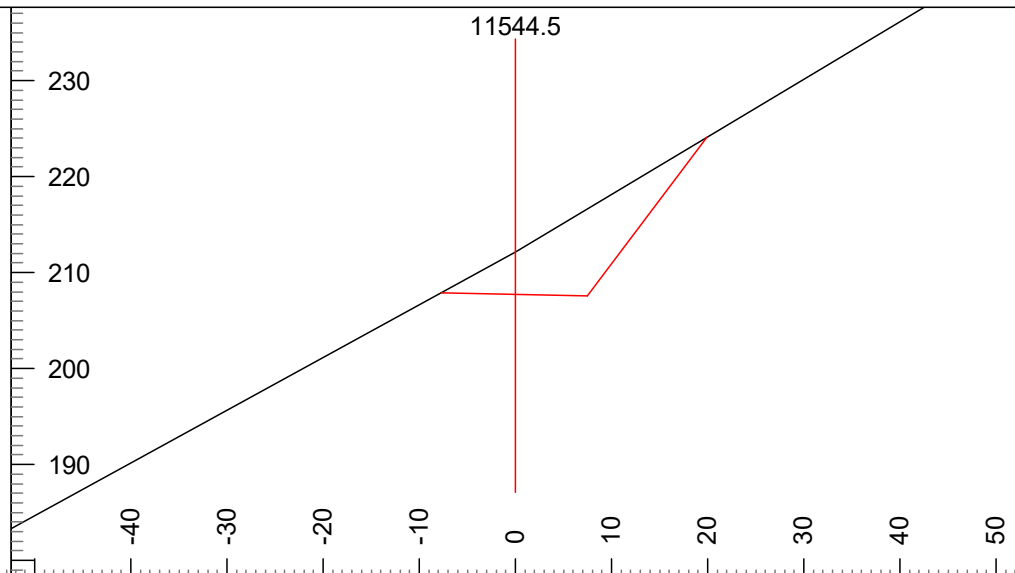


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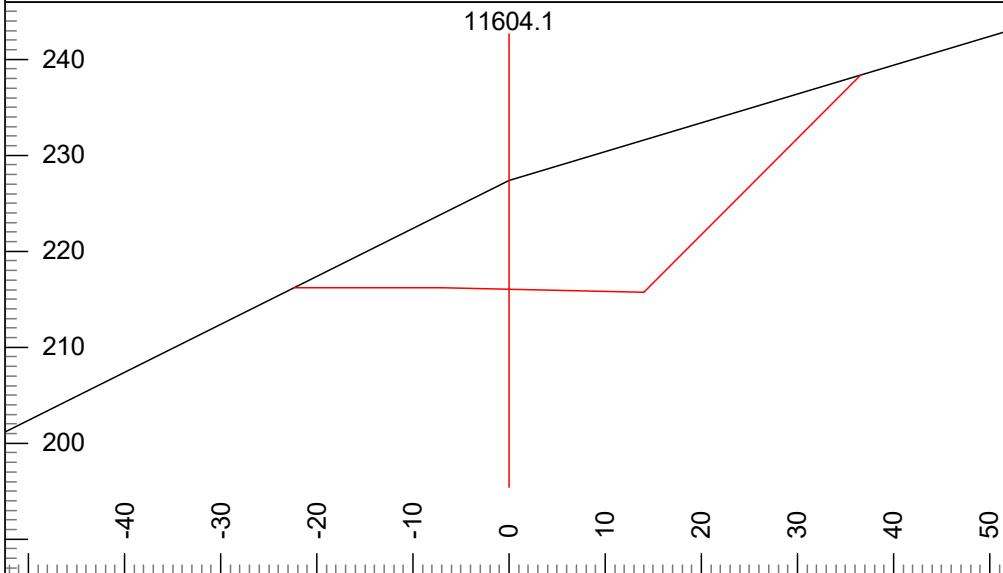
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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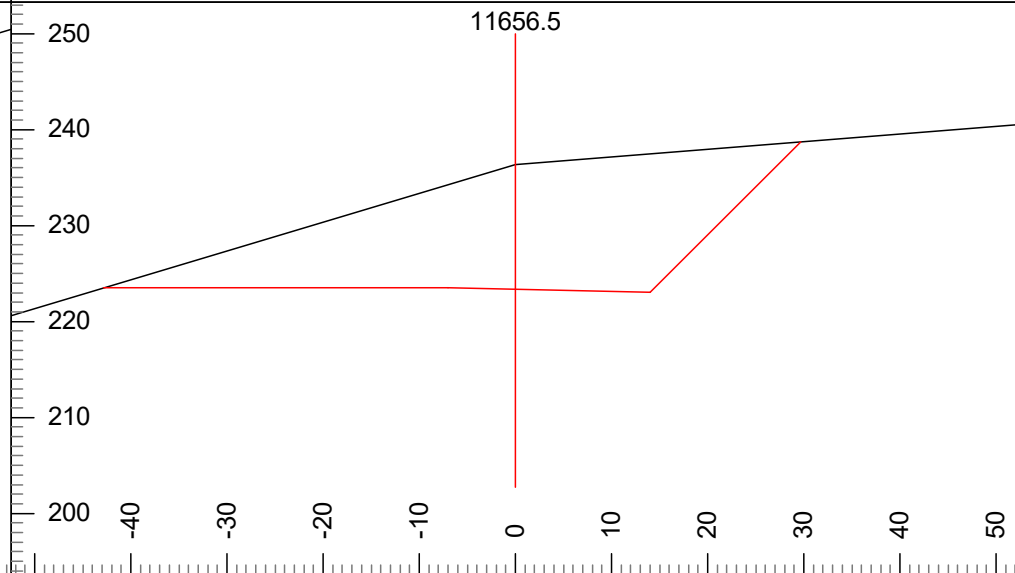
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Grd.Nxt.:	16	L-Ssr:	60	Cul Length:		CL Elev:	192.2



Index:	10	Grd.Lst:	16	Cut Dp:	4.4	Rd. Wd. L:	7.5
Trav.Cmnt:	2316	L-Ssl:	-55	Cul DIA:		Rd. Wd. R:	7.5
Grd.Nxt.:	14	L-Ssr:	60	Cul Length:		CL Elev:	207.7

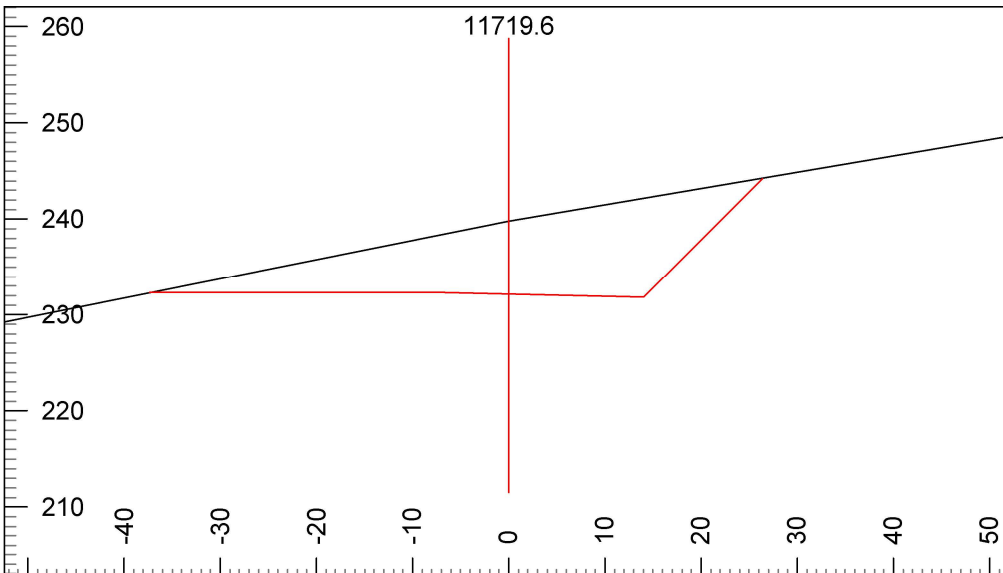


Index:	11	Grd.Lst:	14	Cut Dp:	11.3	Rd. Wd. L:	7.0
Trav.Cmnt:	2317	L-Ssl:	-50	Cul DIA:		Rd. Wd. R:	14.0
Grd.Nxt.:	14	L-Ssr:	30	Cul Length:		CL Elev:	216.0

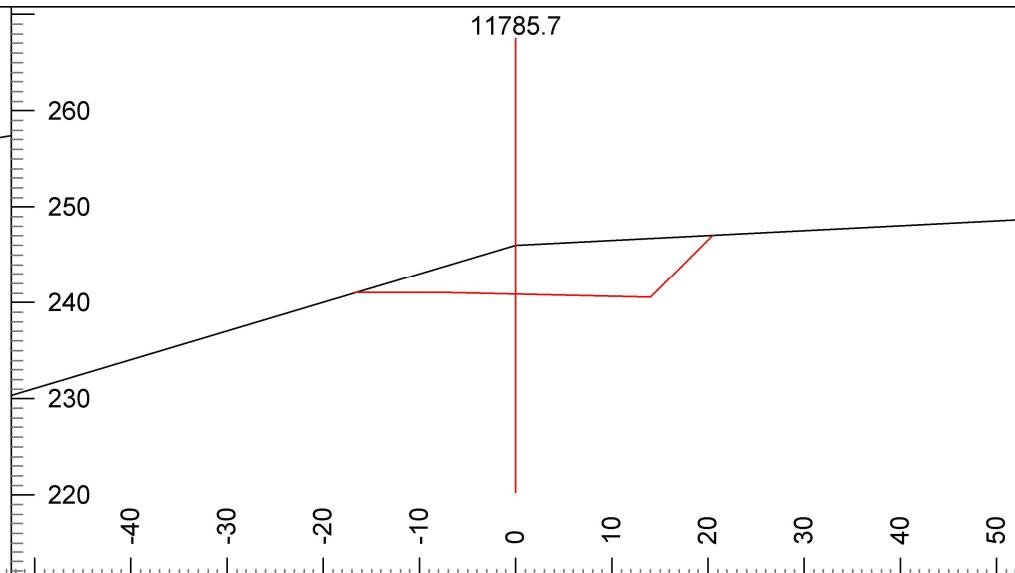


Index:	12	Grd.Lst:	14	Cut Dp:	13.0	Rd. Wd. L:	7.0
Trav.Cmnt:	2318	L-Ssl:	-30	Cul DIA:		Rd. Wd. R:	14.0
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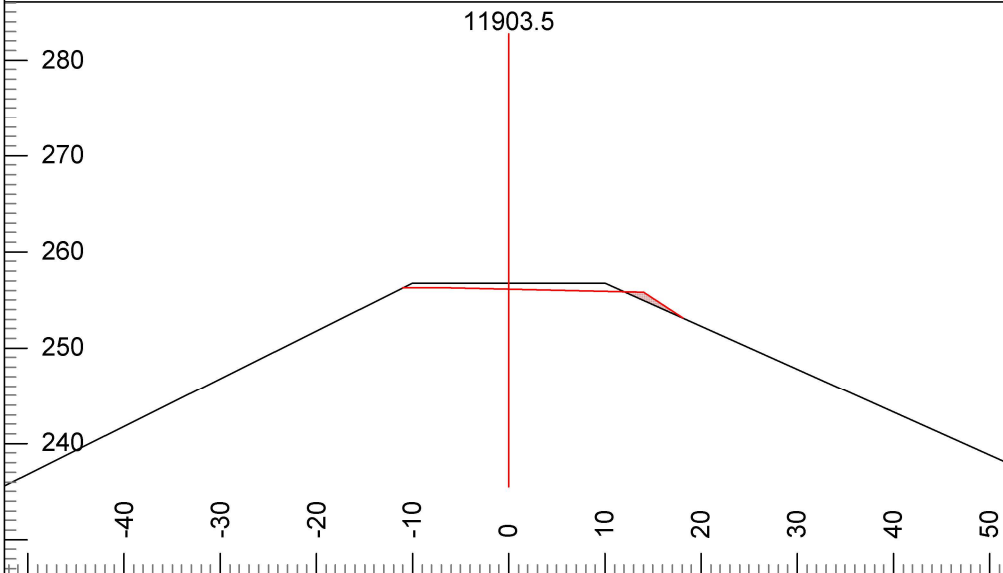
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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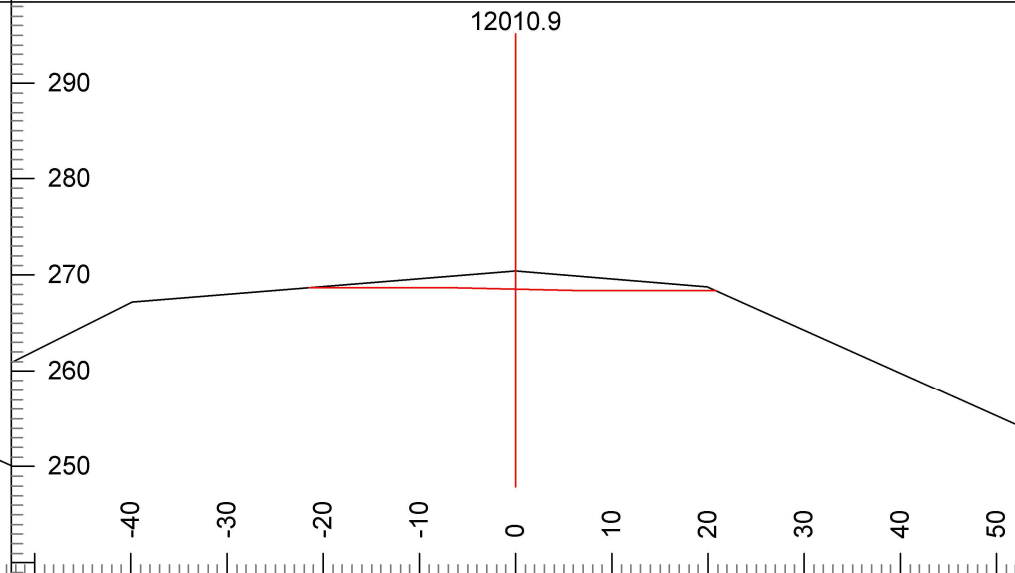
Index:	13	Grd.Lst:	14	Cut Dp:	7.6	Rd. Wd. L:	7.0
Trav.Cmnt:	2319	L-Ssl:	-20	Cul DIA:		Rd. Wd. R:	14.0
Grd.Nxt.:	14	L-Ssr:	17	Cul Length:		CL Elev:	232.2



Index:	14	Grd.Lst:	13	Cut Dp:	5.1	Rd. Wd. L:	7.0
Trav.Cmnt:	2320	L-Ssl:	-30	Cul DIA:		Rd. Wd. R:	14.0
Grd.Nxt.:	13	L-Ssr:	5	Cul Length:		CL Elev:	240.9

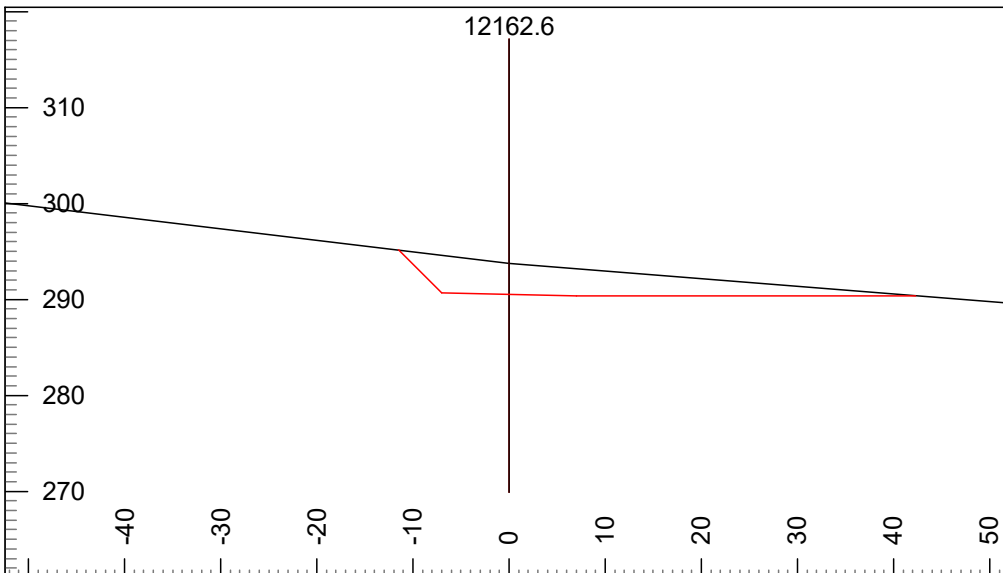


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Grd.Nxt.:	13	L-Ssr:	0	Cul Length:		CL Elev:	256.1

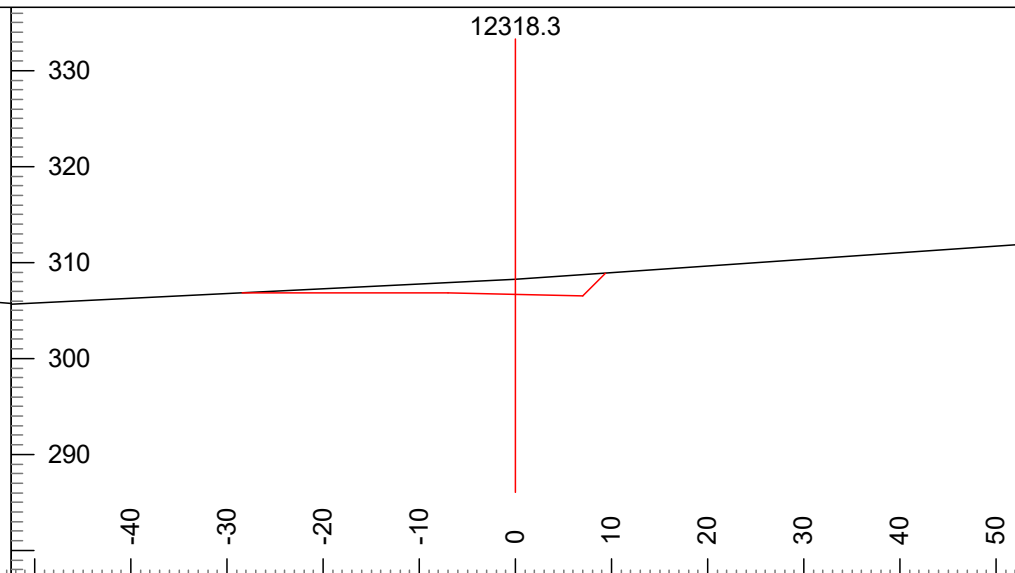


Index:	16	Grd.Lst:	12	Cut Dp:	1.9	Rd. Wd. L:	7.0
Trav.Cmnt:	2322	L-Ssl:	-8	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	12	L-Ssr:	-8	Cul Length:		CL Elev:	268.5

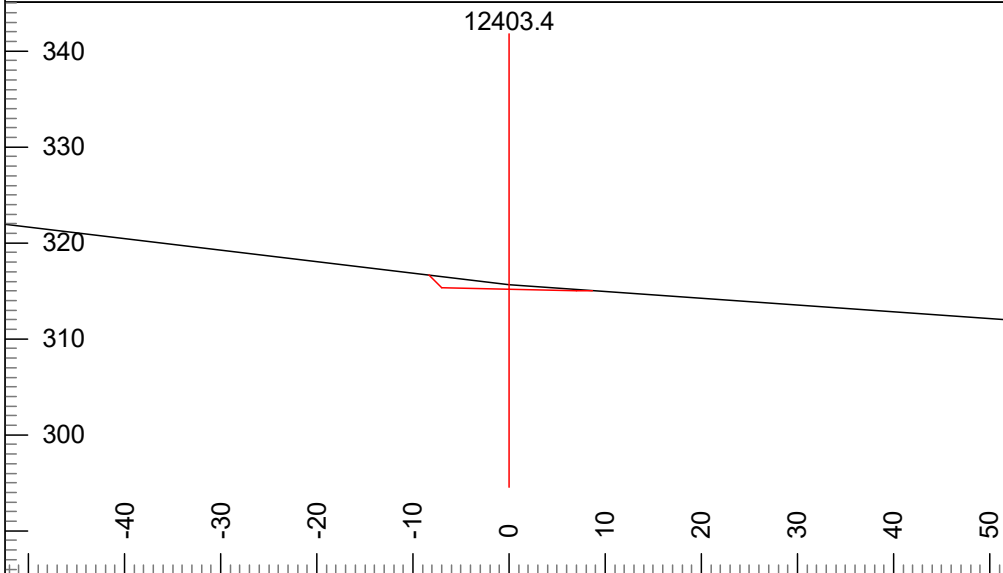
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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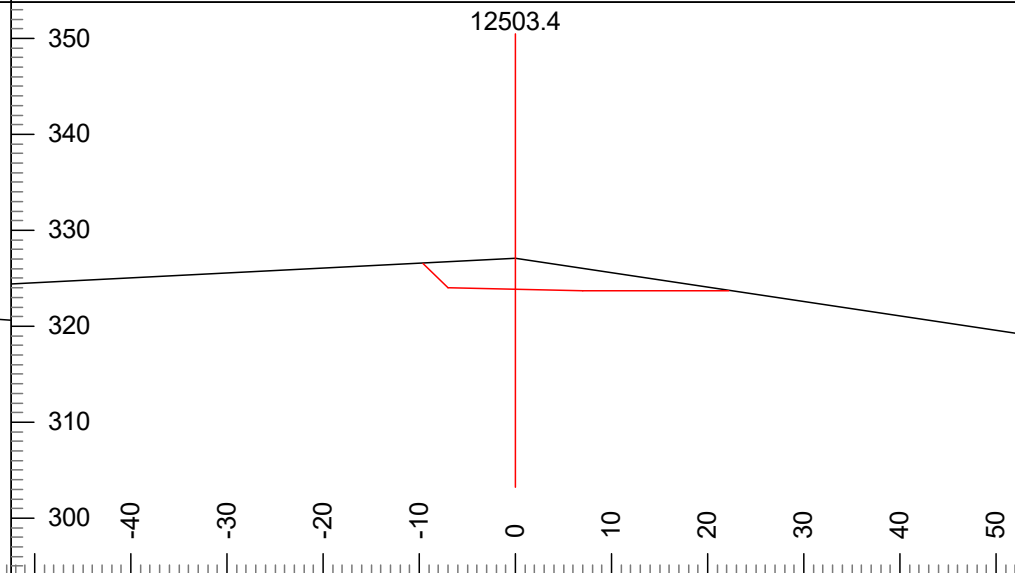
Index:	17	Grd.Lst:	15	Cut Dp:	3.2	Rd. Wd. L:	7.0
Trav.Cmnt:	2323	L-Ssl:	12	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	15	L-Ssr:	-8	Cul Length:		CL Elev:	290.5



Index:	18	Grd.Lst:	10	Cut Dp:	1.6	Rd. Wd. L:	7.0
Trav.Cmnt:	2324	L-Ssl:	-5	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	10	L-Ssr:	7	Cul Length:		CL Elev:	306.7

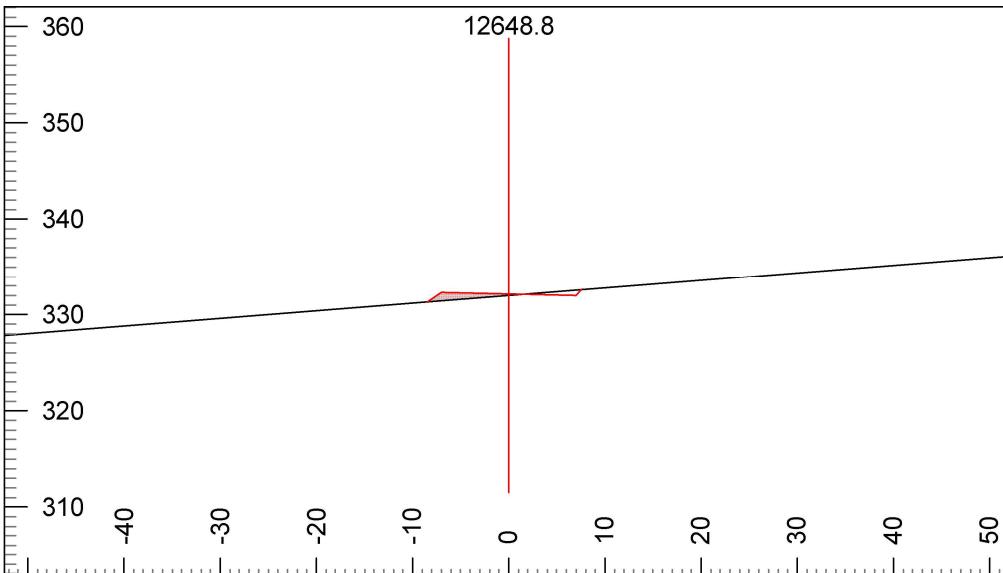


Index:	19	Grd.Lst:	10	Cut Dp:	0.5	Rd. Wd. L:	7.0
Trav.Cmnt:	2325	L-Ssl:	12	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	10	L-Ssr:	-7	Cul Length:		CL Elev:	315.2

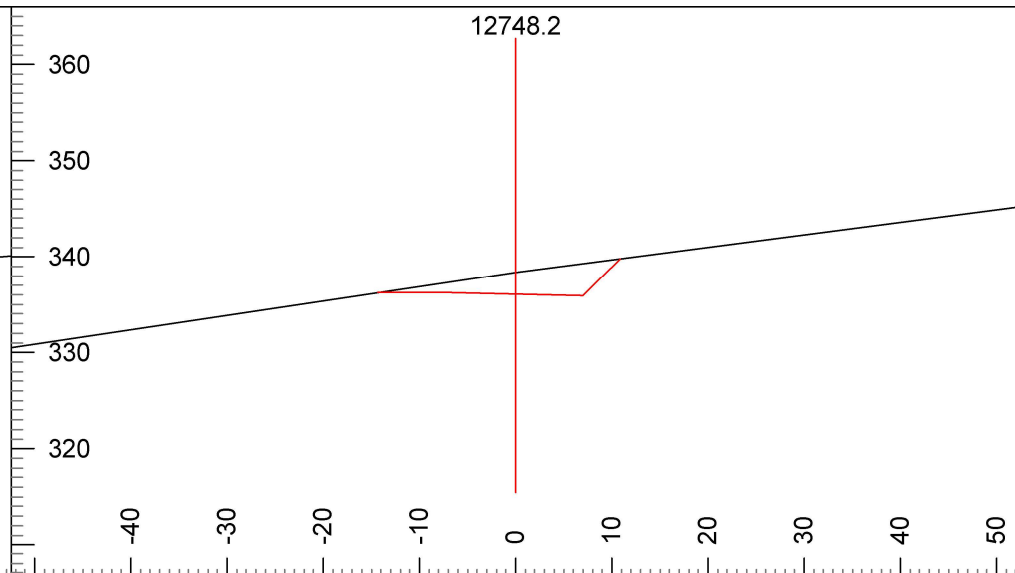


Index:	20	Grd.Lst:	9	Cut Dp:	3.2	Rd. Wd. L:	7.0
Trav.Cmnt:	2326	L-Ssl:	-5	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	9	L-Ssr:	-15	Cul Length:		CL Elev:	323.9

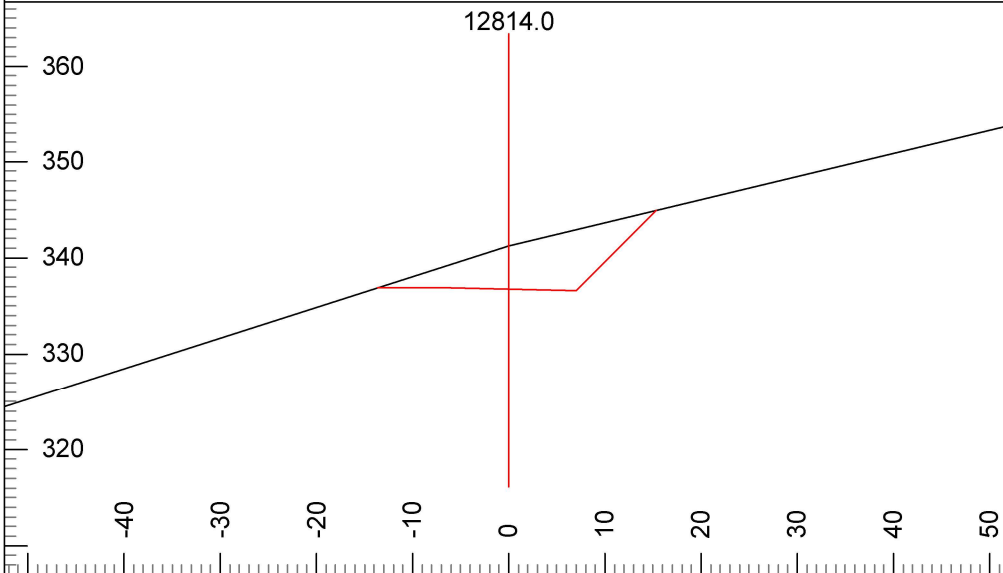
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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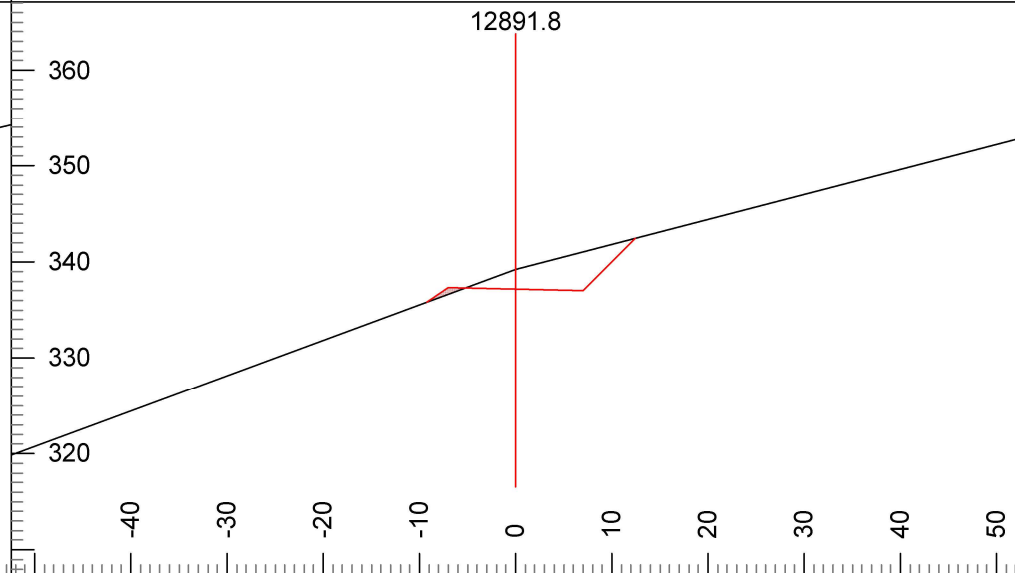
Index:	21	Grd.Lst:	4	Cut Dp:	-0.2	Rd. Wd. L:	7.0
Trav.Cmnt:	2327	L-Ssl:	-8	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	4	L-Ssr:	8	Cul Length:		CL Elev:	332.2



Index:	22	Grd.Lst:	4	Cut Dp:	2.3	Rd. Wd. L:	7.0
Trav.Cmnt:	2328	L-Ssl:	-15	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	4	L-Ssr:	13	Cul Length:		CL Elev:	336.1

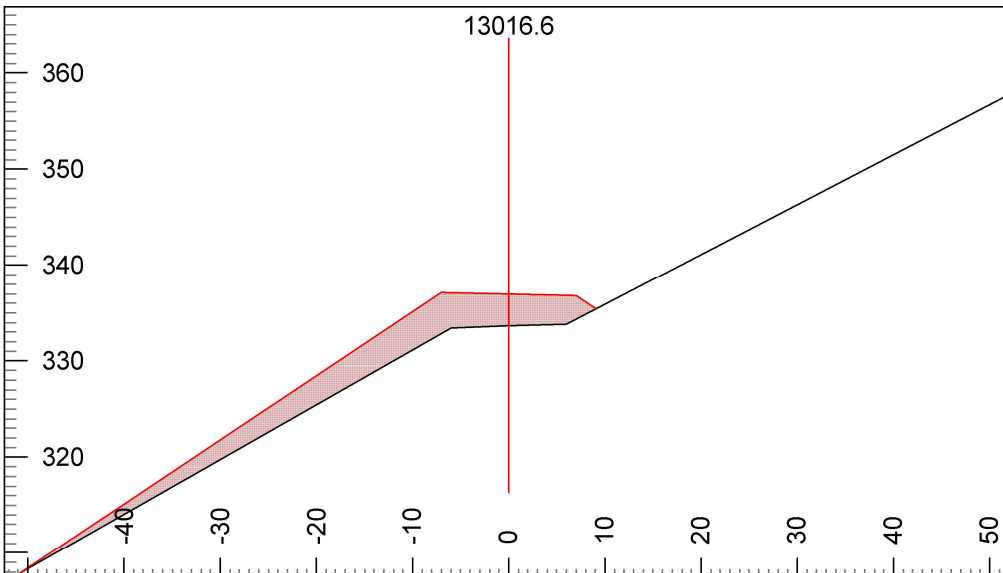


Index:	23	Grd.Lst:	1	Cut Dp:	4.5	Rd. Wd. L:	7.0
Trav.Cmnt:	2329	L-Ssl:	-32	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	1	L-Ssr:	24	Cul Length:		CL Elev:	336.8

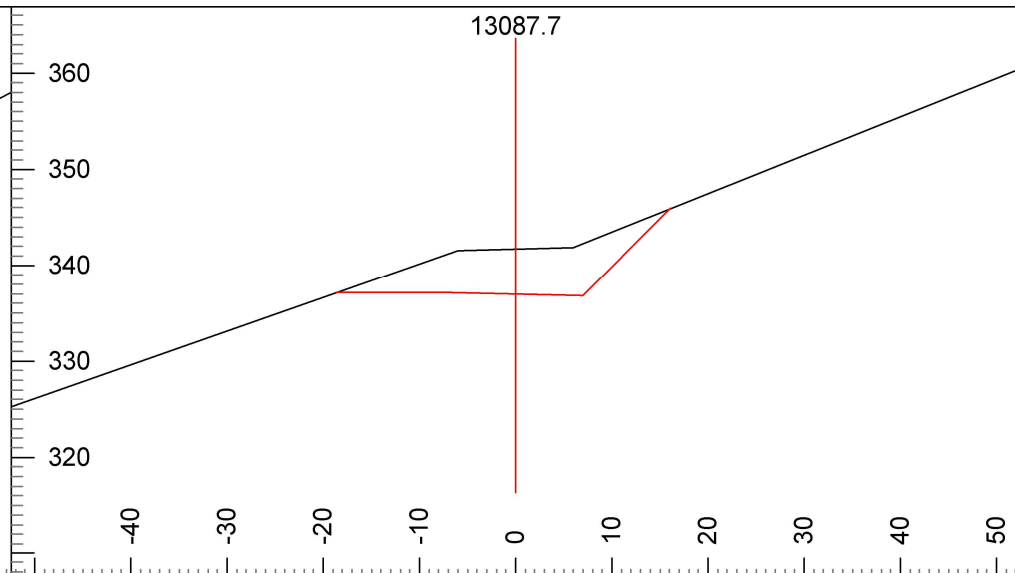


Index:	24	Grd.Lst:	1	Cut Dp:	2.1	Rd. Wd. L:	7.0
Trav.Cmnt:	2330	L-Ssl:	-37	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	1	L-Ssr:	26	Cul Length:		CL Elev:	337.2

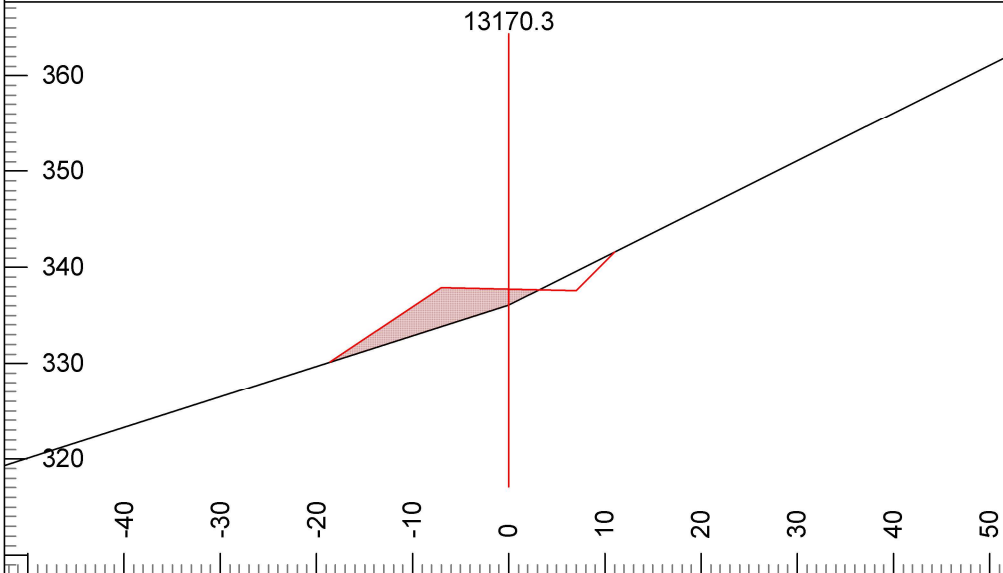
Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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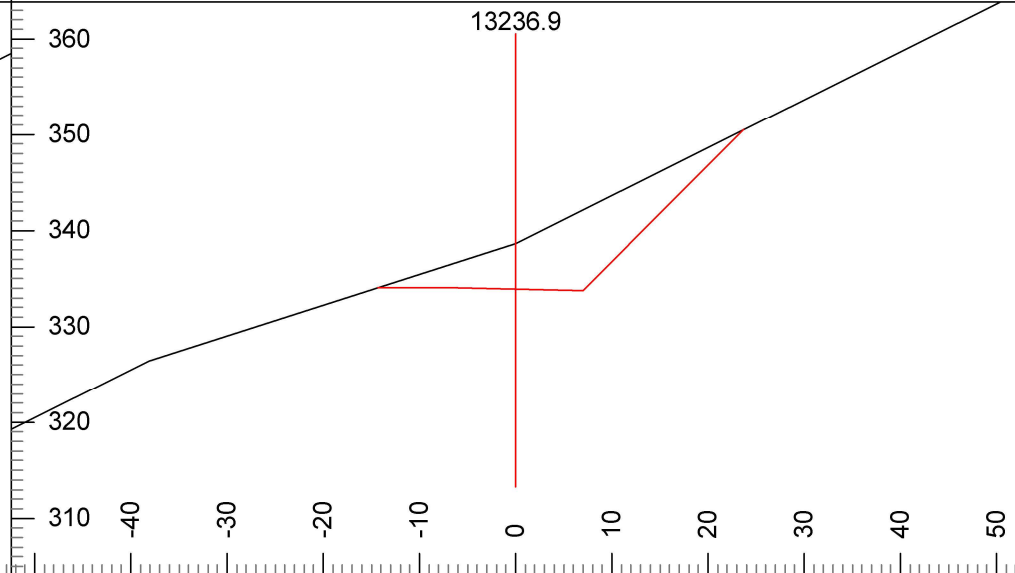
Index:	25	Grd.Lst:	0	Cut Dp:	-3.3	Rd. Wd. L:	7.0
Trav.Cmnt:	2331	L-Ssl:	-25	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	0	L-Ssr:	23	Cul Length:		CL Elev:	337.0



Index:	26	Grd.Lst:	1	Cut Dp:	4.7	Rd. Wd. L:	7.0
Trav.Cmnt:	2332	L-Ssl:	-16	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	1	L-Ssr:	18	Cul Length:		CL Elev:	337.0

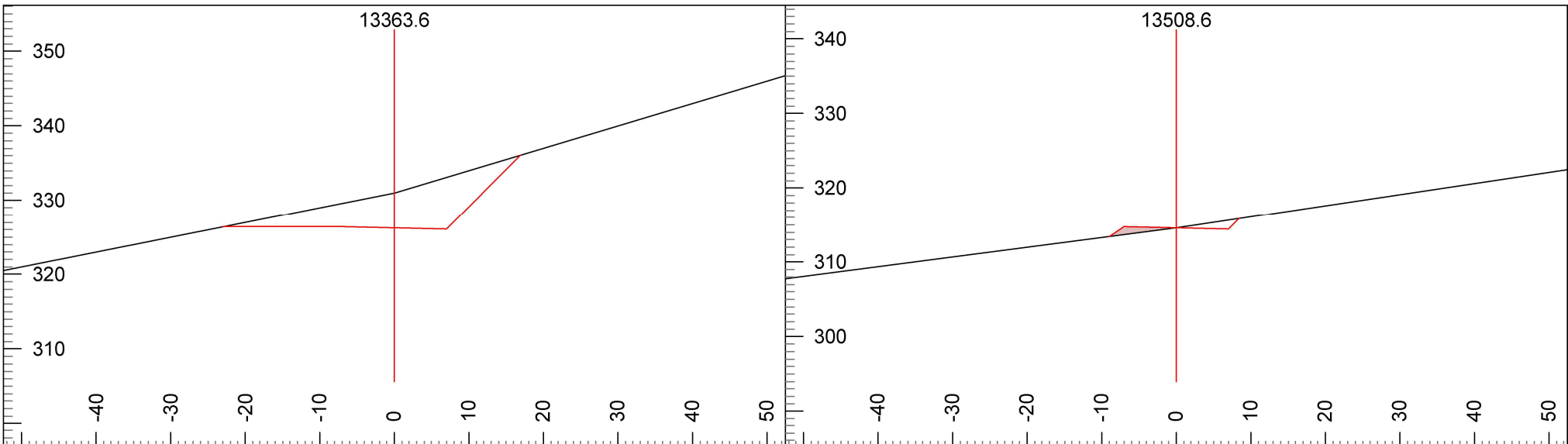


Index:	27	Grd.Lst:	1	Cut Dp:	-1.6	Rd. Wd. L:	7.0
Trav.Cmnt:	2333	L-Ssl:	-32	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	1	L-Ssr:	50	Cul Length:		CL Elev:	337.7



Index:	28	Grd.Lst:	-6	Cut Dp:	4.7	Rd. Wd. L:	7.0
Trav.Cmnt:	2334	L-Ssl:	-32	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	-6	L-Ssr:	50	Cul Length:		CL Elev:	333.9

Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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Index:	29	Grd.Lst:	-8	Cut Dp:	4.7	Rd. Wd. L:	7.0
Trav.Cmnt:	2335	L-Ssl:	-20	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	-8	L-Ssr:	30	Cul Length:		CL Elev:	326.3

Index:	30	Grd.Lst:	-9	Cut Dp:	0.0	Rd. Wd. L:	7.0
Trav.Cmnt:	2336	L-Ssl:	-13	Cul DIA:		Rd. Wd. R:	7.0
Grd.Nxt.:	n/a	L-Ssr:	15	Cul Length:		CL Elev:	314.6

Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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Index	Comment	P-Stn ft.	Azimuth deg.	Cut Dp. ft.	Grade %	Ssl %	Ssr %
1	2307/1109	10822.0		0.3			10
2	2308	10881.7	50	1.9	11	-11	25
3	2309	10959.7	50	1.6	11	-30	45
4	2310	11035.5	40	9.2		-40	50
5	2311	11176.8	68	0.1	16	-55	50
6	2312	11218.0	45	7.3		-30	50
7	2313	11313.7	17	8.4	16	-40	45
8	2314	11345.5	52	12.6	16	-55	50
9	2315	11445.7	64	7.2		-50	44
10	2316	11544.5	40	4.4	16	-60	60
11	2317	11604.1	8	11.3	14	-55	60
12	2318	11656.5	45	13.0	14	-50	30
13	2319	11719.6	76	7.6	14	-30	8
14	2320	11785.7	145	5.1		-20	17
15	2321	11903.5	212	0.6	13	-30	5
16	2322	12010.9	187	1.9		0	0
17	2323	12162.6	187	3.2		-8	-8
18	2324	12318.3	170	1.6		12	-8
19	2325	12403.4	190	0.5	10	-5	7
20	2326	12503.4	165	3.2		12	-7
21	2327	12648.8	125	-0.2		-5	-15
22	2328	12748.2	130	2.3	4	-8	8
23	2329	12814.0	130	4.5		-15	13
24	2330	12891.8	92	2.1	1	-32	24
25	2331	13016.6	92	-3.3		-37	26
26	2332	13087.7	70	4.7		-25	23
27	2333	13170.3	50	-1.6	1	-16	18
28	2334	13236.9	75	4.7		-32	50
29	2335	13363.6	48	4.7		-32	50
30	2336	13508.6	60	0.0		-20	30
						-13	15

Sale: Glasco Contract #: 30-104599 Date: 12/7/2022 Engineer: Gene Gibbs
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Sale Name Glasco SUMMARY - Road Development Costs

REGION: Northeast

CONTRACT #: 30-104599 ENGINEER: Gene Gibbs

DISTRICT: East Zone

DATE: 5/11/2023

	<i>Construction</i>	<i>Reconstruction</i>	<i>Maintenance</i>	<i>Deactivation</i>	
ROAD NUMBERS:	E293610J, E293616J, E293608E, E293512E	E293610F, E293610H, E293618A, E293608E, E293608F, E293512E	E293616B, E293616D, E293618A, E293512E, E293616F, E303718E, E303718J		Additional Items
ROAD STANDARD:	<i>Construction</i>	<i>Reconstruction</i>	<i>Maintenance</i>	<i>Deactivation</i>	<i>Additional Items</i>
NUMBER OF STATIONS:	31.41	254.22	137.33		
CLEARING & GRUBBING:	\$1,391	\$10,723			
EXCAVATION AND FILL:	\$13,613	\$52,829			
MISC. MAINTENANCE:	\$748	\$4,615	\$4,741		
ROAD ROCK:		\$6,083	\$1,151		
ADDITIONAL ROCK:					\$3,781
CULVERTS AND FLUMES:		\$6,071			\$2,800
STRUCTURES/MATERIALS:					\$1,100

TOTAL COSTS:	\$15,753	\$80,321	\$5,891	\$0	\$7,681
<i>COST PER STATION:</i>	\$502	\$316	\$43	\$0	\$0

	\$/per move	# of moves	Total
MOBILIZATION:	\$500	9	\$4,500

TOTAL (All Roads) = \$114,146
SALE VOLUME mbf = 6,893
TOTAL \$/MBF = \$17

Engineer's Notes: