



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

REQUEST FOR QUOTE
RFQ NO. 30-0103927

PROJECT TITLE: Q NARDOM SORTS

QUOTE DUE DATE: May 25, 2023 2:30 PM

EXPECTED TIME PERIOD FOR CONTRACT: June 26, 2023 to July 31, 2024

CONTRACTOR ELIGIBILITY: This procurement is open to those contractors who have been pre-qualified and are listed in the Department of Natural Resources Contract Harvesting Services Eligible Bidder Pool.

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SECTION 1 INTRODUCTION

1.01 Project Summary

The Washington State Department of Natural Resources, (DNR) solicits Quotes from firms interested in participating on a project described below:

Defined in the Harvesting Services Contract. The selected harvester will be expected to access, cut, yard, load and haul logs from the Q NARDOM SORTS CH Timber Sale to specified delivery points.

1.02 Purpose and Background

This Request for Quotes seeks responses from harvesters, logging firms, operators of logging equipment or any firms, businesses or individuals who have been pre-qualified for DNR's harvester bidding pool and are interested in contract harvesting approximately 6893 MBF of timber in 6 unit(s) for the Department of Natural Resources in the Northeast Region Office.

1.03 Minimum Qualifications

Candidate Harvesters must be licensed to do business in the State of Washington and must demonstrate that they are capable of performing the work and meet the requirements outlined in the attached Harvesting Services Contract and Road Plan.

Candidate Harvesters must participate in a two-part process to bid on the work defined by the Harvesting Contract (Exhibit B) and Road Plan (Exhibit C). First, a Statement of Qualifications (SOQ) must be submitted to DNR for evaluation. The Candidate Harvester must achieve 'eligible-for-bidding' status placing them in the DNR's eligible bidder pool. Second, Eligible Bidders will be requested to submit a bid for the Harvesting Services Contract along with a 'Statement of Available Resources and Work Plan' and any other materials listed as 'required' in section 2.06 of this RFQ. The State will award the contract to the eligible bidder who submits the lowest bid and has provided a 'Statement of Available Resources and Work Plan' that demonstrates to the State that the Candidate Harvester has the ability to complete the project as required.

Proposals from Candidate Harvesters who do not meet these minimum qualifications shall be rejected.

1.04 Contract Term

The period of performance of the Harvesting Service Contract resulting from this Request for Quotes (RFQ) and subsequent bidding process is tentatively scheduled for June 26, 2023 to July 31, 2024. Any amendments extending the period of performance shall be at DNR's sole discretion.

1.05 Payment for Work

The State shall make payments to the Contractor for services required and approved including log hauling and road work calculated according to the terms in the harvesting services contract. The Contractor is responsible for independently negotiating, procuring and paying for all services provided.

Depending on the project bid structure defined in section 2.06 ‘Contract Harvesting Services Quote Format’ of this RFQ, payment will be calculated using:

- The Contractor’s On Board Truck (OBT) bid rate per ton for logs harvested and delivered for sort(s) 01, 02, 03, 04, 05, 06, 07 and 08.
- And an OBT rate of \$13.00 per Ton for sort 09 harvested and delivered.
- Utility volume scaled in mbf sorts will be determined on an adjusted gross scale basis and paid for at an OBT rate of per mbf.
- Payments to the Contractor for hauling services shall be based upon the tons delivered multiplied by: a base rate, ‘A’ and ‘C mile rates’, a fuel index factor and the Contractor’s hauling bid factor using the following formula:

$$\begin{aligned} &\text{Hauling Services Payment Rate per Ton} \\ &= (\text{Base Rate} + \text{Mileage Rate}) \times (\text{Contractor’s hauling bid factor}) \end{aligned}$$

Base Rate = \$2.35
 (based on multiple truck operation fixed cost/ton within ‘Report to the Washington State Legislature, The Washington Log Trucking Industry: Costs and Safety Analysis, August 2008’)

$$\text{Mileage Rate} = ((\$0.16 \times \text{C miles}) + (\$0.11 \times \text{A miles})) \times (\text{Fuel Index Factor})$$

The Fuel Index Factor will be adjusted quarterly by the State based upon the U.S. Energy Information Administration’s Weekly Retail On-Highway Diesel prices for the West Coast region posted at <https://www.eia.gov/petroleum/gasdiesel/> using the following formula;

$$\text{Fuel Index Factor} = 1 + \frac{Q_{(x)} - Q_{(base)}}{Q_{(base)}}$$

Where; $Q_{(base)}$ = Average fuel price for quarter preceding harvesting services contract bid opening.
 $Q_{(x)}$ = Average fuel price for quarter preceding log deliveries.

The fuel index factor will be calculated each;
 January and apply to loads delivered between January 1 and March 31,
 April and apply to loads delivered between April 1 and June 30,
 July and apply to loads delivered between July 1 and September 30,
 October and apply to loads delivered between October 1 and December 31.

Hauling Rate Example:
Base Rate = \$2.35
C miles = 10

$$\begin{aligned}
 A \text{ miles} &= 100 \\
 \text{Fuel Index Factor} &= 1.000 \\
 \text{Mileage Rate} &= ((\$0.16 \times 10) + (\$0.11 \times 100)) \times (1.000) = \$12.60 \\
 \text{Contractor's hauling bid factor} &= 1.100
 \end{aligned}$$

$$\begin{aligned}
 \text{Hauling Services Payment Rate per Ton} \\
 &= (\text{Base Rate} + \text{Mileage Rate}) \times (\text{Contractor's hauling bid factor}) \\
 &= (\$2.35 + \$12.60) \times 1.100 \\
 &= \$16.45
 \end{aligned}$$

For sorts bid on an mbf basis tonnage will be calculated using the State's conversion rate unless actual tonnage is available and approved for use. For tonnage based sorts, actual tonnage shall apply.

- Travel distances to each log sort destination will be determined by the State and will represent the one-way travel distance from the sale area to the purchaser's delivery point.
 - Long-haul surcharge: An additional haul payment of \$25/mbf net scale for mbf scale sorts or \$4.60/ton for tonnage sorts will be added for delivery destinations in excess of 250 total one-way miles (A miles plus C miles).
- With prior approval by the State and toll/ferry receipt provided, reimbursement of toll/ferry costs incurred for transporting logs.
- Payment amounts for fixed-rate road construction elements are based upon the rates established by the State and listed in the Harvesting Services Contract. When applicable, payment amounts for biddable road construction elements will be in accordance with the rates listed in Contractor's road cost proposal provided as an attachment to the official bid form.

1.06 RFQ Definitions

Definitions of terms used in this Request for Statement of Qualifications.

Contractor - Individual or company selected to harvest and haul logs for the State. Contractor may also be required to perform roadwork or other services as required in the Harvesting Services Contract and Road Plan.

DNR - The State of Washington, Department of Natural Resources.

Eligible Bidder - Candidate Harvester who's Statement of Qualifications has scored a pre-determined minimum point total (as determined by the DNR). Only eligible bidders are requested to submit a bid for the work outlined in the Harvesting Services Contract.

Harvesting Services Contract - the agreement between the State and a Contractor that defines the work to be done by the Contractor. The Contractor and the State sign this contract after

the timber sale auction where the Purchaser's of the log sorts has been determined.

Purchaser - Person or Company that has purchased logs to be delivered by the Contractor of a Contract Harvesting Sale. A Contract Harvesting sale usually has numerous Purchasers.

Quote – Official bid form submitted by Eligible Bidders. A complete Quote consists of the bid rate for delivered logs, the bid rates for hauling services, and a completed ‘Statement of Available Resources and Work Plan’.

Request for Quotes (RFQ) - A formal procurement process used to solicit bids from pre-qualified firms for the right to perform the work defined in the RFQ.

Request for Statement of Qualifications (RFSOQ) - A formal procurement process used to pre-qualify firms for inclusion in the DNR's Contract Harvesting Services Eligible Bidder Pool.

Request for Quotes Coordinator - DNR employee who oversees the Contractor Selection Process and serves as the main point of contact between the DNR and Candidate Harvesters. The Coordinator may delegate some of the duties, but is responsible for ensuring the process is properly followed and documented.

Statement of Qualifications (SOQ) – Document to be filled out by Candidate Harvesters and submitted to the DNR. Lists the Candidate Harvesters experience, qualifications, background information and references. Used by an evaluation team to determine which Candidate Harvesters are qualified to bid for the right to perform the harvesting project.

Subcontractor - Individual or company employed by the Contractor to perform a portion or all of the services required by the Harvesting Services Contract. The Contractor is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

SECTION 2 GENERAL INFORMATION FOR HARVESTERS

2.01 RFQ Coordinator

The RFQ Coordinator is the sole point of contact in the DNR for this eligible bidder selection process. All communication between the Candidate Harvester and the DNR shall be with the RFQ Coordinator.

RFQ Coordinator	Jon Hardy
Address	225 S Silke Road
City, State, Zip Code	Colville, WA 991149369
Phone Number	(509)684-7474

Fax Number	(509)684-7484
E-Mail Address	jon.hardy@dnr.wa.gov

2.02 Estimated Project Schedule

As defined in the Project Schedule (See Exhibit A)
 The DNR reserves the right to revise this schedule.

2.03 Harvester Meeting

DNR recommends that Candidate Harvesters who intend to submit a Quote attend the Harvester meeting. This meeting will be held on May 9, 2023 at 9:00 AM, in Northeast Office Conference Room. Attendance is not mandatory.

DNR will send a copy of the questions and answers from the Harvester meeting to each Candidate Harvester who received a copy of the RFQ. Written questions may be submitted in advance of the meeting to the RFQ Coordinator. The DNR shall be bound only to written answers to questions. Oral responses given at the Harvester meeting are unofficial.

2.04 Submitting a Quote

Candidate Harvesters must submit ONE copy of the official Harvesting Services Contract Sealed Bid Form including a ‘Statement of Available Resources and Work Plan’ with original signatures. The Quote, whether mailed, hand delivered, or faxed must arrive at the DNR no later than 2:30 PM, local time, on May 25, 2023.

The Quote is to be sent to the RFQ Coordinator at the address listed in Item 2.01 above. The envelope should be clearly marked “Attention RFQ Coordinator, Contract Harvesting Services Quote Enclosed, Do Not Open Until May 25, 2023.”

Candidate Harvesters who mail Quotes should allow for normal mail delivery time to ensure timely delivery of their Quotes to the RFQ Coordinator. Candidate Harvesters assume the risk for the method of delivery they choose. The DNR assumes no responsibility for delays caused by a delivery service. Quotes may not be transmitted by email.

Late Quotes will not be accepted and will be automatically disqualified from further consideration. All Quotes and any accompanying documentation become the property of the DNR and will not be returned.

2.05 Proprietary Information/Public Disclosure.

Proposals are considered public records as defined in chapter 42.56 RCW. In the event a firm desires to claim portions of its proposal proprietary and exempt from public disclosure, it must clearly identify those portions. Each page of the proposal claimed to be exempt must be clearly identified as “proprietary information.” If a public records request is made for the information that the consultant has marked as “proprietary information,” the firm may seek to obtain a court order from a court of competent jurisdiction enjoining disclosure pursuant to chapter 42.56 RCW, or

other state or federal law that provides for nondisclosure. The successful contractor’s proposal generally becomes part of the contract that is subject to public disclosure.

DNR will charge for copying and shipping, as permitted by RCW 42.56.120. No fee shall be charged for inspection of contract files. Twenty-four (24) hours notice to the RFQ Coordinator is required. All requests for information should be directed to the Coordinator.

2.06 Contract Harvesting Services Quote Format

For a responsive bid, the following bid elements are required to be submitted on or attached to an official DNR Harvesting Services bid form;

OBT harvesting rate per Ton	Required
Hauling services bid factor (formatted to 3 decimals i.e. #.###)	Required
Responsible Bidder Criteria – Wage Law Compliance	Required
Road construction cost proposal	Required
Statement of Available Resources and Work Plan	Required
All attachments incorporated by reference	Required

2.07 Revisions to the RFQ

The DNR reserves the right to revise the RFQ and/or to issue addenda to the RFQ. The published questions and answers from the Pre-proposal meeting/questions shall be an addendum to the RFQ.

The DNR also reserves the right to cancel or to reissue the RFQ in whole or in part, prior to execution of a Harvesting Services contract. If DNR finds it necessary to revise any part of the RFQ, addenda will be provided to all those who received the RFQ.

2.08 Most Favorable Terms

The State reserves the right to determine the Successful Bidder without further discussion of the Quote submitted. Therefore, the Quote should be submitted initially on the most favorable terms, which the Candidate Harvester can propose. There will be no best and final offer procedure. The State reserves the right to contact a Candidate Harvester for clarification of a Quote.

2.09 Costs to Propose

The DNR will not be liable for any costs that the Candidate Harvester incurs in preparing a Quote related to this RFQ or any other activities related to responding to this RFQ.

SECTION 3 PROJECT SCOPE OF WORK

3.01 Project Scope of Work.

As defined in the Harvesting Services Contract, Road Plan and Timber Sale Map (See Exhibits B, C and D).

3.02 SPECIAL REQUIREMENTS

The required reconstruction on E354023A road shall be completed by July 31, 2023.

This project will require the harvest and delivery of a large amount of timber in a relatively short operating window. It is imperative that the successful harvester has the ability and resources available to complete this project within the anticipated work schedule as described in section 1.04 of this RFQ.

SECTION 4 QUOTE EVALUATION

4.01 Evaluation Team.

DNR will designate an evaluation team to evaluate Quotes. The evaluation team will evaluate quotes according to the requirements outlined in this RFQ and any addenda, which are issued.

4.02 Administrative Requirements.

The RFQ Coordinator will review all Quotes to determine compliance with administrative requirements and instructions specified in the RFQ. Only Quotes meeting the minimum requirements will be forwarded to the evaluation team for further review.

4.03 Responsibleness.

When evaluating Quotes, the evaluation team will consider candidate Harvester's responsibleness. A Candidate Harvester is responsible if it:

- Has adequate financial resources to perform the contract, or the ability to obtain them;
- Is able to comply with the required delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments;
- Has a satisfactory performance record. A Candidate Harvester shall not be determined responsible or non-responsible solely on the basis of a lack of relevant performance history, unless the DNR determines special standards are appropriate. A Candidate Harvester that is or recently has been seriously deficient in contract performance shall be presumed to be non-responsible, unless the DNR determines that the circumstances were properly beyond the Candidate Harvester's control, or that the Candidate Harvester has taken appropriate corrective action. Past failure to apply sufficient tenacity and perseverance to perform acceptably is strong evidence of non-responsibility. Failure to meet the quality requirements of the contract is a significant factor to consider in determining satisfactory performance. The DNR shall consider the number of contracts involved and the extent of deficient performance in each contract when making this determination.
- Any special standards will be properly identified in this solicitation and will apply to all Candidate Harvesters and their subcontractors.

4.04 Information Used for Evaluation.

Evaluators will use the information in the Candidate Harvester's Quote or bid form, their references, their previous Washington DNR performance evaluations, ability to meet special standards, and their Quote or 'Harvesting Services Contract Sealed Bid Form' including their 'Statement of Available Resources and Work Plan'.

4.05 Signatures

Quotes must be signed and dated by a person authorized to bind the Candidate Harvester to a contractual arrangement, e.g., the President or Executive Director if a corporation, the managing partner if a partnership, or the proprietor if a sole proprietorship.

4.06 Failure to Comply

If the Candidate Harvester fails to comply with any requirement of the RFQ, DNR will reject the Quote.

4.07 Rejecting Quotes

The DNR reserves the right at its sole discretion to reject any and all Quotes received without penalty and not to issue a contract from this RFQ. The DNR also reserves the right at its sole discretion to waive minor administrative irregularities contained in any Quote.

4.08 Lowest Responsible Bidder

Award of this Contract shall be to the lowest responsible bidder as determined by the DNR. In determining the lowest responsible bidder, in addition to price, the following may be considered:

- a. the ability, capacity, and skill of the bidder to perform the contract;
- b. the character, integrity, reputation, judgment, experience, and efficiency of the bidder;
- c. whether the bidder can perform the contract within the time specified;
- d. the quality of performance of previous contracts; and
- e. the previous and existing compliance by the bidder with laws relating to the contract or services. The DNR's determination that a bidder is not qualified shall result in rejection of the bid submitted.

4.09 Challenges to the Apparent Successful Bidder

- a. An unsuccessful bidder may appeal the bid award if they believe the process used to award the contract was not conducted properly. Please include the reasons why you believe the contract should not be awarded to the successful bidder.
- b. The DNR Region Manager must receive the appeal; in writing no later than 5 days from the date the letter was sent by fax or mail to the bidder notifying them that they were unsuccessful.

The Region Manager shall issue a written decision within 10 days of receipt of the appeal and cite the reasons for approving or disapproving the appeal.

- c. If the appellate is not satisfied with the decision of the Region Manager, the appellant may further appeal to the Deputy Supervisor-Uplands within 5 calendar days from the issuance of the Region Manager's written decision. The Deputy Supervisor-Uplands shall consider all information provided and issue a final decision in writing, citing reasons to approve or disapprove the appellant's appeal.

SECTION 5 RFQ EXHIBITS

- Exhibit A Estimated Harvest Project Schedule
- Exhibit B Draft Harvesting Services Contract
- Exhibit C Road Plan
- Exhibit D Timber Sale Map
- Exhibit E Harvesting Services Contract Sealed Bid Form
- Exhibit F Wage Law Compliance Form

Contract Harvest Project Schedule – Contractor Pool

Project timeline estimates. This schedule is a guide and may be adjusted to account for holidays and weekends and to accommodate staff schedules.

NARDOM SORTS CONTRACT NO. 103927

Contractor Pool Eligibility Process	Advertise RFSOQ	Ongoing - Available on-line http://www.dnr.wa.gov/BusinessPermits/Topics/ForestryContracts/Pages/psl_forestry_service_contracts.aspx
	Issue RFSOQ Packets	
	Deadline for completed SOQ's	Open ended. SOQ evaluations to occur on the 15 th day of every month
	Announcement of Contractor Eligibility	20 th day of every month
	Eligible Contractor selection appeal period begins	
Eligible Contractor selection appeal period ends	25 th day of every month	

Log Auction and Harvester Bid Process	BNR Approval	May 2, 2023
	Issue Harvester Request For Quotes (RFQ) and Bid Forms	May 4, 2023
	Conduct Harvester Pre-bid Meeting	May 9, 2023
	Log Sort Auction Date	June 13, 2023
	Announce Log Destination Information	June 13, 2023
	Harvester Bid Opening & Notification	May 25, 2023
	Harvester selection appeal period ends	May 31, 2023
	Confirmation of Log Sort Auction, Harvester Services Contract Signing, Log Purchaser Contract Signing	June 26, 2023

Project Operations	Operations Begin	June 26, 2023
	Log Deliveries Begin	June 26, 2023
	Log Deliveries End	December 31, 2023
	Operations End	July 31, 2024

**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

HARVESTING SERVICES CONTRACT

AGREEMENT NO. 30-0103927

SALE NAME: Q NARDOM SORTS

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

Section G: General Terms

G-001.1 Definitions

The following definitions apply throughout this contract;

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

Contractor: State-selected harvester responsible to perform all duties as required by the Harvesting Services Contract, including but not limited to timber harvesting, road construction, debris removal and piling, hauling and delivery of forest products for weighing and/or scaling, to the Purchasers of the timber sales Sorts.

Delivery: Occurs when logs or forest products meeting the sorting specifications arrive at the Purchaser's destination, as described in the contract.

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

Harvesting: A general term, referring to the Contractor's various obligations under the Harvesting Services Contract.

Harvesting Services Contract: Contract between the Contractor and the State, which sets forth the procedures and obligations of the Contractor for completing the harvesting of timber, and the delivery of various log sorts to the State's purchasers, and the payment obligations of the State, The Harvesting Services Contract will include a Road Plan for any road construction or reconstruction, where applicable.

Log Sale and Purchase Contract: Purchase Agreement between the State and Purchaser(s) of particular log sorts from the timber sale.

Purchaser: The company or individual that has entered a Log Sale Contract with the State for individual log sorts from the timber sale area. The Contractor must deliver the designated log sorts to this company or individual. Contractor will likely be delivering different log sorts to different purchasers under the Harvesting Services Contract.

Road Construction Services: 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 logs 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 Contractor to perform a portion or all of the services required by the Harvesting Services Contract. The Contractor is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

G-015.1 Harvest Area and Location

Contractor shall harvest and deliver, All timber except for leave trees banded with blue paint in Units 1, 2, 3, 4, 5 and 6 bounded by white timber sale boundary tags and all timber bounded by orange right of way boundary tags located on approximately 417 acres on part(s) of Sections 2, 10, 11, and 12 all in Township 35 North, Range 40 East W.M. of Stevens County as shown on the attached timber sale map.

G-020.1 Inspection by Contractor

Contractor hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products to be harvested. Contractor further warrants to the State that they enter this contract based solely upon their own judgment of the harvest and road work, and condition of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products to be harvested. Contractor 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.

G-022.1 Sorting Specifications

Contractor is responsible for sorting logs to the specifications listed below and hauling to the appropriate designated locations. Contractor is responsible for determining the highest value of each tree felled and the highest value destination of each log manufactured. The Contract Administrator will provide direction and guidance to Contractor with respect to highest value.

Contractor shall deliver log sorts to the Purchaser(s) location that meet the following specifications:

Agreement No.	Sort #	Species Diameter	Scaling Rule	Preferred Log Lengths	Destination	A Miles	C Miles
104588	1	DF/WL 7-10" dib	ES				
104589	2	DF/WL 11"+ dib	ES				
104590	3	ES/GF/LP/WH & non-chuckable DF/WL 7-10" dib	ES				
104591	4	ES/GF/LP/WH & non-chuckable DF/WL 11"+ dib	ES				
104592	5	PP 6-10" dib	ES				
104593	6	PP 11"+ dib	ES				
104594	7	WRC 5"+ dib	ES				
104595	8	DF/WL/ES/GF/LP/WH 5-6" dib	ES				
104596	9	All conifer species except WRC 2"+ utility	ES				

HQ: Surface characteristics for high quality (HQ) log sorts will have sound tight knots not to exceed 1.5 inches in diameter, may include logs with not more than two larger knots up to 2.5 inches in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third of the top end of the log.

Unless otherwise listed in the table above, no blue stain is allowed in ponderosa pine sorts.

“WS” indicates that west side scaling rules apply. Minimum trim is 10 inches per scaling segment for west side scaling rules. “ES” indicates that east side scaling rules apply. Minimum trim is 6 inches per scaling segment for east side scaling rules.

Logs delivered by Contractor that do not meet the receiving Purchaser’s log sort requirements as described above that have been pre-approved for delivery by the Contract Administrator shall not be considered mis-sorts.

G-024.1 Manufacturing Standards

Logs produced under this contract will be manufactured by Contractor meeting the individual sort specifications and Purchaser's preferred log lengths as listed in clause G-022.1, with a minimum length of 16 feet, unless otherwise directed by the Contract Administrator.

For sorts designated as non-utility, Contractor will manufacture and deliver logs with the following minimum specifications:

- a. Sweep will be limited to within the bole of the log as measured using a tape stretched between the centers of each end of the log.
- b. Limbs and knots shall be cut flush, with no more than 15 percent of a log having limbs or knots over 2 inches in diameter extending more than 2 inches above the surface of the log.
- c. Logs in peeler sorts shall be chuckable with no more than a 2 inch diameter area of rot within a 5 inch diameter circle located at the center of either end of the log.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
A	Sort Specifications
M	Additional Road Maintenance Rates

G-027.1 Log Delivery Schedule and Conditions

- a. Contractor shall deliver logs to Purchaser's designated delivery location beginning no later than September 1, 2023 and completed by December 31, 2023. Failure to begin deliveries by the specified date may result in the State imposing damages per clause D-022.1 unless an alternate start date is agreed upon by the State and Contractor. If a log delivery location is changed during this contract, the Contract Administrator shall notify the Contractor. Once notified, the Contractor shall deliver logs to the new location.
- b. The Contractor may deliver logs to the Purchaser's delivery location during the Purchaser's working hours, or at least between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday, except, scheduled closures and legal holidays for the contract term as described in clause G-030.1, unless permission to do otherwise is agreed upon by the State.
- c. The Contractor agrees to deliver said logs on conventional or self-loading logging trucks, properly and legally loaded, bound, branded, and ticketed. Logs in loads shall not be double-ended unless approved in writing by the Contract Administrator. It is understood and agreed that the Purchaser incurs no obligation to accept improperly or illegally loaded trucks in its facility.

Any truck so loaded may be directed to vacate the yard and shall remain the responsibility of the Contractor to make the load conform to legal requirements for hauling.

- d. If a receiving Purchaser plans a scheduled closure, the Contract Administrator shall notify the Contractor at least 48 hours before the scheduled closure. Depending on the length of the scheduled closure or delays in log delivery, the Contract Administrator will decide in the best interest of the State on the disposition of the affected log sort(s) or any alternate delivery schedule or location.
- e. Contractor’s daily log delivery to a Purchaser’s location may be limited according to the table below, provided the Contract Administrator notifies the Contractor at least 48 hours prior to the time this truck delivery limit is established.

Sort(s)	Maximum No. Loads/day
01,02,03,04,05,06,07,08,09	10

- f. A truck delivery is all the wood hauled including sorts on super trucks, mule trains and pups brought to the delivery point by a single truck. Contractor shall notify the State’s Contract Administrator if for any reason a Purchaser refuses truck deliveries.

G-030.1 Contract Term and Expiration Dates

To ensure the timely completion of activities under this contract, all activities required under this contract are to be completed between the starting date of June 26, 2023 and the expiration date of July 31, 2024.

Contractor shall not have any right to enter the sale area to perform any remaining road construction or harvesting services after contract expiration unless a contract extension has been granted.

G-033.1 Notification of Operations

Contractor shall provide the State with five days advance written notice to the Contract Administrator of its intent to commence or cease any and all operations under this contact. The commencement or cessation of operations must be approved by the Contract Administrator. Failure to comply will be considered a breach.

G-040.1 Contract Term Adjustment

A Contract Term Adjustment may be considered based on actual time lost through unforeseeable causes beyond the control and without fault or negligence of the Contractor, including, but not restricted to, acts of the State, closures by government

regulatory agencies, mill closures, fires, vandals, and unusually severe weather conditions, provided that the Contractor shall, within seven (7) calendar days of the initiation of such delay, notify the State, in writing, of the cause of delay, upon which notification the State shall ascertain the facts and extent of the delay and notify the Contractor in writing of its decision regarding contract adjustment.

G-050.1 Contract Term Extension

An extension of operating authority time may be granted at the discretion of the State upon written request thirty (30) days prior to the termination date and upon the terms and conditions as specified by the State. Contract extensions may not exceed thirty (30) days unless otherwise agreed to by State and Contractor. Extension requests within the last thirty (30) days of the contract may be considered if the extension would be in the best interest of the State. The extension, if granted, will be contingent upon the payment of an extension fee to the State, by the Contractor, in the amount of \$100.00 per day of extension.

G-054.1 Early Contract Termination

The State may terminate this contract prior to the expiration date listed in G-030.1 in whole or in part by giving fifteen (15) days written notice to the Contractor when it is in the best interests of the State. If this contract is so terminated, the State shall be liable to make payments to the Contractor for the sum of the estimated expenditures for road construction, felling, bucking, yarding and decking of products processed but not removed from the sale area due to termination action. Contractor may not seek any other damages from the State for early termination of this harvesting agreement.

G-060.1 Exclusion of Warranties

The following specific matters ARE NOT WARRANTED, and are EXCLUDED from this transaction:

- a. The **CONDITION** of the site or forest products. Any descriptions of the site or forest products in the notice of sale, other pre-contractual documents, or the Harvesting Services Contract are provided solely for administrative and identification purposes.
- b. The **ACREAGE** contained within any sale area. Any acreage descriptions appearing in the notice of sale, other pre-contractual documents, or the Harvesting Services Contract are estimates only, provided solely for administrative and identification purposes.
- c. The **VOLUME, WEIGHT, QUALITY, or GRADE** of the forest products to be harvested. The descriptions of the forest products to be harvested are estimates only, made solely for administrative and identification purposes.
- d. 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 informational purposes, but the information contained therein is not warranted. Contractors must make their own assessments of the site.

- e. 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.
- f. 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.
- g. Items contained in any other documents prepared for or by the State.

G-061.1 Inadvertent Discovery of Cultural Resources

Contractor 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. Contractor has a duty to exercise due care in its operations and in the event any human skeletal remains are discovered by the Contractor or the State during the course of operations Contractor 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 Contractor or the State during the course of operations Contractor shall immediately halt operations and notify the Contract Administrator. Any potential resources shall not be removed or disturbed. Contractor shall resume operations as directed in writing by the Contract Administrator.

G-064.1 Permits

Contractor is responsible for obtaining any permits not already obtained by the State that relate to Contractor's operation. Forest Practice Application / Hydraulic Project Approval permits obtained by the State shall be transferred to Contractor. Contractor 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-066.1 Governmental Regulatory Actions

- a. Regulatory Risk

Except as provided in this clause, Contractor assumes all risks associated with governmental regulatory actions, including actions taken pursuant to the Forest Practices Act, Ch. 76.09 RCW, the Endangered Species Act, 16 U.S.C 1531-1544 and any Habitat Conservation Plan between the Department of Natural Resources and the U.S. Fish and Wildlife Service or any other agency now in place and as may be amended, or hereafter created, that may affect the operability of the timber sale.

b. Increased Costs

Contractor 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 Contractor's failure to comply with this contract or from Contractor's acts or omissions, Contractor shall remain responsible for fulfilling contract obligations notwithstanding the impracticability or frustration.

G-070.1 Limitation on Damage

In the event of a breach of any provision of this contract by the State, the exclusive remedy available to the Contractor will be limited to a return of the Performance Security, and payment for improvements and other services rendered by the Contractor, which were required by the Harvesting Services Contract. The State shall not be liable for any damages, whether direct, incidental, or consequential.

G-092.1 Harvest Area Boundary Adjustment

The State may make adjustments in the harvest area boundaries, or may mark timber outside such boundaries. The cumulative changes to the sale area during the term of the contract shall not exceed more than five (5) percent of the original sale area. Such adjustments or marking will be accomplished by the Contract Administrator. The Contractor must remove and deliver all material so designated, prior to the expiration date of the contract. All contract services within such boundary adjustments or so marked shall be paid for at contract rates.

G-112.1 Title

All rights, title, and interest in and to any timber shall belong to the State until delivered, at which time the appropriate Purchaser assumes title.

G-116.1 Sustainable Forestry Initiative® (SFI) Certification

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

Contractor 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. Contractor 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-120.1 Responsibility for Work

All work, equipment, personnel, and materials necessary to perform the Harvesting Services Contract shall be the responsibility of the Contractor.

G-121.1 Exceptions

Exceptions to Contractor's responsibility in clause G-120.1 shall be limited exclusively to the circumstances described in this clause. These exceptions shall not apply where damages occur due to Contractor's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

The State shall bear the cost to repair any existing roadway or section of required road completed to the point that an authorization to haul has been issued where such damage was not caused by Contractor, its employees, agents, or invitees, including independent contractors. Contractor shall accomplish repairs promptly as required by the State at the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State may elect to accomplish repairs by means of State provided resources.

Nothing contained in clauses G-120.1 (Responsibility for Work) and G-121.1(Exceptions) shall be construed as relieving Contractor of responsibility for, or damage resulting from, Contractor's operations or negligence, nor shall Contractor be relieved from full responsibility for making good any defective work or materials.

G-123.1 Operating Authority

The State has arranged for the Contractor to have full and free license and authority to enter upon said lands with his agents and employees and do all things necessary, within the limitations herein set forth, in harvesting said timber as described in this contract.

G-124.1 Contractor Not an Employee of State

Contractor and his or her employees or agents performing under this contract are not employees of the State. The Contractor will not hold itself out as nor claim to be an officer or employee of the State by reason hereof, nor will the Contractor make any claim or right, privilege or benefits which would accrue to an employee under chapter 41.06 RCW or Chapter 28B.16 RCW.

G-125.1 Use of Subcontractors

Contractor's use of subcontracted services shall be subject to approval in writing by the Contract Administrator. Approval of subcontracted services may be revoked in accordance with the G-220.1 'State Suspends Operations' clause when the Contract Administrator determines that the Subcontractor's work has been performed in a manner that does not meet contractual requirements, optimize value or otherwise causes damage to the state.

Contractor shall arrange with the Contract Administrator to meet on site at least once a week during active operations to review and inspect subcontractor performance. Contractor shall provide a written plan of operations detailing planned operations for the following week.

G-126.1 Disputes with Subcontractors or Material Providers

Should Contractor and its subcontractors or materials providers develop disputes affecting the completion of obligations under this contract, Contractor shall resolve any such disputes in a timely and efficient manner that does not involve or adversely affect either the State or its Purchasers.

G-130.1 Prevention of Damage and Consequences of Contractor-Caused Damage

The Contractor agrees to exercise due care and caution at all times to avoid damage to all special resources including environmentally sensitive areas, research, demonstration, and cultural objects or areas. Additionally, the Contractor agrees to protect all improvements on State property affected by the work of this contract including, but not limited to, roads, culverts, bridges, ditches, fences, utility lines, and buildings.

If damages occur due to the Contractor's operations, the Contractor shall be responsible for damage or restoration costs, or other compensation measures as described in this contract. State may deduct damage or restoration costs from payments to the Contractor. This clause shall not relieve the Contractor from other applicable civil or criminal remedies provided by law.

G-140.1 Indemnity

To the fullest extent permitted by law, Contractor 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. Contractors' obligations to indemnify, defend, and hold harmless includes any claim by Contractors' agents, employees, representatives, or any subcontractor or its employees. Contractor expressly agrees to indemnify, defend, and hold harmless State for any claim arising out of or incident to Contractors' or any subcontractors' performance or failure to perform the contract. Contractors' 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. Contractor 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.

In addition to any other remedy authorized by law, the State may retain as much of the performance security, or any money or credits due Contractor necessary to assure indemnification.

G-150.1 Insurance

Contractor 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 also suspend Contractor operations until required insurance has been secured.

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 should issue all insurance and surety bonds. Any exception shall be reviewed and approved by the department's risk manager before the insurance coverage is accepted. 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 Northeast region office 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, Contractor shall furnish State 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. The Contractor shall obtain insurance coverage prior to operations commencing and continually maintain it in full force until all contract obligations have been satisfied or an operating release has been signed by the State.

Contractor 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 Contractor'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. Contractor

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 Contractor and such coverage and limits shall not limit Contractor'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, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Contractor 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. Contractor 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. Contractor shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Contractor 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, Contractor 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 Contractor, 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,

Contractor shall indemnify State. Indemnity shall include all fines, payment of benefits to Contractor or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Contractor 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. Contractor 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-160.1 Agents

The State's rights and duties will be exercised by the Region Manager. The Region Manager will notify Contractor 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-180.1. 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 harvested beyond the terms of this contract.

Contractor is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Contractor 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-170.1 Assignment and Delegation

Contractor shall assign no rights or interest in this contract 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. Contractor may perform any duty through a delegate, but Contractor 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 Contractor.

G-180.1 Modifications

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

G-181.1 Contract Modification for Protection of Resources and Improvements

The Harvesting Services contract may be unilaterally terminated or modified by the State upon determination that the Contractor's operations would cause serious damage to resources or improvements, or would be significantly inconsistent with State land management plans.

In the event of contract modification under this section and through no fault of Contractor operations, the Contractor shall be reimbursed for any additional operations required, provided that any work or extra protection shall be subject to prior approval of 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-200.1 Notice

Notices required to be given by the State under the following clauses shall be in writing and shall be delivered to the Contractor's authorized agent or sent by certified mail to the Contractor's address of record, so that their receipt may be acknowledged by Contractor.

G-092.1 Harvest Area Boundary Adjustment

G-181.1 Contract Modification for Protection of Resources and Improvements

G-210.1 Violation of Contract

G-220.1 State Suspends Operation

D-015.1 Delivered Mis-sorted Logs and Penalties

D-016.1 Damages for Delivered Mis-manufactured Logs

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. Contractor agrees to notify the State of any change of address.

G-210.1 Violation of Contract

- a. If Contractor 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, the Contractor has fifteen (15) days after receipt of suspension notice to remedy the violation. If the violation cannot be remedied or Contractor fails to remedy the violation within fifteen (15) days after receipt of a suspension notice, the State may terminate the rights of the Contractor and collect liquidated damages under this contract associated with the breach. In the event of such a contract termination, the State may demand all or part of the Contractor's surety in order to satisfy the State's damages.
- b. The State has the right to remedy a breach if Contractor is unable, as determined by the State, to remedy the breach, or if the Contractor has not remedied the breach within 15 days of a suspension notice. Any expense incurred by the State in remedying Contractor's breach may be charged to Contractor, or State may deduct such expenses from payments to the Contractor.

- c. If the contract expires without the Contractor having performed all their duties under this contract, Contractor's rights and obligations to harvest, deliver forest products, and perform any additional contract-related requirements are terminated. Thus, Contractor cannot remedy any breach once this contract expires. This provision shall not relieve Contractor of any financial obligations and unresolved contractual agreements, including payment to sub-contractors for work performed under this contract.

G-220.1 State Suspends Operations

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

Contractor shall be in breach of this contract if the operation continues after the suspension notice or if the operation resumes prior to approval and notice from the Contract Administrator.

Contractor may request a modification of suspension within seven (7) calendar days of the start of suspension through the dispute resolution process. If this process results in a finding that the suspension exceeded the time reasonably necessary to stop or prevent damage to the State, Contractor may request a contract term adjustment based on the number of excess days of suspension.

G-230.1 Unauthorized Activity

Any cutting, removal, or damage of forest products by Contractor, 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 Contractor 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-240.1 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, Contractor 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 Contractor's request within five business days.
- c. Within five business days of receipt of the Region Manager's decision, the contractor may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.

- d. Unless otherwise agreed, the Deputy Supervisor - Uplands will hold a conference within 15 calendar days of the receipt of Contractor's request for review of the Region Manager's written decision. Contractor 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-250.1 Compliance with All Laws

Contractor 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. Contractor shall provide documentation from Washington State Departments of Labor and Industries and Revenue that all obligations concerning worker compensation and safety will be met. Failure to comply may result in forfeiture of this contract.

G-251.1 Harassment

Per RCW 43.01.135, Sexual harassment in the workplace, Agency Contractors hereby have access to DNR Policy PO01-007 Harassment Prevention:
https://www.dnr.wa.gov/publications/em_PO01-007_harassment_prevention.pdf

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-270.1 Equipment Left on State Land

All equipment owned or in the possession of Contractor, 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 30 days after the expiration of the contract period is subject to disposition as provided by law. Contractor 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-280.1 Operating Release

An operating release is a written document, signed by the State and the Contractor, indicating that the Contractor has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Contractor 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, Contractor's right to cut and remove forest products on the released area will terminate.

G-310.1 Road Use Authorization

The Contractor is authorized to use the following State roads, and roads for which the State has acquired easements and road use permits; E354023A, E354024A, E354024R,

E354011B, E364036A, E354010G, E354023A2, E354010P, E354010T, E354010Y, E354002T, E354010N, E354011AA and USFS 9411. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330.1 Pre-work Conference

Contractor 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 Contractor 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 Contractor's plan of operations shall not be construed as any statement or warranty that the plan of operations is adequate for Contractor's purposes or complies with applicable laws.

Contractor shall arrange with the Contract Administrator to review this contract and work requirements with any and all subcontractors prior to receiving authorization for any subcontractor to begin operations.

G-340.1 Preservation of Markers

Any legal land subdivision survey corners and witness objects are to be preserved. If such are destroyed or disturbed, the Contractor shall, at the Contractor'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-370.1 Blocking Roads

Contractor shall not block the Old Dominion and Seigel Hill county roads, unless authority is granted in writing by the Contract Administrator.

G-380.1 Road Easement and Road Use Permit Requirements

The State grants Contractor the right to operate under the following rights of way:

Easement 2293 with Garvey dated December 2, 1988

G-430.1 Open Fires

The Contractor its employees or its subcontractors shall not set or allow to be set any open fire at any time of the year without first obtaining permission in writing from the Contract Administrator.

G-450.1 Encumbrances

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

DATA MISSING

Section P: Payments and Securities

P-030.1 Payment for Harvesting and Hauling Services

The State shall pay Contractor for harvesting and hauling services at the following rates:

Payment for Harvesting Stump to Truck ('On Board Truck' or OBT): The State's payment to the Contractor for harvesting services will be in accordance with the following table;

Sort Number(s)	Unit of Measure	OBT Rate	OBT Utility Rate
01,02,03,04,05,06,07,08	Ton	\$0.00	N/A
09	Ton	\$13.00	N/A

Utility volume for mbf sorts determined on an adjusted gross scale basis.

The State shall not pay for any logs scaled containing metal.

Payment for Hauling: The State's payment to the Contractor for hauling services upon the tons delivered multiplied by: a base rate, 'A' and 'C' mile rates, the 'haul miles' listed in clause G-022.1, a fuel index factor and the Contractor's hauling bid factor using the following formula:

$$\text{Hauling Services Payment Rate per Ton} = (\text{Base Rate} + \text{Mileage Rate}) \times (\text{DATA MISSING: No data found.})$$

Base Rate = \$2.35
(based on the multiple truck operation fixed cost/ton within 'Report to the Washington State Legislature, The Washington Log Trucking Industry: Costs and Safety Analysis, August 2008'.)

$$\text{Mileage Rate} = ((\$0.16 \times \text{C miles}) + (\$0.11 \times \text{A miles})) \times \text{Fuel Index Factor}$$

The Fuel Index Factor will be adjusted quarterly by the State based upon the U.S. Energy Information Administration's Weekly Retail On-Highway Diesel prices for the West Coast region posted at <https://www.eia.gov/petroleum/gasdiesel/> using the following formula;

$$\text{Fuel Index Factor} = 1 + ((Q(x) - Q(\text{base})) / Q(\text{base}))$$

Where;

Q(base) = Average fuel price for quarter preceding harvesting services contract bid opening.

Q(x) = Average fuel price for quarter preceding log deliveries.

The fuel index factor will be calculated each;

January and apply to loads delivered between January 1 and March 31,
April and apply to loads delivered between April 1 and June 30,
July and apply to loads delivered between July 1 and September 30,
October and apply to loads delivered between October 1 and December 31.

Travel distances to each log sort destination will be determined by the State and represents the one-way travel distance from the sale area to the purchaser's delivery point.

Long-haul surcharge: An additional haul payment of \$25/mbf net scale for mbf scale sorts or \$4.60/ton for tonnage sorts will be added for delivery destinations in excess of 250 total one-way miles (A miles plus C miles).

The state must approve all haul routes and will determine travel distances prior to contractor delivery of logs to each specified destination. The State may determine alternate haul routes and delivery destinations during the course of this contract. Upon notification by the State, the Contractor is required to deliver logs: using the alternative route, or to State approved alternative delivery locations. Payment rates for approved alternate routes and delivery destinations shall be set forth by amending this clause in accordance with clause G-180.1.

For sorts bid on an mbf basis tonnage will be calculated using the State's conversion rates in the table below unless actual tonnage is available and approved for use. For tonnage sorts, actual tonnage shall apply.

[3]

Contractor is responsible for billing the State for harvesting and hauling services performed using load data collected by State approved third party scaling organizations and reported by the State designated Log and Load Reporting Service. The billing statement shall include itemized accounts and summaries of harvesting tonnage and hauling mileage charges in a format approved by the State.

The billing schedule shall be the 1st and the 16th of each month with payment due by State within fourteen (14) days. Reporting periods end on the 15th and the end of each month.

No certificate given or payment made shall be evidence of the satisfactory performance of the Contract, either wholly or in part, against the claim of the State to the contrary, and no payment shall be construed to be an acceptance of any defective work, which may before or afterwards appear.

P-031.1 Payment for Hauling Across Ferries and Other Miscellaneous Tolls

Prior authorization is required for payment of any additional transportation charges incurred by Contractor, including: ferries, toll bridges, and other miscellaneous tolls.

For payment including ferries, toll bridges, or other miscellaneous tolls, the Contractor's billing statement must include an itemized list of loads by trucker name and truck number, DNR load ticket number and date of crossing(s):

- a. Reimbursement for authorized ferry tolls will be at a fixed rate of \$105.95 for each crossing with a loaded truck and \$75.75 for each empty return. A 'Wave2Go' statement or equivalent documentation shall be included with the itemized list. For any loads over 80' loaded and 60' empty, the Contractor will be reimbursed the actual cost, Wave2Go or ferry receipts must be provided for reimbursement.
- b. 'Good to Go' regulated bridge tolls will be reimbursed at a fixed rate of per authorized toll crossing. A "Good To Go" statement or equivalent documentation shall be included with the itemized list. This reimbursement is based upon one-way tolling, if a two-way toll is charged, payment receipts must be provided for reimbursement.
- c. Miscellaneous tolls controlled by the Washington State Transportation Commission (WSTC), or other government agencies, will be reimbursed at their posted rates or the actual cost; receipts must be provided.

Requests for payment of ferry and toll charges must be received by the State prior to contract termination. Contractor shall only be reimbursed for the amount of toll approved for payment by the Contract Administrator.

Payment for ferries or tolls incurred for backhauling loaded trucks, in either direction, shall be the responsibility of the Contractor and will not be reimbursed by the State.

Convenience tolling, fines, and/or extra charges will not be reimbursed.

P-032.1 Payment for Road Construction

The Contractor is responsible for independently negotiating, procuring and paying for road construction services provided.

The State shall pay Contractor for roadwork completed at the following rates:

Roads or Structures	Number of Stations	Dollars per Station
E354023A – maintenance	150.64	
E354023A – reconstruction	75.30	
E354024A – maintenance	81.98	
E354024R – maintenance	29.80	
E354011B – maintenance	25.95	
E364036A – maintenance	5.66	
E354010G – construction	8.00	
E354010G – reconstruction	56.07	
E354023A2 – reconstruction	49.65	
E354010P – construction	3.92	
E354010P – reconstruction	4.48	
E354010T - maintenance	1.00	
USFS 9411 – maintenance	75.46	

E354010Y – maintenance	5.00	
E354002T – construction	22.06	
E354010N – reconstruction	33.95	
E354011AA – construction	4.64	
E354011AA – reconstruction	8.39	

Items as directed by Contract Administrator	Number of Items	Cost Per Item	Total Cost
Dust Abatement – as directed by the contract administrator		Water (applied) Schedule M rates	
Surface Rock (delivered and in place) – as directed by the contract administrator	300 cy	\$15.84/cy	\$4,752.00
18” culvert (purchased and installed) – as directed by the contract administrator	160 feet	\$35.00/ft	\$5,600.00

One station of road construction is 100 feet. All materials, equipment time, labor, and equipment mobilization costs are included in the total price. Any part of the road plan not covered in the rates above shall be paid for by the Contractor at their own expense.

Upon completion of road construction, the Contractor shall submit a report identifying the road(s), and the number of stations that have been completed to the Contract Administrator. Once the Contract Administrator has approved the roadwork in writing, the Contractor is responsible for billing the State for road construction services performed. The billing statement shall include an itemized account of the road(s), the number of stations and which stations have been completed. The Contract Administrator will verify that road construction described on the billing statement is complete prior to State making payment to Contractor.

The billing schedule shall be the 1st and the 15th of each month with payment due by State within fourteen (14) days. Reporting periods end on the 14th and the end of each month.

No certificate given or payment made shall be evidence of the satisfactory performance of the Contract, either wholly or in part, against the claim of the State to the contrary, and no payment shall be construed to be an acceptance of any defective work, which may before or afterwards appear.

P-033.1 Payment for Additional Road Maintenance Work

The Contractor is responsible for independently negotiating, procuring and paying for additional road maintenance services provided.

During the course of operations, the State may identify and require additional road maintenance work to be completed by the Contractor. The amount of payment for this additional road maintenance work deemed necessary by the State will be calculated and paid for using the equipment rates in Schedule M 'Additional Road Maintenance Payment Rates'.

Upon completion of any additional road maintenance work, the Contractor shall submit a report identifying the road(s), and the number of stations that have been completed to the Contract Administrator. Once the Contract Administrator has approved the additional road maintenance work in writing, the Contractor is responsible for billing the State for additional road maintenance services performed. The billing statement shall include an itemized account of the road(s), the number of stations and which stations have been completed. The Contractor Administrator will verify that road maintenance described on the billing statement is complete prior to State making payment to Contractor. The billing schedule shall be the 1st and the 15th of each month with payment due by State within fourteen (14) days. Reporting periods end on the 14th and the end of each month.

No certificate given or payment made shall be evidence of the satisfactory performance of the Contract, either wholly or in part, against the claim of the State to the contrary, and no payment shall be construed to be an acceptance of any defective work, which may before or afterwards appear.

P-034.1 Payment for Additional Miscellaneous Work

During the course of operations, the State may identify and require additional miscellaneous work to be completed by the Contractor.

A plan for the additional work deemed necessary by the State shall be provided by the Contractor and must be approved in writing by the State prior to commencement of work by the Contractor. After the Contract Administrator has inspected and approved the work in writing, the Contractor is responsible for billing the State for work performed. The billing statement shall include an itemized account of the equipment, labor and materials necessary for the additional work that has been completed and approved.

The State shall reimburse the Contractor for approved costs within thirty (30) days of State's approval of the statement.

No certificate given or payment made shall be evidence of the satisfactory performance of the Contract, either wholly or in part, against the claim of the State to the contrary, and no payment shall be construed to be an acceptance of any defective work, which may before or afterwards appear.

P-090.1 Performance Security

Prior to start of any operations Contractor agrees to provide one or more of the following State approved performance securities; cash, savings account assignment, certificate of deposit assignment, irrevocable standby letter of credit, or a Miller Act bond, for the amount of \$100,000.00. At least 50% must be in a form other than a bond, unless otherwise agreed to by the State.

Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by Contractor's operations, failure to perform, or noncompliance with any rule or law. In addition, said security may be used by the State to satisfy any claims or liens made by Contractor's subcontractors, material providers, or other individuals against the State or its Purchasers, which arise from this Harvesting Services Contract.

If at any time the State decides that this security has become unsatisfactory, the Contractor agrees to suspend operations and, within fifteen (15) days of notification, replace the security with one acceptable to the State. The State may also require increases to the existing performance security at any time.

Unapplied performance security will be returned to Contractor after the State issues an operating release and completes the financial closeout.

P-100.1 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 Contractor. Prior to any reduction of the performance security amount, the Contractor must submit a written reduction request. No reduction will be allowed by the State unless such reduction can be made while fully protecting the State's interests.

P-120.1 Contractor Responsibility for Subcontractor Services

Contractor is responsible for negotiating, procuring, and paying for all services rendered by any subcontractor. Subcontractor services may include, but are not limited to, harvesting logs, hauling logs, and building roads.

Section L: Log Definitions and Accountability**L-010.1 Forest Products Conveyed**

Forest products conveyed are logs or parts of logs delivered meeting the sorting criteria defined by clause G-022.1 and manufacturing standards defined by clause G-024.1 of this contract.

L-013.1 Log Sorts Delivered to Incorrect Destination

Purchasers have agreed to purchase the log sort (s) as described in the G-022.1 clause. In the event a load of logs from an incorrect sort is delivered to a Purchaser, the

Purchaser may reject the load. If Purchaser receives an incorrectly delivered load, Contractor shall notify the State within 24 hours. The Contractor will maintain responsibility for proper disposition and delivery of incorrectly delivered loads.

L-060.1 Load Tickets

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

Contractor shall account for all load tickets issued by the Contract Administrator. The State may treat load tickets not accounted for as lost forest products. All costs associated with computing the billings for lost loads shall be borne by Contractor.

L-090 Scaling Rules

Determination of volume of any forest products shall be conducted by a state approved third party scaling organization and in accordance with the Eastside log scaling and grading rules, Region 6 taper rules, and Scribner Volume Table, revised July 1, 1972, contained in the Northwest Log Rules Eastside and Westside Log Scaling Handbook (developed and produced by the Northwest Log Rules Advisory Group) and in effect on the date of confirmation of this contract.

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

L-110 State Approval of Log Scaling and Weighing Locations

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

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or enroute to final destinations. Forest products from this sale shall be measured or weighed at facilities, which are currently approved for use by the State and are currently authorized for this sale. The State reserves the right to verify load volume and weights with State employees or contractors at the State's own expense. The State reserves the right to revoke the authorization of previously approved measurement locations.

L-114.1 State Approval of Haul Route

Contractor shall file with the Contract Administrator and Contract Administrator shall approve a map showing the haul route, which unscaled and unweighed logs will travel from the harvest area to the weighing/scaling location and approved destinations. The Contractor must notify Contract Administrator within 24 hours of any deviation from

the haul route. The route of haul may be changed by prior agreement of the State and the Contractor. The Contract administrator must be notified by the Contractor of any overnight stays of an unscaled or unweighed load of logs.

L-130.1 Conversion Factors

Forest products harvested and delivered from the sale area that are not measured in units specified in the P-030.1 'Payment for Harvesting and Hauling Services' clause of this contract shall be converted to the contract specified payment units using Department of Natural Resources conversion factors unless a plan to do otherwise has been pre-approved by the State.

Section H: Harvesting Operations

H-001 Operations Outside the Sale Boundaries

No operations shall occur outside the sale boundaries, as described within the contract, unless approved in writing by the State.

H-010.1 Cutting and Yarding Schedule

Falling and Yarding will not be permitted from March 1 to July 1 unless authorized in writing by the Contract Administrator.

H-011.1 Certification of Fallers and Log Manufacturers

All persons engaged in the felling of timber and manufacturing or loading of logs or poles must receive certification in writing from the Contract Administrator. Certification may be revoked when the Contract Administrator determines that log utilization, log sorting, or manufacturing has been performed in a manner that does not optimize value or otherwise causes damage to the state.

H-013.1 Reserve Tree Damage Definition

Reserve trees are trees required and designated for retention within the sale boundary. Contractor 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 Contractor'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's 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 Contractor 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. Contractor may be required to pay liquidated damages for Excessive Reserve Tree Damage as detailed in clause D-041.1.

Removal of designated reserve trees from the sale area is unauthorized, and may invoke the use of the G-230.1 'Unauthorized Activity' clause. Contractor is required to leave all cut or damaged reserve trees on site.

H-015.1 Skid Trail Requirements

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

- a. Skid trail 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 each unit.
- c. Skid trails will be pre-approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to falling 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.

Contractor 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 8 days of being felled.

H-030.1 Timber Falling

Trees shall be felled and logs shall be bucked to obtain the greatest practicable utilization and value of forest products.

H-035 Fall Trees Into Sale Area

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

H-050 Rub Trees

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

H-052.1 Branding and Painting

The State shall provide a State of Washington registered log brand. Contractor must brand and paint all logs removed from the harvest area in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All logs removed from the harvest area 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, Contractor 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-120.1 Harvesting Equipment

Forest products harvested under this contract 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-130.1 Hauling Schedule

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

H-140.1 Special Harvest Requirements

Contractor shall accomplish the following during the harvest operations:

- a. The required road reconstruction on E354023A road shall be completed no later than July 31, 2023.

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.

c. If an active gray wolf den is discovered, sale operations will not be permitted within 1/2 mile from March 15 to August 1 during the year of harvest.

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

H-141.1 Additional Harvest Requirements

Contractor shall accomplish the following during the harvest operations:

a. Contractor shall deliver 200 pound of grass seed to Northeast Region Office. Seed provided shall meet the following specifications.
40% Smooth Brome, 20% Alsike Clover, 20% Hard Fescue, 20% Timothy
Seed shall be certified weed free, premixed in 50 pound bags clearly labeled with the timber sale name on each bag.

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

H-150.1 Required Removal of Forest Products

Contractor shall remove from the sale area, present for scaling and deliver to the designated purchaser locations specified in the G-022.1 clause all forest products conveyed that meet the following minimum dimensions unless directed otherwise by the Contract Administrator:

Species	Net Bd Ft	Log Length (ft)	Log dib (inches)
All green species except PP	20	16	5.0
PP	20	16	6.0

The State may treat failure to remove forest products left in the sale area that meet the above specifications as a breach of this contract. The Contractor shall be responsible for forest products not removed. At the State's option, the State or a third party scaling organization may scale forest products, for volume, that meet the above specifications and are left in the sale area. State may deduct the value of forest products not removed from payments to the Contractor for harvesting services rendered. All costs associated with scaling and computing the billing for forest products left in the sale area will be borne by Contractor.

If Contractor's failure to remove all the forest products specified under the contract is due to circumstances beyond the control and without fault or negligence of the Contractor including, but not restricted to, acts of the State, closures by government regulatory agencies, mill closures, fires, vandals, and unusually severe weather

conditions, the State may elect to modify the required removal requirements. Contractor is required to request contract removal requirement modifications in writing. The State shall consider such requests and may grant them in part or entirety only when Contractor has demonstrated that they have been endeavoring to complete the project and are otherwise performing with due diligence.

H-161.1 Excessive Timber Breakage

The Contractor shall be responsible for felling and yarding timber in a manner that shall minimize breakage and maintain stump heights within contract specifications, unless permission to do otherwise is agreed to by the Contract Administrator.

The State may treat excessive timber breakage, as determined by the Contract Administrator as a breach of this contract. At the State's option, the State or a third party scaling organization may scale forest products, for volume. State may deduct the value of forest products damaged through excessive breakage from payments to the Contractor for harvesting services rendered. All costs associated with scaling and computing the billing for forest products damaged through excessive breakage will be borne by Contractor.

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-230.1 Tops and Limbs Outside the Sale Boundary

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

H-260 Fall Leaners

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

Section C: Construction and Maintenance

C-040.1 Road Plan

Road construction and associated work provisions of the Road Plan for this project, dated November 21, 2022 are hereby made a part of this contract.

The State may make modifications to the Road Plan made necessary by unforeseen conditions. Any modifications that create additional work for the Contractor shall be paid in accordance with the payment terms set forth in this contract.

C-050.1 Contractor Road Maintenance and Repair

Contractor shall perform work at their own expense on E354024R, E354011B, E364036A, E354010G, E354023A2, E354010P, E354010T, E354010Y, E354002T, E354010N, E354011AA and USFS 9411 road(s). All work shall be completed to the specifications detailed in the Road Plan.

C-060.1 Designated Road Maintainer

If required by the State, the Contractor shall perform maintenance and replacement work as directed by the Contract Administrator on E354023A and E354024A roads. The Contractor shall furnish a statement, in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse the Contractor for said costs within thirty (30) days of receipt and approval of the statement.

C-080.1 Landing Location Approval Prior to Construction

Landing locations shall be marked by the Contractor and approved by the Contract Administrator prior to construction.

C-090 Landing Location

Landings shall be built 120 feet off the Old Dominion county road(s).

C-130.1 Dust Abatement

Contractor shall abate dust on the E354023A, E354024A, E354024R, E354011B, E364036A, E354010G, E354023A2, E354010P, E354010T, E354010Y, E354002T, E354010N, E354011AA and USFS 9411 roads used for hauling as directed by the Contract Administrator.

C-140.1 Water Bars

Contractor 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-010.1 Fire Hazardous Conditions

Contractor acknowledges that operations under this Contract may increase the risk of fire. Contractor 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, Contractor agrees to provide equipment and personnel working at the site to safely and effectively engage in first response fire suppression activity.

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

S-020.1 Extreme Hazard Abatement

Contractor 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 Contractor will accomplish abatement. Contractor 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 Contractor's hazard abatement plan shall not be construed as any statement or warranty that the hazard abatement plan is adequate for Contractor'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-040.1 Noxious Weed Control

Contractor shall notify the Contract Administrator in advance of moving equipment onto State lands. Contractor 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-060.1 Pump Truck or Pump Trailer

Contractor 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-120 Stream Protection

No timber shall be felled into, across, or yarded through any stream.

S-130.1 Hazardous Materials**a. Hazardous Materials and Waste - Regulatory Compliance**

Contractor 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.

Contractor 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 Material Spill Containment, Control and Cleanup

If safe to do so, Contractor shall take immediate action to contain and control all hazardous material spills. Contractor 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, Contractor 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 Contractor 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 Contractor 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-131.1 Refuse Disposal

As required by RCW 70.93, All Contractor 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-140.1 Fence Repair

Contractor 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-010.1 Liquidated Damages

The clauses in the DAMAGES section of this contract provide for the State's payments to the Contractor to be reduced for certain breaches of the terms of this contract. These offsets are agreed to as liquidated damages for the Contractor's breach, and are not penalties. They are reasonable estimates of anticipated harm to the State caused by the Contractor's breach. The State and Contractor agree to these liquidated damages provisions 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 Contractor by allowing the Contractor to better assess its responsibilities under the contract.

D-015.1 Damages for Delivered Mis-sorted Logs

Logs delivered by Contractor that do not meet the receiving Purchaser's log sort specifications as described in clause G-022.1 are considered mis-sorts.

Mis-sorted log volume will be considered on a per load basis. When mis-sorts amount to more than 12% of a load's total volume, as determined by a third-party scaling organization, the State is harmed and an adjustment to the Contractor's harvesting payment may be made. For the improper delivery of mis-sorted logs, the State may reduce the harvesting payment by \$100.00 for each load delivered which contained mis-sorted volume in excess of 12%, as documented by third-party scaling ticket.

D-016.1 Damages for Delivered Mis-manufactured Logs or Poles

Logs or Poles delivered by Contractor that do not meet the receiving Purchaser's preferred log length specifications as described in clause G-022.1, logs not meeting manufacturing standards as described in clause G-024.1, and poles not meeting specifications in Schedule P are considered mis-manufactured logs or poles.

Mis-manufactured log or pole volume will be considered on a per load basis. When mis-manufactured logs or poles amount to more than 5% of a loads total volume, as

determined by a third-party scaling organization, the State is harmed and an adjustment to the harvesting payment may be made. For the delivery of mis-manufactured logs or poles, the State may reduce the harvesting payment due to the Contractor by an amount of \$100.00 for each load of mis-manufactured logs or \$300 for each load of poles delivered which has been determined to contain mis-manufactured volume in excess of 5% as documented by third-party scaling ticket.

D-022.1 Damages for Failure to Begin Product Deliveries

Contractor's failure to begin deliveries by the date listed in clause G-027.1, Log Delivery Schedule and Conditions, can result in substantial injury to the State. The Contractor shall pay \$100.00 per day until deliveries begin or until a plan to remedy the delay has been agreed to in writing by the State. Days where operations are restricted such as weekends and State holidays are not subject to damages.

D-023.1 Damages for Failure to Remove Forest Products

Contractor's failure to remove all of the forest products specified prior to the expiration of the contract operating authority results in substantial injury to the State. The value of the forest products sold at the time of breach is not readily ascertainable. The Contractor's failure to perform disrupts the State's management plans in the project area, the actual cost of which is difficult to assess. A re-offering of the contract involves additional time and expense and is not an adequate remedy. Therefore, the Contractor agrees to accept a reduction of the amount due for harvesting services from the State in the amount calculated according to the following guidelines:

- a. Full stumpage value will be assessed for felled trees, individual or scattered standing trees, or clumps of standing trees less than three acres in size, plus all costs associated with scaling and computing the stumpage value of the forest products left.
- b. 35% of full stumpage value will be assessed for clumps of standing trees greater than three acres in size, plus all costs associated with scaling and computing the stumpage value of the forest products left.

The stumpage value of forest products left shall be determined by the State or a third party scaling organization utilizing whatever method(s) best suited for accurate volume and acreage measurement as determined by the State.

D-024.1 Damages for Excessive Timber Breakage

Excessive breakage of timber results in substantial injury to the State. The value of the forest products sold at the time of breach is not readily ascertainable. Therefore, the Contractor agrees to accept a reduction of the amount due for harvesting services from the State at an amount calculated according to the following:

The value for excessive timber breakage will be determined at a rate, which reflects the log sort price that the Purchasers would have paid for unbroken logs minus the cost of delivery, plus all costs associated with scaling and computing the stumpage value of the forest products excessively broken.

The stumpage value of forest products excessively broken shall be determined by the State or a third party scaling organization utilizing whatever method(s) best suited for accurate volume measurement as determined by the State.

D-030.1 Inadequate Log Accountability

Removal of forest products from the sale area without adequate branding and/or valid load tickets attached to the load, weighing or scaling forest products in a location other than the facilities authorized for use for this sale, and failing to deliver load ticket to the weighing/scaling official all result in substantial injury to the State. The potential loss from not having proper branding, ticketing, weighing locations and accountability is not readily ascertainable. These contractual breaches result in a loss of load and weighing/scaling data the potential for the removal of forest products for which the State receives no payment, and cause increases in the State's administration costs associated with this contract. The actual costs of these breaches are difficult to assess.

For these reasons, Contractor's payments for harvesting under this contract will be reduced in the following amounts, as liquidated damages, to compensate the State for these breaches: a sum of \$100.00 each time a load of logs does not have branding as required in the contract, \$250.00 each time a load of logs does not have a load ticket as required by the contract, \$250.00 each time a load ticket has not been filled out as required by the plan of operations, \$250.00 each time a load is weighed or scaled at a facility not approved as required by the contract, and \$250.00 each time load and weight scale data is not presented to the weighing/scaling official, and \$250 each time a ticket is either lost or otherwise unaccounted for.

D-041.1 Reserve Tree Excessive Damage

When Contractor's operations exceed the damage limits set forth in clause H-013.1, 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 Contractor 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

Pat Ryan Acting
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 _____

Schedule A
Sort Specifications

Sort #1: Douglas-fir and western larch 7 inches to 10 inches in diameter inside the bark. If Purchaser designates peeler lengths, then chuckability standards apply to the logs. Non-chuckable logs will be delivered to the Purchaser of Sort #3. If the Purchaser designates sawlog lengths, then all Douglas-fir and western larch sawlogs will be delivered to the Purchaser of this sort and none will be delivered to the Purchaser of Sort #3.

Sort #2: Douglas-fir and western larch 11 inches and greater in diameter inside the bark. If Purchaser designates peeler lengths, then chuckability standards apply to the logs. Non-chuckable logs will be delivered to the Purchaser of Sort #4. If the Purchaser designates sawlog lengths, then all Douglas-fir and western larch sawlogs will be delivered to the Purchaser of this sort and none will be delivered to the Purchaser of Sort #4.

Sort #3: Lodgepole pine, grand fir, Engelmann spruce, and western hemlock 7 inches to 10 inches in diameter inside the bark. See Sort #1 description for handling procedures for Douglas-fir and western larch.

Sort #4: Lodgepole pine, grand fir, Engelmann spruce, and western hemlock 11 inches and greater in diameter inside the bark. See Sort #2 description for handling procedures for Douglas-fir and western larch.

Sort #5: Ponderosa pine 6 inches to 10 inches in diameter inside the bark.

Sort #6: Ponderosa pine 11 inches and greater in diameter inside the bark.

Sort #7: Western red cedar 5 inches and greater in diameter inside the bark.

Sort #8: Douglas-fir, western larch, lodgepole pine, grand fir, Engelmann spruce and western hemlock 5 inches to 6 inches in diameter inside the bark.

Sort #9: All conifer species except western red cedar 2 inches and greater in diameter inside the bark utility.

Schedule M
Additional Road Maintenance Rates

ADDITIONAL ROAD MAINTENANCE PAYMENT RATES
(Hourly Rate Including Operator)

PERTAINING TO CLAUSE P-033.1 (Payment for Additional Road Maintenance Work)

Motor Grader

To 140 HP (Cat 120H, 120M) \$177.00

To 175 HP (John Deere 670D, 670G, 672D, G; Cat 12M; CAT 140G; CAT143H; Volvo G930; Komatsu GD-655-3) \$219.00

To 200 HP (John Deere 772; Cat 140M; Volvo G940; Komatsu GD675-3) \$238.00

Over 200 HP (Cat 160M, 14M, 16H; Komatsu GD-825A-2) \$308.00

Ripper/Scarifier Use

To 140 HP \$4.80

To 175 HP \$7.20

Over 175 HP \$12.00

Front End Loaders & Loader/Backhoe

To 75 HP (Cat 416D, Cat 416E; Komatsu WB142-2) \$142.00

To 110 HP (Cat 420E; Case 580, 590; Cat 908H, 914G; John Deere 344J) \$150.00

To 160 HP (Cat 450E, Cat 924H, 930H; Hyundai HL 730-9; John Deere 524K) \$152.00

Over 160 HP (John Deere 624K; Case 621E; Cat 938H, 950H, 966K) \$170.00

Addition for special attachment use: compactor, clam, extendaboom, etc. add \$7.80

Gravel Trucks

On-Highway Rear Dump \$165.00

On-Highway Rear Dump Transfer Trailer (2 axles, 10 CY) \$18.00

On-Highway Bottom Dump Trailer (3 axles, 12 CY) \$18.00

Dozers

To 75 HP (Case 650K; Cat D3K XL) \$135.00

To 105 HP (Cat D4K, D5K; Case 750K, 850K; John Deere 450J, 550J, 650J; Komatsu D37EX-22) \$176.00

To 135 HP (Cat D6K; Case 1150K, John Deere 700J; Komatsu D51EX-22) \$200.00

To 185 HP (John Deere 750J; Case 1650, 1850; Cat D6N; Komatsu D61EX-15) \$227.00

To 240 HP (Cat D6T, D7E; John Deere 850J; Komatsu D65EX-15) \$262.00

Over 240 HP (Cat D8T; John Deere 950J) \$378.00

Ripper Use

To 180 HP add \$9.00

To 235 HP add \$15.00

Over 235 HP add \$24.00

Excavators

To 60 HP (Kubota U45, U55; John Deere 50D; Hitachi 50U; Cat 307D) \$138.00

To 95 HP (Cat 312D, 314D; Doosan 140LCV; Hitachi 120-3, 135US-3; Link-Belt 135; Komatsu PC120-6, PC130-8; John Deere 120D, 135D) \$178.00

To 120 HP (Cat 315D; John Deere 160LC; Doosan 175LCV; Komatsu PC160LC-8; Link-Belt 160 LX; Volvo EC160C L) \$205.00

To 140 HP (Cat 319D L, 320C; Hitachi 160LC-3; Link-Belt 210LX) \$212.00

To 170 HP (Cat 320D; Hitachi 200LC-3, 225LCV; Link-Belt 240 LX; Komatsu PC200-8, PC220LC-8; John Deere 225D LC; Volvo EC240C) \$215.00

To 230 HP (Cat 324D, 324E, 328D, 329D; John Deere 240D, 270D, 290G; Hitachi 240LC-3, 270LC-3; Link-Belt 290 LX RB; Volvo EC290C; Komatsu PC270LC-8) \$250.00

Over 230 HP (Cat 330D, 336D; Volvo EC330C; John Deere 330C, 330D; Komatsu PC300LC-8, C350LC-8; Link-Belt 330LX, 350 X2; Hitachi 330LC, 350LC-3) \$280.00

Add Attachment Rate to Excavator \$35.00

Self-Propelled Vibratory Compactors

To 80 HP (Bomag BW145DH-40, BW177D-40; Dynapac CA150D; Sakai 201D; Ing. Rand SD45F TF) \$140.00

To 125 HP (Bomag BW177PDBH-40; Cat CP-433E; Sakai SV400D-II; Dynapac CA152D) \$160.00

Over 125 HP (Bomag BW211PD-40; Dynapac CA262D; Ing. Rand SD105DA TF; Sakai SV505D-1) \$190.00

Tractor Brush Cutters

To 67 PTO HP \$120.00

To 80 PTO HP \$127.00

Over 80 PTO HP (JD 6200, 6300, 6400) \$136.00

Track Mounted Rock Drills (with one operator)

To 4.5" Diameter Hole \$380.00

Over 4.5" Diameter Hole \$446.50

Heavy Equipment Hauling

On-Highway Rear Dump \$165.00

Tilt Deck Utility Trailer (2 axle, up to 40,000 lbs.) \$10.00

Tilt Deck Utility Trailer (3 axle, up to 50,000 lbs.) \$13.00

On-Highway Truck Tractor (GVW up to 50,000 lbs.) \$142.00

Lowbed Trailer (2-axle, up to 50,000 lbs.) \$15.00

Lowbed Trailer (3-axle, up to 80,000 lbs.) \$35.00

Water Trucks

To 3,000 gallons \$104.00

To 4,000 gallons \$126.00

Over 4,000 gallons \$147.00

Power Saws and Pumps \$10.00

Laborer- Journey Level \$50.00

Laborer- Apprentice Level \$47.00

INSTRUCTIONS

HP taken at the Flywheel unless stated otherwise.

WA Sales Tax - Add sales tax only if an activity is not directly tied to a state timber sale. Sales tax on purchased material will be reimbursed.

Hourly rates include operator, owning and operating costs, profit and overhead, and also includes all costs for service and support vehicles.

Specification data such as weight and flywheel HP can be determined upon request by providing equipment make and model information.

Rates on equipment not included in this schedule can be determined upon request.

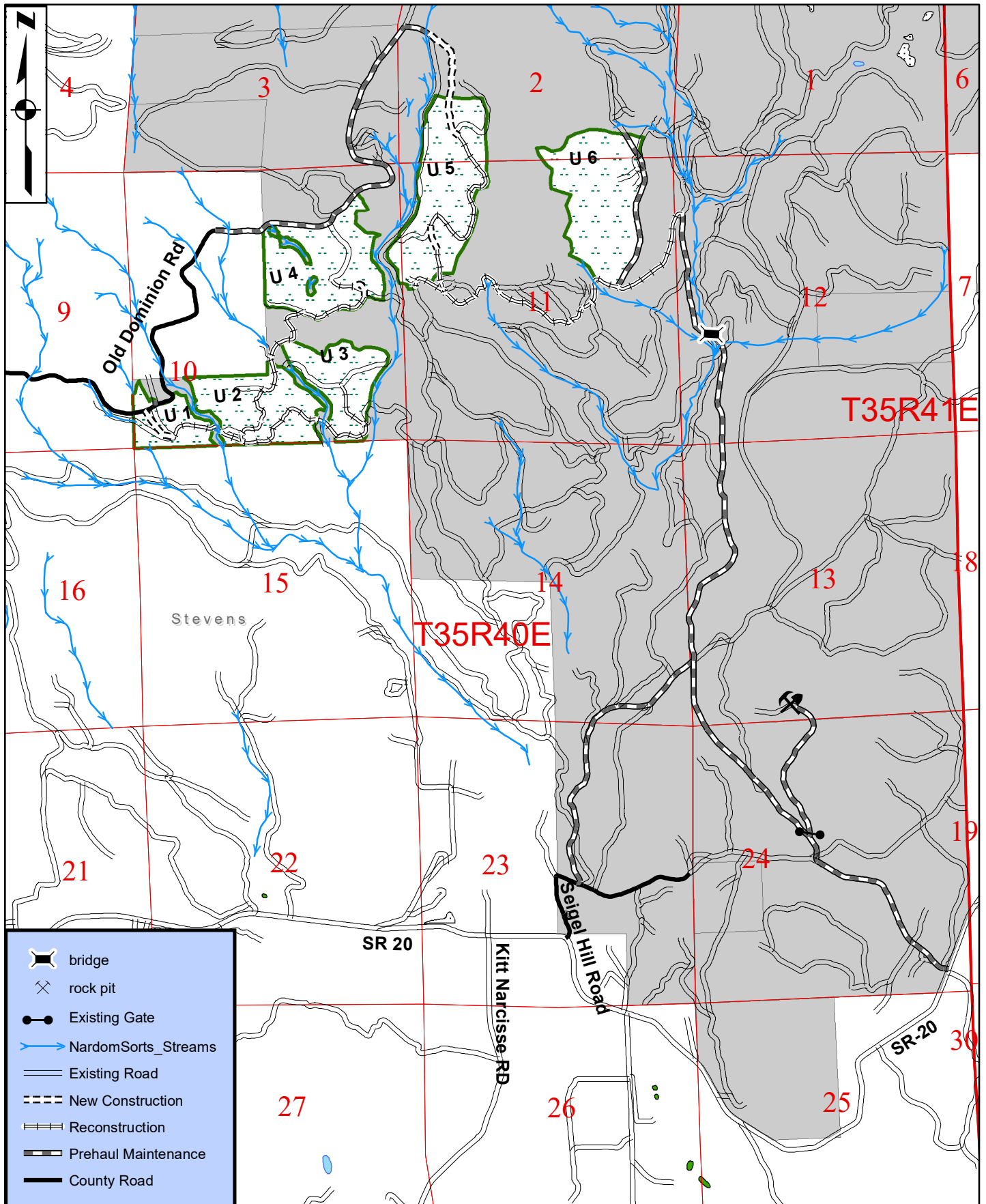
Rev. 6/8/2022

Washington State Department of Natural Resources

Sale Name: Nardom Sorts
Agreement No.: 30-103927

Road Plan Map
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Region: Northeast
County: Stevens



2,500 1,250 0 2,500 5,000
Feet

1 inch = 2,500 feet

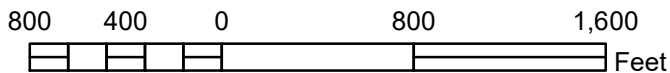
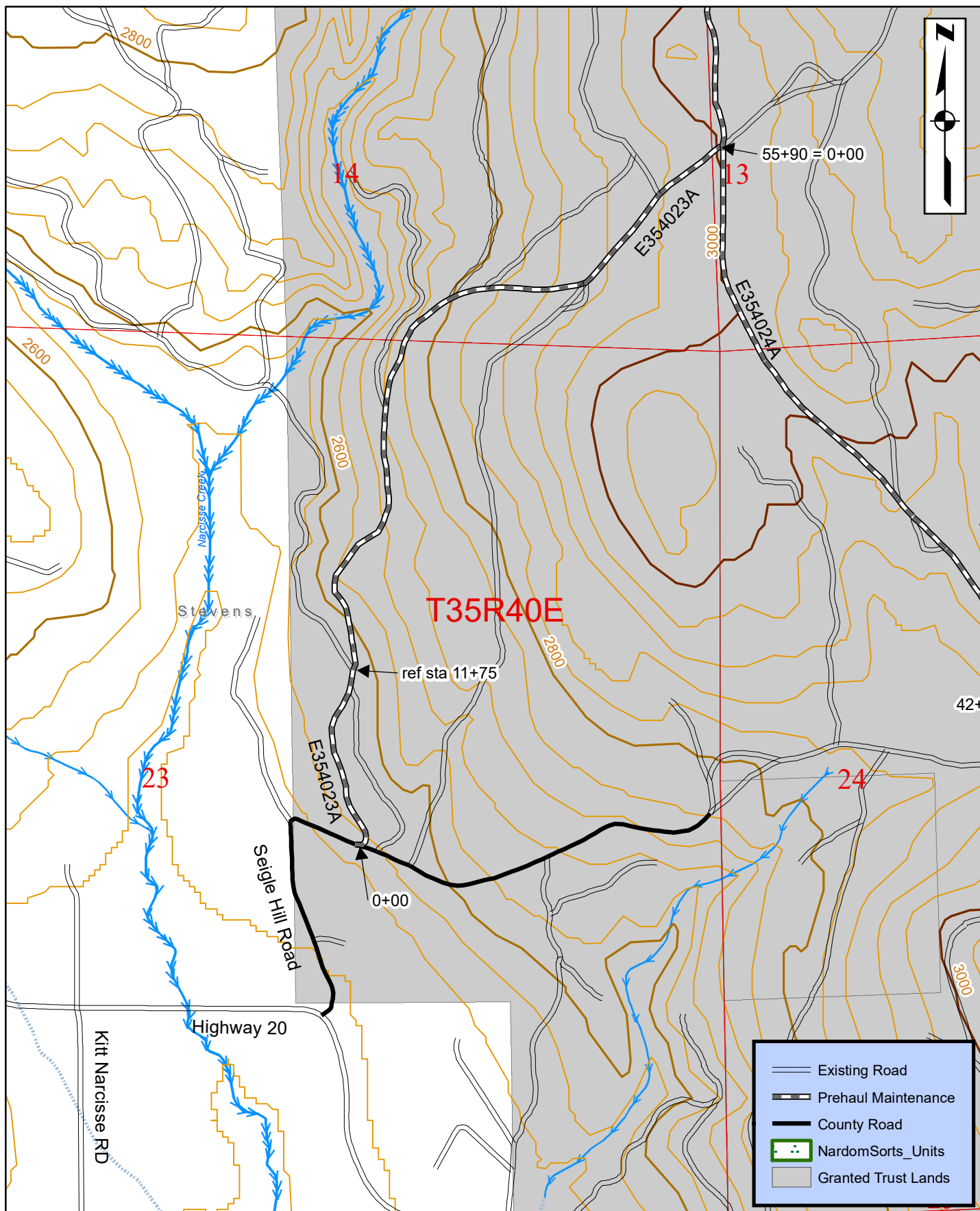
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Washington State Department of Natural Resources

Sale Name: Nardom Sorts
Agreement No.: 30-103927

Road Plan Map
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Region: Northeast
County: Stevens



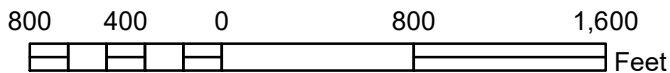
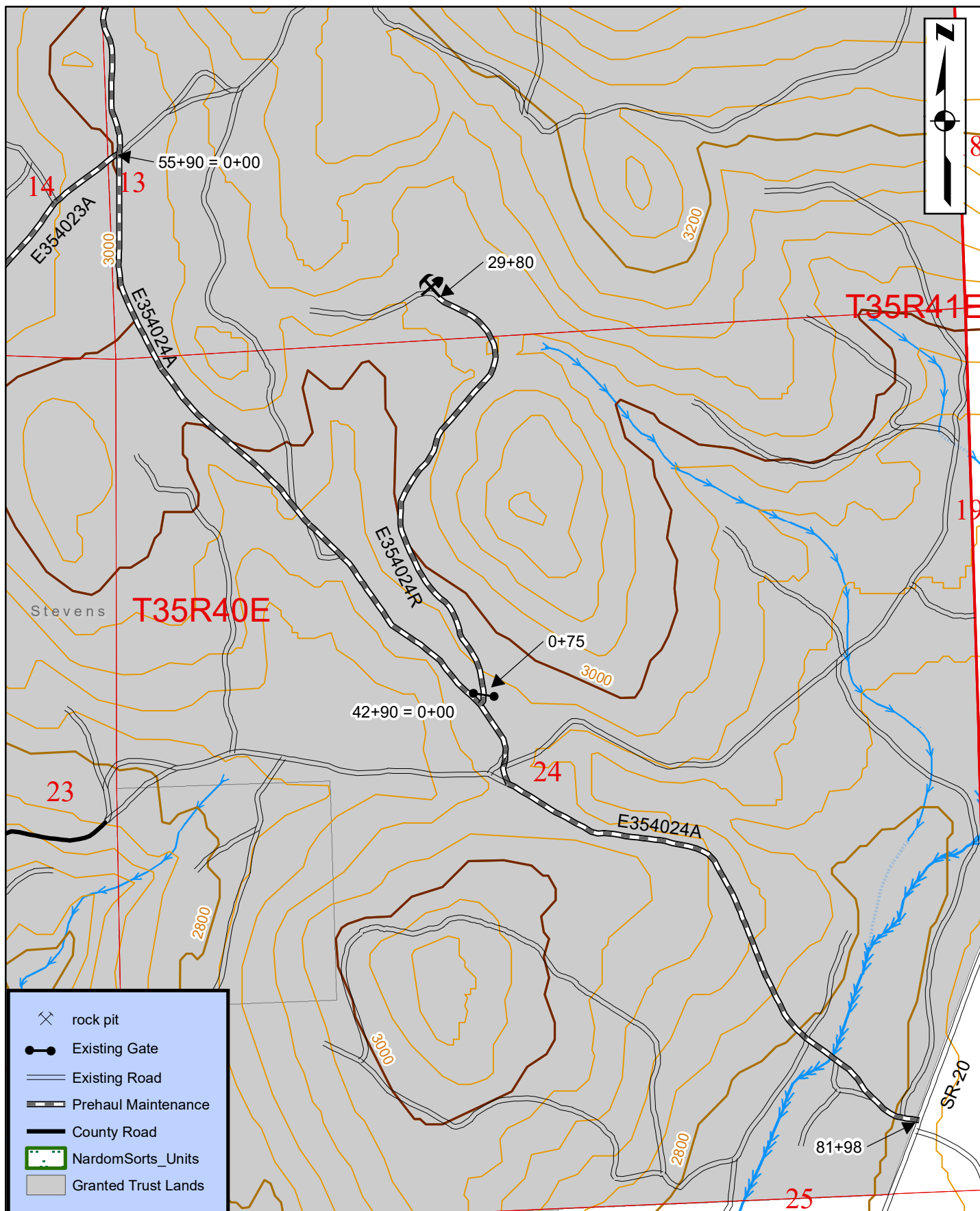
1 inch = 800 feet Date: 3/27/2023

Washington State Department of Natural Resources

Sale Name: Nardom Sorts
Agreement No.: 30-103927

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Region: Northeast
County: Stevens



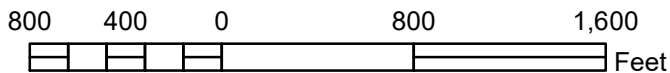
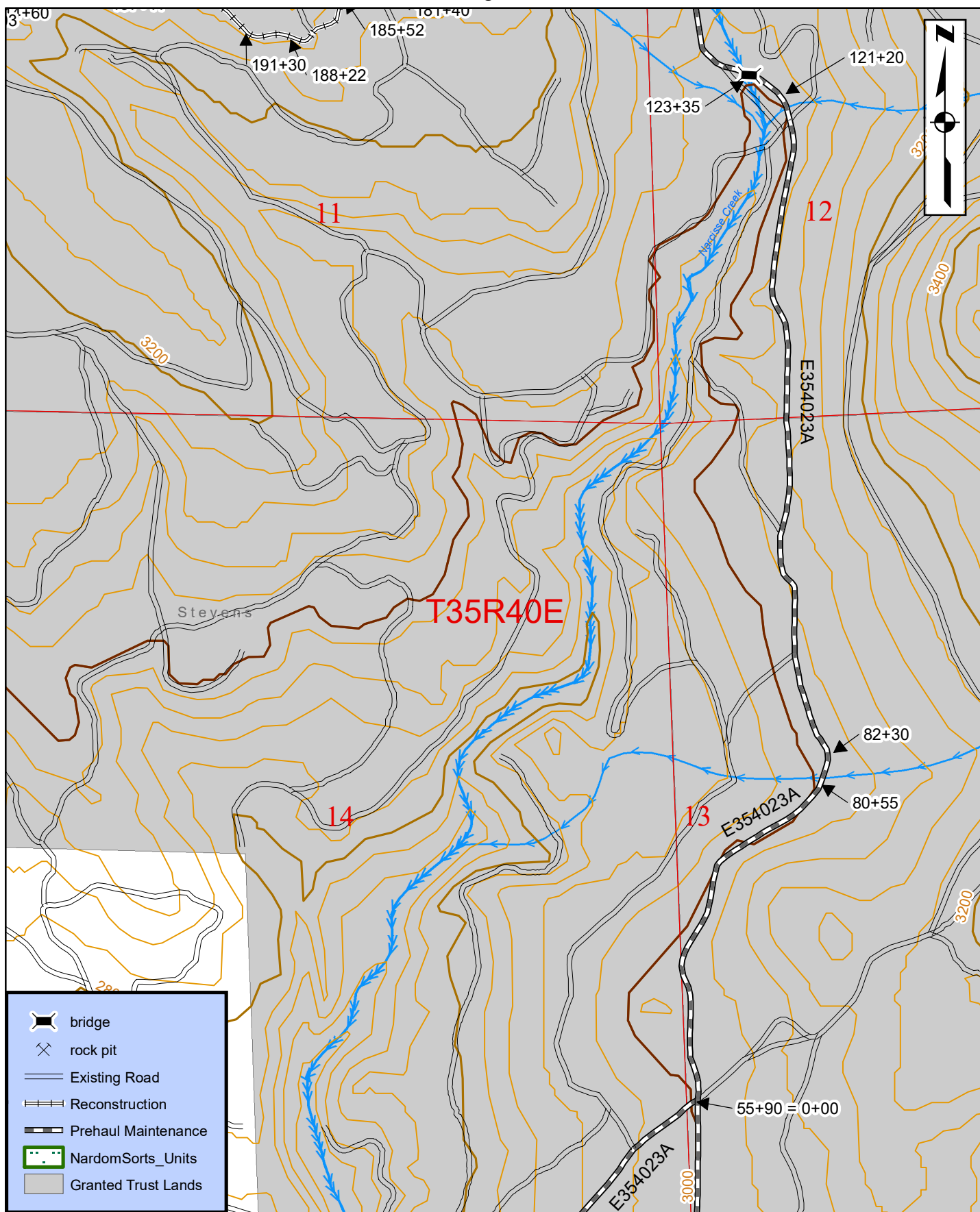
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Region: Northeast
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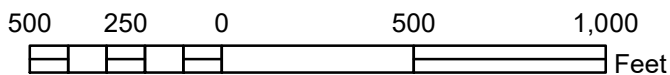
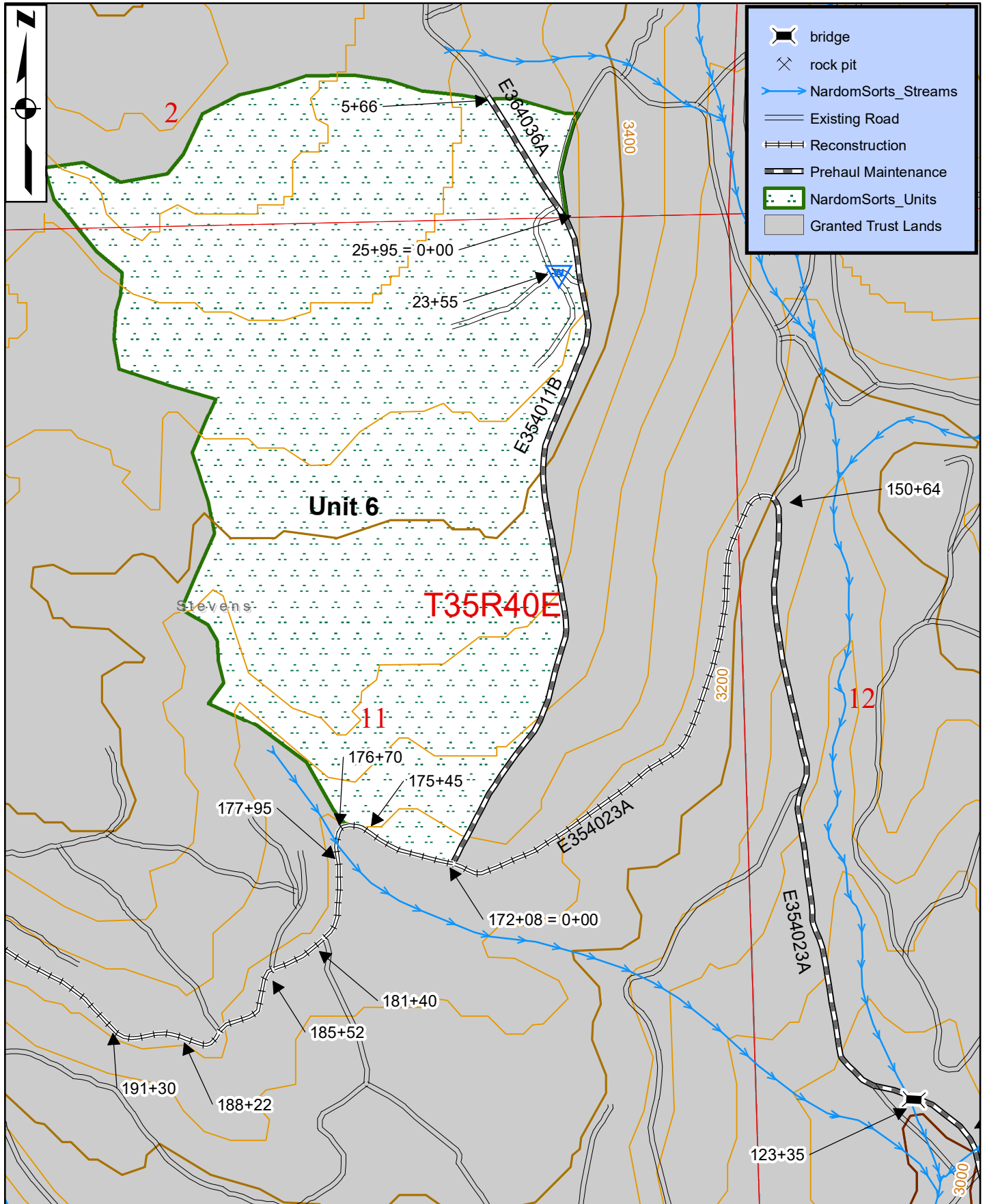
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Washington State Department of Natural Resources

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County: Stevens



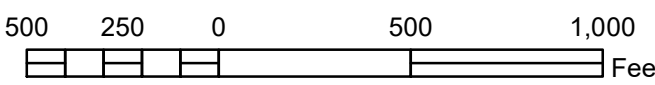
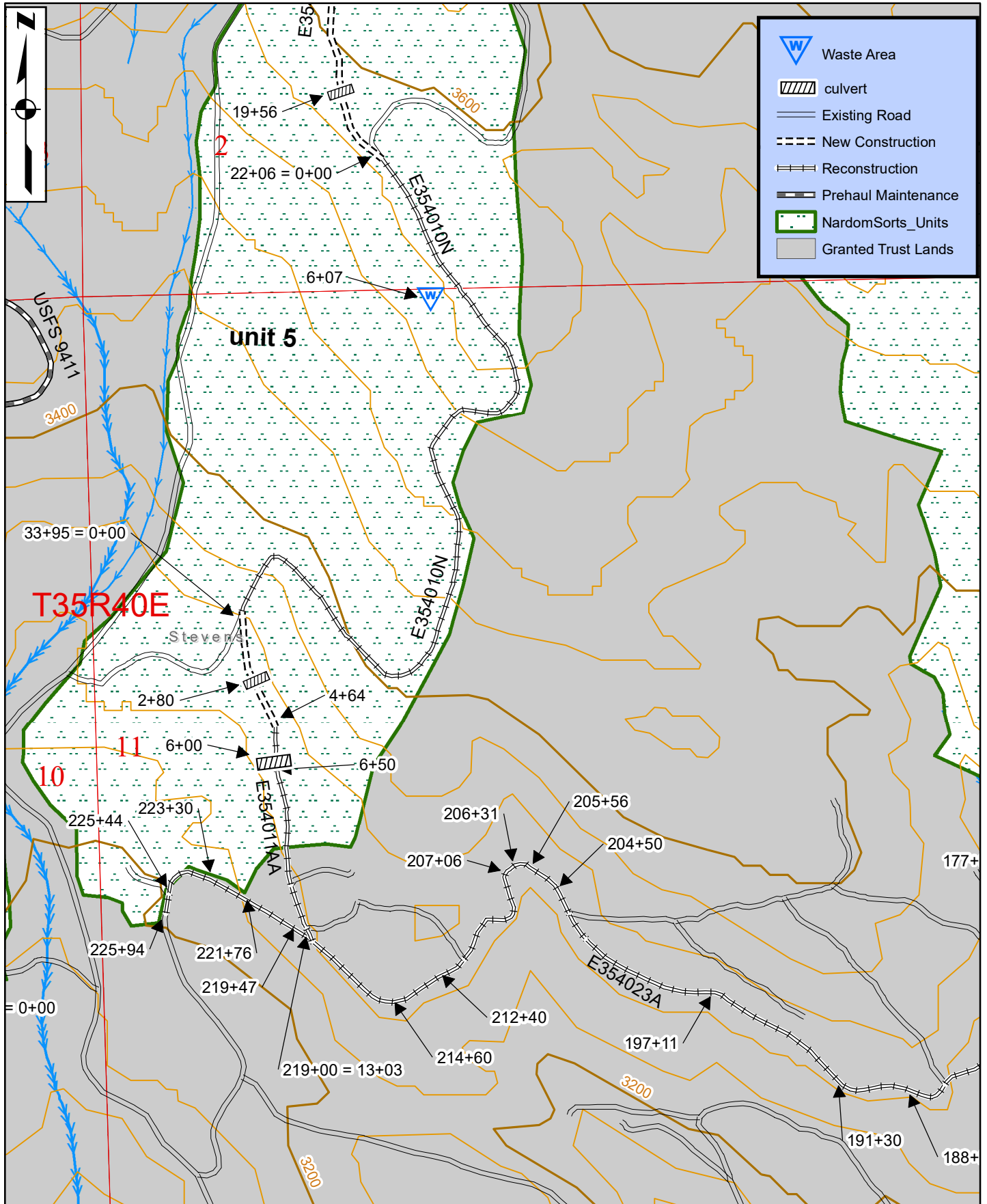
1 inch = 500 feet Date: 3/27/2023

Washington State Department of Natural Resources

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Region: Northeast
County: Stevens



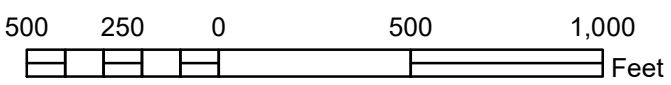
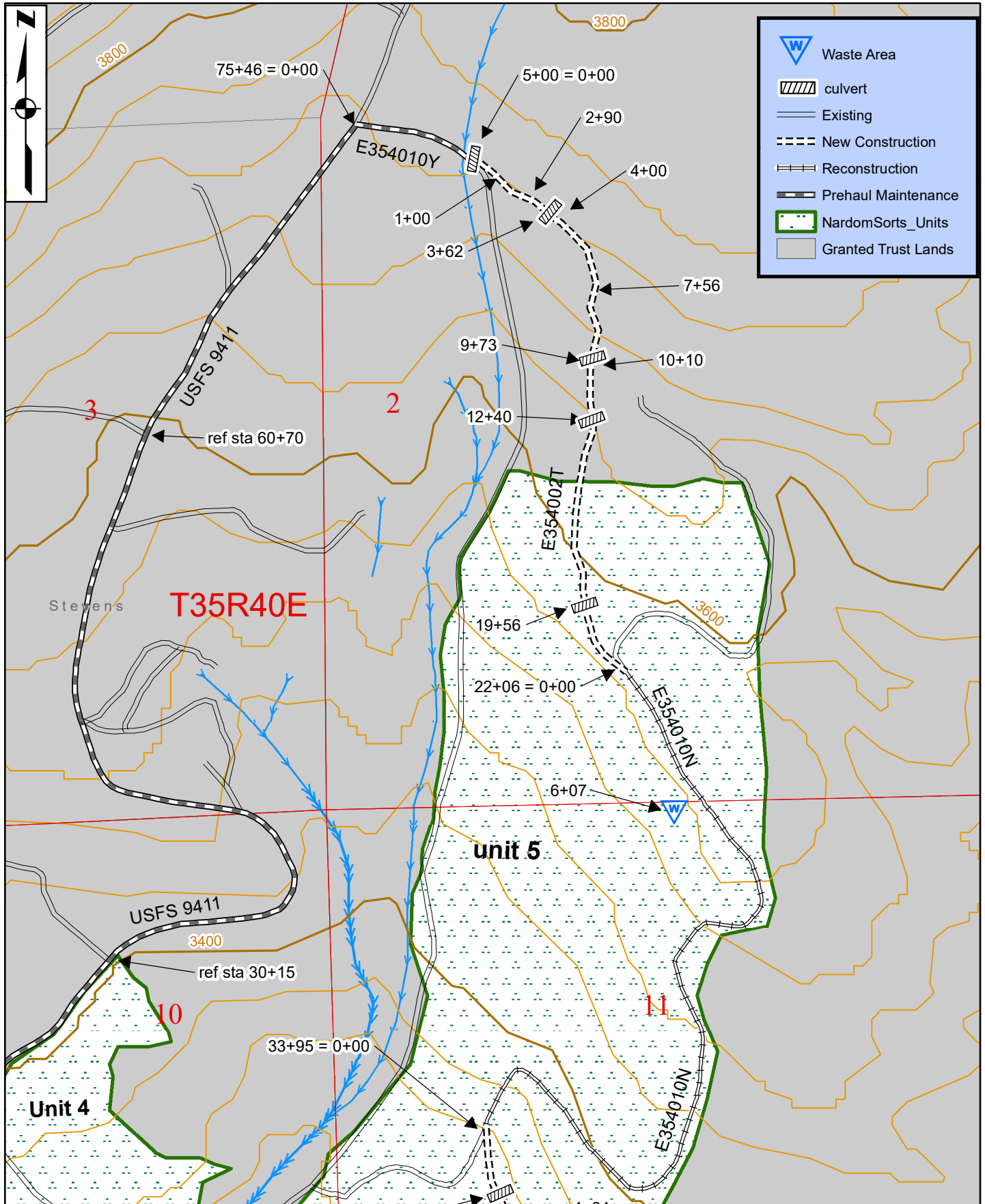
1 inch = 500 feet Date: 3/27/2023

Washington State Department of Natural Resources

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Region: Northeast
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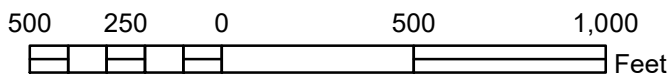
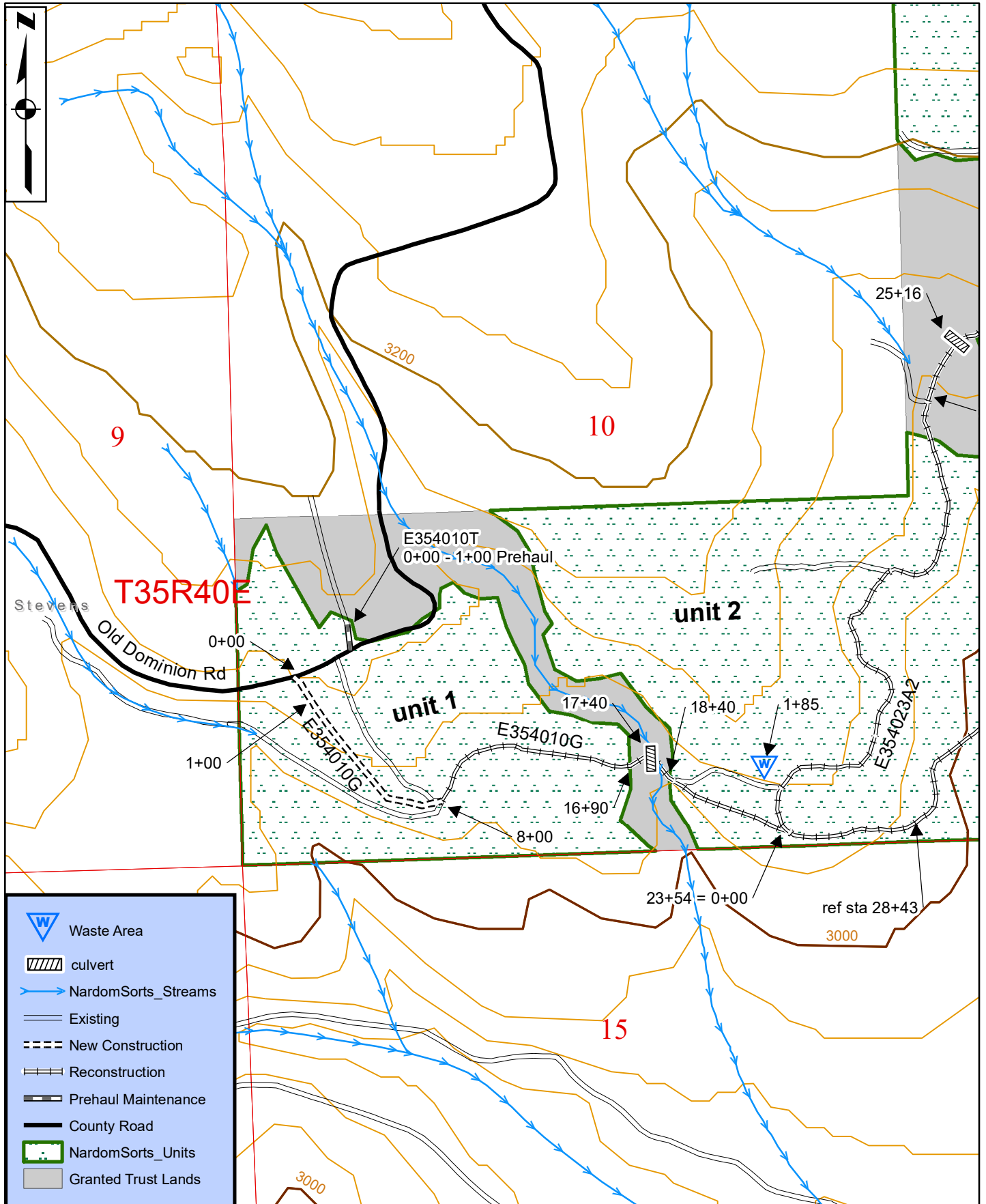
1 inch = 500 feet Date: 3/27/2023

Washington State Department of Natural Resources

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Region: Northeast
County: Stevens



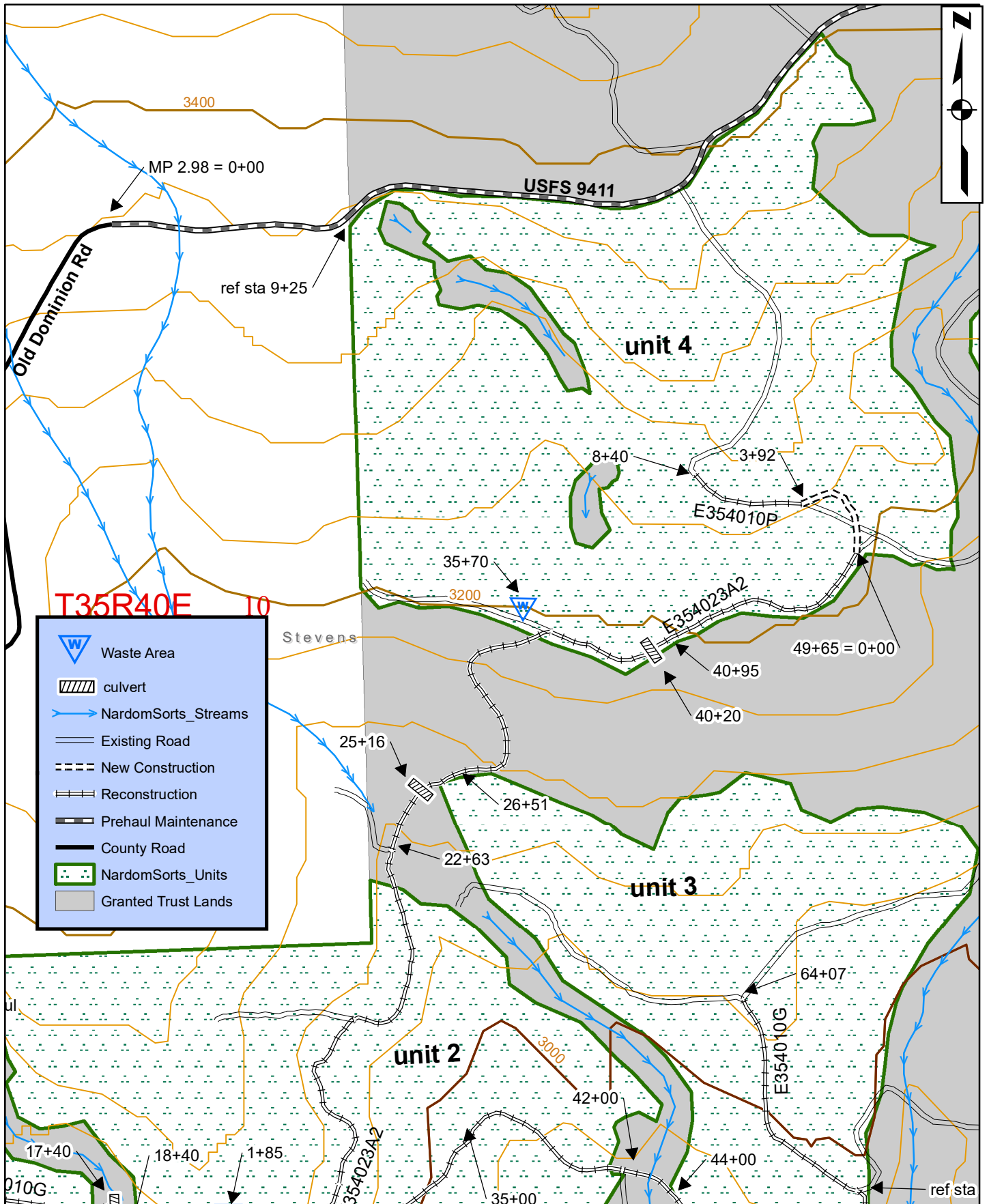
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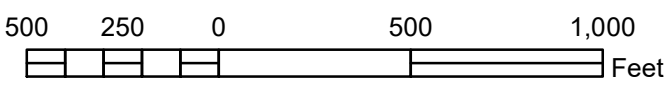
Road Plan Map
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Region: Northeast
County: Stevens



T35R40E 10

	Waste Area
	culvert
	NardomSorts_Streams
	Existing Road
	New Construction
	Reconstruction
	Prehaul Maintenance
	County Road
	NardomSorts_Units
	Granted Trust Lands



1 inch = 500 feet Date: 3/27/2023

STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

NARDOM SORTS TIMBER SALE ROAD PLAN
STEVENS COUNTY
NORTH COULUMBIA UNIT EAST ZONE DISTRICT
NORTHEAST REGION

AGREEMENT NO.: 30-103927

STAFF ENGINEER: GENE GIBBS

DATE: 3/27/2023

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>
E354023A	0+00 to 150+64	Prehaul Maintenance
E354023A	150+64 to 225+94	Reconstruction
E354024A	0+00 to 81+98	Prehaul Maintenance
E354024R	0+00 to 29+80	Prehaul Maintenance
E354011B	0+00 to 25+95	Prehaul Maintenance
E364036A	0+00 to 5+66	Prehaul Maintenance
E354010G	0+00 to 8+00	New Construction
E354010G	8+00 to 64+07	Reconstruction
E354023A2	0+00 to 49+65	Reconstruction
E354010P	0+00 to 3+92	New Construction
E354010P	3+92 to 8+40	Reconstruction
E354010T	0+00 to 1+00	Prehaul Maintenance
USFS 9411	0+00 to 75+46	Prehaul Maintenance
E354010Y	0+00 to 5+00	Prehaul Maintenance
E354002T	0+00 to 22+06	New Construction
E354010N	0+00 to 33+95	Reconstruction
E354011AA	0+00 to 4+64	New Construction
E354011AA	4+64 to 13+03	Reconstruction

0-4 CONSTRUCTION

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
E354010G	0+00 to 8+00	Construct road in accordance to typical section.
	0+00	Flare intersection to Old Dominion Rd in accordance to intersection detail.
	0+00 to 1+00	Install 9" lift of 2 1/2" minus rock.
E354010P	0+00 to 3+92	Construct road in accordance to typical section. <u>This road is only to be hauled on in the dry or in the frozen as authorized in written permission from the contract administrator.</u>
E354002T	0+00 to 22+06	Construct road in accordance to typical section. Note wider than normal grubbing limits.
	0+00	Replace existing 12"x 44' Cmp with 24"x 48' cmp.
	2+90 to 4+00	Turnpike/lift subgrade 18" above adjacent forest floor. Note wider than normal grubbing limits.
	3+62	Install 18"x 30' cross drain with catch basin.
	7+56 to 10+10	Turnpike/lift subgrade 18" above adjacent forest floor. Note wider than normal grubbing limits.
	7+56	Install rocked rolling dip.
	9+73	Install 18x30 cross drain
	12+40	Install 18x40 cross drain in bottom of swail
	19+56	Install 18x44 cross drain in bottom of swail. Install a minimum of 4 feet of fill over top of culvert.
E354011AA	0+00 to 4+64	Construct road in accordance to typical section. Turnpike/lift subgrade 18" above adjacent forest floor.
	2+80	Install 18x30 cross drain

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>
E354023A	150+64 to 225+94	Reconstruct road in accordance to typical section, rock list and culvert and drainage sheet. Intermittent ditching and curve widening will be present. See clause 4-8 Curve Widening.
	172+08 to 177+95	Remove vegetation from existing ditch line. Existing ditch line is armored, protect rock armoring.
	176+70	Existing 24"x36' existing live stream take precaution to prevent sediment from delivering to live water.
	175+45 to 177+95	Install 6" lift of 1 ¼" minus as per rock list.
	181+40	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	185+52	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	188+22	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	191+30	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	197+11	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	204+50	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	206+31	Existing 18"x26' plastic corrugated pipe Take precaution to prevent sediment from delivering to live water. Add 20 feet of pipe to the outlet of existing plastic culvert with band. Armor outlet with 10 cubic yards light loose rip rap.

	205+81 to 206+81	Widen subgrade to 24 feet.
	205+56 to 207+06	Install 6" lift of 1 ¼" minus as per rock list.
	212+40 to 214+60	Construct log truck turn around/log decking area on the north side of the road. Boundaries are marked with rights of way tags.
	219+47 to 225+94	Reshape ditch line.
	219+47	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	221+76	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	223+30	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
	225+44	Reshape rolling dip/armor with 10 CY of 2 ½" minus and install ditch out.
E354010G	8+00 to 64+07	Reshape in accordance to typical section. <u>This road is only to be hauled on in the dry or in the frozen as authorized in written permission from the contract administrator.</u>
	16+90 to 17+90	Widen subgrade to 20 feet to accommodate curve widening.
	17+40	Replace existing 18"x26' plastic culvert with 36"x48' plastic culvert supplied by DNR with 5 CY rip rap armoring at the inlet and 5 CY armoring at the outlet. Minimum of 3 feet of fill to be placed over culvert.
	16+90 to 18+40	Install 9" lift of 2 ½" minus.
	18+20	Install rolling dip.
	ref sta 28+43	Existing wire stretch gate.
	35+00	Existing 12" culvert in bottom of swail. Remove vegetation from inlet and outlet and place a minimum of 1 foot of fill over top of cross drain.
	42+00 to 44+00	Install 9" lift of 2 ½" minus.
E354023A2	0+00 to 49+65	Reconstruct road in accordance to typical section. <u>This road is only to be hauled on in the dry or in the frozen as authorized in written permission from the contract administrator.</u>

	0+00 to 0+50	Flare intersection to intersection with E354010G, widen subgrade up to 20 feet to the west to accommodate loaded log truck traffic.
	22+63 to 26+51	Turnpike/lift subgrade 18 inches above adjacent native forest floor.
	22+63	Install rocked rolling dip with ditchout.
	25+16	Install 18"x 32' cross drain with catch basin and ditchout.
	26+51	Install rocked rolling dip with ditchout.
	40+20 to 40+95	Turnpike/lift subgrade 18 inches above adjacent native forest floor. Rock road 9" lift of 2 ½" minus.
	40+20	Install 18"x 30' cross drain with catch basin.
E354010P	3+92 to 8+40	Reconstruct road in accordance to typical section. <u>This road is only to be hauled on in the dry or in the frozen as authorized in written permission from the contract administrator.</u>
E354010N	0+00 to 33+95	Reconstruct road in accordance to typical section. Curve widening may be required. See clause 4-8 Curve Widening.
E354011AA	4+64 to 6+50	Reconstruct road in accordance to typical section. Turnpike/lift subgrade 18 inches above adjacent native forest floor.
	6+00	Install 18x40 cross drain with catch basin.
	6+50 to 13+03	Reconstruct road in accordance to typical section.

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>
E354023A	0+00 to 150+64	Reshape road to provide drainage as needed.
	55+90 to 121+20	Spot grading to remove pot holes.
	80+55 to 82+30	Cut and remove trees and brush from existing rocked ditch line.
	121+20	Cut and remove alders encroaching on the inlet of the culvert.
	123+35	Cut and remove alders encroaching upstream and downstream of the bridge.
E354024A	0+00 to 81+98	Reshape road to provide drainage as needed. Intermittent ditches exist.
E354024R	0+00 to 29+80	Reshape road to provide drainage as needed. Pit access road.
	0+75	Existing vehicle gate.
E354011B	0+00 to 25+95	Reshape road to provide drainage as needed. Intermittent ditches exist.
E364036A	0+00 to 5+66	Reshape road to provide drainage as needed. Intermittent ditches exist.
E354010T	0+00 to 1+00	Reshape road to provide drainage as needed.
USFS 9411	0+00 to 75+46	Reshape road to provide drainage as needed.
E354010Y	0+00 to 5+00	Reshape road to provide drainage as needed. Brush road in accordance to brushing detail.
	4+00 to 5+00	Install 6"lift of 6" minus rock.

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

Contractor may use an existing rock source.

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

If the Contractor 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 Contractor's choice of construction season or techniques will be at the Contractor's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

1-3 ROAD DIMENSIONS

Contractor 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

Contractor 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

Contractor 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.

1-10 WSDOT STANDARD SPECIFICATION REFERENCE

References in this road plan to "WSDOT Standard Specifications" mean the Washington State Department of Transportation's Standard Specifications for Road, Bridge, and Municipal Construction 2012 (M41-10).

1-15 ROAD MARKING

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

- Centerline marked with orange ribbon for new construction.
- Reconstruction stationing marked on orange ribbon and/or pink tags.

1-18 REFERENCE POINT DAMAGE

Contractor 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 Contractor resets all moved or damaged RPs.

1-21 HAUL APPROVAL

Contractor 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.

1-22 WORK NOTIFICATIONS

Contractor shall notify the Contract Administrator a minimum of 14 business days before work begins.

1-23 ROAD WORK PHASE APPROVAL

Contractor 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
- grading
- Excavation to Elevation

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 July 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

Contractor 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 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.

1-32 BRIDGE OR ASPHALT SURFACE RESTRICTION

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

If tracked equipment is used on bridge or asphalt surfaces, Contractor shall immediately cease all operations. Contractor 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 Contractor's expense, as directed by the Contract Administrator.

1-33 SNOW PLOWING RESTRICTION

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

1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

Contractor 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 Contractor's expense, as directed by the Contract Administrator when authorized by the county or WSDOT.

1-43 ROAD WORK AROUND UTILITIES

Road work is in close proximity to a utility. Known utilities are listed, but it is the Contractor's responsibility to identify any utilities not listed. Contractor shall work in accordance with all applicable laws or rules concerning utilities. Contractor is responsible for all notification, including "call before you dig", and liabilities associated with the utilities and their rights-of-way. Contractor shall notify the local utilities district before starting road work.

SECTION 2 – MAINTENANCE

2-1 GENERAL ROAD MAINTENANCE

Contractor 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 – CONTRACTOR MAINTENANCE

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

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

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

2-5 MAINTENANCE GRADING – EXISTING ROAD

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

2-6 CLEANING CULVERTS

Contractor shall clean the inlets, outlets and catch basins of all culverts on constructed, reconstructed, or maintained roads.

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

Contractor shall clean ditches, headwalls, and catch basins on constructed, reconstructed, or maintained roads, were logging equipment skidded on the roads or knocked materials into the ditch lines/catch basins etc. . Work shall be completed before timber haul and upon completion of the sale and shall be subject to the written approval of the Contract Administrator.

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

Contractor 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. Excavator buckets, log loaders and similar equipment may not be used for brushing unless otherwise approved in writing by the Contract Administrator.

3-5 CLEARING

Contractor 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

Contractor 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

Contractor 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 35%
- Against standing trees.

3-10 GRUBBING

Contractor 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.

3-14 STUMPS WITHIN DESIGNATED WASTE AREAS

Contractor 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

Contractor shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. 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

Contractor 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

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

3-30 EXCLUSION OF DOZER BLADES

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

3-31 PILING

Contractor 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, 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

Contractor 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

Contractor 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.

Contractor 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

Contractor 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

Contractor 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

Contractor 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.

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

4-11 KEYED EMBANKMENT

Contractor shall key embankments into the native slope in accordance with the EMBANKMENT KEY DETAIL.

4-12 FULL BENCH CONSTRUCTION

Where side slopes exceed 45%, Contractor shall use full bench construction for the entire subgrade width except as construction staked or designed. If designated, Contractor shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION.

4-20 SUBGRADE DIMENSIONS FOR INTERSECTIONS

On the following road(s), Contractor shall construct the subgrade to the dimensions shown on the INTERSECTION DETAIL.

<u>Road</u>	<u>Stations</u>
E354010G	0+00 to 0+75
E354023A2	0+00 to 0+50

4-21 TURNOUTS

Contractor 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

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

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Contractor 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.

4-30 TURNPIKING

Use borrow material from the approaches and/or adjacent to the road subgrade and within the grubbing limits to lift the subgrade a specified elevation above the adjacent natural ground to restrict the subgrade from saturation.

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

Contractor may sidecast 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

Contractor 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>
E354023A2	West side of road station 1+85 at abandoned intersection		1,000 cubic yards
E354023A2	North west side of old intersection at station 35+70		1,000 cubic yards
E354010N	West side below road at station 6+07		1,000 cubic yards
E354011B	West side of road in old road approach at station 23+55		1,000 cubic yards

4-38 PROHIBITED WASTE DISPOSAL AREAS

Contractor 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.

4-46 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.

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.

4-49 BORROW SOURCE

Contractor shall obtain borrow material from sources identified or approved by the Contract Administrator. Development of the borrow source of more than 50 cubic yards

must be in accordance with BORROW SOURCE DEVELOPMENT PLAN to be submitted by the Contractor and approved in writing by the Contract Administrator.

4-55 ROAD SHAPING

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

4-56 DRY WEATHER SHAPING

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

4-60 FILL COMPACTION

Contractor 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

Contractor shall compact constructed or reconstructed 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

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

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

SECTION 5 – DRAINAGE

5-1 REMOVAL OF SHOULDER BERMS

Contractor 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

Contractor 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.

5-12 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 as directed by the Contract Administrator.

5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the 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

Contractor 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

Contractor 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

Contractor 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.

5-30 DRIVABLE WATERBAR CONSTRUCTION

Contractor 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

Contractor 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. Contractor 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

6-1 ROCK SOURCE NOT ON STATE LAND

Contractor shall obtain written approval from the Contract Administrator for the use of material from any alternate source. Rock used in accordance with the quantities on the ROCK LIST. Contractor shall notify the Contract Administrator a minimum of 5 calendar days before starting any operations in the listed locations.

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>
Narcisse Pit stock piles	E354024R 29+80	2 ½" minus, 1 ¼" minus, 6" jaw run, light/medium/large 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 Contractor'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 <, unless otherwise specified in the ROCK SOURCE DEVELOPMENT <AND RECLAMATION> PLAN>:

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

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.

6-23 ROCK GRADATION TYPES

Contractor 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.

6-26 5/8-INCH MINUS CRUSHED ROCK

% Passing 5/8" square sieve 100%
 % Passing 3/8" square sieve 55 - 75%
 % Passing U.S. #4 sieve 40 - 60%

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

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

6-28 1 ¼-INCH MINUS CRUSHED ROCK

% Passing 1 ¼" square sieve 100%

% Passing 5/8" square sieve	50 - 80%
% Passing U.S. #4 sieve	30 - 50%
% Passing U.S. #40 sieve	3 - 18%
% Passing U.S. #200 sieve	8 - 12%

6-32 2 ½-INCH MINUS CRUSHED ROCK

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

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

6-41 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%	<u>50 lbs. max</u>	3" - 8"

6-51 HEAVY LOOSE RIP RAP

Heavy 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. Heavy 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>
30% / 90%	1 ton to 3 ton	36" - 54"
70% / 90%	500 lbs. to 1 ½ ton	24" - 42"
10% / 30%	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

Contractor shall obtain written approval from the Contract Administrator for subgrade shape and compaction before rock application.

6-71 ROCK APPLICATION

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

6-73 ROCK FOR WIDENED PORTIONS

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

6-80 WATERING FOR DUST ABATEMENT

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

SECTION 7 – STRUCTURES

7-5 STRUCTURE DEBRIS

Contractor shall not allow debris from the installation or removal of structures to enter any stream. Components removed from existing structures(s) must be removed to a waste site approved by the contract administrator. Contractor shall maintain a clean jobsite, with all materials stored away from the high water mark or other area presenting a risk of the materials entering a stream. Debris entering any stream must be removed immediately, and placed in the site(s) designated for stockpiling or disposal.

7-6 STREAM CROSSING INSTALLATION

Contractor shall install stream crossing structures in accordance with the manufacturer's requirements.

7-57 CULVERT SHAPE CONTROL

Contractor 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, Contractor shall modify the compaction method to achieve the appropriate end result.

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 Contractor and must be removed from state land.

9-5 POST-HAUL MAINTENANCE

Contractor 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>
E354023A	0+00 to 225+94	Reshape road to provide drainage as needed.
E354024A	0+00 to 81+98	Reshape road to provide drainage as needed.
E354024R	0+00 to 29+80	Reshape road to provide drainage as needed.
E354011B	0+00 to 25+95	Reshape road to provide drainage as needed.
E364036A	0+00 to 5+66	Reshape road to provide drainage as needed.
E354010G	0+00 to 64+07	Reshape road to provide drainage as needed.
E354023A2	0+00 to 49+65	Reshape road to provide drainage as needed.
E354010P	0+00 to 8+40	Reshape road to provide drainage as needed.
E354010T	0+00 to 1+00	Reshape road to provide drainage as needed.
USFS 9411	0+00 to 75+46	Reshape road to provide drainage as needed.
E354010Y	0+00 to 5+00	Reshape road to provide drainage as needed.
E354002T	0+00 to 22+06	Reshape road to provide drainage as needed.
E354010N	0+00 to 33+95	Reshape road to provide drainage as needed.
E354011AA	0+00 to 13+03	Reshape road to provide drainage as needed.

9-10 LANDING DRAINAGE

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

9-11 LANDING EMBANKMENT

Contractor shall slope landing embankments to the original construction specifications.

SECTION 10 MATERIALS

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts shall meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be galvanized (zinc coated meeting AASHTO M-218).

10-17 CORRUGATED PLASTIC CULVERT

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

10-20 FLUME AND DOWNPOUT

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 or 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" or 5" x 1"

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.

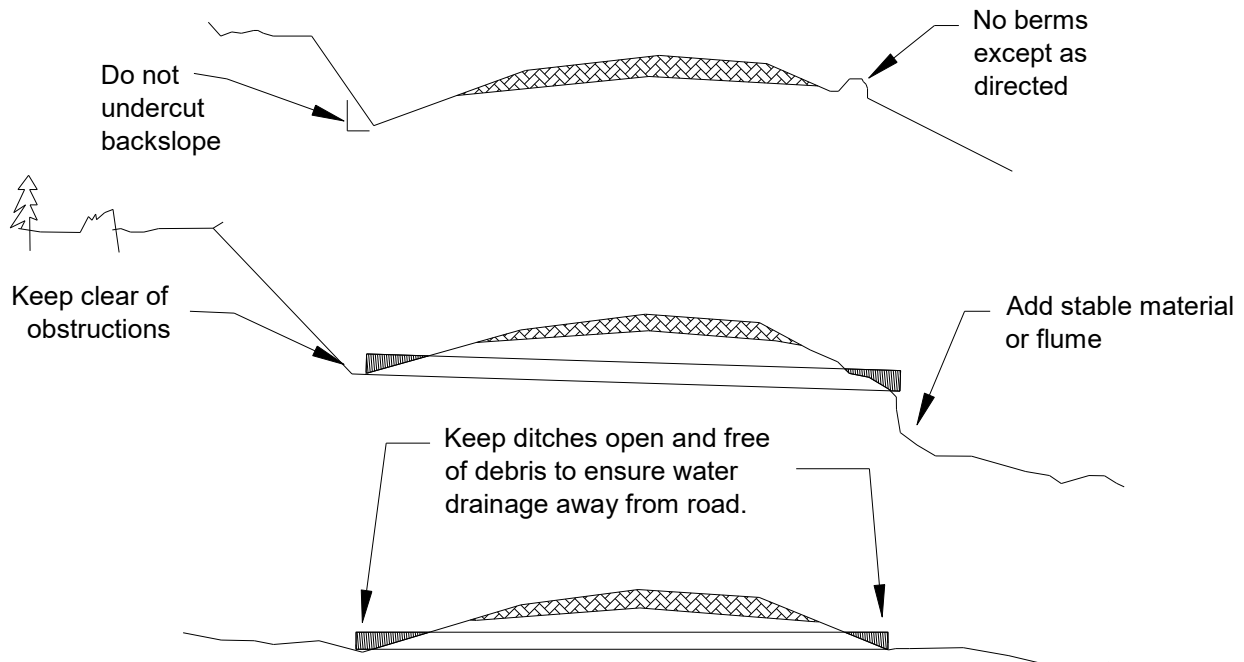
FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

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.

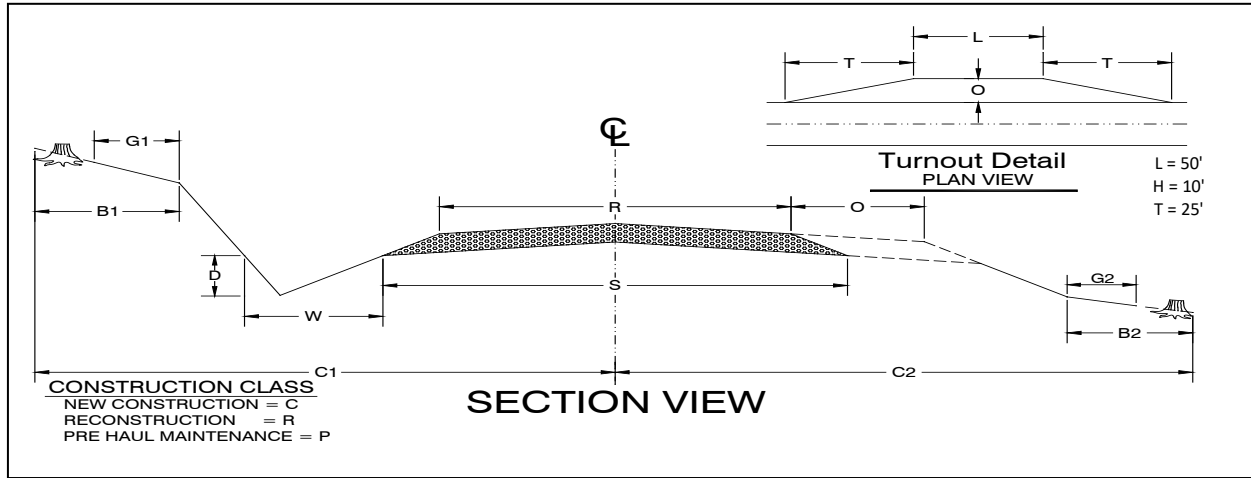


DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-103927

Name of Sale: Nardom Sorts

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)
E354023A	0+00	150+64	P		C	14	12		4				intermittent ditches						
E354023A	150+64	205+81	R		C	14	12		4					4	4	6	6		
	205+81	206+81	R		C	24	22		4					2	2	6	6		
	206+81	219+47	R		C	14	12		4					4	4	6	6		
	219+47	225+94	R		C	14	12		4		2	1		4	4	6	6		
E354024A	0+00	81+98	P		C	14	12		4										
E354024R	0+00	29+80	P		C	14	12		4										
E354011B	0+00	25+95	P		C	14	12		4										
E364036A	0+00	5+66	P		C	14	12		4										
E354010G	0+00	8+00	C		C	14	12		4					2	2	6	6		
E354010G	8+00	16+90	R		C	14	12		4					4	4	6	6		
	16+90	17+90	R		C	20	18		4					4	4	6	6		
	17+90	64+07	R		C	14	12		4					4	4	6	6		
E354023A2	0+00	22+63	R		C	14	12		4					4	4	6	6		
turnpike lift subgrade	22+63	26+51	R		C	15	12		4	4	1	X		6	6	8	8		
	26+51	40+20	R		C	14	12		4					4	4	6	6		
turnpike lift subgrade	40+20	40+95	R		C	15	12		4	4	1	X		6	6	8	8		
	40+95	49+65	R		C	14	12		4					4	4	6	6		
E354010P	0+00	3+92	C		C	14	12		4					4	4	6	6		
	3+92	8+40	R		C	14	12		4					4	4	6	6		
E354010T	0+00	1+00	P		C	14	12		4										

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-103927 Name of Sale: Nardom Sorts Date: 11/21/2022

CULVERT & DRAINAGE LIST

Road Name	Station	CULVERT			LENGTH			RIPRAP			Ditchout	Staked	Rolling Dip	Notes
		Diameter (in)	Gauge	Skew (deg)	Culvert (ft)	Downspout	Flume	Inlet C.Y.	Outlet C.Y.	Catchbasin				
E354023A	181+40										X		X	10 CY rock
	185+52										X		X	10 CY rock
	188+22										X		X	10 CY rock
	191+30										X		X	10 CY rock
	197+11										X		X	10 CY rock
	204+50										X		X	10 CY rock
extend existing	206+31	18	16		20	plastic w/band		10			X		X	rip rap
	219+47										X		X	10 CY rock
	221+76										X		X	10 CY rock
	223+30										X		X	10 CY rock
	225+44										X		X	10 CY rock
E354010G	17+40	36	14		48			5	5					rip rap
	18+20												X	
E354023A2	22+63										X		X	10 CY rock
	25+16	18	16		32			5		X	X			rip rap
	26+51										X		X	10 CY rock
	40+20	18	16		30			5		X				rip rap
E354002T	0+00	24	14	40	48			5	5					rip rap
	3+62	18	16		30			5		X				rip rap
	7+56										X		X	10 CY rock
	9+73	18	16		30			5		X	X			rip rap
	12+40	18	16		40									
	19+56	18	16		44									
E354011AA	2+80	18	16		30									
Additional Rolling Dips shall be installed at the discretion of the Contract Administrator														

STRUCTURE NOTES

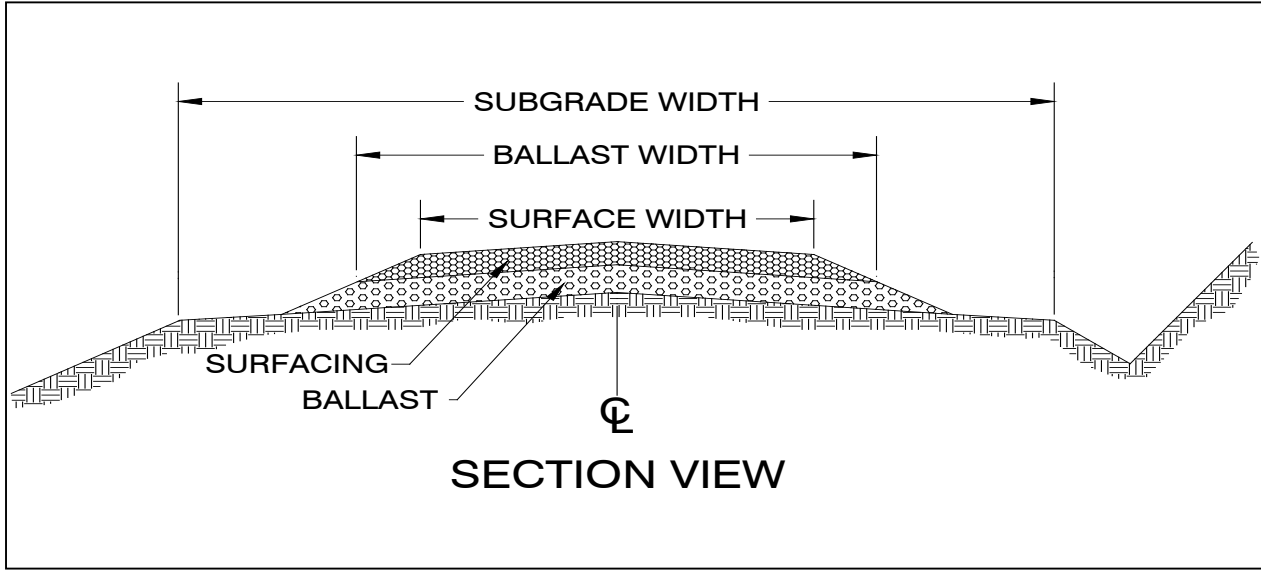
- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Install Headwall - See Detail D1 2. Install Catchbasin - See Detail D1 3. Armor Catchbasin - See Detail D1 4. Armor Ditch 5. Heavy Loose Riprap 6. Light Loose Riprap 7. Step Bevel Pipe Ends 8. Remove Existing Pipe | <ol style="list-style-type: 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. |
|---|---|

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-103927

Name of Sale: Nardom Sorts

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 QUANTITIES 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)
E354023A	175+45	177+95	21					A	20	6	48	
10 CY	181+40							B			0	
10 CY	185+52							B			0	
10 CY	188+22							B			0	
10 CY	191+30							B			0	
10 CY	197+11											
10 CY	204+50											
	205+56	207+06	21				0	A	20	6	48	
10 CY Rip Rap	206+31						0	N			0	
10 CY	219+47						0	B			0	
10 CY	221+76						0	B			0	
10 CY	223+30						0	B			0	
10 CY	225+44						0	B			0	
E354010G	0+00	1+00	20				0	B	18	9	66	
	16+90	18+40	20				0	B	18	9	66	
10 CY Rip Rap	17+40							N				
	42+00	44+00	14					B	12	8	40	
E354023A2 10 CY	22+63							B				
5 CY Rip Rap	26+15							N				

Note: B = DNR pit 2 1/2" minus crushed; A = DNR pit 1 1/4" minus; S = Commercial 5/8" minus crushed

3/20/2023

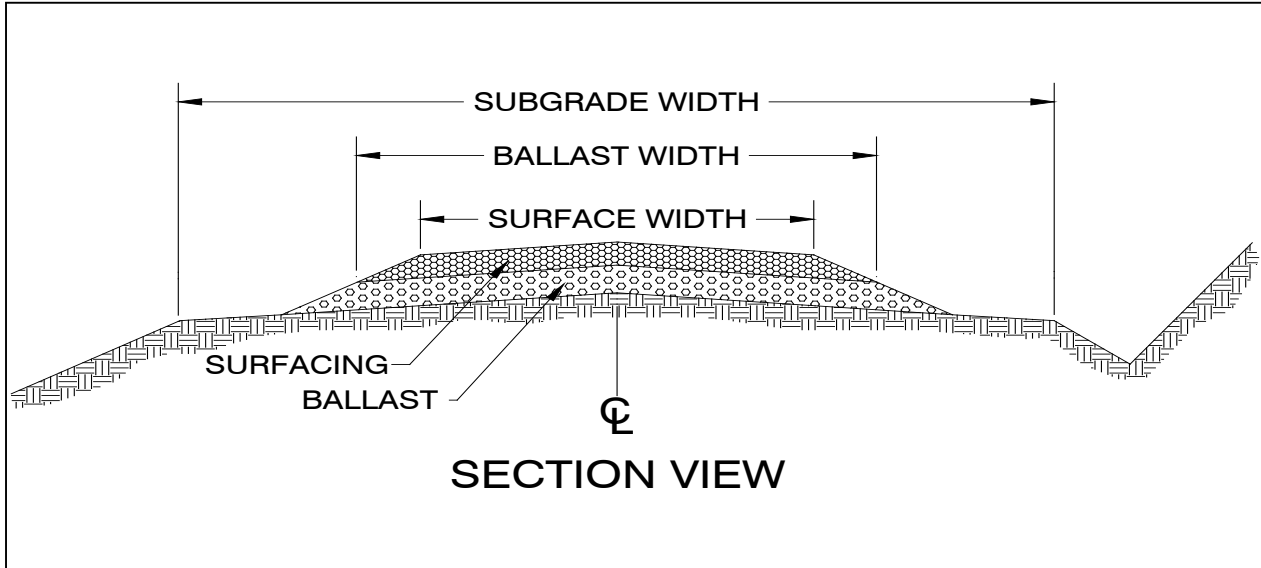
N = Narcisse Pit

**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

Application No.: 30-103927

Name of Sale: Nardom Sorts

ROCK LIST

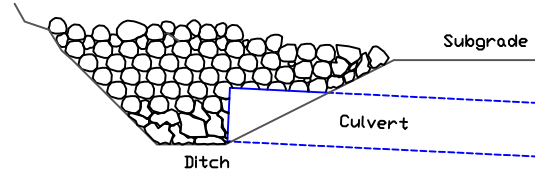
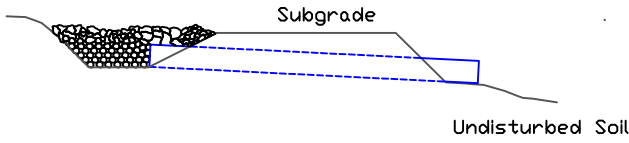


1. ROCK DEPTHS ARE DEFINED AS COMPACTED DEPTHS.
2. LOOSE YARD QUANTITIES ARE DEPENDANT ON SOURCE.
3. ROCK SLOPES SHALL BE 1.5(H) : 1(V).
4. ALL ROCK SOURCES ARE SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR.
5. THE ROCK QUANTITIES SHOWN ASSUME AN EXPANSION FACTOR OF 25%

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)
E354023A2 10 CY	26+51							B			0	
5 Cy Rip Rap	40+20							N			0	
	40+20	40+95	14					B	12	9	46	
E354010Y	4+00	5+00	14					A	12	6	30	
E354002T 10 CY rip rap	0+00							N			0	
	0+00	1+00	14				0	B	12	9	46	
5 Cy Rip Rap	3+62						0	N			0	
10 CY	7+56						0	B			0	
5 CY rip rap	9+73						0	N			0	
E354011AA 5 CY rip rap	6+00						0	N			0	
							0				0	
							0				0	
							0				0	
300 additional A or B rock to be used as directed by the contract administrator.												
											0	
Note: B = DNR pit 2 1/2" minus crushed; A = DNR pit 1 1/4" minus; S = Commercial 5/8" minus crushed												
N = Narcisse Pit												

CULVERT AND DRAINAGE SPECIFICATIONS DETAIL - D1

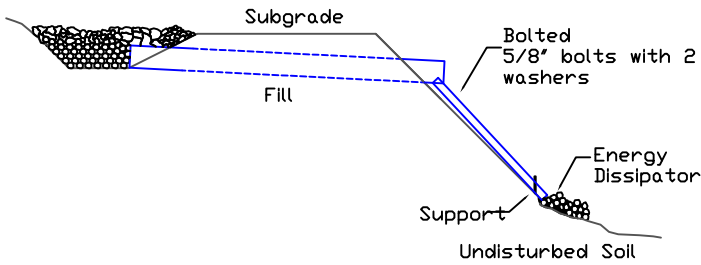
HEADWALLS



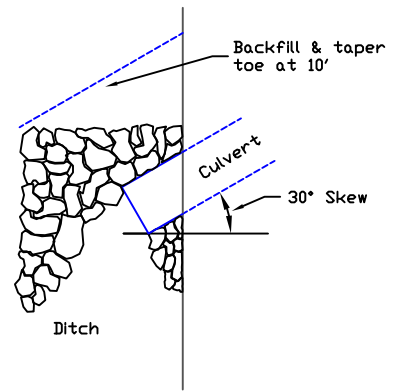
Headwall to be constructed of material that will resist erosion

FLUME

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

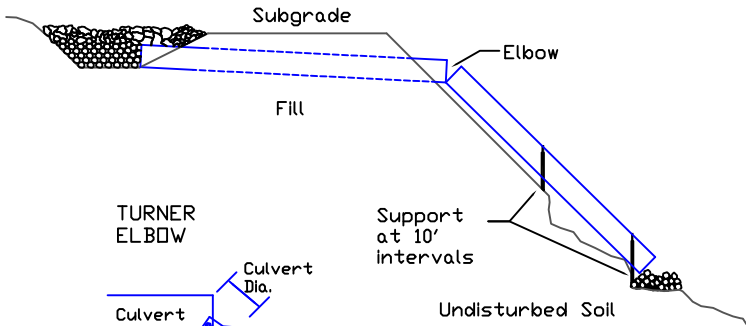


PLAN VIEW



DOWNSPOUT

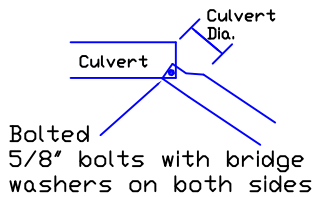
Use where ground conditions are irregular.



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"

TURNER ELBOW

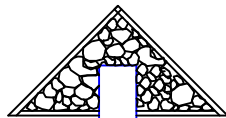


DISSIPATOR SPEC'S Size In Culvert Diameters

Area	2 X 2
Depth	1
Aggregate	1/3



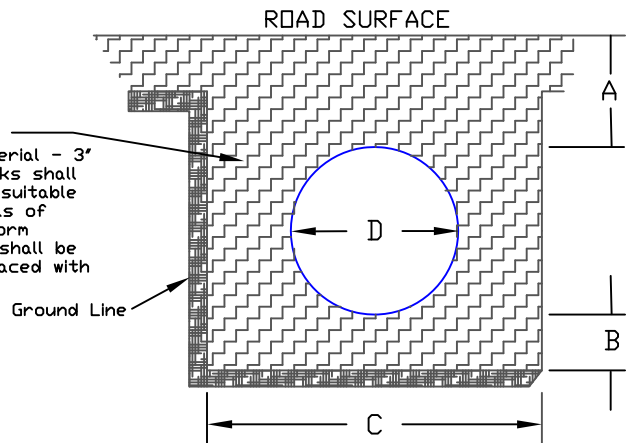
Level



Side Hill

BEDDING MATERIAL:

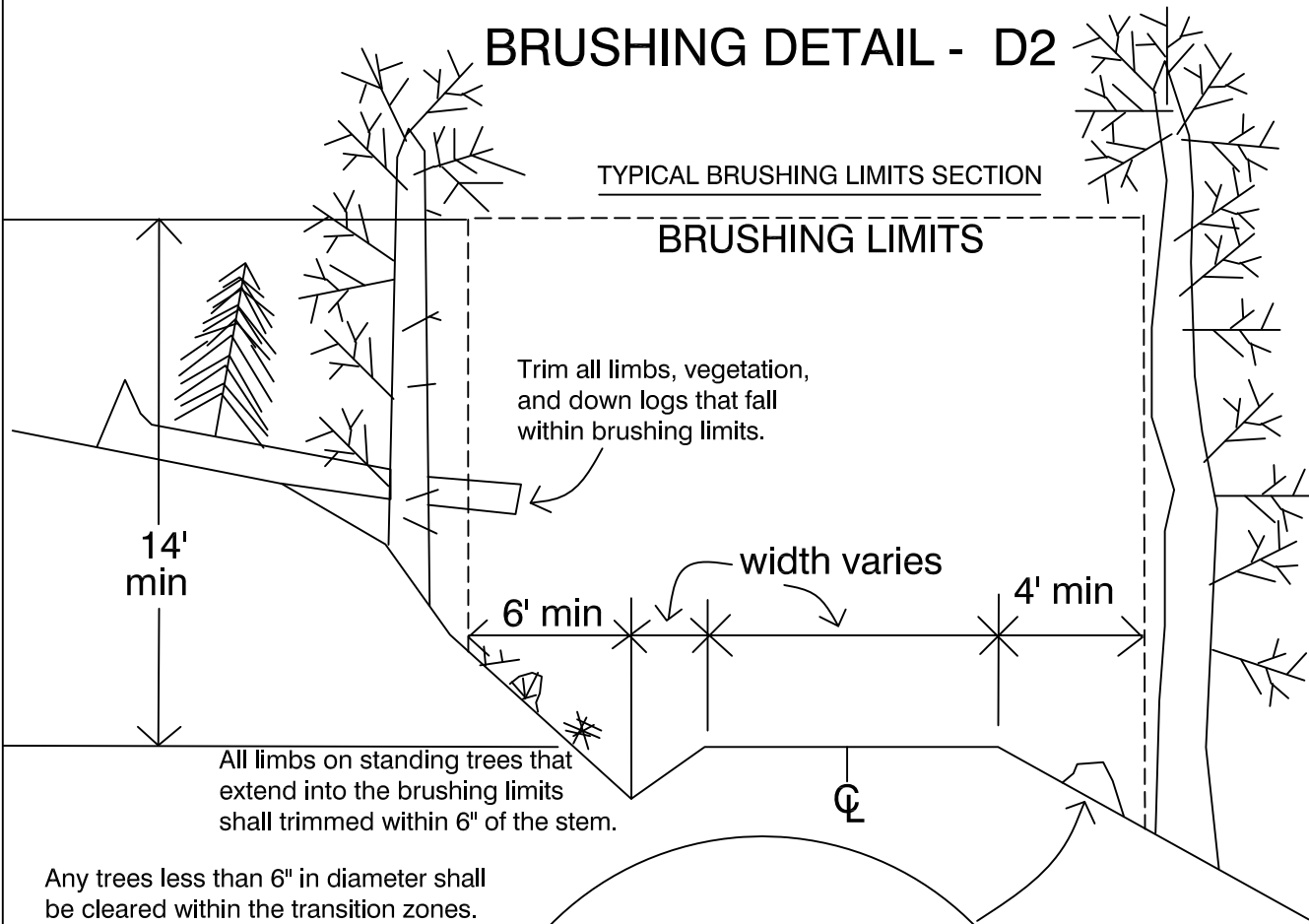
Use granular material - 3" minus. Large rocks shall be replaced with suitable material. Materials of poor or non-uniform bearing capacity shall be removed and replaced with suitable fill.



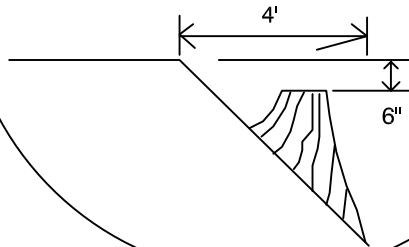
BRUSHING DETAIL - D2

TYPICAL BRUSHING LIMITS SECTION

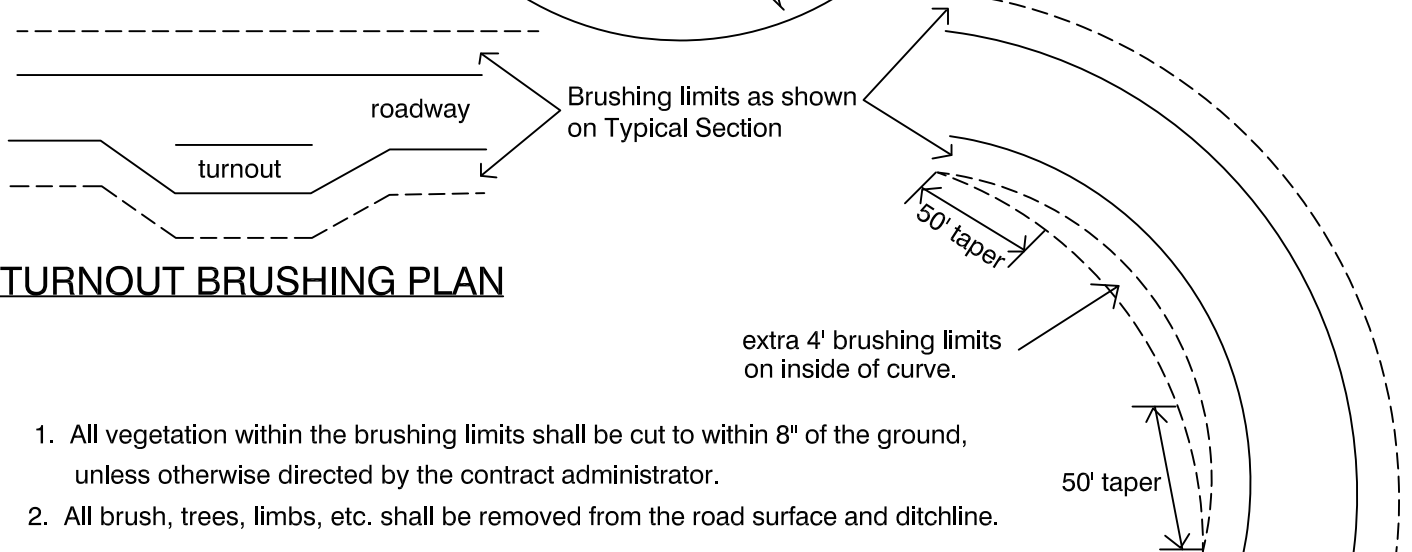
BRUSHING LIMITS



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

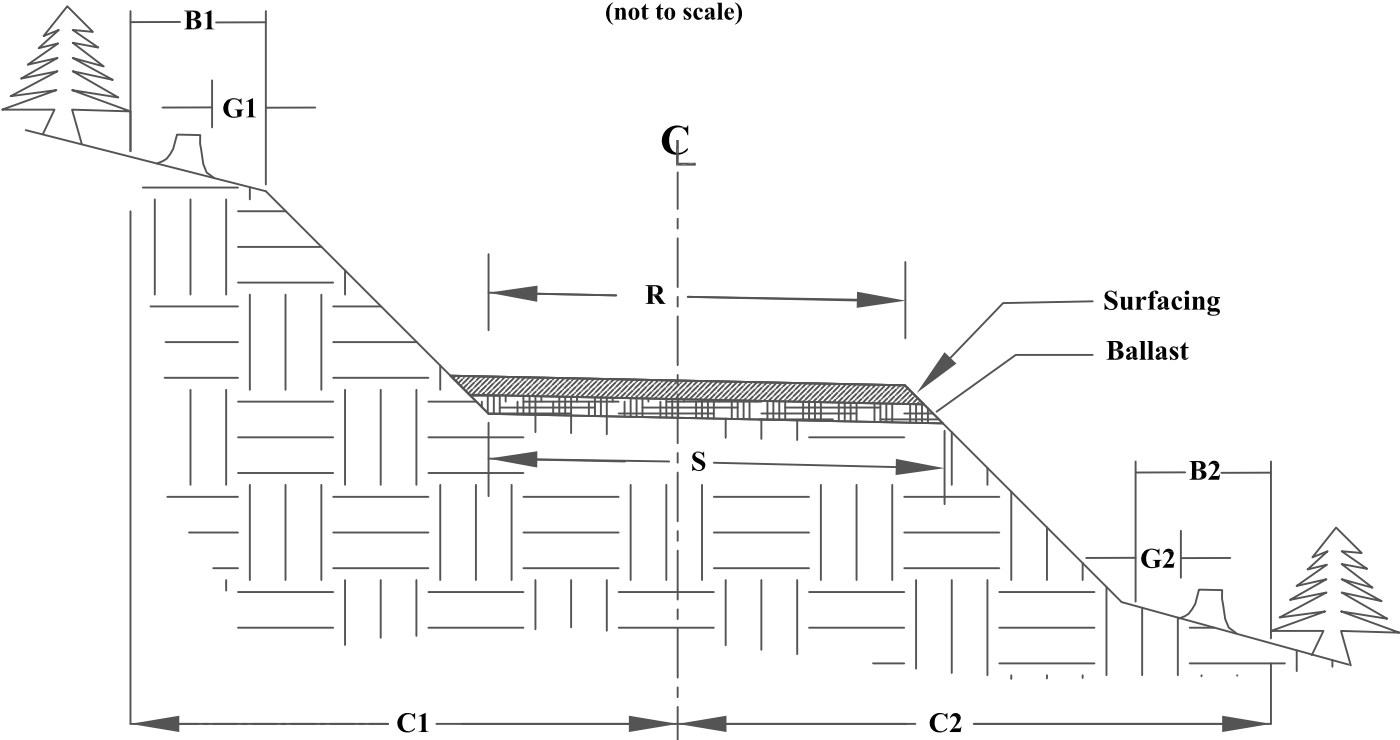


TURNOUT BRUSHING PLAN

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

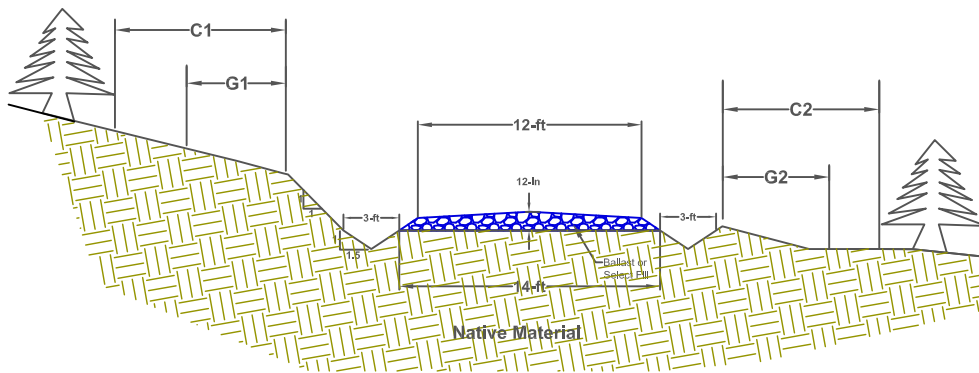
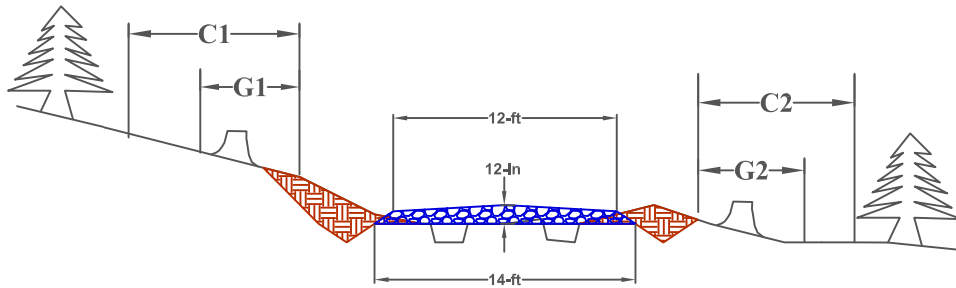
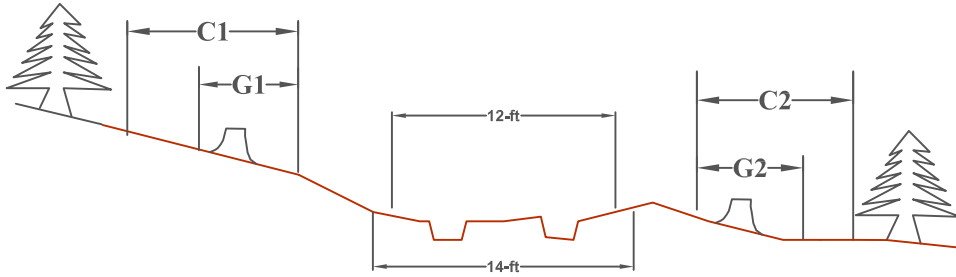


Drawn by: JBB 2/18/03

Revised: JE 01/14/20162

TURNPIKE ROAD DETAIL

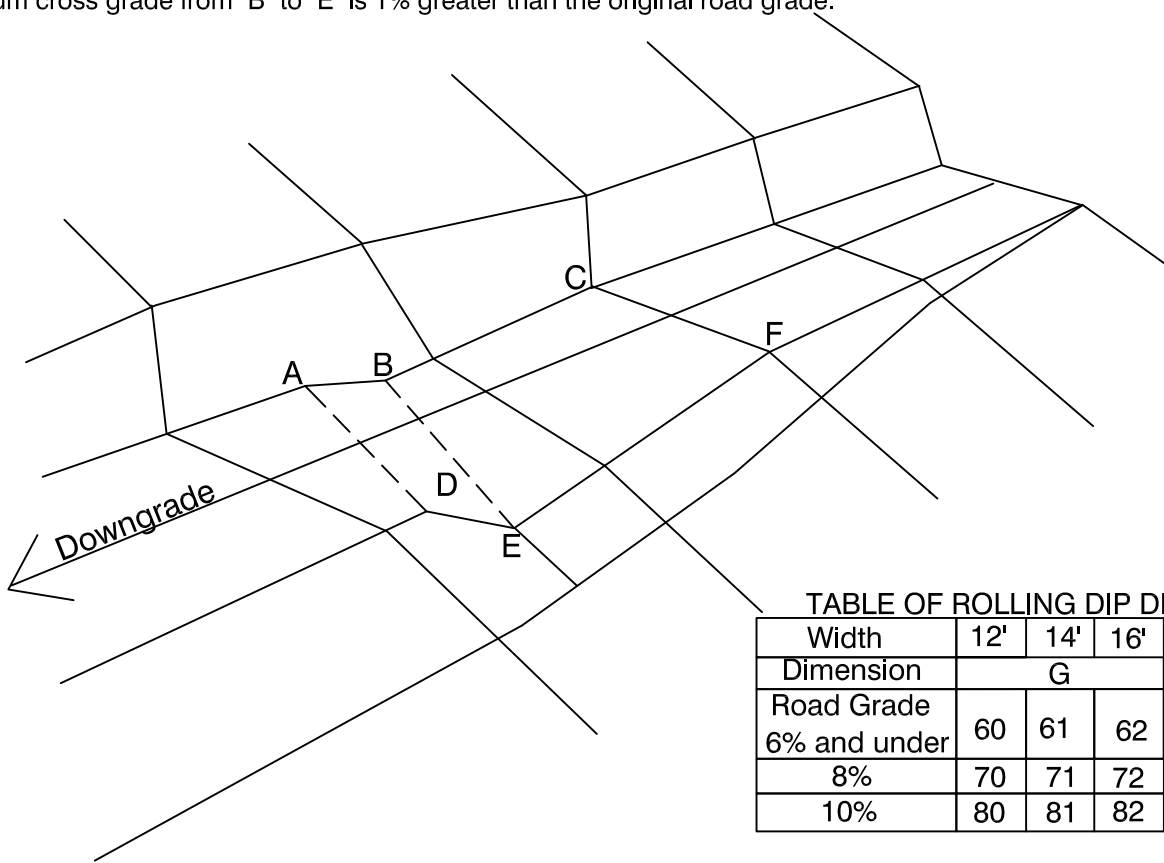
ROAD CROSS-SECTIONS



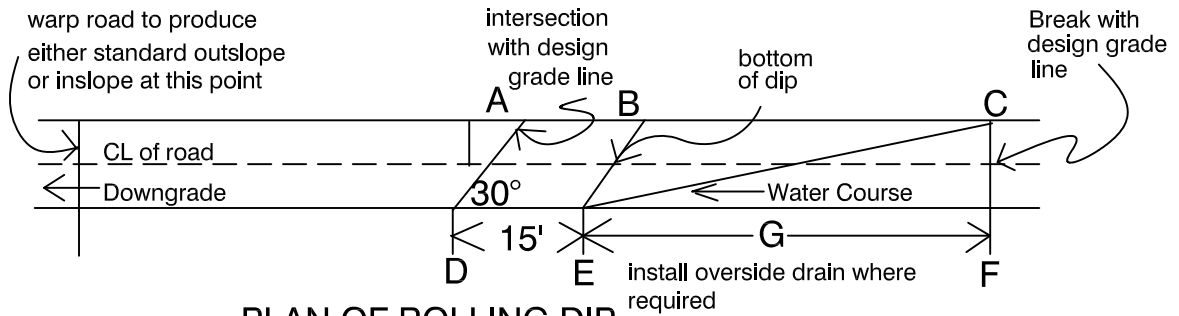
STANDARD 30° ROLLING DIP - D5

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°.

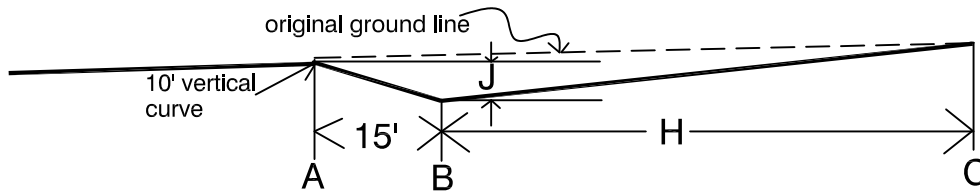
The minimum cross grade from "B" to "E" is 1% greater than the original road grade.



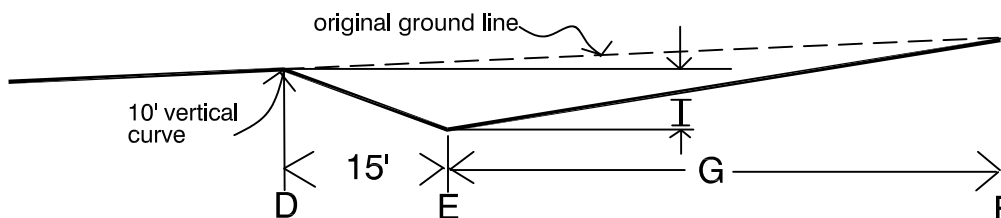
Width	12'	14'	16'	ALL		
Dimension	G			H	I	J
Road Grade 6% and under	60	61	62	52	.8	0.3
8%	70	71	72	62	1.0	0.2
10%	80	81	82	72	1.1	0.1



PLAN OF ROLLING DIP



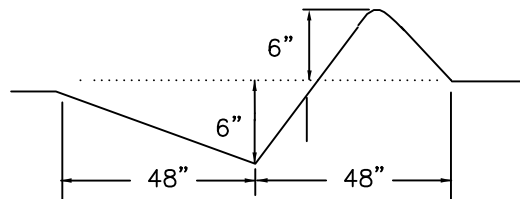
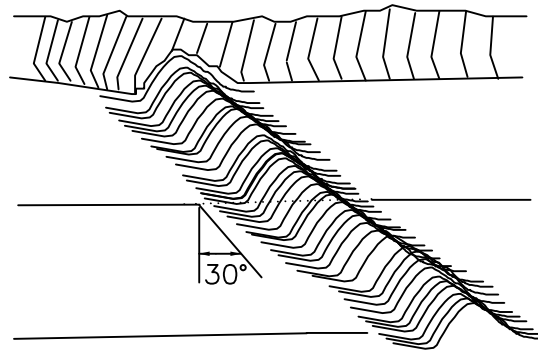
ROAD PROFILE ALONG A-B-C OF ROLLING DIP



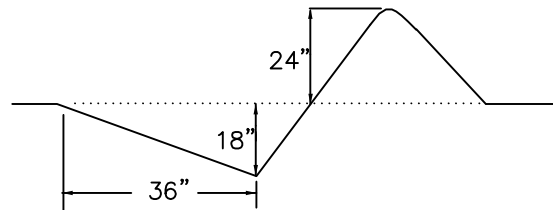
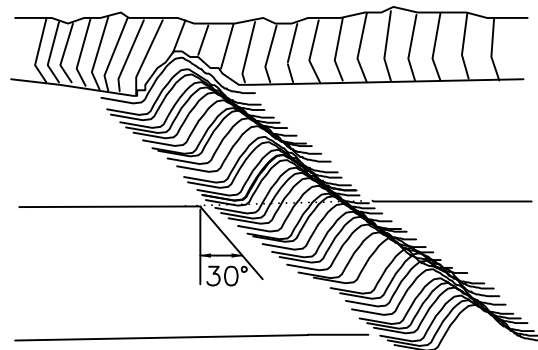
ROAD PROFILE ALONG D-E-F OF ROLLING DIP

WATERBAR DETAIL—D6

DRIVABLE WATERBAR



NON DRIVABLE WATERBAR

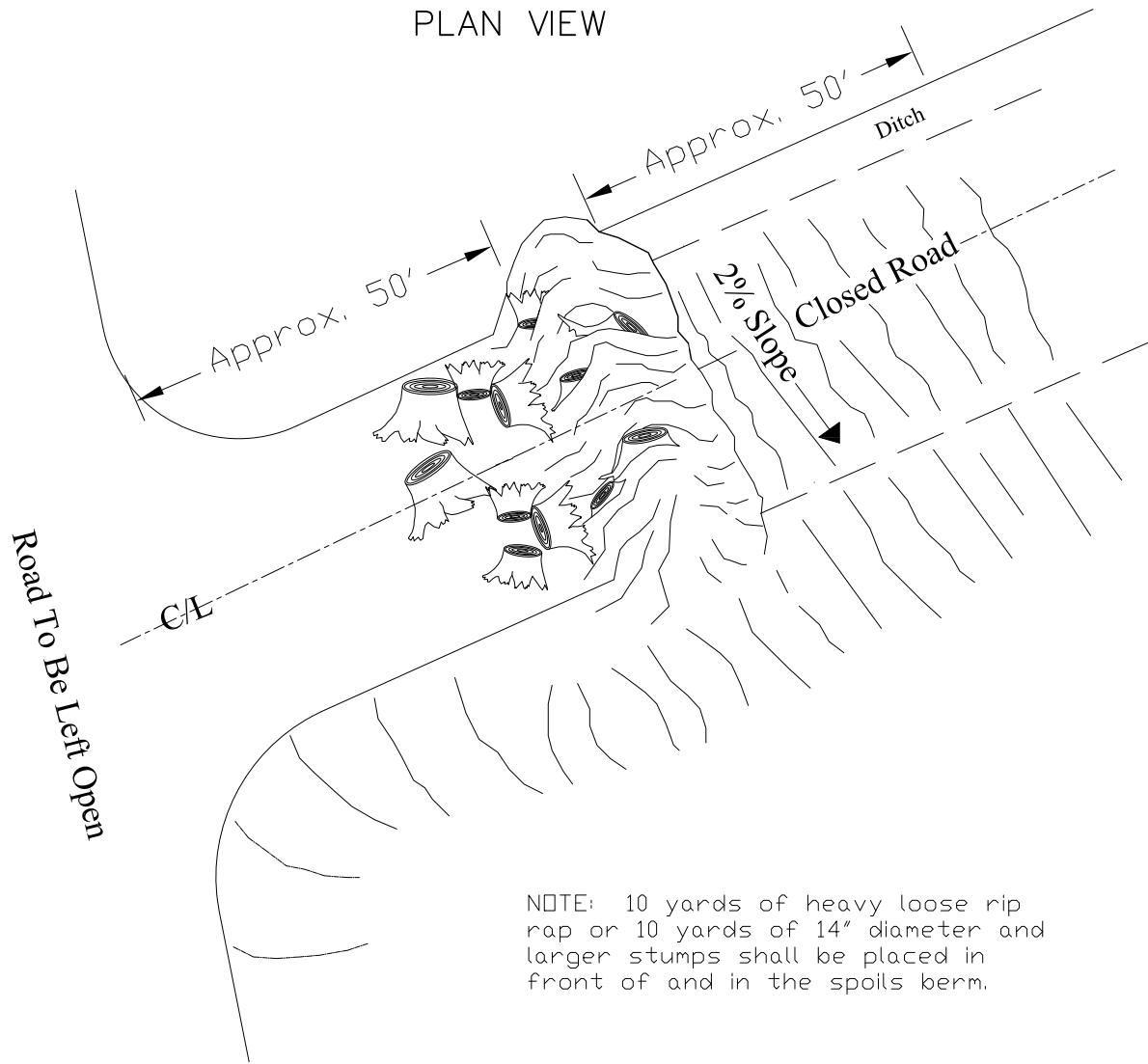


1. Waterbar construction for forest roads Specifications are average and may be adjusted to conditions.
2. Waterbar shall keyed into the bank.
3. The waterbar shall be outsloped for proper drainage.
4. Rock outlet if fill slope is present.

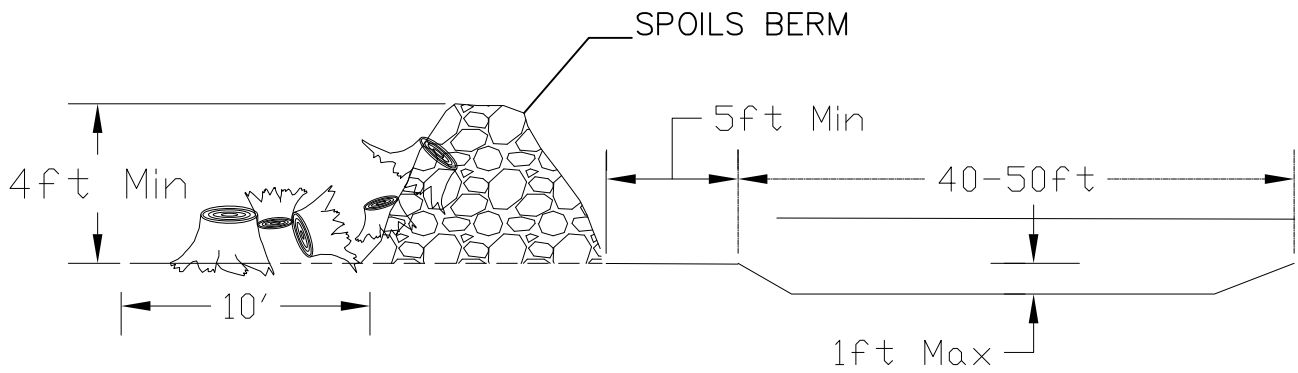
Revised: 05/21/2012

SPOILS BERM DETAIL-D8

PLAN VIEW

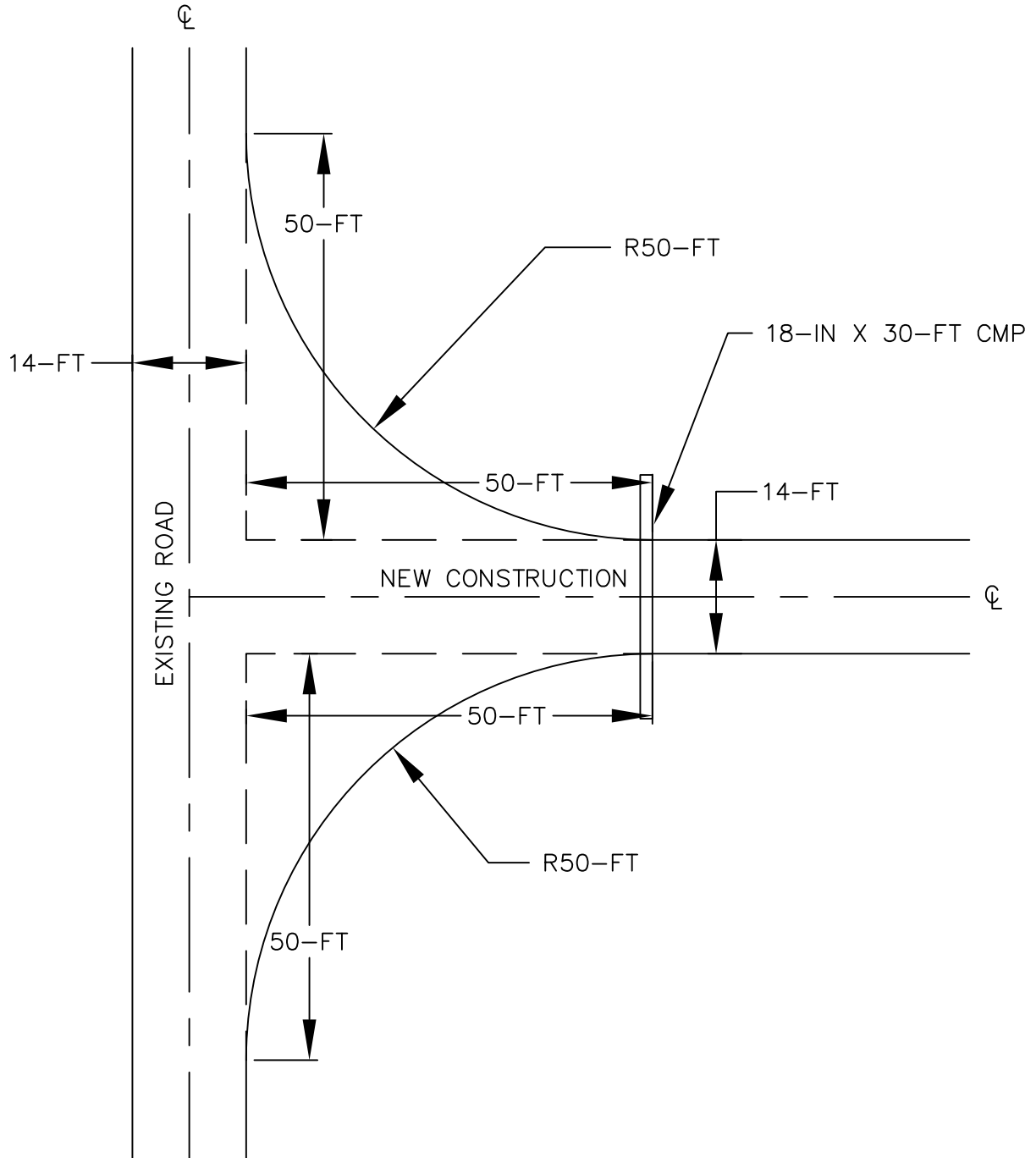


NOTE: 10 yards of heavy loose rip rap or 10 yards of 14" diameter and larger stumps shall be placed in front of and in the spoils berm.



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

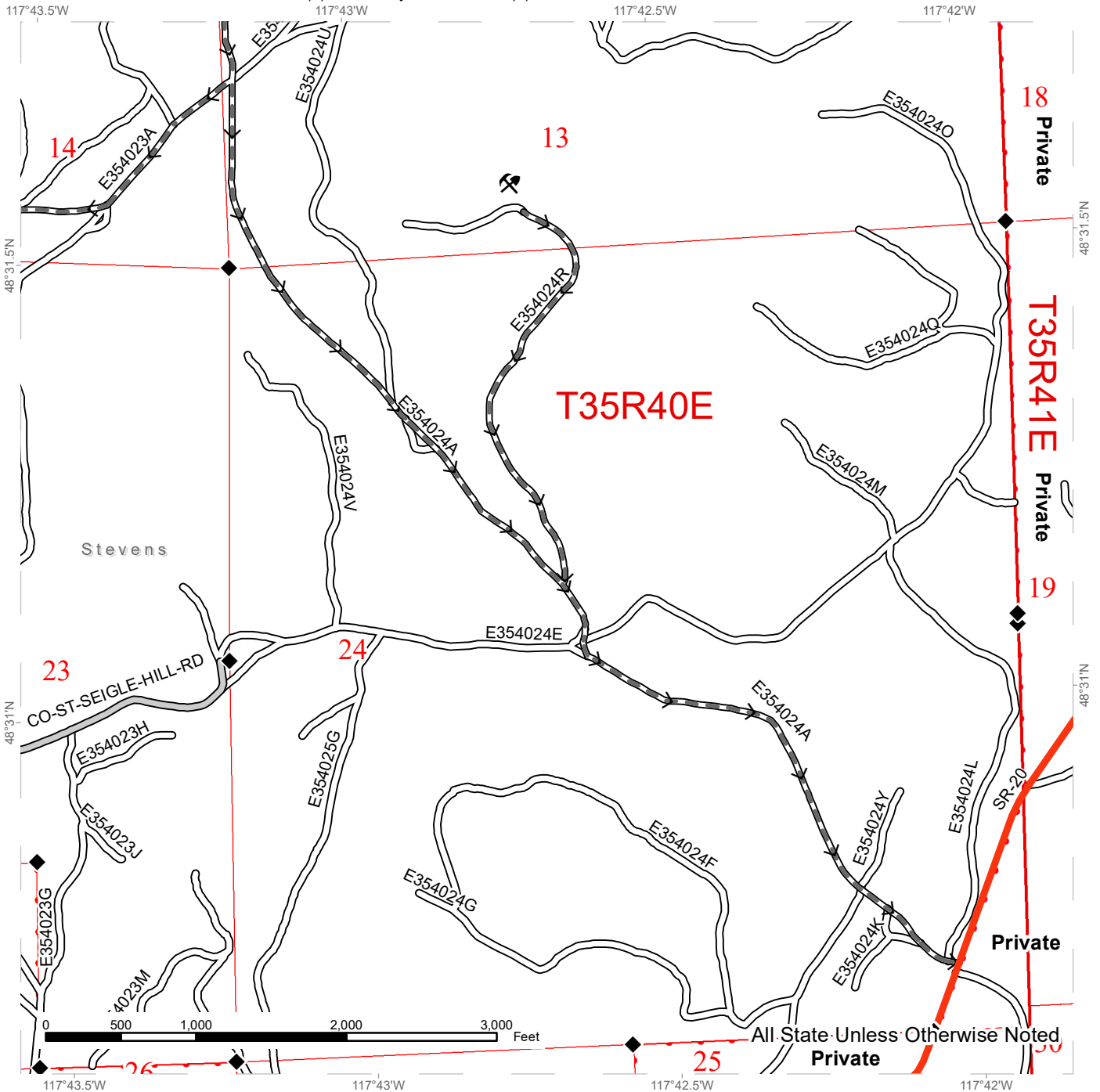
TYPICAL "T" INTERSECTION



TIMBER SALE MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT #: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640



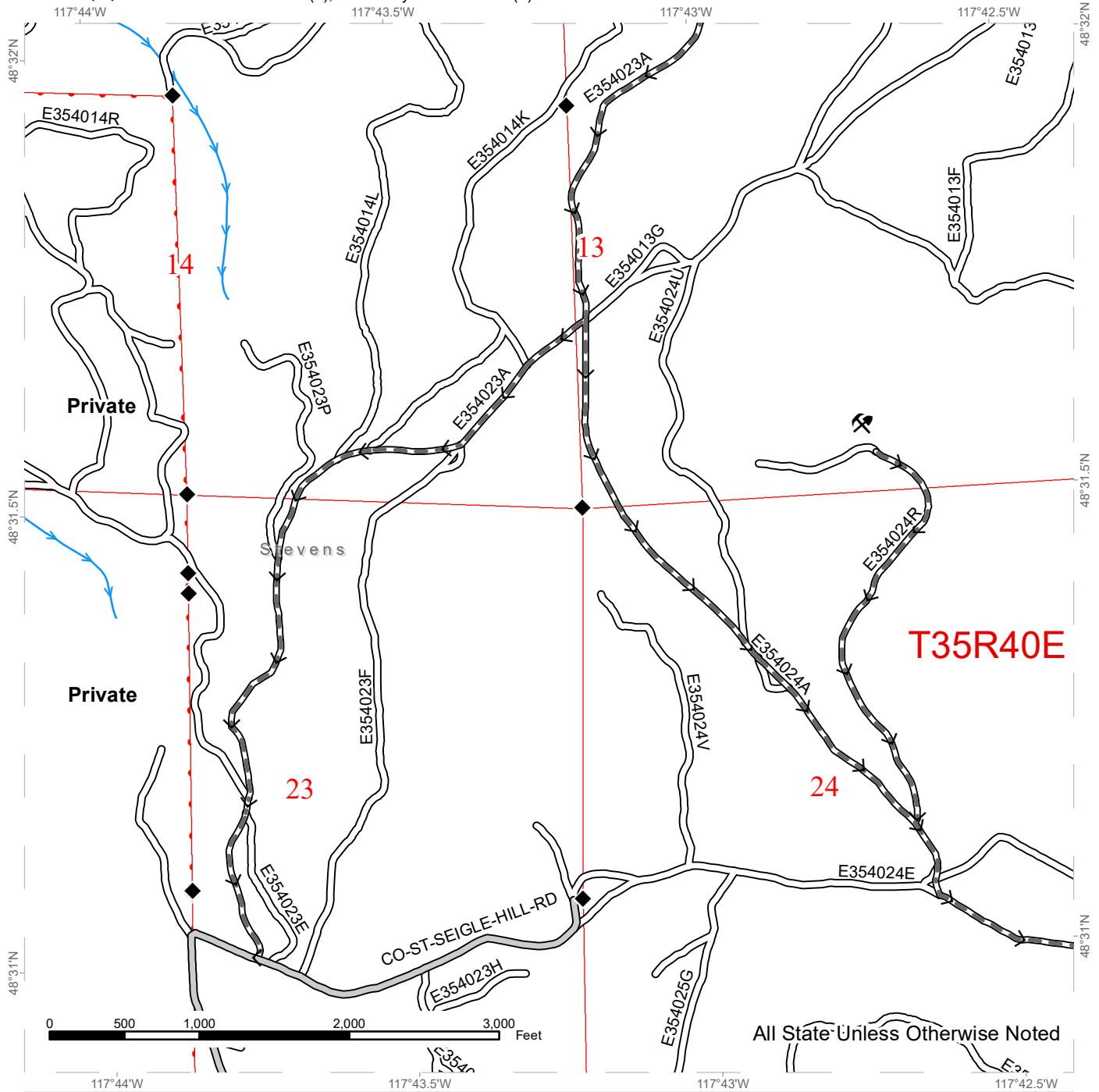
Public Land Survey Townships	Haul Route
DNR Managed Lands	County Road
	Existing Roads
	Required Pre-Haul Maintenance
	Highway
	Survey Monument
	Rock Pit



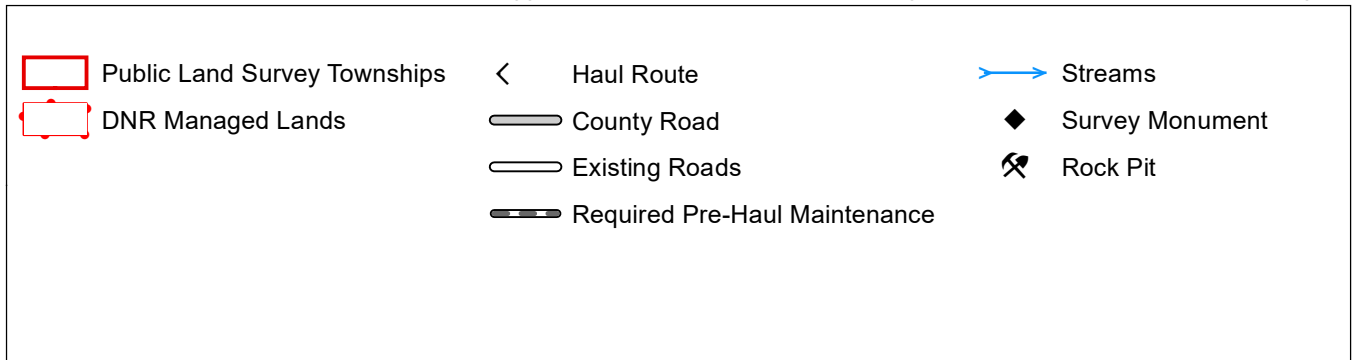
TIMBER SALE MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT #: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640



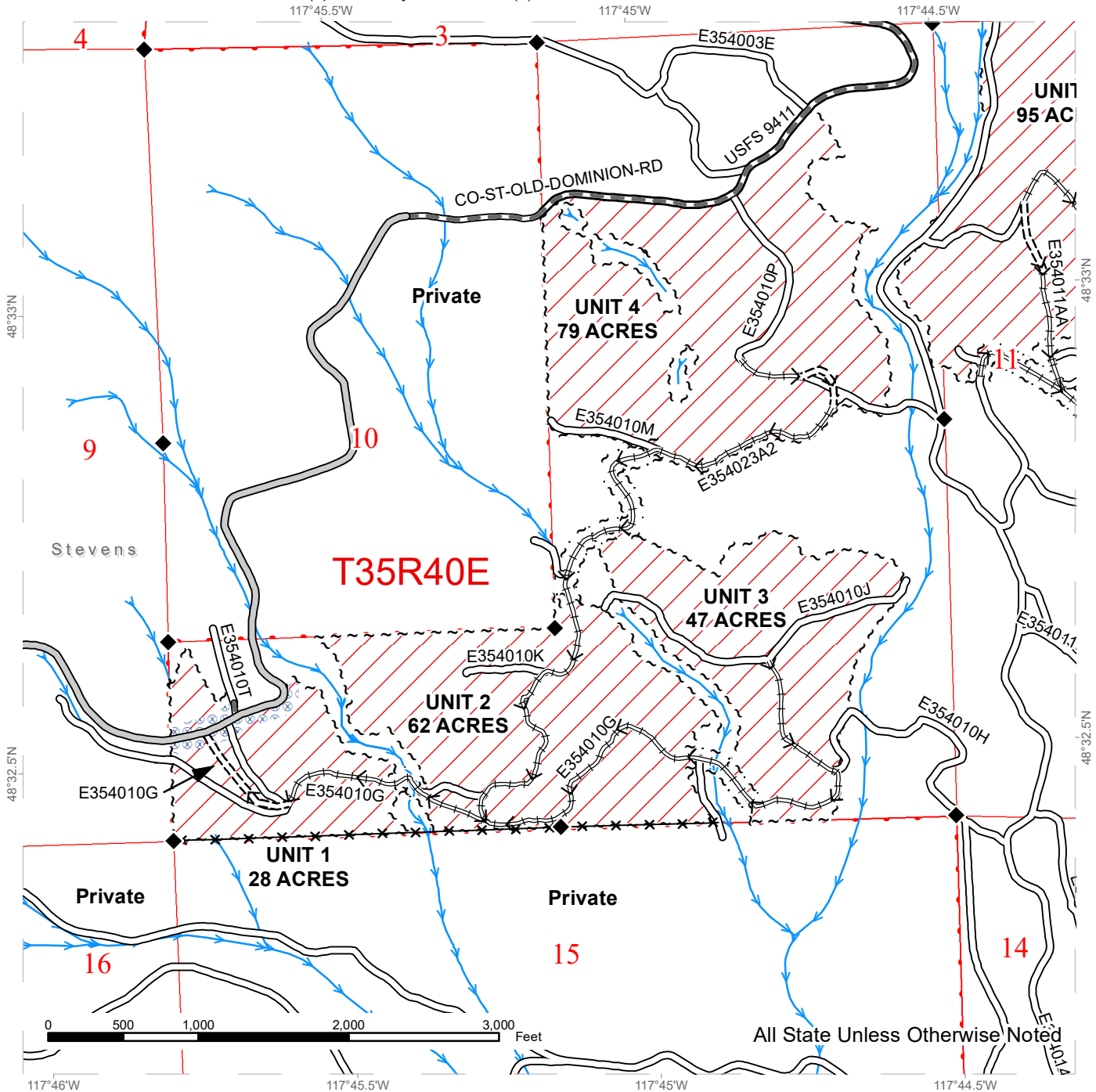
All State Unless Otherwise Noted



TIMBER SALE MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT #: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640



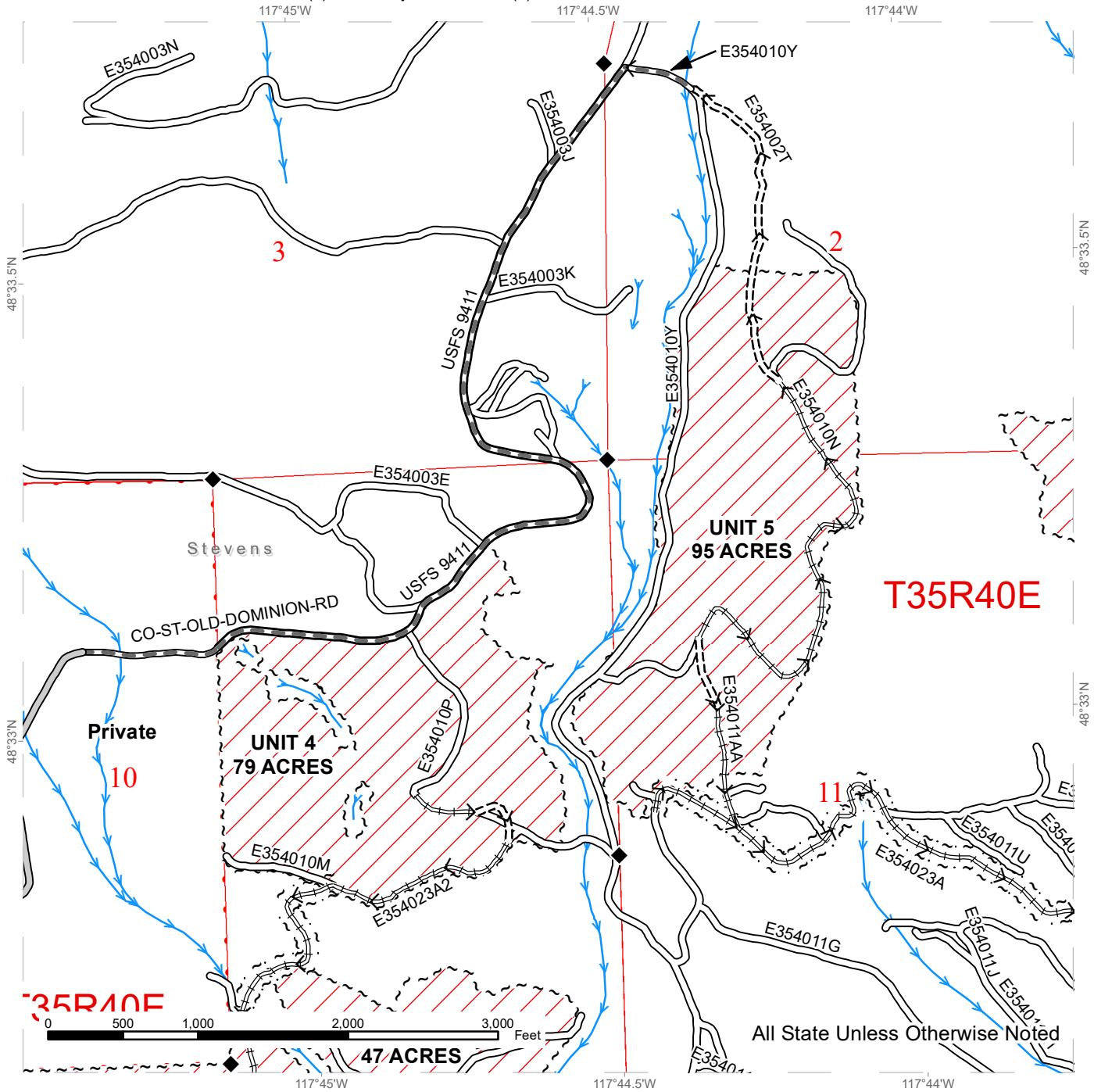
	Public Land Survey Townships		Haul Route		Streams
	DNR Managed Lands				Fence
	Variable Retention Harvest				Survey Monument
	Sale Boundary Tags				
	Right of Way Tags = 16 Acres				
	Hazard Abatement Area				



TIMBER SALE MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT #: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640

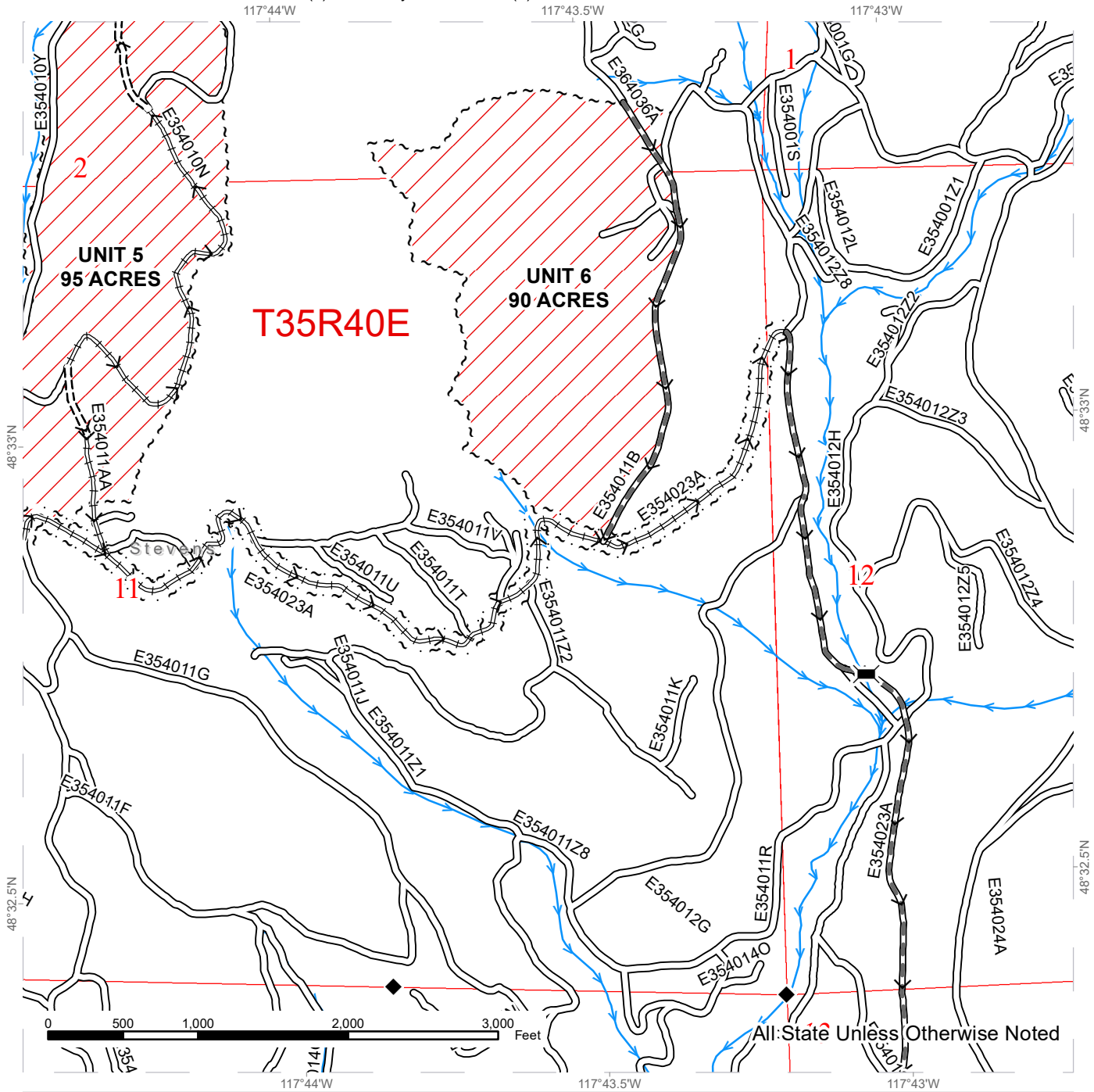


Public Land Survey Townships	Haul Route	Streams
DNR Managed Lands	County Road	Survey Monument
Variable Retention Harvest	Existing Roads	
Sale Boundary Tags	Required Pre-Haul Maintenance	
Right of Way Tags = 16 Acres	Required Construction	
	Required Reconstruction	

TIMBER SALE MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT #: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640



All: State Unless Otherwise Noted

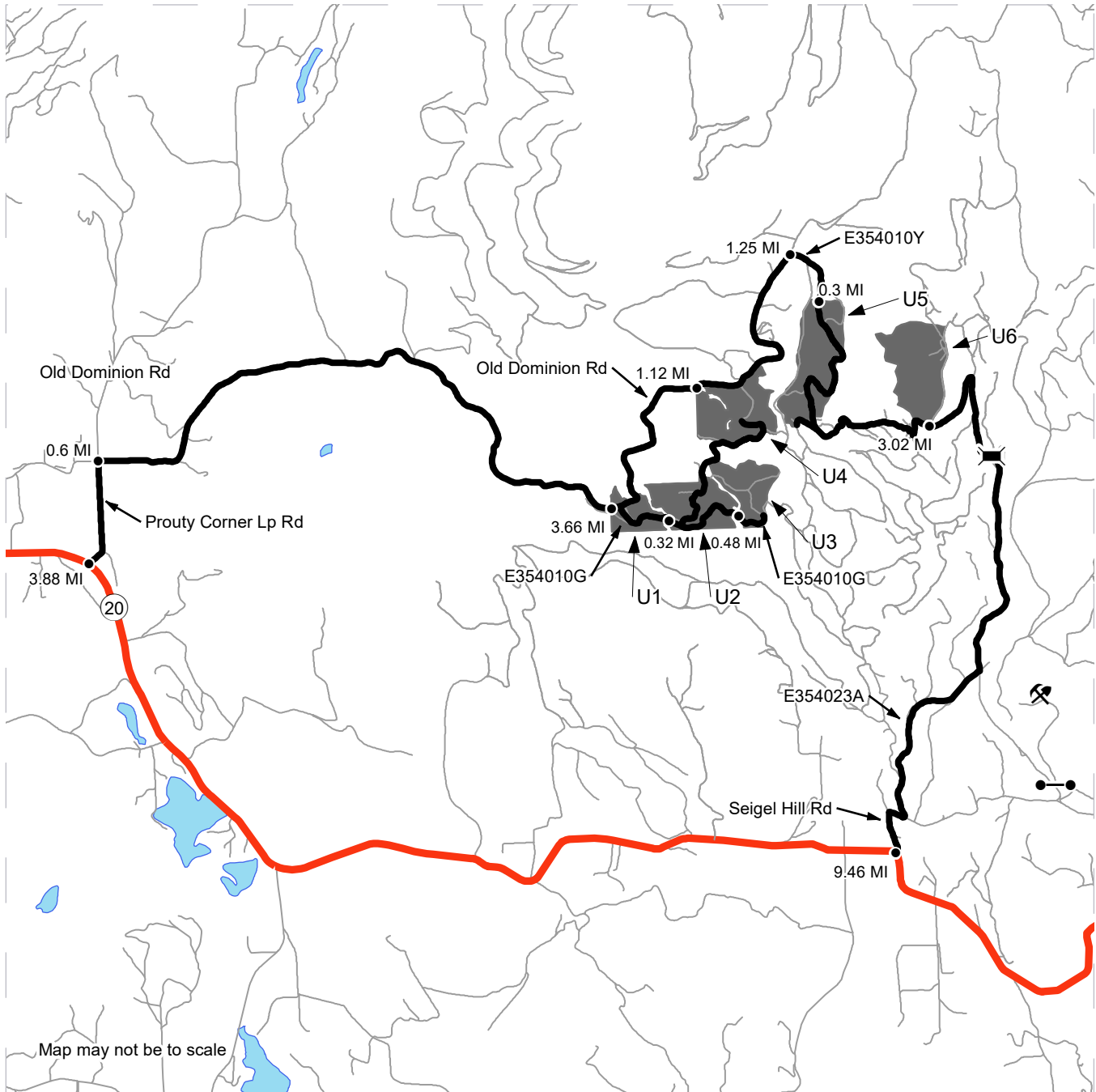
Public Land Survey Townships	Haul Route	Streams
DNR Managed Lands	Existing Roads	Survey Monument
Variable Retention Harvest	Required Pre-Haul Maintenance	Bridge
Sale Boundary Tags	Required Construction	
Right of Way Tags = 16 Acres	Required Reconstruction	



DRIVING MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT#: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640



- Timber Sale Unit
- Haul Route
- Other Route
- Highway
- Bridge
- Distance Indicator
- Gate
- Rock Pit

DRIVING DIRECTIONS:

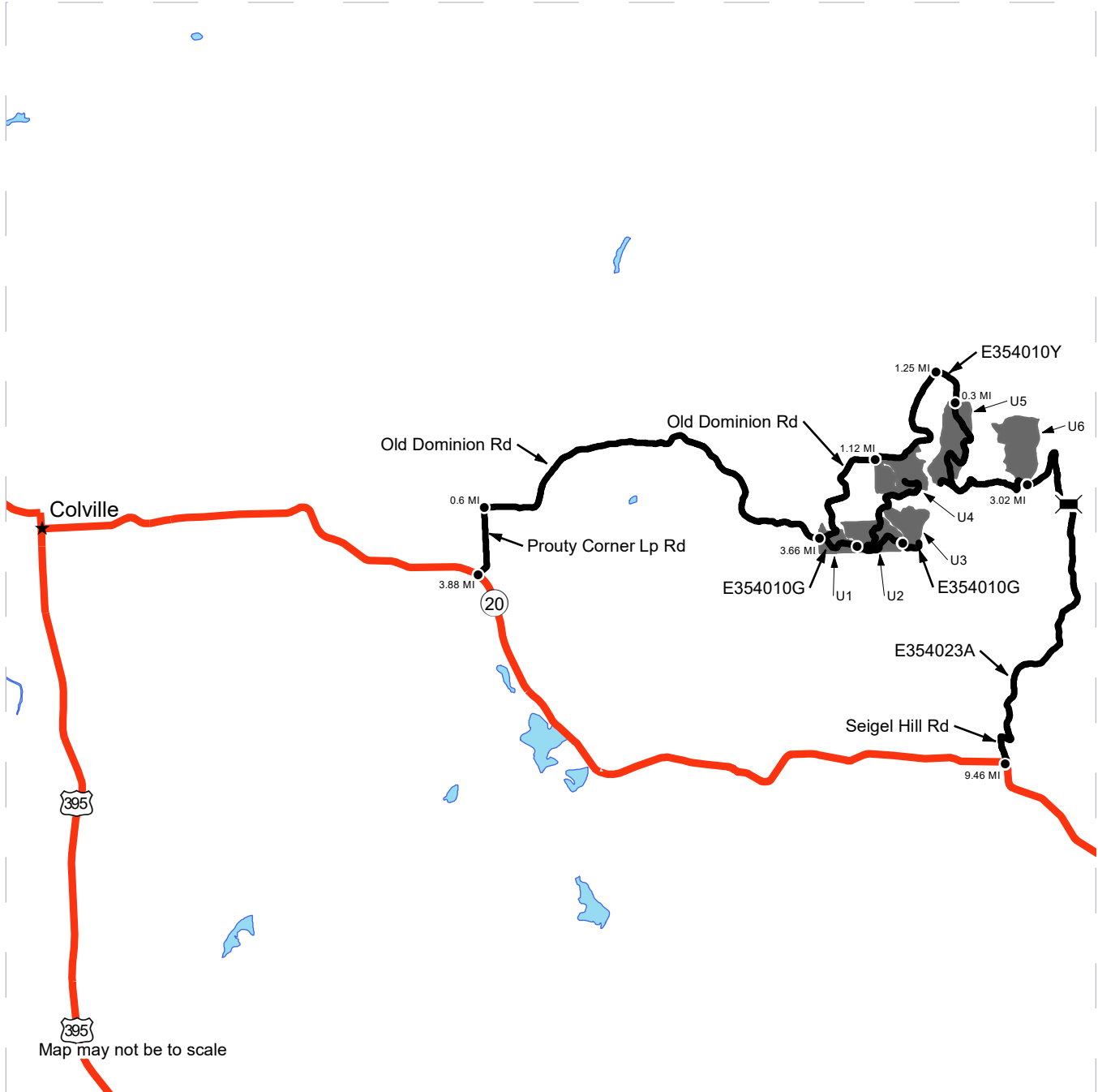
From the junction of Highway 395 and Highway 20 in Colville, proceed east on Highway 20 for 3.88 miles and turn left onto Prouty Corner Loop road, drive for 0.6 miles and turn right onto Old Dominion Rd, proceed for 3.66 miles to reach Unit 1 and another 1.12 miles to Unit 4. From Unit 1 travel for 0.32 miles on the E354010G road to reach Unit 2. From Unit 2 travel east on the E354010G road for 0.48 miles to reach Unit 3. From Unit 4 travel east on Old Dominion/Forest Service road 9411 for 1.25 miles and turn right onto E354010Y, proceed for 0.3 miles to reach Unit 5. From the junction of Highway 395 and Highway 20 in Colville, travel east on Highway 20 for 9.46 miles and turn left onto Seigel Hill road, drive for 0.5 miles and turn right onto E354023A, proceed for 3.02 miles on E354023A to reach unit 6.



DRIVING MAP

SALE NAME: Q NARDOM SORTS
AGREEMENT#: 30-103927
TOWNSHIP(S): T35R40E
TRUST(S): Normal School (8), University - Transferred (5)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2920-3640



- Timber Sale Unit
- Haul Route
- Highway
- Bridge
- Distance Indicator
- Town

DRIVING DIRECTIONS:

From the junction of Highway 395 and Highway 20 in Colville, proceed east on Highway 20 for 3.88 miles and turn left onto Prouty Corner Loop road, drive for 0.6 miles and turn right onto Old Dominion Rd, proceed for 3.66 miles to reach Unit 1 and another 1.12 miles to Unit 4. From Unit 1 travel for 0.32 miles on the E354010G road to reach Unit 2. From Unit 2 travel east on the E354010G road for 0.48 miles to reach Unit 3. From Unit 4 travel east on Old Dominion/Forest Service road 9411 for 1.25 miles and turn right onto E354010Y, proceed for 0.3 miles to reach Unit 5. From the junction of Highway 395 and Highway 20 in Colville, travel east on Highway 20 for 9.46 miles and turn left onto Seigel Hill road, drive for 0.5 miles and turn right onto E354023A, proceed for 3.02 miles on E354023A to reach unit 6.



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

**HARVESTING SERVICES CONTRACT
SEALED BID FORM**

Q NARDOM SORTS
CONTRACT NO. 103927

(Print Company Name)

(Street Address)

(Business Telephone Number)

(City, State and Zip Code)

(email address)

To meet Harvesting obligations, I bid the following On Board Truck (OBT) rate:

[Empty box for OBT rate]

(Bidder must check box for appropriate project payment method. See RFQ section 1.05 and 2.06)

- \$/Ton of timber harvested and delivered.**
 \$/mbf of timber harvested and delivered.

And to meet pole sort Harvesting obligations, I bid the following OBT rate:

N/A

(Bidder must check box for appropriate project payment method. See RFQ section 1.05 and 2.06)

- \$/Ton of poles harvested and delivered.**
 \$/mbf of poles harvested and delivered.

“Does Not Apply” to projects with no pole sorts identified. Refer to RFQ section 2.06.

To meet Hauling obligations, I bid:

[Empty box for Hauling Bid Factor]

Hauling Bid Factor
(format to 3 decimal places ie 0.000)

Hauling Services Payment calculation explained in RFQ section 1.05. Actual “live-load” weights used to determine payment for hauling sorts designated as “tonnage”. Sorts designated as “MBF” will use calculated tonnage based on the DNR’s advertised “tons/mbf conversion factor specific for each sort unless actual tonnage is available and approved for use.

Road costs for this project are biddable. Road Cost Proposal Form must be completed and submitted as part of bid package.

If awarded this contract, I am responsible for independently negotiating, procuring and paying for any and all subcontracted services provided.

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Attached is my completed 'Statement of Available Resources and Work Plan' which I understand will be evaluated by the Department of Natural Resources in conjunction with my bid to determine my ability to complete the project.

BY SUBMISSION OF THIS BID THE BIDDER WARRANTS AND AGREES TO THE FOLLOWING:

1. The bid price has been determined independently, without consultation, communication, or agreement with others for the purpose of restricting competition.
2. The bid is a firm offer for a period of 90 days from the bid submission deadline, and it may be accepted by the State without further negotiation at any time within the 90-day period.
3. In preparing this proposal or bid, the Bidder was not assisted by any current or former employee of the DNR whose duties relate (or did relate) to this prospective contract and who was assisting in other than his or her official, public capacity. Neither does such a person or any member of his or her immediate family have any financial interest in the outcome of this proposal.
4. Acceptance of the Harvesting Services Contract general terms and conditions.
5. Acceptance of the Harvesting Services Contract estimated road payment values as shown fixed by terms in contract clause P-32.1.
6. The Bidder has had an opportunity to fully inspect the sale area and the timber to be harvested.
7. The Bidder enters this bid based solely upon their own judgment of the costs associated with harvesting, hauling, and any additional required work formed after their own examination and inspection of both the timber sale area and the forest products to be harvested.
8. The Bidder enters this bid without any reliance upon the volume estimates, acreage estimates, appraisals, pre-bid documentation, or any other representation by the State Department of Natural Resources.
9. The Bidder, if successful, will furnish the necessary labor, equipment, and services needed to complete the work as specified by the harvesting contract including commencing and completing the operations in the times specified.
10. The Bidder agrees to execute the harvesting contract for the said project and agrees to furnish surety and insurance as required in the specifications.
11. The Bidder assumes the risk of liabilities related to any regulatory actions by any government agency that may affect the operability of these harvesting contracts. Such regulatory actions include, but are not limited to, actions taken

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pursuant to the Forest Practices Act, chapter 76.09 RCW, and the Endangered Species Act, 16 U.S.C. §§ 1531-1544. Please see the Harvesting Services Contract for further information.

- 12. The DNR cannot verify the presence or absence of northern spotted owls, marbled murrelets or any other threatened or endangered species that may affect the operability of the timber sale. The Bidder relies solely on his/her own assessments.
- 13. Acreage estimates and volume estimates contained within the harvesting services contract are made only for administrative and identification purposes. Except as expressly provided by the harvesting contract, the Apparent Successful Contractor shall be responsible to harvest the sale, even if the actual acreage or timber volume varies from the estimated quantity or volume shown.
- 14. The DNR will not reimburse the Bidder for any costs incurred in the preparation of this proposal. All proposals become the property of the DNR and I/we claim no proprietary rights to the ideas or writings contained in them.
- 15. The Bidder will be required to comply with the Department's Nondiscrimination Plan and federal and state laws on which it is based. If requested by the DNR, the Bidder/Harvester will submit additional information about the nondiscrimination and affirmative action policies and plans of their organization in advance of or after the contract award.
- 16. Bidder is required to complete the Responsible Bidder Criteria – Wage Law Compliance form in order to be considered a ‘responsible bidder’ (see RCW 39.26.160(2) and (4)). Pursuant to legislative enactment in 2017, the responsible bidder criteria include a contractor certification that the contractor has not willfully violated Washington's wage laws. See Chap. 258, 2017 Laws (enacting SSBS301).

By signing and submitting this bid the Bidder agrees to all of the preceding requirements. The Bidder further warrants to the State that they enter this bid based upon their own judgments of the value of the harvesting services to be provided through the Harvesting Services Contract, formed after their own examination and inspection of both the timber sale area and the forest products to be harvested.

(Signature of authorized representative submitting this bid)

(Date)

(Print name and title of authorized representative signing bid)

**CONTRACTOR CERTIFICATION
RESPONSIBLE BIDDER CRITERIA – WAGE LAW COMPLIANCE**

WASHINGTON STATE PROCUREMENT OF GOODS & SERVICES CONTRACTS

Prior to awarding a contract, agencies are required to determine that a bidder is a 'responsible bidder.' See [RCW 39.26.160\(2\) and \(4\)](#). Pursuant to legislative enactment in 2017, the responsible bidder criteria include a contractor certification that the contractor has not willfully violated Washington's wage laws. See Chap. 258, 2017 Laws (enacting [SSB5301](#)).

SOLICITATION DATE: Month _____, Day _____, Year _____

I hereby certify, on behalf of the firm identified below, as follows (check one):

NO WAGE VIOLATIONS. This firm has **NOT** been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in [RCW 49.48.082](#), any provision of RCW chapters [49.46](#), [49.48](#), or [49.52](#) within three (3) years prior to the date of the above-referenced procurement solicitation date.

OR

VIOLATIONS OF WAGE LAWS. This firm has been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in [RCW 49.48.082](#), any provision of RCW chapters [49.46](#), [49.48](#), or [49.52](#) within three (3) years prior to the date of the above-referenced procurement solicitation date.

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the certifications herein are true and correct and that I am authorized to make these certifications on behalf of the firm listed herein.

PRINT FULL LEGAL ENTITY NAME OF FIRM SUBMITTING BID

SIGNATURE OF AUTHORIZED PERSON

DATE SIGNED

PRINTED NAME OF PERSON MAKING CERTIFICATION FOR FIRM

TITLE OF PERSON SIGNING CERTIFICATE

PRINT COUNTY AND STATE WHERE SIGNED

Return this contractor certification to the solicitation coordinator listed in the solicitation document.

Exhibit G

Road Cost Proposal

Instructions:

1. Enter Contractor's per station bid rates for each biddable item unless specified differently below.
2. Required items (Proposed Stations = Required) are fixed to the stations listed in the table and the total should reflect the total cost for completing all stations for that item. Multiply the Price per Station bid and the Stations and enter the total cost for each item.
3. Non-required items (Proposed Stations is blank) may be bid for on a proposed quantity of work. Enter the number of stations in the Proposed Stations column for that item the Contractor proposes to complete. Enter the Contractor's per station bid rate for each of these items. Multiply the Price per Station bid and the Stations and enter the total cost for each item.
4. Add all item totals and enter the total in the Total Road Cost Proposal below the table.

Roads	Type	Stations or Quantities	Proposed Stations or Quantities	Price Per Station or Quantities	Total
E354023A	Maintenance	150.64	required		
E354023A	Reconstruction	75.30	required		
E354024A	Maintenance	81.98	required		
E354024R	Maintenance	29.80	required		
E354011B	Maintenance	25.95	required		
E364036A	Maintenance	5.66	required		
E354010G	Construction	8.00	required		
E354010G	Reconstruction	56.07	required		
E354023A2	Reconstruction	49.65	required		
E354010P	Construction	3.92	required		
E354010P	Reconstruction	4.48	required		
E354010T	Maintenance	1.00	required		
E354010Y	Maintenance	5.00	required		
USFS 9411	Maintenance	75.46	required		
E354002T	Construction	22.06	required		
E354010N	Reconstruction	33.95	required		
E354011AA	Construction	4.64	required		
E354011AA	Reconstruction	8.39	required		

Total Road Cost Proposal = \$ _____



TIMBER NOTICE OF SALE

SALE NAME: Q NARDOM SORTS

AGREEMENT NO: 30-104588 - 30-104596

AUCTION: June 13, 2023 starting at 10:00 a.m. Northeast Region Office, Colville, WA

COUNTY: Stevens

SALE LOCATION: Sale located approximately 10 miles east of Colville, WA.

PRODUCTS SOLD AND SALE AREA:

All timber except for leave trees banded with blue paint in Units 1, 2, 3, 4, 5 and 6 bounded by white timber sale boundary tags and all timber bounded by orange right of way boundary tags meeting the specifications described below; on parts of Sections 2, 10, 11, and 12 all in Township 35 North, Range 40 East W.M., containing 417 acres, more or less.

MINIMUM BID AND ESTIMATED LOG VOLUMES:

Table with 10 columns: Agreement #, Sort #, Species and Sort Specifications, Average Log Length, Estimated Volume (Mbf, Tons), Tons Per MBF, Minimum Bid Delivered Prices (\$/mbf, \$/Ton), Total Appraised Value, Bid Deposit. Rows include various timber specifications and their corresponding values.

Totals: 6893 39898 \$3,163,916.00

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

BID METHOD: Sealed Bids UNIT OF MEASURE: Tonnage Scale

EXPIRATION DATE: January 31, 2024 ALLOCATION: Export Restricted

PAYMENT SECURITY: To be determined by the State as described in Clause P-045.2 of the Purchaser’s Contract.

BIDDING PROCEDURES: A separate sealed bid and envelope must be submitted for each log sort. Prospective Purchasers may bid on any or all log sorts. On the day of sale the Purchaser must bring their bid deposit up to 10% of their total bid price. Complete bidding procedures and



TIMBER NOTICE OF SALE

auction information may be obtained from the Northeast Region Office in Colville WA. Phone number (509)684-7474.

TIMBER EXCISE TAX:

Purchaser must pay the forest excise taxes associated with the log sorts delivered to them. The tax rate for this sale is 4.2 %. Taxable Stumpage = Total Delivered Value – (Harvest Cost + Estimated Haul Cost + ARRF). For more information contact the Department of Revenue, Forest Tax Section at 1-800-548-8829.

Use the following rates for estimating taxable stumpage:

Harvest Cost = \$32.00 per Ton for sorts 01, 02, 03, 04, 05, 06, 07 and 08 and \$13.00 per Ton for sort 09.

Hauling Services Payment Rate per Ton
= (Base Rate + Mileage Rate) x (Contractor's hauling bid factor)

Base Rate = \$2.35 per ton

Mileage Rate = (($\$0.16 \times C$ miles) + ($\$0.11 \times A$ miles)) x Fuel Index Factor

ARRF = \$0.00 per MBF for sort 09 and \$26.00 per MBF for sorts 01, 02, 03, 04, 05, 06, 07 and 08.

Note: To calculate ARRF rates per ton use the tons\mbf conversion factor in the table above.

Long-haul surcharge: An additional haul payment of \$25/mbf net scale for mbf scale sorts or \$4.60/ton for tonnage sorts will be added for delivery destinations in excess of 250 total one-way miles (A miles plus C miles).

CONFIRMATION: Each sort is subject to confirmation following auction. Sorts will not be confirmed until at least 10 days after auction. Final contract award is contingent upon the State's haul cost analysis. Actual haul route may vary and is subject to change at the State's discretion.

SPECIAL REMARKS: The successful Purchaser(s) will be required to purchase logs from the sale area upon delivery to their location specified in the bid submitted. Logs will be delivered to the Purchaser's delivery location by the State's contract harvester. Purchaser is responsible for weighing and scaling costs. All tonnage loads will be weighed and all mbf loads will be scaled at State approved locations. The State reserves the right to determine where logs are authorized to be scaled and weighed.

For more information regarding this log sort sale visit our web site: <http://www.dnr.wa.gov/programs-and-services/product-sales-and-leasing/timber-sales/timber-auction-packets>. If you have questions call Braden Britt at the Northeast Region Office at (509)481-8032 or Steve Teitzel at the Product Sales and Leasing Division Office in Olympia at (360)902-1741.

Timber Sale Cruise Report Nardom Sorts

Sale Name: Q NARDOM SORTS

Sale Type: SORT

Region: NORTHEAST

District: NO COLUMBIA

Lead Cruiser: Jake Culp

Other Cruisers:Kevin Parkinson

Cruise Narrative:

Location:

Legal - Sections 2, 10, 11, and 12 of T35N R40E.

General - Approx. 7 miles E. of Colville, WA in Stevens County

Access - Units 1 through 5 are accessed from Old Dominion Rd. via Prouty Loop Rd. Unit 6 is best accessed from Seigel Hill Rd. via Hwy. 20.

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. RW5 was cruised using the ITS (Individual Tree Sampling) method.

-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 and RC, 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 blue paint, including dead standing and down Douglas fir and western larch.

Leave all hardwoods. Leave all trees within tagged "Leave Tree Areas".

Cruise Acres determination:

FMA unit acreages with existing road and RMZ acreages removed.

Stand composition:

The stands are comprised of second growth, even aged Douglas fir, grand fir, western red cedar, lodgepole pine, and western larch with minor components of ponderosa pine, western hemlock, and Engelmann spruce. Large residual trees and legacy trees are found within the sale area.

Timber quality:

Timber to be harvested is comprised of domestic quality Douglas fir (47%), grand fir (18%), western red cedar (12%), lodgepole pine (12%), western larch (7%), ponderosa pine (2%), western hemlock (1%), and Engelmann spruce (<1%). The majority of the sale volume will come from 2 and 3 Saw Douglas fir. Pole quality western red cedar can be found in Units 3 and 4. In addition, pole quality western red cedar was also seen in Units 5 and 6 even though no poles fell on plots in these Units.

Stand health/defect:

Defect in this sale is generally low, averaging about 3%, with the majority coming from sweep, crooks, and forks. Many of the larger RC are hollow in the lower portions of the butt segment. Root rot can be found throughout the sale area, generally in small pockets, however some are up to a couple acres in size. Dwarf mistletoe can also be found in small amounts throughout the sale, affecting the DF and WL. Unit 6 contains many dead/dying grand fir, estimated to be around 15-20% by quick visual inspection. The cause of mortality

is suspected to be fir engraver.

Aspect:

South, Southwest, Southeast.

Elevation:

3000'-3600'

Harvesting methods:

100% ground based.

Slope:

Unit 1- Max 30%, Avg. 11%

Unit 2- Max 27%, Avg. 8%

Unit 3- Max 14%, Avg. 4%

Unit 4- Max 25%, Avg. 9%

Unit 5- Max 25%, Avg. 10%

Unit 6- Max 15%, Avg. 5%

Other considerations/remarks:

None

Trust:

This sale is 88% in Trust #8 and 12% in Trust #5.

Unit 1: Trust 8- 284.8 MBF

Unit 2: Trust 8- 1008.8 MBF

Unit 3: Trust 8- 959.7 MBF

Unit 4: Trust 8- 1296.5 MBF

Unit 5: Trust 8- 1192.6 MBF, Trust 5- 614.4 MBF

Unit 6: Trust 8- 1089.3 MBF, Trust 5- 289.5 MBF

RW1: Trust 8- 4.5 MBF

RW2: Trust 8- 40.7 MBF

RW3: Trust 8- 6.9 MBF

RW4: Trust 5- 45.7 MBF

RW5: Trust 8- 56.8 MBF

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	14.1			3,236	1,065	1,668	373		131
GF	12.2			1,247	408	606	152		81
LP	11.2			824	12	553	182		78
RC	14.5			807		685	122		
WL	13.6			502	26	398	70		9
PP	15.3			166			48	118	0
WH	14.3			89	15	66	8		
ES	12.6			20	6	11	2		0
ALL	13.0			6,890	1,531	3,987	956	118	299

Timber Sale Notice Weight (tons)

Sp	Tons by Grade					
	All	2 Saw	3 Saw	4 Saw	5 Saw	Utility
DF	20,978	6,222	11,009	2,649		1,098
GF	7,901	2,292	3,933	1,054		622
RC	4,851		3,960	891		
LP	4,543	56	3,046	1,007		434
WL	3,085	143	2,484	385		73
PP	906			228	677	1
WH	573	83	439	50		
ES	107	33	58	14		2
ALL	42,944	8,829	24,929	6,279	677	2,230

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 (%)
130.2	3.1	137.4	1.8	18,013	3.6

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
Q NARDOM SORTS U1	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	28.4	29.3	22	8	1
Q NARDOM SORTS U2	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	62.1	63.2	36	11	2
Q NARDOM SORTS U3	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	46.5	47.4	29	8	0
Q NARDOM SORTS U4	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	79.2	79.9	63	17	3
Q NARDOM SORTS U5	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	94.9	96.8	67	18	0
Q NARDOM SORTS U6	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	90.1	90.8	59	15	0
Q NARDOM SORTS RW1	B1: VR, 1 BAF (33.61) Measure All, Sighting Ht = 4.5 ft	0.2	0.2	1	1	0
Q NARDOM SORTS RW2	B1: VR, 1 BAF (20) Measure All, Sighting Ht = 4.5 ft	2.2	2.2	4	4	0
Q NARDOM SORTS RW3	B1: VR, 1 BAF (33.61) Measure All, Sighting Ht = 4.5 ft	0.5	0.5	2	2	0
Q NARDOM SORTS RW4	B1: VR, 1 BAF (33.61) Measure All, Sighting Ht = 4.5 ft	2.9	2.9	5	5	0

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
Q NARDOM SORTS RW5	ST: Strip/Percent Sample (1 tree expansion)	9.8	9.8	1	1	0
All		416.8	422.9	289	90	6

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	13.2	32	2,611	2,554	2.2	6,222.1	1,064.7
DF	LIVE	3 SAW	Domestic	7.9	32	4,117	4,003	2.8	11,008.7	1,668.3
DF	LIVE	4 SAW	Domestic	5.3	22	912	894	2.0	2,649.2	372.5
DF	LIVE	UTILITY	Pulp	3.2	16	313	313	0.0	1,098.2	130.6
ES	LIVE	2 SAW	Domestic	13.1	32	15	15	0.0	32.6	6.4
ES	LIVE	3 SAW	Domestic	7.1	32	26	26	0.0	58.2	10.9
ES	LIVE	4 SAW	Domestic	5.3	14	6	6	0.0	13.9	2.3
ES	LIVE	UTILITY	Pulp	3.1	13	1	1	0.0	2.3	0.4
GF	LIVE	2 SAW	Domestic	13.0	32	1,001	978	2.3	2,291.7	407.7
GF	LIVE	3 SAW	Domestic	7.7	32	1,550	1,454	6.2	3,933.0	606.1
GF	LIVE	4 SAW	Domestic	5.2	21	371	364	2.0	1,054.1	151.7
GF	LIVE	UTILITY	Pulp	3.1	19	195	195	0.0	621.6	81.1
LP	LIVE	2 SAW	Domestic	12.2	32	28	28	0.0	56.2	11.6
LP	LIVE	3 SAW	Domestic	7.8	32	1,382	1,325	4.1	3,045.5	552.5
LP	LIVE	4 SAW	Domestic	5.1	25	450	436	3.0	1,007.3	181.8
LP	LIVE	UTILITY	Pulp	3.3	19	187	187	0.0	434.1	77.8
PP	LIVE	4 SAW	Domestic	13.6	32	114	114	0.0	228.3	47.6
PP	LIVE	5 SAW	Domestic	6.9	26	291	284	2.4	677.5	118.2
PP	LIVE	UTILITY	Pulp	6.1	12	0	0	0.0	0.5	0.1
RC	LIVE	3 SAW	Domestic	9.6	32	1,737	1,644	5.4	3,959.8	685.1
RC	LIVE	4 SAW	Domestic	6.2	19	300	294	2.3	891.3	122.3
RC	LIVE	CULL	Cull	6.9	32	65	0	100.0	0.0	0.0
WH	LIVE	2 SAW	Domestic	11.8	32	35	35	0.0	83.1	14.7
WH	LIVE	3 SAW	Domestic	8.4	32	159	159	0.0	439.4	66.2
WH	LIVE	4 SAW	Domestic	5.1	21	18	18	0.0	50.2	7.5
WL	LIVE	2 SAW	Domestic	12.1	32	61	61	0.0	143.2	25.5
WL	LIVE	3 SAW	Domestic	8.0	32	965	956	1.0	2,484.4	398.3
WL	LIVE	4 SAW	Domestic	5.2	20	168	168	0.0	384.7	70.0
WL	LIVE	UTILITY	Pulp	3.1	15	21	21	0.0	73.1	8.6

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	< 5	LIVE	Pulp	3.1	17	265	0.0	964.4	110.6
DF	5 - 6	LIVE	Domestic	5.4	24	1,478	1.8	4,274.9	616.1
DF	7 - 10	LIVE	Domestic	8.2	32	2,727	3.1	7,521.4	1,136.5
DF	11+	LIVE	Domestic	12.6	32	3,246	2.3	8,083.7	1,352.9
DF	11+	LIVE	Pulp	13.0	32	48	0.0	133.8	20.0
ES	< 5	LIVE	Pulp	3.1	13	1	0.0	2.3	0.4
ES	5 - 6	LIVE	Domestic	5.7	23	19	0.0	44.0	8.0
ES	7 - 10	LIVE	Domestic	9.4	32	12	0.0	28.1	5.2
ES	11+	LIVE	Domestic	13.1	32	15	0.0	32.6	6.4
GF	< 5	LIVE	Pulp	3.1	19	195	0.0	621.6	81.1
GF	5 - 6	LIVE	Domestic	5.3	24	593	3.8	1,710.0	247.1
GF	7 - 10	LIVE	Domestic	7.9	31	970	7.6	2,696.7	404.4
GF	11+	LIVE	Domestic	12.4	32	1,233	1.8	2,872.2	514.1
LP	< 5	LIVE	Pulp	3.1	18	130	0.0	308.6	54.1
LP	5 - 6	LIVE	Domestic	5.4	26	695	2.3	1,651.5	289.7
LP	5 - 6	LIVE	Pulp	6.3	32	57	0.0	125.5	23.8
LP	7 - 10	LIVE	Domestic	8.4	32	957	5.3	2,175.1	398.9
LP	11+	LIVE	Domestic	11.3	32	137	0.0	282.3	57.2
PP	6 - 10	LIVE	Pulp	6.1	12	0	0.0	0.5	0.1
PP	6 - 10	LIVE	Domestic	6.9	27	256	2.7	625.3	106.8
PP	11+	LIVE	Domestic	13.0	32	142	0.0	280.5	59.0
RC	5+	LIVE	Cull	6.9	32	0	100.0	0.0	0.0
RC	5+	LIVE	Domestic	7.9	26	1,937	4.9	4,851.1	807.4
WH	5 - 6	LIVE	Domestic	5.1	20	18	0.0	50.2	7.5
WH	7 - 10	LIVE	Domestic	8.4	32	159	0.0	439.4	66.2
WH	11+	LIVE	Domestic	11.8	32	35	0.0	83.1	14.7
WL	< 5	LIVE	Pulp	3.1	15	21	0.0	73.1	8.6
WL	5 - 6	LIVE	Domestic	5.5	23	273	0.0	641.6	113.6
WL	7 - 10	LIVE	Domestic	8.3	32	625	1.5	1,668.4	260.5
WL	11+	LIVE	Domestic	12.0	32	287	0.0	702.3	119.6

Cruise Unit Report Q NARDOM SORTS U1

Unit Sale Notice Volume (MBF): Q NARDOM SORTS U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	14.0			181	58	92	29		3
PP	12.8			51			10	41	
WL	12.4			22		16	6		
GF	14.5			21		15	5		
RC	34.2			11		11			
ALL	13.7			285	58	134	50	41	3

Unit Cruise Design: Q NARDOM SORTS U1

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	28.4	29.3	22	8	1

Unit Cruise Summary: Q NARDOM SORTS U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	13	32	1.5	0
PP	5	22	1.0	0
WL	3	5	0.2	0
GF	1	3	0.1	0
RC	1	1	0.0	0
ALL	23	63	2.9	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	48.9	101.1	21.6	130.3	30.8	8.5	6,369	105.7	23.2
PP	33.6	115.5	24.6	97.7	44.6	19.9	3,282	123.8	31.7
WL	7.6	232.5	49.6	125.2	13.2	7.6	956	232.9	50.2
GF	4.6	257.6	54.9	158.7	0.0	0.0	727	257.6	54.9
RC	1.5	469.0	100.0	247.3	0.0	0.0	378	469.0	100.0
ALL	96.2	49.7	10.6	121.7	38.1	7.9	11,712	62.6	13.2

Unit Summary: Q NARDOM SORTS U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	13	ALL	14.0	61	76	6,703	6,369	5.0	45.7	48.9	13.1	180.9
GF	LIVE	CUT	1	ALL	14.5	69	87	727	727	0.0	4.0	4.6	1.2	20.7
PP	LIVE	CUT	5	ALL	12.8	57	75	1,790	1,790	0.0	20.5	18.3	5.1	50.8
RC	LIVE	CUT	1	ALL	34.2	85	109	383	378	1.4	0.2	1.5	0.3	10.7
WL	LIVE	CUT	3	ALL	12.4	63	78	765	765	0.0	7.3	6.1	1.7	21.7
ALL	LIVE	CUT	23	ALL	13.7	61	76	10,369	10,029	3.3	77.7	79.4	21.4	284.8
ALL	ALL	ALL	23	ALL	13.7	61	76	10,369	10,029	3.3	77.7	79.4	21.4	284.8

Cruise Unit Report Q NARDOM SORTS U2

Unit Sale Notice Volume (MBF): Q NARDOM SORTS U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	13.3			636	201	350	36		49
GF	12.4			135	53	49	28		5
PP	16.1			95			28	66	
RC	17.8			87		81	6		
WL	15.2			35		34			1
LP	10.6			23		18	2		3
ALL	13.5			1,009	254	531	100	66	57

Unit Cruise Design: Q NARDOM SORTS U2

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	62.1	63.1	36	11	2

Unit Cruise Summary: Q NARDOM SORTS U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	23	84	2.3	0
GF	7	14	0.4	0
PP	3	17	0.5	0
RC	5	12	0.3	0
WL	1	4	0.1	0
LP	2	3	0.1	0
ALL	41	134	3.7	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS 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	78.4	88.7	14.8	142.4	26.7	5.6	11,166	92.7	15.8
GF	13.1	232.3	38.7	179.1	22.0	8.3	2,341	233.3	39.6
PP	15.9	217.6	36.3	116.4	35.0	20.2	1,848	220.4	41.5
RC	11.2	268.3	44.7	149.2	45.8	20.5	1,672	272.2	49.2
WL	3.7	600.0	100.0	149.2	0.0	0.0	557	600.0	100.0

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 (%)
LP	2.8	336.4	56.1	130.6	10.1	7.1	366	336.5	56.5
ALL	125.1	56.6	9.4	143.5	29.5	4.6	17,949	63.8	10.5

Unit Summary: Q NARDOM SORTS U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	23	ALL	13.3	59	73	10,273	10,235	0.4	74.5	71.9	19.7	635.6
GF	LIVE	CUT	7	ALL	12.4	65	82	2,219	2,174	2.0	14.5	12.1	3.4	135.0
LP	LIVE	CUT	2	ALL	10.6	59	73	366	366	0.0	4.6	2.8	0.9	22.7
PP	LIVE	CUT	3	ALL	16.1	68	90	1,557	1,522	2.2	9.2	13.1	3.3	94.5
RC	LIVE	CUT	5	ALL	17.8	61	76	1,552	1,393	10.2	5.4	9.3	2.2	86.5
WL	LIVE	CUT	1	ALL	15.2	75	94	557	557	0.0	3.0	3.7	1.0	34.6
ALL	LIVE	CUT	41	ALL	13.6	61	76	16,524	16,247	1.7	111.2	113.0	30.4	1,008.9
ALL	ALL	ALL	41	ALL	13.6	61	76	16,524	16,247	1.7	111.2	113.0	30.4	1,008.9

Cruise Unit Report Q NARDOM SORTS U3

Unit Sale Notice Volume (MBF): Q NARDOM SORTS U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	14.6			582	249	281	36		16
WL	13.6			168		136	32		
LP	13.8			103	12	75	16		1
RC	17.5			90		90			
PP	20.4			9			6	4	
GF	8.8			7			5		2
ALL	14.1			960	261	581	95	4	19

Unit Cruise Design: Q NARDOM SORTS U3

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	46.5	47.4	29	8	0

Unit Cruise Summary: Q NARDOM SORTS U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	19	73	2.5	0
WL	2	20	0.7	0
LP	7	12	0.4	0
RC	1	10	0.3	0
PP	1	3	0.1	0
GF	1	3	0.1	0
ALL	31	121	4.2	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS 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	84.6	70.9	13.2	163.7	24.8	5.7	13,851	75.1	14.3
WL	23.2	178.0	33.1	155.8	22.4	15.8	3,611	179.4	36.7
LP	13.9	199.3	37.0	159.5	19.8	7.5	2,218	200.2	37.7
RC	11.6	312.7	58.1	167.0	0.0	0.0	1,936	312.7	58.1
PP	3.5	299.6	55.6	174.5	0.0	0.0	607	299.6	55.6

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 (%)
GF	3.5	299.6	55.6	63.9	0.0	0.0	222	299.6	55.6
ALL	140.2	37.4	6.9	160.1	24.6	4.4	22,446	44.8	8.2

Unit Summary: Q NARDOM SORTS U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	19	ALL	14.6	68	85	12,633	12,523	0.9	65.8	76.5	20.0	582.3
GF	LIVE	CUT	1	ALL	8.8	42	51	148	148	0.0	5.5	2.3	0.8	6.9
LP	LIVE	CUT	7	ALL	13.8	68	85	2,269	2,218	2.2	13.4	13.9	3.7	103.2
PP	LIVE	CUT	1	ALL	20.4	92	124	207	202	2.5	0.5	1.2	0.3	9.4
RC	LIVE	CUT	0	ALL				1,549	1,549	0.0		9.3		72.0
RC	LIVE	POLE	1	ALL	17.5	78	99	387	387	0.0	1.4	2.3	0.6	18.0
WL	LIVE	CUT	2	ALL	13.6	77	98	3,611	3,611	0.0	23.0	23.2	6.3	167.9
ALL	LIVE	POLE	1	ALL	17.5	78	99	387	387	0.0	1.4	2.3	0.6	18.0
ALL	LIVE	CUT	30	ALL	14.1	69	86	20,418	20,252	0.8	108.2	126.3	31.1	941.7
ALL	ALL	ALL	31	ALL	14.1	69	86	20,805	20,639	0.8	109.6	128.6	31.6	959.7

Cruise Unit Report Q NARDOM SORTS U4

Unit Sale Notice Volume (MBF): Q NARDOM SORTS U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	15.0			689	277	322	76	15
RC	12.8			260		200	60	
GF	11.6			252	72	109	60	12
WH	14.1			58		54	4	
LP	11.4			21		15	5	
WL	12.7			17		11	5	1
ALL	13.7			1,297	349	711	210	27

Unit Cruise Design: Q NARDOM SORTS U4

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	79.2	79.9	63	17	3

Unit Cruise Summary: Q NARDOM SORTS U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP		5	0.1	0
DF	34	118	1.9	0
RC	9	69	1.1	0
GF	9	41	0.7	0
WH	1	7	0.1	0
WL	2	8	0.1	0
LP	1	3	0.0	0
ALL	56	251	4.0	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS 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 (%)
PP	2.7	343.3	43.3						
DF	63.0	110.8	14.0	145.5	29.6	5.1	9,160	114.7	14.9
RC	36.8	173.3	21.8	91.7	52.9	17.6	3,377	181.2	28.1
GF	21.9	174.9	22.0	149.3	36.7	12.2	3,266	178.7	25.2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WH	3.7	793.7	100.0	197.4	0.0	0.0	737	793.7	100.0
WL	4.3	360.4	45.4	98.9	26.5	18.7	422	361.4	49.1
LP	1.6	587.8	74.1	163.7	0.0	0.0	262	587.8	74.1
ALL	133.9	64.8	8.2	131.2	37.7	5.0	17,574	74.9	9.6

Unit Summary: Q NARDOM SORTS U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	34	ALL	15.2	64	80	9,053	8,694	4.0	47.4	59.8	15.3	688.6
GF	LIVE	CUT	9	ALL	11.6	57	71	3,244	3,186	1.8	29.1	21.3	6.3	252.4
LP	LIVE	CUT	1	ALL	11.4	67	84	262	262	0.0	2.3	1.6	0.5	20.7
RC	LIVE	CUT	9	ALL	12.8	61	76	3,446	2,985	13.4	36.4	32.5	9.1	236.4
RC	LIVE	POLE	0	ALL				339	294	13.4		3.2		23.3
WH	LIVE	CUT	1	ALL	14.1	84	106	737	737	0.0	3.4	3.7	1.0	58.4
WL	LIVE	CUT	2	ALL	12.7	65	82	245	211	13.9	2.4	2.1	0.6	16.7
ALL	LIVE	POLE	0	ALL				339	294	13.4		3.2		23.3
ALL	LIVE	CUT	56	ALL	13.5	62	78	16,987	16,076	5.4	121.0	121.1	32.8	1,273.2
ALL	ALL	ALL	56	ALL	13.5	62	78	17,326	16,370	5.5	121.0	124.3	32.8	1,296.5

Cruise Unit Report Q NARDOM SORTS U5

Unit Sale Notice Volume (MBF): Q NARDOM SORTS U5

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	15.6			697	265	339	76	17
LP	11.6			353		260	75	18
GF	11.7			262	44	174	14	30
RC	14.2			243		220	24	
WL	13.0			228	13	183	25	6
ES	12.3			17	6	9	2	0
WH	11.9			7		5	2	
ALL	13.2			1,807	328	1,190	217	72

Unit Cruise Design: Q NARDOM SORTS 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	94.9	96.8	67	18	0

Unit Cruise Summary: Q NARDOM SORTS U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
PP		3	0.0	0
DF	23	104	1.6	0
LP	15	48	0.7	0
GF	8	41	0.6	0
WL	11	37	0.6	0
RC	9	44	0.7	0
ES	2	2	0.0	0
WH	1	1	0.0	0
ALL	69	280	4.2	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS 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 (%)
PP	1.5	465.4	56.9						
DF	52.2	134.2	16.4	157.5	29.2	6.1	8,217	137.4	17.5

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 (%)
LP	24.1	145.4	17.8	154.4	22.0	5.7	3,719	147.1	18.7
GF	20.6	153.1	18.7	148.5	28.7	10.1	3,054	155.7	21.3
WL	18.6	167.6	20.5	145.0	21.9	6.6	2,691	169.1	21.5
RC	22.1	186.6	22.8	116.1	37.6	12.5	2,563	190.3	26.0
ES	1.0	574.4	70.2	179.3	17.5	12.4	180	574.7	71.3
WH	0.5	818.5	100.0	152.8	0.0	0.0	77	818.5	100.0
ALL	140.5	48.9	6.0	147.5	27.9	3.4	20,722	56.3	6.9

Unit Summary: Q NARDOM SORTS U5

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	7,607	7,348	3.4	34.7	46.7	11.8	697.3
ES	LIVE	CUT	2	ALL	12.3	67	84	180	180	0.0	1.2	1.0	0.3	17.1
GF	LIVE	CUT	8	ALL	11.7	62	78	2,881	2,756	4.3	24.9	18.6	5.4	261.6
LP	LIVE	CUT	15	ALL	11.6	66	83	3,783	3,719	1.7	32.8	24.1	7.1	352.9
RC	LIVE	CUT	9	ALL	14.2	60	75	2,727	2,563	6.0	20.1	22.1	5.9	243.2
WH	LIVE	CUT	1	ALL	11.9	67	83	77	77	0.0	0.6	0.5	0.1	7.3
WL	LIVE	CUT	11	ALL	13.0	72	91	2,412	2,400	0.5	18.0	16.6	4.6	227.7
ALL	LIVE	CUT	69	ALL	13.4	67	84	19,667	19,042	3.2	132.3	129.4	35.2	1,807.0
ALL	ALL	ALL	69	ALL	13.4	67	84	19,667	19,042	3.2	132.3	129.4	35.2	1,807.0

Cruise Unit Report Q NARDOM SORTS U6

Unit Sale Notice Volume (MBF): Q NARDOM SORTS U6

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
GF	12.5			559	237	251	38		33
DF	10.5			391		251	111		29
LP	9.9			317		180	82		56
RC	11.5			76		48	29		
WH	15.7			23	15	7	2		
WL	16.2			8		7			0
PP	9.3			5				5	
ALL	10.9			1,379	252	744	261	5	118

Unit Cruise Design: Q NARDOM SORTS U6

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	90.1	90.8	59	15	0

Unit Cruise Summary: Q NARDOM SORTS U6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
GF	14	74	1.3	0
DF	24	77	1.3	0
LP	11	45	0.8	0
RC	4	15	0.3	0
PP	1	22	0.4	0
WH	1	2	0.0	0
WL	1	1	0.0	0
ALL	56	236	4.0	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS 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 (%)
GF	42.2	122.6	16.0	151.3	27.8	7.4	6,377	125.7	17.6
DF	43.9	129.0	16.8	113.7	18.2	3.7	4,989	130.3	17.2
LP	25.6	140.6	18.3	137.4	15.6	4.7	3,523	141.4	18.9

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 (%)
RC	8.5	297.5	38.7	106.3	53.2	26.6	908	302.3	47.0
PP	12.5	238.3	31.0	44.5	0.0	0.0	558	238.3	31.0
WH	1.1	538.4	70.1	221.7	0.0	0.0	253	538.4	70.1
WL	0.6	768.1	100.0	146.0	0.0	0.0	83	768.1	100.0
ALL	134.4	47.8	6.2	124.2	30.4	4.1	16,691	56.7	7.4

Unit Summary: Q NARDOM SORTS U6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	24	ALL	10.5	54	66	4,425	4,341	1.9	63.5	38.2	11.8	391.1
GF	LIVE	CUT	14	ALL	12.5	62	77	6,571	6,205	5.6	48.1	41.0	11.6	559.1
LP	LIVE	CUT	11	ALL	9.9	60	75	3,752	3,523	6.1	48.0	25.6	8.1	317.4
PP	LIVE	CUT	1	ALL	9.3	46	58	53	51	4.5	2.4	1.1	0.4	4.6
RC	LIVE	CUT	4	ALL	11.5	56	70	875	848	3.1	11.1	8.0	2.4	76.4
WH	LIVE	CUT	1	ALL	15.7	86	108	253	253	0.0	0.8	1.1	0.3	22.8
WL	LIVE	CUT	1	ALL	16.2	73	91	83	83	0.0	0.4	0.6	0.1	7.5
ALL	LIVE	CUT	56	ALL	11.0	58	72	16,012	15,303	4.4	174.3	115.6	34.7	1,378.8
ALL	ALL	ALL	56	ALL	11.0	58	72	16,012	15,303	4.4	174.3	115.6	34.7	1,378.8

Cruise Unit Report Q NARDOM SORTS RW1

Unit Sale Notice Volume (MBF): Q NARDOM SORTS RW1

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	Utility
RC	21.7			3		3	
WL	21.3			2	2	0	0
ALL	21.6			5	2	3	0

Unit Cruise Design: Q NARDOM SORTS RW1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (33.61) Measure All, Sighting Ht = 4.5 ft	0.2	0.2	1	1	0

Unit Cruise Summary: Q NARDOM SORTS RW1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RC	2	2	2.0	0
WL	1	1	1.0	0
ALL	3	3	3.0	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS 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 (%)
RC	67.2	0.0	0.0	211.4	32.2	22.8	14,208	32.2	22.8
WL	33.6	0.0	0.0	242.0	0.0	0.0	8,134	0.0	0.0
ALL	100.8	0.0	0.0	221.6	23.2	13.4	22,342	23.2	13.4

Unit Summary: Q NARDOM SORTS RW1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RC	LIVE	CUT	2	ALL	21.7	81	103	14,208	14,208	0.0	26.2	67.2	14.4	2.8
WL	LIVE	CUT	1	ALL	21.3	93	118	8,134	8,134	0.0	13.6	33.6	7.3	1.6
ALL	LIVE	CUT	3	ALL	21.6	85	108	22,342	22,342	0.0	39.8	100.8	21.7	4.5
ALL	ALL	ALL	3	ALL	21.6	85	108	22,342	22,342	0.0	39.8	100.8	21.7	4.5

Cruise Unit Report Q NARDOM SORTS RW2

Unit Sale Notice Volume (MBF): Q NARDOM SORTS RW2

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	14.4			17	6	9	2		0
RC	13.4			10		9	1		
WL	19.0			10	6	3	1		0
PP	24.3			4			4	1	
ALL	15.2			41	12	21	6	1	0

Unit Cruise Design: Q NARDOM SORTS RW2

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	2.2	2.2	4	4	0

Unit Cruise Summary: Q NARDOM SORTS RW2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	10	10	2.5	0
RC	5	6	1.5	0
WL	3	4	1.0	0
PP	2	2	0.5	0
ALL	20	22	5.5	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS RW2

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	50.0	51.6	25.8	150.1	37.4	11.8	7,503	63.8	28.4
RC	30.0	200.0	100.0	153.6	40.3	18.0	4,607	204.0	101.6
WL	20.0	115.5	57.7	220.6	1.0	0.6	4,412	115.5	57.7
PP	10.0	200.0	100.0	197.8	15.0	10.6	1,978	200.6	100.6
ALL	110.0	56.5	28.3	168.2	32.8	7.3	18,500	65.3	29.2

Unit Summary: Q NARDOM SORTS RW2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	10	ALL	14.4	67	84	7,793	7,503	3.7	44.2	50.0	13.2	16.5
PP	LIVE	CUT	2	ALL	24.3	87	116	1,978	1,978	0.0	3.1	10.0	2.0	4.4
RC	LIVE	CUT	2	ALL	11.2	64	80	2,303	2,303	0.0	21.9	15.0	4.5	5.1
RC	LIVE	POLE	3	ALL	17.9	86	110	2,303	2,303	0.0	8.6	15.0	3.5	5.1
WL	LIVE	CUT	3	ALL	19.0	95	121	4,412	4,412	0.0	10.2	20.0	4.6	9.7
ALL	LIVE	CUT	17	ALL	14.8	71	89	16,486	16,196	1.8	79.4	95.0	24.3	35.6
ALL	LIVE	POLE	3	ALL	17.9	86	110	2,303	2,303	0.0	8.6	15.0	3.5	5.1
ALL	ALL	ALL	20	ALL	15.1	72	91	18,790	18,500	1.5	88.0	110.0	27.8	40.7

Cruise Unit Report Q NARDOM SORTS RW3

Unit Sale Notice Volume (MBF): Q NARDOM SORTS RW3

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
RC	12.7			5		5	1
GF	18.4			2	1	1	0
ALL	13.3			7	1	5	1

Unit Cruise Design: Q NARDOM SORTS RW3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (33.61) Measure All, Sighting Ht = 4.5 ft	0.5	0.5	2	2	0

Unit Cruise Summary: Q NARDOM SORTS RW3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RC	5	5	2.5	0
GF	1	1	0.5	0
ALL	6	6	3.0	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS RW3

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 (%)
RC	84.0	84.9	60.0	126.4	40.4	18.1	10,624	94.0	62.7
GF	16.8	141.4	100.0	191.7	0.0	0.0	3,221	141.4	100.0
ALL	100.8	47.1	33.3	137.3	38.5	15.7	13,845	60.9	36.9

Unit Summary: Q NARDOM SORTS RW3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
GF	LIVE	CUT	1	ALL	18.4	86	109	3,331	3,221	3.3	9.1	16.8	3.9	1.6
RC	LIVE	CUT	3	ALL	12.6	56	70	6,545	6,374	2.6	58.2	50.4	14.2	3.2
RC	LIVE	POLE	2	ALL	12.9	67	84	4,363	4,250	2.6	37.0	33.6	9.4	2.1
ALL	LIVE	CUT	4	ALL	13.5	60	75	9,875	9,596	2.8	67.3	67.2	18.1	4.8
ALL	LIVE	POLE	2	ALL	12.9	67	84	4,363	4,250	2.6	37.0	33.6	9.4	2.1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	ALL	ALL	6	ALL	13.3	63	79	14,238	13,845	2.8	104.3	100.8	27.5	6.9

Cruise Unit Report Q NARDOM SORTS RW4

Unit Sale Notice Volume (MBF): Q NARDOM SORTS RW4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
RC	12.1			19		17	2	
DF	15.5			12	5	7	1	0
WL	16.6			11	5	6	1	
ES	14.2			3		2	1	
ALL	13.6			46	10	32	4	0

Unit Cruise Design: Q NARDOM SORTS RW4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (33.61) Measure All, Sighting Ht = 4.5 ft	2.9	2.9	5	5	0

Unit Cruise Summary: Q NARDOM SORTS RW4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RC	8	8	1.6	0
DF	4	4	0.8	0
WL	3	3	0.6	0
ES	1	1	0.2	0
ALL	16	16	3.2	0

Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS RW4

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 (%)
RC	53.8	104.6	46.8	124.2	16.3	5.7	6,677	105.8	47.1
DF	26.9	136.9	61.2	154.3	23.2	11.6	4,148	138.9	62.3
WL	20.2	91.3	40.8	193.2	7.5	4.3	3,895	91.6	41.1
ES	6.7	223.6	100.0	152.8	0.0	0.0	1,027	223.6	100.0
ALL	107.6	26.1	11.7	146.4	23.6	5.9	15,747	35.2	13.1

Unit Summary: Q NARDOM SORTS RW4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	4	ALL	15.5	66	87	4,148	4,148	0.0	20.5	26.9	6.8	12.0
ES	LIVE	CUT	1	ALL	14.2	63	79	1,027	1,027	0.0	6.1	6.7	1.8	3.0
RC	LIVE	CUT	8	ALL	12.1	59	74	6,677	6,677	0.0	67.3	53.8	15.5	19.4
WL	LIVE	CUT	3	ALL	16.6	82	104	3,895	3,895	0.0	13.4	20.2	4.9	11.3
ALL	LIVE	CUT	16	ALL	13.6	64	81	15,747	15,747	0.0	107.3	107.6	29.0	45.7
ALL	ALL	ALL	16	ALL	13.6	64	81	15,747	15,747	0.0	107.3	107.6	29.0	45.7

Cruise Unit Report Q NARDOM SORTS RW5

Unit Sale Notice Volume (MBF): Q NARDOM SORTS RW5

Sp	DBH	Rings/In	Age	MBF Volume by Grade					Utility
				All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	12.7			32	4	19	8		1
GF	12.2			10		8	2		0
LP	11.5			7		4	2		0
WL	11.9			4		3	1		0
RC	13.3			3		3	1		
PP	13.0			2				2	0
ALL	12.5			57	4	36	13	2	2

Unit Cruise Design: Q NARDOM SORTS RW5

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots	
ST: Strip/Percent Sample (1 tree expansion)		9.8	9.8	1	1	0

Unit Cruise Summary: Q NARDOM SORTS RW5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	37	373	373.0	0
GF	9	90	90.0	0
LP	11	101	101.0	0
WL	7	35	35.0	0
RC	8	40	40.0	0
PP	8	40	40.0	0
ALL	80	679	679.0	0

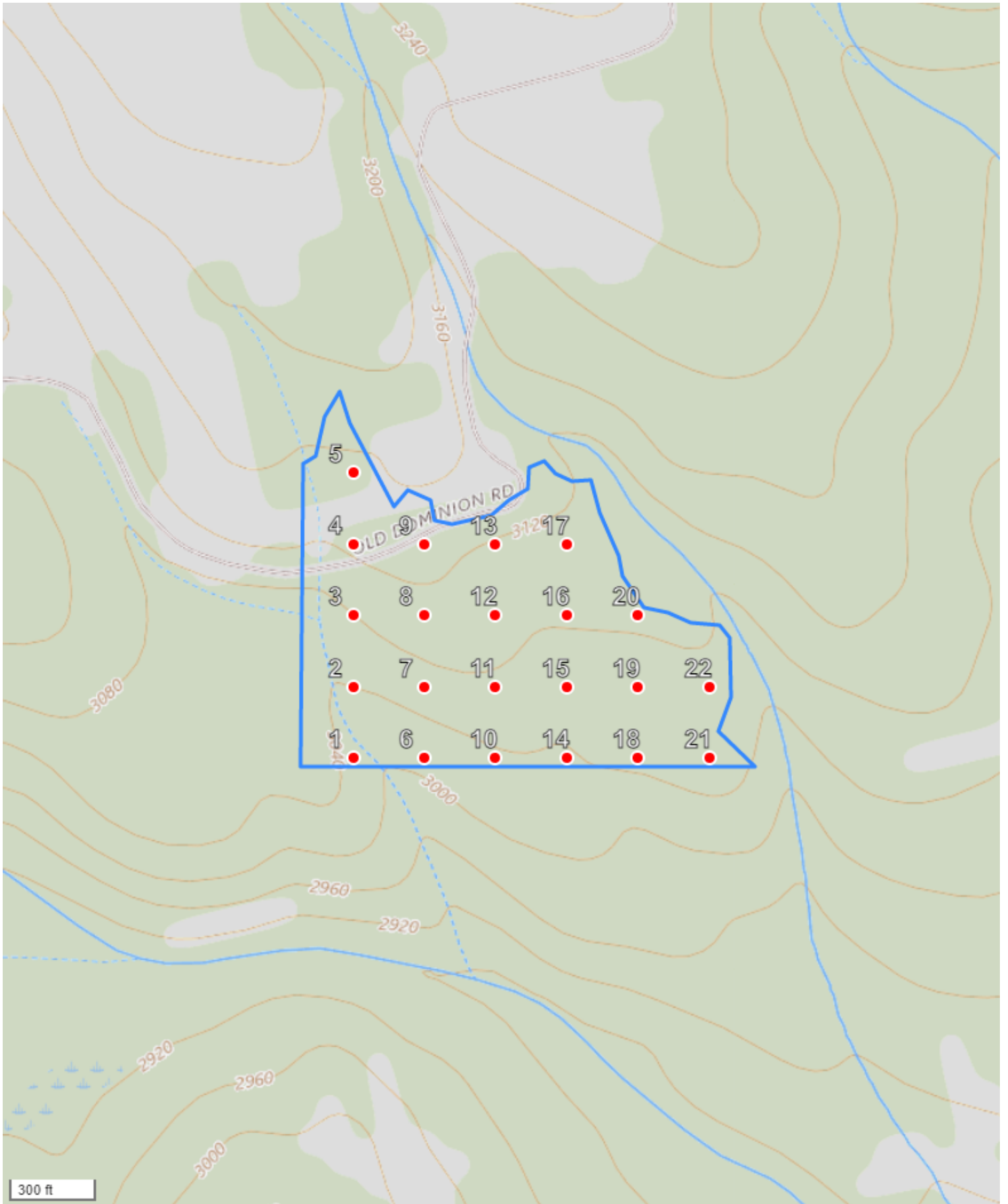
Unit Cruise Statistics (Cut + Leave Trees): Q NARDOM SORTS RW5

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	33.7	0.0	0.0	96.0	23.1	3.8	3,236	23.1	3.8
GF	7.4	0.0	0.0	130.9	23.1	7.7	969	23.1	7.7
LP	7.5	0.0	0.0	91.8	22.8	6.9	684	22.8	6.9
WL	2.8	0.0	0.0	130.4	13.7	5.2	358	13.7	5.2
RC	4.0	0.0	0.0	82.8	61.0	21.6	331	61.0	21.6

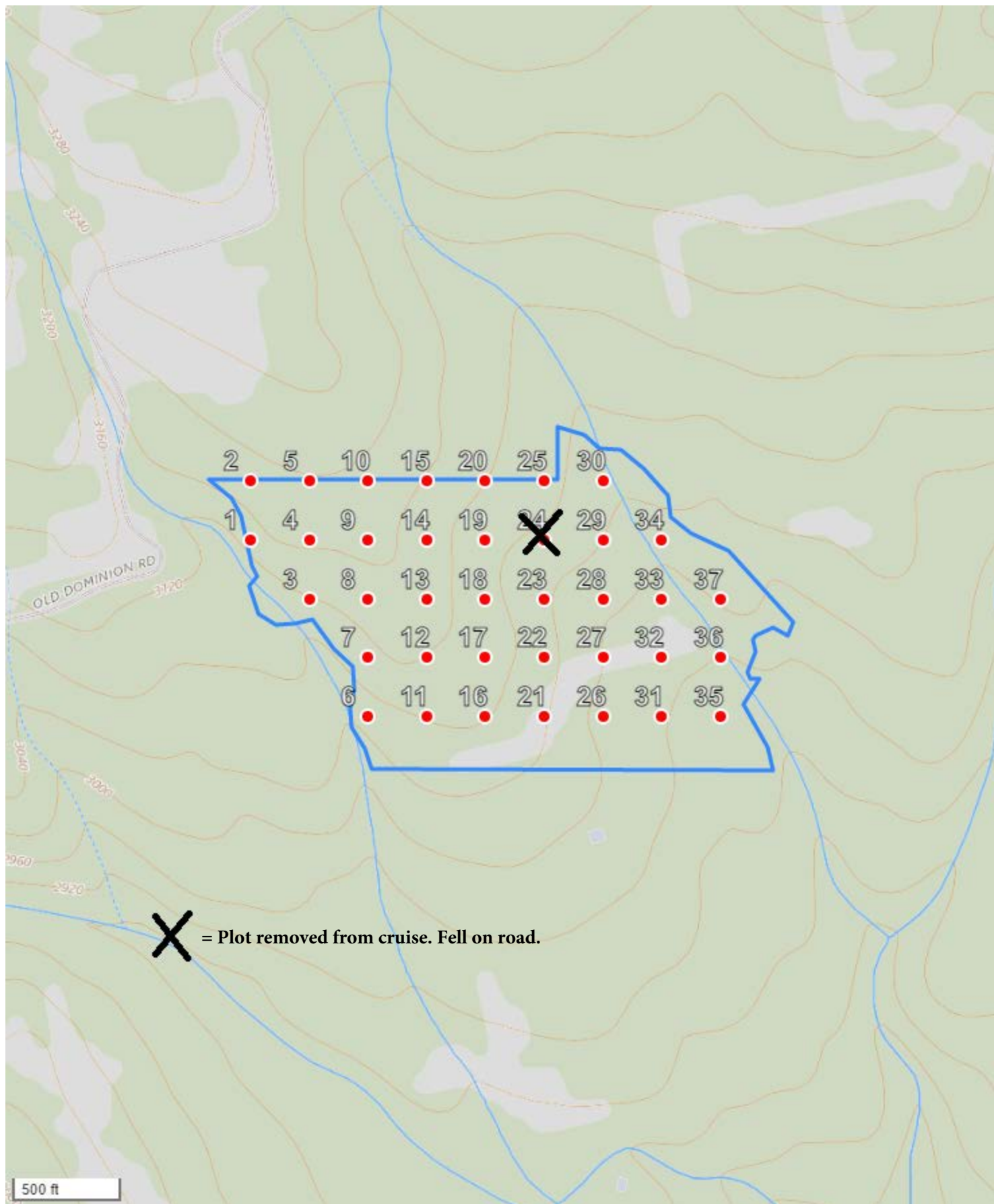
Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
PP	3.8	0.0	0.0	58.6	43.4	15.4	223	43.4	15.4
ALL	59.1	0.0	0.0	98.1	34.2	3.8	5,800	34.2	3.8

Unit Summary: Q NARDOM SORTS RW5

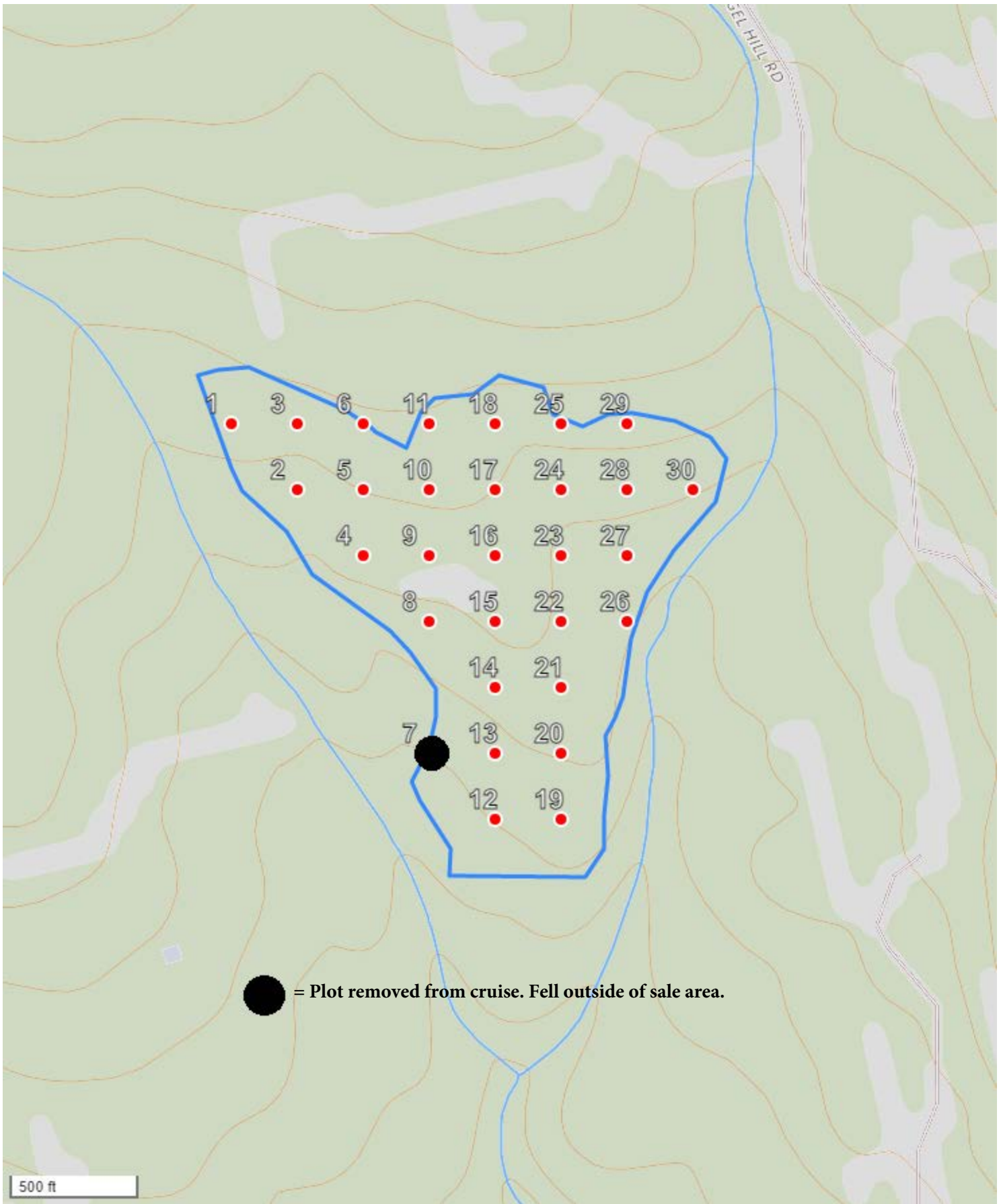
Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	37	ALL	12.7	53	65	3,334	3,236	2.9	38.3	33.7	9.5	31.7
GF	LIVE	CUT	9	ALL	12.2	60	74	984	969	1.5	9.1	7.4	2.1	9.5
LP	LIVE	CUT	11	ALL	11.5	52	64	713	684	4.1	10.3	7.5	2.2	6.7
PP	LIVE	CUT	8	ALL	13.0	53	69	257	223	13.4	4.1	3.8	1.1	2.2
RC	LIVE	CUT	8	ALL	13.3	50	61	363	331	8.7	4.1	4.0	1.1	3.2
WL	LIVE	CUT	7	ALL	11.9	61	75	359	359	0.0	3.6	2.8	0.8	3.5
ALL	LIVE	CUT	80	ALL	12.5	54	66	6,008	5,800	3.5	69.5	59.1	16.7	56.8
ALL	ALL	ALL	80	ALL	12.5	54	66	6,008	5,800	3.5	69.5	59.1	16.7	56.8



FMA Name: NARDOM SORTS U1	N Plots: 22	Plot Spacing: 246.2 ft
Grid Name: NARDOM SORTS U1 - 1	Acres Treated: 28.4	Main Azimuth: 0 deg

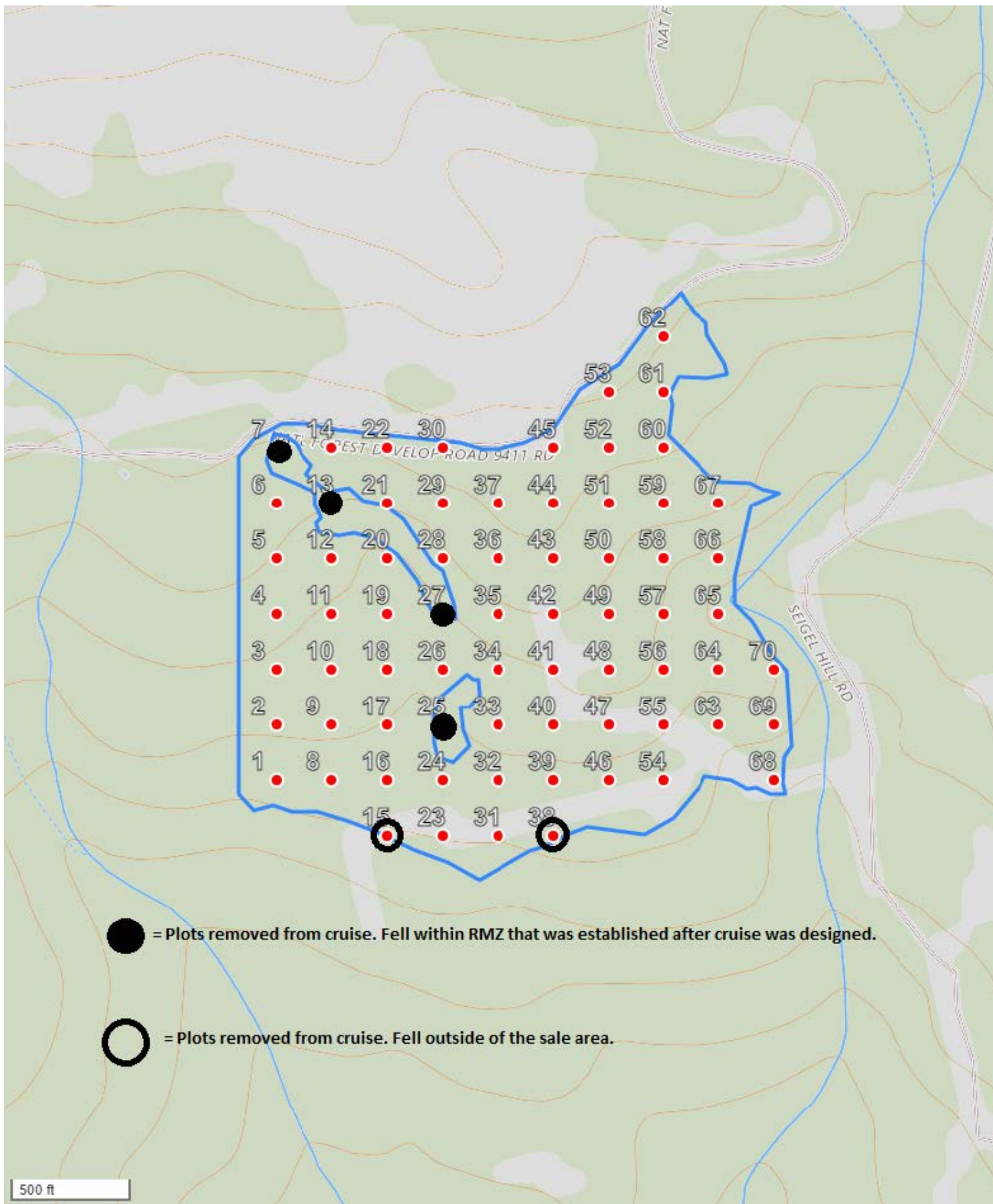


FMA Name: NARDOM SORTS U2	N Plots: 37	Plot Spacing: 268.7 ft
Grid Name: NARDOM SORTS U2 - 1	Acres Treated: 62.1	Main Azimuth: 0 deg

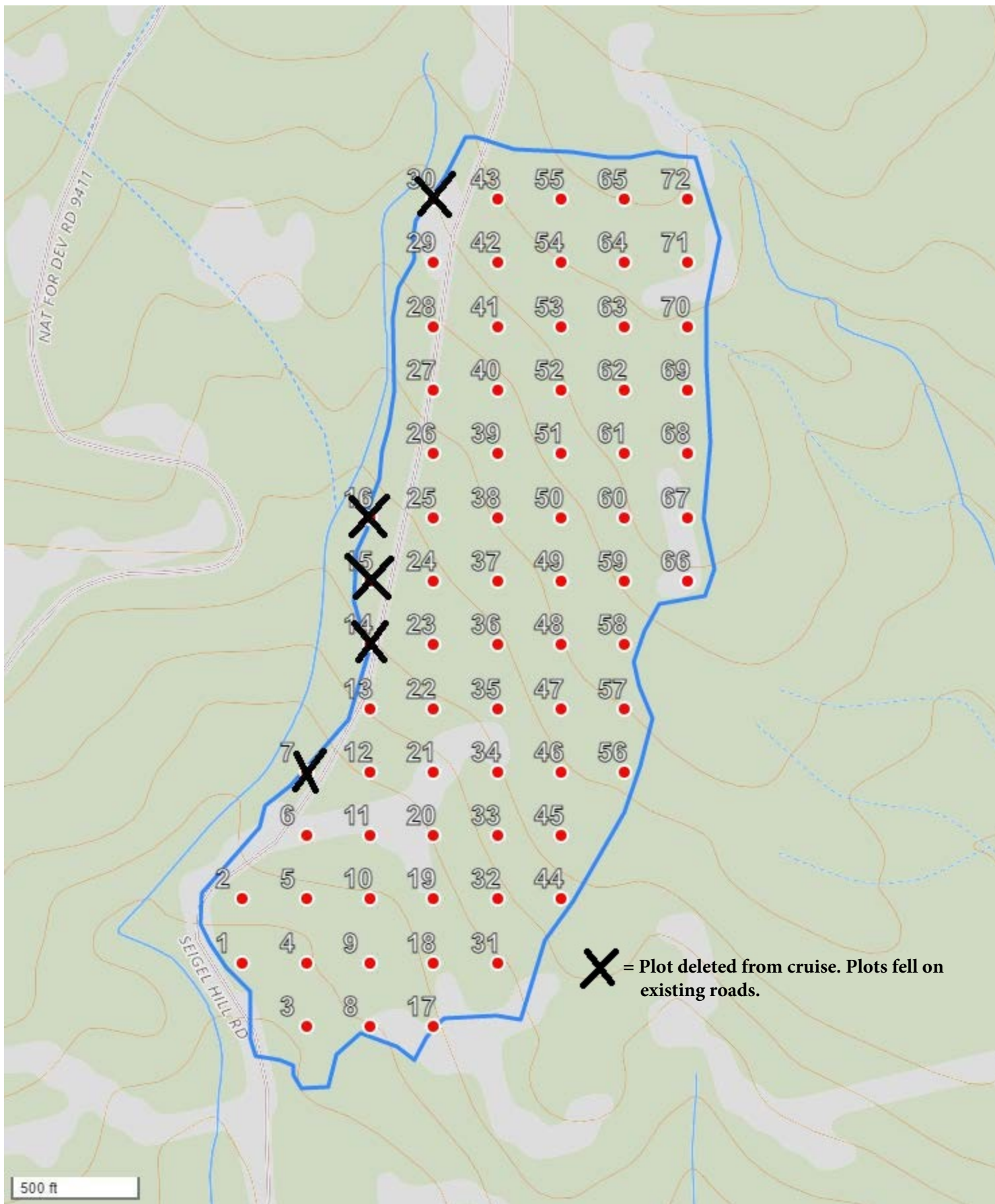


● = Plot removed from cruise. Fell outside of sale area.

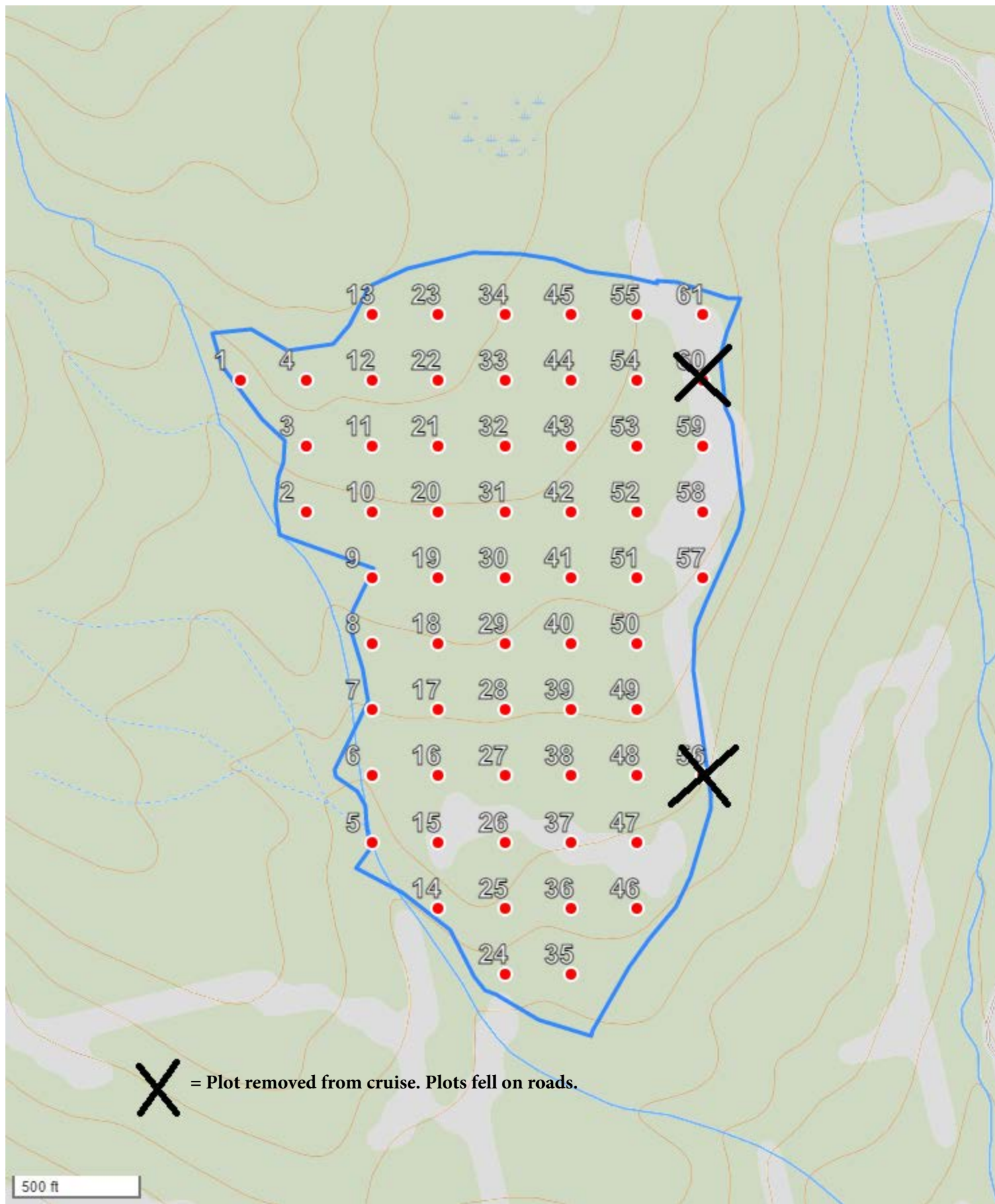
FMA Name: NARDOM SORTS U3	N Plots: 30	Plot Spacing: 253.8 ft
Grid Name: NARDOM SORTS U3 - 1	Acres Treated: 46.5	Main Azimuth: 0 deg



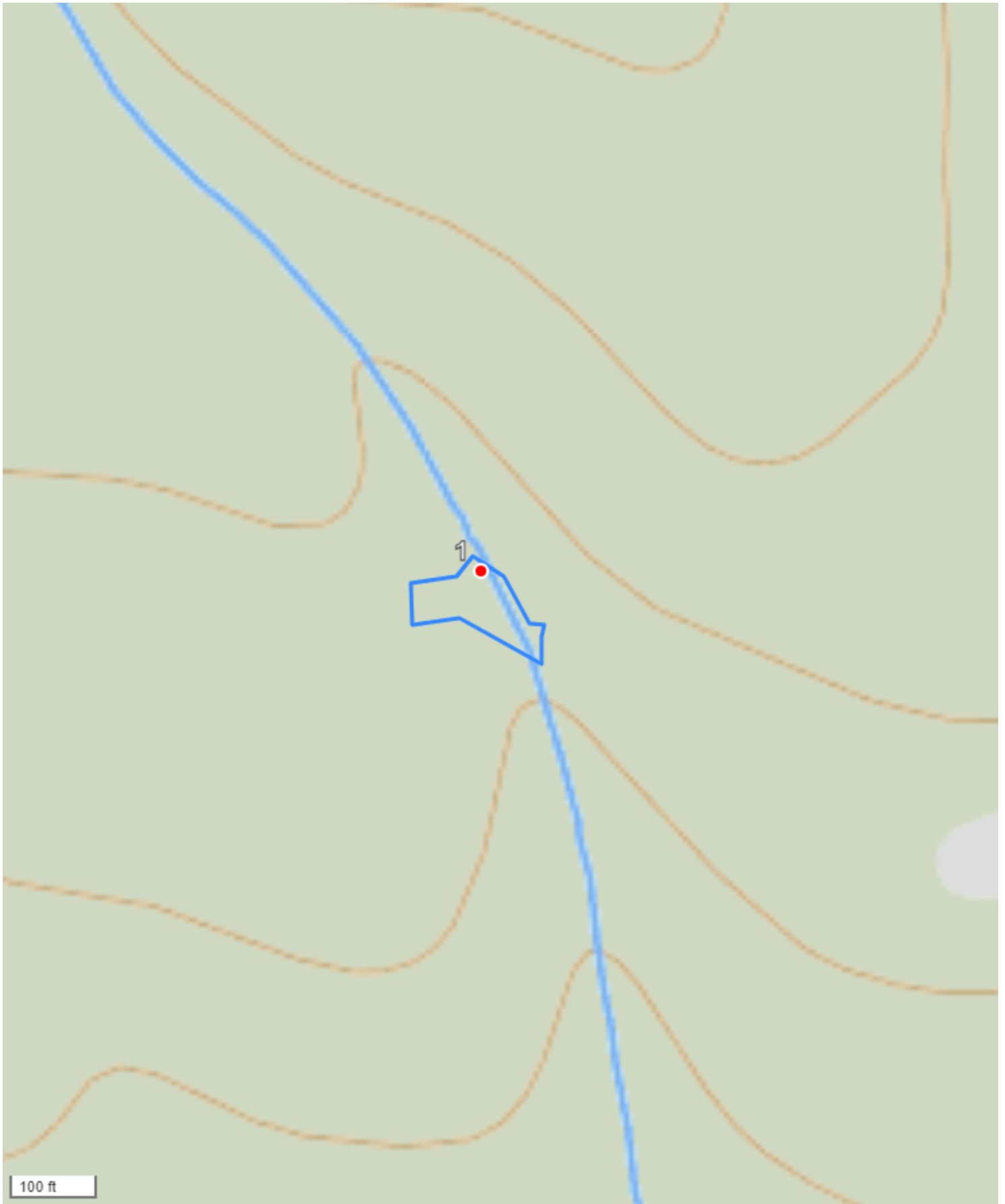
FMA Name: Q NARDOM SORTS U4	N Plots: 70	Plot Spacing: 227.9 ft
Grid Name: NARDOM SORTS U4 - 1	Acres Treated: 79.2	Main Azimuth: 0 deg



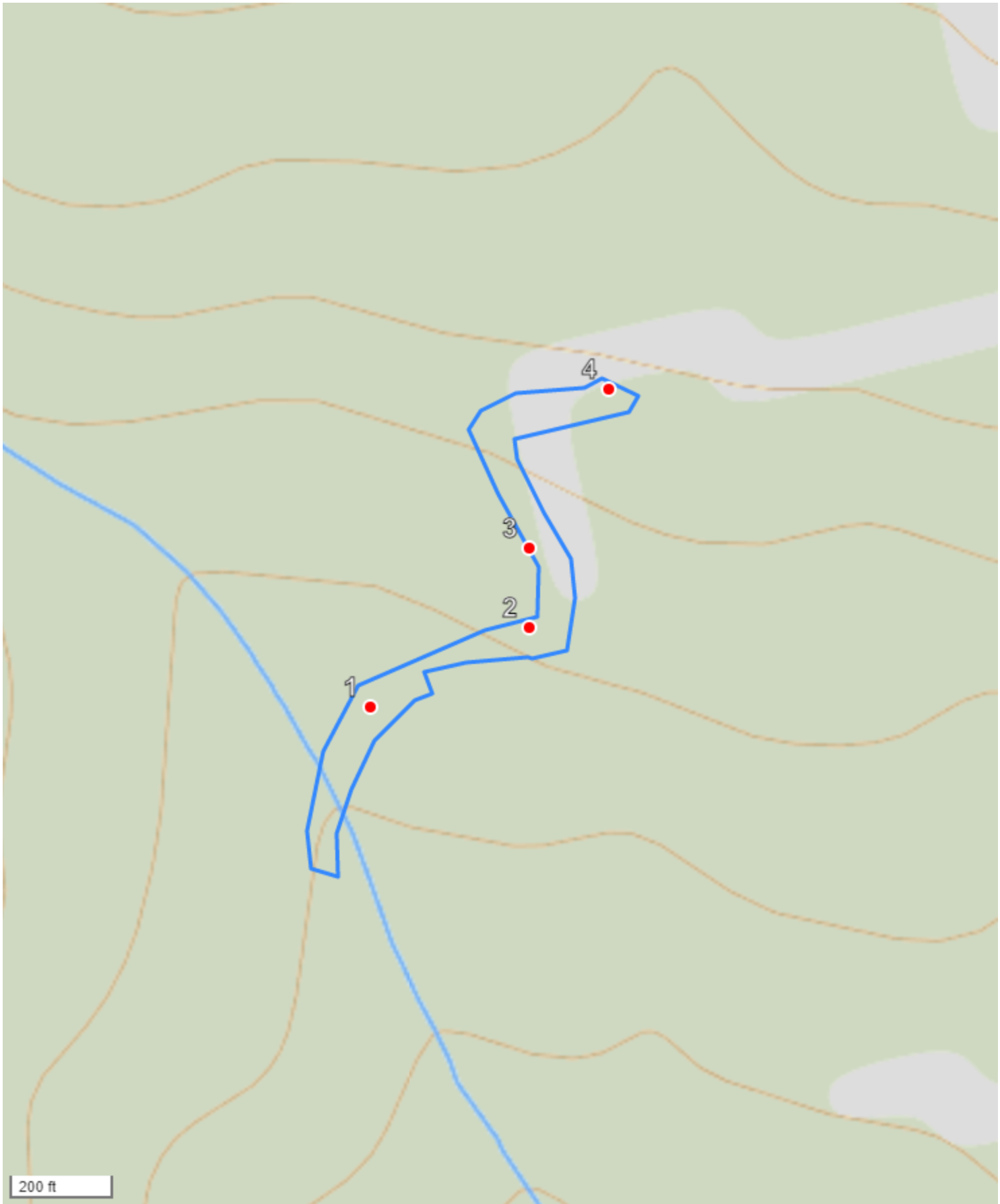
FMA Name: NARDOM SORTS U5	N Plots: 72	Plot Spacing: 245.1 ft
Grid Name: NARDOM SORTS U5 - 1	Acres Treated: 94.9	Main Azimuth: 0 deg



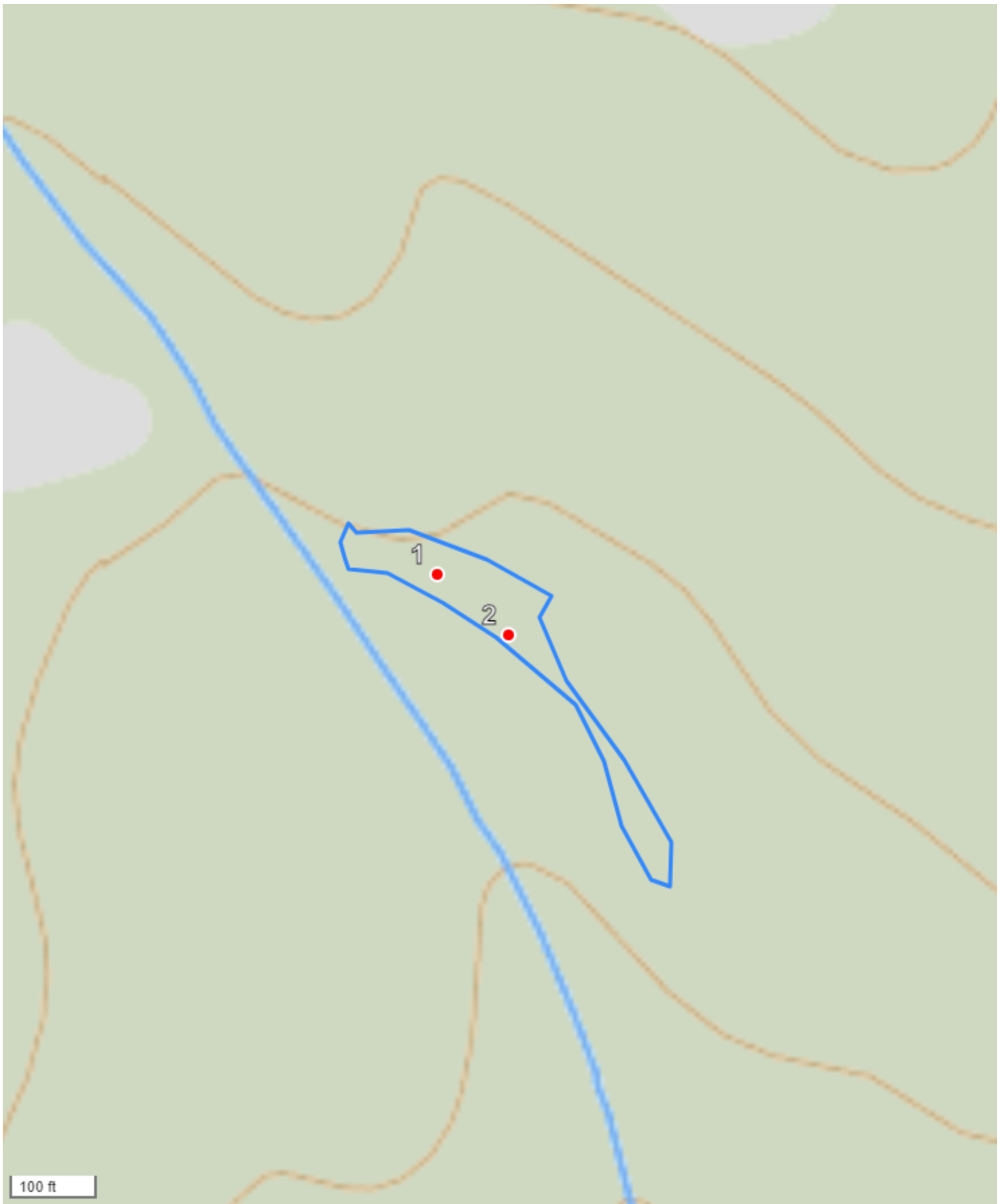
FMA Name: NARDOM SORTS U6	N Plots: 61	Plot Spacing: 254.3 ft
Grid Name: NARDOM SORTS U6 - 1	Acres Treated: 90.1	Main Azimuth: 0 deg



FMA Name: NARDOM SORTS RW1	N Plots: 1	Plot Spacing: 93.8 ft
Grid Name: NARDOM SORTS RW1 - 1	Acres Treated: 0.2	Main Azimuth: 31.4 deg

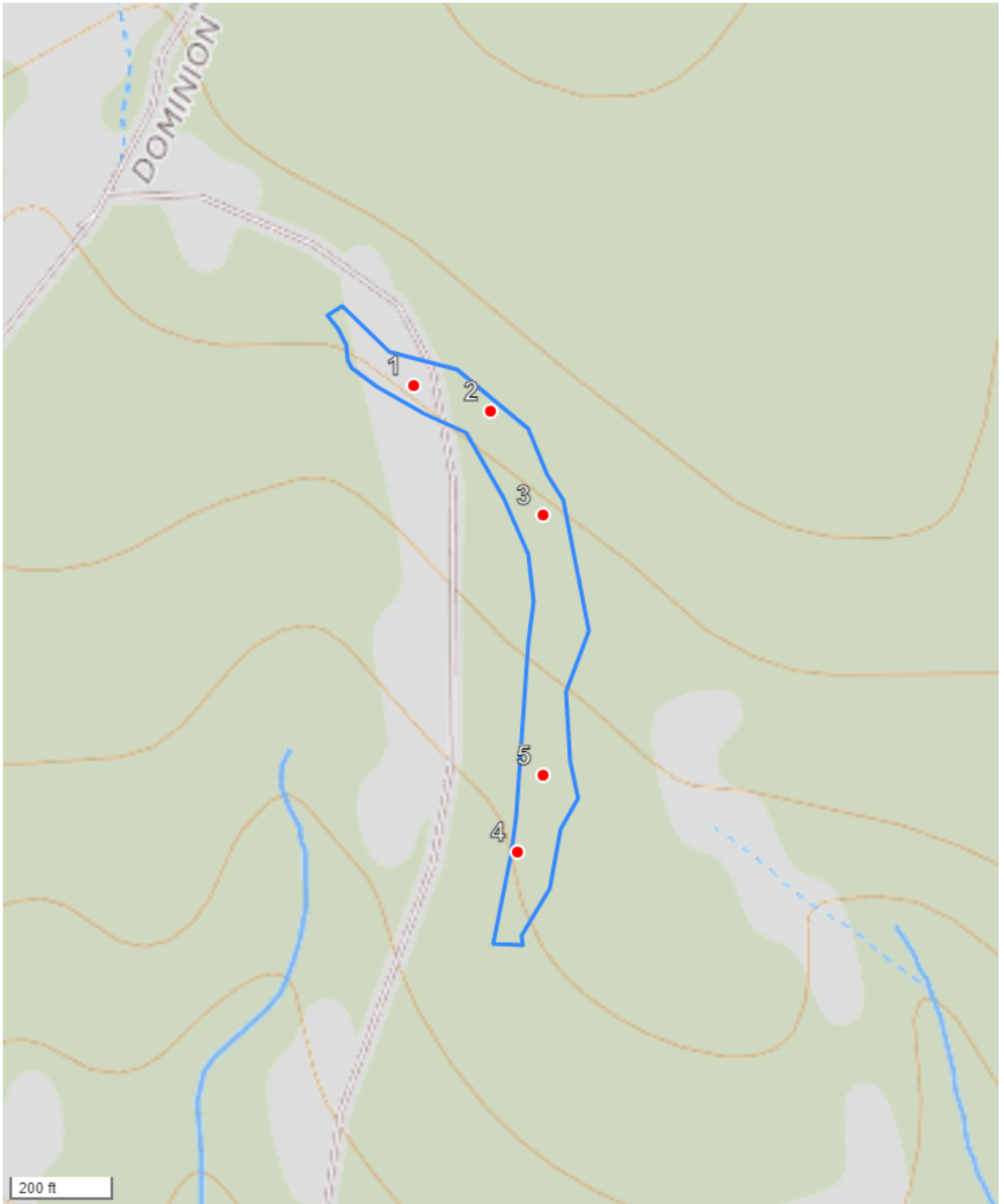


FMA Name: NARDOM SORTS RW2	N Plots: 4	Plot Spacing: 153.1 ft
Grid Name: NARDOM SORTS RW2 - 1	Acres Treated: 2.2	Main Azimuth: 0 deg



100 ft

FMA Name: NARDOM SORTS RW3	N Plots: 2	Plot Spacing: 107.9 ft
Grid Name: NARDOM SORTS RW3 - 1	Acres Treated: 0.5	Main Azimuth: 40.7 deg



FMA Name: NARDOM SORTS RW4	N Plots: 5	Plot Spacing: 157.7 ft
Grid Name: NARDOM SORTS RW4 - 1	Acres Treated: 2.9	Main Azimuth: 18.4 deg



FMA Name: NARDOM SORTS RW5	N Plots:	Plot Spacing: NaN ft
Grid Name: NARDOM SORTS RW5	Acres Treated: 9.8	Main Azimuth: NaN deg

Nardom Sorts Haul Mileages
30-103927

Bidder	A Miles	C Miles	Ferry/Toll Rate (\$)
Alta Forest Products (Naples via Flowery Trail/20)	123	5	
Bell Pole (Oldtown via 20)	76	5	
Boise Cascade (Arden via Artman-Gibson)	10	5	
Boise Cascade (Lower Mill via WA-395)	20	5	
Boise Cascade (Upper Mill via WA-395)	18	5	
C&C Timber (Kingston via Kingston Ferry)	337	5	\$179.50
C&C Timber (Kingston via Tacoma Narrows)	362	5	
Canyon Lbr (Everett via Stevens Pass)	311	5	
Clearwater Paper (Lewiston via 395/195)	180	5	
Columbia Cedar (Kettle Falls via WA-395)	23	5	
Edgewood (Athol via Flowery Trail)	98	5	
Guy Bennett (Wilma via 395/195)	182	5	
Hampton (Darrington via Hwy 20)	283	5	
IFG (Athol via Flowery Trail)	98	5	
IFG (LaClede via Flowery Trail)	82	5	
IFG (Moyie Springs via 20/2)	145	5	
JKCK Enterprises (Cle Elum via 25/90)	245	5	
JKCK Enterprises (Oroville via Sherman)	118	5	
McFarland Cascade Pole Company (Sandpoint via Flwry Tr	97	5	
Potlatch (St Marie via 395/27)	135	5	
Skagit River Sawmill (Springdale via 395)	43	5	
Stella Jones (Arlington via Hwy 20)	314	5	
Stimson (Plummer via 395/27)	116	5	
Stimson (Priest River via Flowery Trail)	75	5	
Vaagen Brothers (Colville)	8	5	
Vaagen Brothers (Usk via Flowery Trail)	52	5	
Zosel (Oroville via Sherman)	118	5	