WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

REQUEST FOR QUOTE
RFQ NO. 30-092774

PROJECT TITLE: SHOWJUMPER SORTS

QUOTE DUE DATE: November 3, 2015 10:00 AM

EXPECTED TIME PERIOD FOR CONTRACT: December 7, 2015 to June 30, 2016

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 SHOWJUMPER 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 5380 MBF of timber in 4 unit(s) for the Department of Natural Resources in the Pacific Cascade 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 December 7, 2015 to June 30, 2016. 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 mbf for logs harvested and delivered for Sorts 2, 3, 4, 5, 6, 7, 8, 9 and 10.

- And $10.00 per Ton for Sorts 11 and 12 and $12.00 per Ton for Sort 1 harvested and delivered.

- Utility volume for mbf sorts will be determined on an adjusted gross scale basis and paid for at $10.00 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:

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

  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'*)

  Mileage Rate = (($0.16 x C miles) + ($0.11 x A miles)) x (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 http://tonto.eia.doe.gov/oog/info/wohdp/diesel.asp 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
A miles = 100
Fuel Index Factor = 1.000
Mileage Rate = (($0.16 x 10) + ($0.11 x 100)) x (1.000) = $12.60
Contractor's hauling bid factor = 1.100

Hauling Services Payment Rate per Ton
= (Base Rate + Mileage Rate) x (Contractor's hauling bid factor)
= ($2.35 + $12.60) x 1.100
= $16.45

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.

- 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	Keith Jones
Address	PO BOX 280
City, State, Zip Code	Castle Rock, WA 98611
Phone Number	(360) 577-2025
Fax Number	(360) 274-4196
E-Mail Address	keith.jones@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 Pre-Quote Candidate Harvester Questions

Candidate Harvesters may mail, FAX, or E-mail questions about the RFQ to the RFQ Coordinator. The RFQ Coordinator will accept questions until October 20, 2015 at 10:00 AM. Questions received after this date and time will not be answered unless the RFQ Coordinator decides that it is in the DNR's best interests to answer them. A copy of the question(s) received, along with the DNR's official answer(s), will be mailed or faxed to each Candidate Harvester who received a copy of the RFQ. This copy will become an addendum to the RFQ. The DNR shall be bound only by written answers to questions. Oral responses given on the telephone will be considered 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 10:00 AM, local time, on November 3, 2015.

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 November 3, 2015."

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 MBF	**Required**
Hauling services bid factor (formatted to 3 decimals i.e. #.###)	**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

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 business days from the issuance of the Region Manger'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

WASHINGTON STATE DEPARTMENT OF Natural Resources

TIMBER NOTICE OF SALE

***SALE NAME**: SHOWJUMPER SORTS* ***AGREEMENT NO**: 30-092775 - 30-092786*

AUCTION: November 19, 2015 starting at 10:00 a.m. **COUNTY: Lewis**
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 7 miles north of Adna.

PRODUCTS SOLD AND SALE AREA: All timber described below, except leave trees bounded by yellow "Leave Tree Area" tags and pink flagging and individual leave trees marked with blue paint bounded by the following: white "Timber Sale Boundary" in Unit 1; white "Timber Sale Boundary" and the D-1500 in Unit 2; white "Timber Sale Boundary" tags, reprod and the D-1500 in Unit 3; orange "Right-of-Way Boundary" tags in Unit 4. meeting the specifications described below; on parts of Sections 11, 12, 13, and 14 all in Township 14 North, Range 4 West W.M., containing 136 acres, more or less.

MINIMUM BID AND ESTIMATED LOG VOLUMES:

Agreement #	Sort #	Species and Sort Specifications	Average Log Length	Estimated Volume		Tons Per MBF	Minimum Bid Delivered Prices		Total Appraised Value	Bid Deposit
				Mbf	Tons		$/mbf	$/Ton		
30-092775	1	DF 5"-7" dib		225	1800	8		$60.00	$108,000.00	$10,800.00
30-092776	2	DF 8"-11" dib	28'	439	2985	6.8	$550.00		$241,450.00	$24,145.00
30-092777	3	DF 12"-19" dib	28'	1170	5850	5	$550.00		$643,500.00	$64,350.00
30-092778	4	DF 20"+ dib	28'	1079	5179	4.8	$500.00		$539,500.00	$53,950.00
30-092779	5	DF HQB+ 8"-15" dib	28'	809	4207	5.2	$575.00		$465,175.00	$46,517.50
30-092780	6	DF HQB+ 16"+ dib	28'	798	3751	4.7	$600.00		$478,800.00	$47,880.00
30-092781	7	WW 5"+ dib	28'	103	721	7	$500.00		$51,500.00	$5,150.00
30-092782	8	RA 8"+ dib	24'	182	1274	7	$600.00		$109,200.00	$10,920.00
30-092783	9	MA 8"+ dib	24'	73	511	7	$425.00		$31,025.00	$3,102.50
30-092784	10	RC 5"+ dib	24'	242	1742	7.2	$1,200.00		$290,400.00	$29,040.00
30-092785	11	Conifer Pulp 2"+ dib		69	1035	15		$30.00	$31,050.00	$3,105.00
30-092786	12	HDWD Pulp 2"+ dib		191	2865	15		$30.00	$85,950.00	$8,595.00
Totals:				**5380**	**31920**				**$3,075,550.00**	

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BV-SFIS-US09000572)

BID METHOD: Sealed Bids **UNIT OF MEASURE:** MBF Scale/Tonnage Scale

EXPIRATION DATE: June 30, 2016 **ALLOCATION:** Export Restricted

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

TIMBER NOTICE OF SALE

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 auction information may be obtained from the Pacific Cascade Region Office in Castle Rock WA. Phone number (360)577-2025.

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 = $TBD per MBF for Sorts 2, 3, 4, 5, 6, 7, 8, 9 and 10, $10.00 per Ton for Sorts 11 and 12 and $12.00 per Ton for Sort 1.

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 x C miles) + ($0.11 x A miles)) x Fuel Index Factor

ARRF = $26.75 per MBF for Sorts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12.

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

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/BusinessPermits/Topics/AppraisalPackets/Pages/Home.aspx. If you have questions call Dave Sund at the Pacific Cascade Region Office at (360)880-5802 or Steve Tietzel at the Product Sales and Leasing Division Office in Olympia at (360)902-1741.

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

HARVESTING SERVICES CONTRACT

AGREEMENT NO. 30-092774

SALE NAME: SHOWJUMPER 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 described below, except leave trees bounded by yellow "Leave Tree Area" tags and pink flagging and individual leave trees marked with blue paint bounded by the following: white "Timber Sale Boundary" in Unit 1; white "Timber Sale Boundary" and the D-1500 in Unit 2; white "Timber Sale Boundary" tags, reprod and the D-1500 in Unit 3; orange "Right-of-Way Boundary" tags in Unit 4. located on approximately 136 acres on part(s) of Sections 11, 12, 13, and 14 all in Township 14 North, Range 4 West W.M. of Lewis 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.

Logs produced under this contract will be manufactured by Contractor meeting the individual sort specifications and Purchaser's preferred log lengths, with a minimum length of 12 feet, unless otherwise directed by the Contract Administrator.

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
92775	1	DF 5"-7" dib	WS				1.9
92776	2	DF 8"-11" dib	WS				1.9
92777	3	DF 12"-19" dib	WS				1.9
92778	4	DF 20"+ dib	WS				1.9
92779	5	DF HQB+ 8"-15" dib	WS				1.9
92780	6	DF HQB+ 16"+ dib	WS				1.9
92781	7	WW 5"+ dib	WS				1.9
92782	8	RA 8"+ dib	WS				1.9
92783	9	MA 8"+ dib	WS				1.9
92784	10	RC 5"+ dib	WS				1.9
92785	11	Conifer Pulp 2"+ dib	WS				1.9
92786	12	HDWD Pulp 2"+ dib	WS				1.9

Unless otherwise specified, no blue stain is allowed in Ponderosa pine.

"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

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.
d. If poles are to be produced under this contract, they shall meet the specifications outlined in Schedule P, Pole Specifications.
e. Surface characteristics for a high quality (HQ) "B" log sort will have sound tight knots not to exceed 1½ inch in diameter. May include logs with not more than two larger knots up to 2½ inch in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
M	Maintenance Equipment Rates

G-027.1 Log Delivery Schedule and Conditions

a. Contractor shall deliver logs to Purchaser's designated delivery location per G-022.1 clause. 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**
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	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, the State shall determine the project starting date. The State shall notify the Contractor no later than fourteen (14) days prior to the anticipated starting date.

All activities required under this contract are to be completed between the starting date of December 7, 2015 and the expiration date of June 30, 2016. All forest product deliveries are to be completed prior to June 1, 2016.

Contractor shall not have any right to enter the sale area to perform harvesting services after contract expiration.

G-033.1 Curtailment 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-062.1 Habitat Conservation Plan

The Department has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the Department's HCP area and are subject to the terms and conditions of the HCP and the Services' Incidental Take Permit PRT- 812521 and ITP 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP conditions. All HCP materials, including the ITP, are available for review at the Department's Region Offices and the administrative headquarters in Olympia, Washington.

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

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

G-063.1 Incidental Take Permit Notification Requirements

a. Contractor shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITPs) that are discovered within the area covered by the State's Habitat Conservation

Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Contractor is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.

b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITPs, Contractor shall immediately notify the Contract Administrator. Contractor shall notify the Contract Administrator, if there is any doubt as to the identification of a discovered permit species. Contractor may be required to take certain actions to help the Contract Administrator safeguard the well being of any live, injured or sick specimens of any permit species discovered, until the Contract Administrator can determine the proper disposition of such specimens. The Contract Administrator will explain any such requirements to Contractor during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.

c. Contractor shall refer to a specific ITP number, PRT-812521 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.

d. Provisions and requirements of the ITPs shall be clearly presented and explained to Contractor by Contract Administrator during the Pre-Work Conference as per contract clause G-330.1. All applicable provisions of the ITPs and this schedule must be presented and clearly explained by Contractor to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Contractor may have about the ITPs should be directed to 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 BV-SFIS-US09000572.

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 Contact 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 Pacific Cascade 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 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 post office address, so that their receipt may be acknowledged by Contractor.

G-030.1 Commencement Date
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-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; D-1000, D-1010, D-1500, D-1500 Ext, D-1519, D-1520, D-1550, D-1590, D-1590 Ext, Spur A, Spur B, Spur C. 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-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
2, 3, 4, 5, 6, 7, 8, 9, 10	MBF	$TBD	$10.00

1	Ton	$12.00	N/A
11,12	Ton	$10.00	N/A

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

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, a fuel index factor and the Contractor's hauling bid factor using the following formula:

Hauling Services Payment Rate per Ton
= (Base Rate + Mileage Rate) x (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'.)

Mileage Rate = (($0.16 x C miles) + ($0.11 x A miles)) x 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 http://tonto.eia.doe.gov/oog/info/wohdp/diesel.asp using the following formula;

Fuel Index Factor = 1 + ((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.

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.

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.

MBF Sort(s)	MBF/Tons Conversion Factor
2	6.8
3	5
4	4.8
5	5.2
6	4.7
7, 8, 9	7
10	7.2

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 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-031.1 Payment for Hauling Across Ferries and Other Miscellaneous Tolls

Prior approval by the State is required for payment of any additional transportation charges, including ferries and other miscellaneous tolls, incurred by Contractor.

If the Contract Administrator authorizes hauling across ferries or other miscellaneous tolls, the Contractor's billing statement must include an itemized list of loads by ticket number with toll receipts or 'Good to Go' statements for each crossing attached. Where 'Good to Go' rates are available, approval for toll reimbursement will be granted up to the applicable 'Good to Go' rate established by the Washington State Transportation Commission.

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

Payment for tolls incurred for backhauling loaded trucks shall be the responsibility of the Contractor and will not be reimbursed by the State.

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:

EXHIBIT G

SHOWJUMPER SORTS

Roads or Structures	Type	Stations or Quantities	Work Completion Type	Contractor Proposed Stations or Quantites	Price per Unit (Station, CY, or Each)	Total Price
D-1000	Pre-haul Maintenance	7+25	Required	Surface rock quantities are listed in the Road Plan on page 2 of the Rock List	Per Station	
D-1010	Pre-haul Maintenance	13+50	Required		Per Station	
D-1520	Pre-haul Maintenance	56+80	Required		Per Station	
D-1500	Pre-haul Maintenance	78+00	Required		Per Station	
D-1550	Construction	16+61	Optional +		Per Station	
	Ballast Rock	1345 c.y.	Optional +		Per c.y.	
D-1500 EXT	Construction	20+19	Optional +		Per Station	
	Ballast Rock	1635 c.y.	Optional +		Per c.y.	
D-1590 EXT	Construction	10+14	Optional +		Per Station	
	Ballast Rock	821 c.y.	Optional +		Per c.y.	
D-1519	Construction	43+92	Optional +		Per Station	
	Ballast Rock	3558 c.y.	Optional +		Per c.y.	
Spur A	Construction	2+99	Optional +		Per Station	
	Ballast Rock	242 c.y.	Optional +		Per c.y.	
Spur B	Construction	12+25	Optional +		Per Station	

	Ballast Rock	992 c.y.	Optional +		Per c.y.	
Spur C	Construction	1+41	Optional +		Per Station	
	Ballast Rock	114 c.y.	Optional +		Per c.y.	
*Landing	Ballast Rock	525 c.y.	Optional		Per c.y.	
*Turn Arounds	Ballast Rock	100 c.y.	Optional		Per c.y.	
*Turnout	Ballast Rock	400 c.y.	Optional		Per c.y.	

+ Required Rock on Optional Roads – If Contractor builds optional roads, rock is required per ROCK LIST. If optional roads are not built, rock does not have to be provided.
* If landings, Turnouts and Turn Arounds are constructed, rock is required per the ROCK LIST for each one.
Note: All Construction listed above includes culvert/crossdrain installs as shown in the CULVERT LIST. Price per station cost should reflect this.

Additional Payments in Excess of Road Plan Specifications			
	Stations or Quantities	**Unit Price**	**Total**
Extra 18" CPP Cross Drains			
Additional road construction			

One station of road construction is 100 feet. All materials, equipment time, labor, and equipment mobilization costs are included in the total price.

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 $50,000.00. 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 clauses G-022.1 and 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-080 Scaling Rules

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

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

L-110 State Approval of Log Scaling and Weighing Locations

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

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or en-route 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-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 area, 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 'Trespass and Unauthorized Activity' clause. Contractor is required to leave all cut or damaged reserve trees on site.

H-017 Preventing Excessive Soil Disturbance

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

H-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-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 removed using Cable Systems and Ground-based Equipment, unless authority to use other methods or equipment is granted in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-140.1 Special Harvest Requirements

Contractor shall accomplish the following during the harvest operations:

Showjumper Sorts is a Variable Retention Harvest sale requiring that 5,342 MBF of timber be yarded and shipped in approximately 6 months. Contractor is required to submit a plan explaining how harvest and/or road operations will commence by the week of December 7, 2015 with final log deliveries occurring by June 1, 2016; delivering an average of 9 loads a day.

Sediment delivery from roads into streams will not be allowed. Hauling operations will be shut down as needed, until conditions improve or work can be completed that eliminates the delivery of sediment.

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

Ground based yarding equipment will not be permitted on slopes over 40%.

Within shovel logging areas, the shovel operator shall break up concentrations of logging debris greater than 10 feet by 10 feet to allow exposure of natural forest soils to ensure proper reforestation.

Only shovels with a low ground pressure (9 psi or less) track mounted machines with hydraulic boom and grapples will be allowed.

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

All timber shall be yarded and hauled within 30 days of being felled, unless authorized in writing by the Contract Administrator.

Long butts remaining on the sale must be dispersed as directed by the Contract Administrator.

Felling and Bucking Guidelines:

Trees shall be felled to the longest lay with respect to the overall felling lead.

Cross-lead felling shall not be permitted without prior approval.

Trees which cannot be controlled into desired felling patterns such as snags, rotten-butted trees, heavy leaners, etc. shall be felled first and the direction of subsequently felled timber corrected accordingly.

Windfalls not parallel to the falling pattern which cannot be removed first will be bucked into lengths necessary to control breakage prior to felling the standing timber. Preferred lengths of logs may have to be altered when bucking windfalls.

Trees whose best lay will be adversely affected by road construction shall be felled concurrently with R/W timber.

All trees shall be felled with a saw having a bar length adequate to enable the operator to control felling of the tree. Leaving posts or unequal holding wood indicated a bar of inadequate length.

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:

If Contractor chooses to tailhold on private property, Contractor shall obtain permit(s) and assumes responsibility for all costs associated with permit(s). Contractor must provide the State with a copy of the executed permit(s) or a

letter from the private entity indicating that a satisfactory tailhold permit(s) has been consummated between Contractor and private entity.

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
All Conifer	10	12	5
All Hardwood	20	16	5

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-170 Utility Log Removal

All utility logs shall be yarded concurrently with the yarding of other logs and shall be removed from the sale area.

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-250 Additional Falling Requirements

Within all units, all live stems all hardwood species greater than 2 inches DBH or over 10 feet tall, shall be felled concurrently with felling operations. Areas of young or immature timber may be excluded from this requirement by the Contract Administrator.

Section C: Construction and Maintenance

C-040.1 Road Plan

Road construction and associated work provisions of the Road Plan for this project, dated June 3, 2015 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 D-1500, D-1500 Ext, D-1519, D-1550, D-1590, D-1590 Ext, Spur A, Spur B, Spur C. 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 State on D-1000, D-1010, D-1520. 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.

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-030 Landing Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060.1 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-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.

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 4 to 6 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, 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, the Contractor is responsible for notifying the following:

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

ECY - Northwest Region:
1-425-649-7000
(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties)

ECY - Southwest Region:
1-360-407-6300
(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)

ECY - Central Region:
1-509-575-2490

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

ECY - Eastern Region:
1-509-329-3400
(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties)

S-131.1 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.

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, where species are mixed, or are over 1" out of tolerance of scaling diameter, and logs not meeting the minimum length requirements as designated for this contract, and unless otherwise indicated, logs containing blue stain are considered mis-sorts.

Mis-sorted log volume will be considered on a per load basis. When mis-sorts amount to more than 5% 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 5%, 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, and logs not meeting minimum log quality specifications for sweep, peeler sorts, untrimmed limbs and knots as described in the G-024.1 clause 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 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-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 weighting/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.

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 Units..

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

_____	_____
Purchaser	Eric Wisch Pacific Cascade Region Manager
Date: _____	Date: _____
Address:	

CORPORATE ACKNOWLEDGEMENT

STATE OF _____)
)
COUNTY OF _____)

On this _____ day of _____, 20___, before me personally appeared _____
_____ to me known to be the _____ of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that (he/she was) (they were) authorized to execute said instrument.

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

_____
Notary Public in and for the State of

_____

My appointment expires _____

Schedule M

MAINTENANCE EQUIPMENT RATE

(Hourly Rate including Operator)

Motor Grader	**ARRF Rate**
To 140 HP (Cat 120H & 120M Class)	$128.00
To 175 HP (John Deere 670D, 670G, 672D, G, Cat 12M, Volvo G930, Komatsu GD-655-3)	$139.00
To 200 HP (John Deere 772, Cat 140M, Volvo G940, Komatsu GD-675-3)	$162.00
Over 200 HP (Cat 160M, 14M, 16H, Komatsu GD-825A-2)	$216.00
Addition for ripper/scarifier use:	
To 140 HP	add $4.00
To 175 HP	add $6.00
Over 175 HP	add $10.00

Front End Loader & Loader/Backhoe Combinations	
To 75 HP (Cat 416D, 416E, Komatsu WB142-2)	$79.00
To 110 HP (Cat 420E, Case 580, 590, Cat 908H, 914G, John Deere 344J)	$91.00
To 160 HP (Cat 450E, 924H, 930H, Hyundai HL730-9, John Deere 524K)	$111.00
Over 160 HP (John Deere 624K, Case 621E, Cat 938H, 950H, 966K	$136.00
Addition for special backhoe attachment use:	
compactor, clam, extendaboom, etc.	add $ 6.50/hr.

Gravel Trucks	
Dual Rear Axle	$98.00
5-axle Combination End Dump & End Dump Trailer	$115.00
5-axle Tractor & Belly Dump Trailer	$115.00

Dozers	
To 75 HP (Case 650K, Cat D3K XL)	$105.00
To 105 HP (Cat D4K, D5K, Case 750K, 850K, John Deere 450J, 550J, 650J, Komatsu D37EX-22)	$114.00
To 135 HP (Cat D6K, Case 1150K, John Deere 700J, Komatsu D51EX-22)	$139.00
To 185 HP (John Deere 750J, Case 1650, 1850, Cat D6N, Komatsu D61EX-15)	$168.00
To 240 HP (Cat D6T, D7E, John Deere 850J, Komatsu D65EX-15)	$201.00
Over 240 HP (Cat D8T, John Deere 950J)	$280.00
Addition for Ripper use:	
To 180 HP	add $7.50
To 235 HP	add $12.50
Over 235 HP	add $20.00

Tractor Brush Cutters	
To 67 PTO HP	$65.00
To 80 PTO HP	$80.00
Over 80 PTO HP (JD 6200, 6300, 6400	$95.00

Excavators and Shovels

To 60 HP (Kubota U45, U55, John Deere 50D, Hitachi 50U, Cat 307D).....$75.00
To 95 HP (Cat 312D, 314D, Doosan 140LCV, Hitachi 120-3, 135US-3, Link Belt 135, Komatsu PC 120-6, PC130-8, John Deere 120D, 135D).....$120.00
To 120 HP (Cat 315D, John Deere 160LC, Doosan 175LCV, Komatsu PC160LC-8, Link Belt 160LX, Volvo EC160C L).....$132.00
To 140 HP (Cat 319D L, 320C, Hitachi 160LC-3, Link Belt 210LX).....$157.00
To 170 HP (Cat 320D, Hitachi 200LC-3, 225LCV, Link Belt 240LX, Komatsu PC200-8 PC220LC-8, John Deere 225D LC, Volvo EC240C).....$182.00
To 230 HP (Cat 324D, 324E, 328D, 329D, John Deere 240D, 270D, 290G, Hitachi 240LC-3, 270LC-3, Link Belt 290LX RB, Volvo EC290C, Komatsu PC270LC-8).....$252.00
Over 230 HP (Cat 330D, 336D, Volvo EC330C, John Deere 330C, 330D, Komatsu PC300LC-8, PC350LC-8, Link Belt 330LX, 350X2, Hitachi 330LC, 350LC-3).$284.00
Excavator Attachment.....Add to Excavator $30.00

Self-Propelled Vibratory Compactors

To 80 HP (Bomag BW145DH-40, BW177D-40, Dynapac CA150D, Sakai SV201D, Ing Rand SD45F TF).....$88.00
To 125 HP (Bomag BW177PDBH-40, Cat CP-433E, Sakai SV400D-II, Dynapac CA152D).....$103.00
Over 125 HP (Bomag BW211PD-40, Dynapac CA262D, Ing Rand SD105DA TF, Sakai SV505D-I).....$15.00

Track Mounted Rock Drills (with one operator)

To 3.5 inch Diameter Hole.....$200.00
Over 3.5" Diameter Hole.....$235.00

Heavy Equipment Hauling

Truck and Tilt Trailer.....$110.00
Tractor and Lowbed Trailer to 55,000 lb payload.....$123.00
Tractor and Lowbed Trailer over 55,000 lb payload.....$145.00

Water Trucks

To 3,000 gallons.....$90.00
To 4,000 gallons.....$100.00
Over 4,000.....$105.00

Power Saws and Pumps.....$10.00
Labor Wages (woods rate before loading).....$25.00

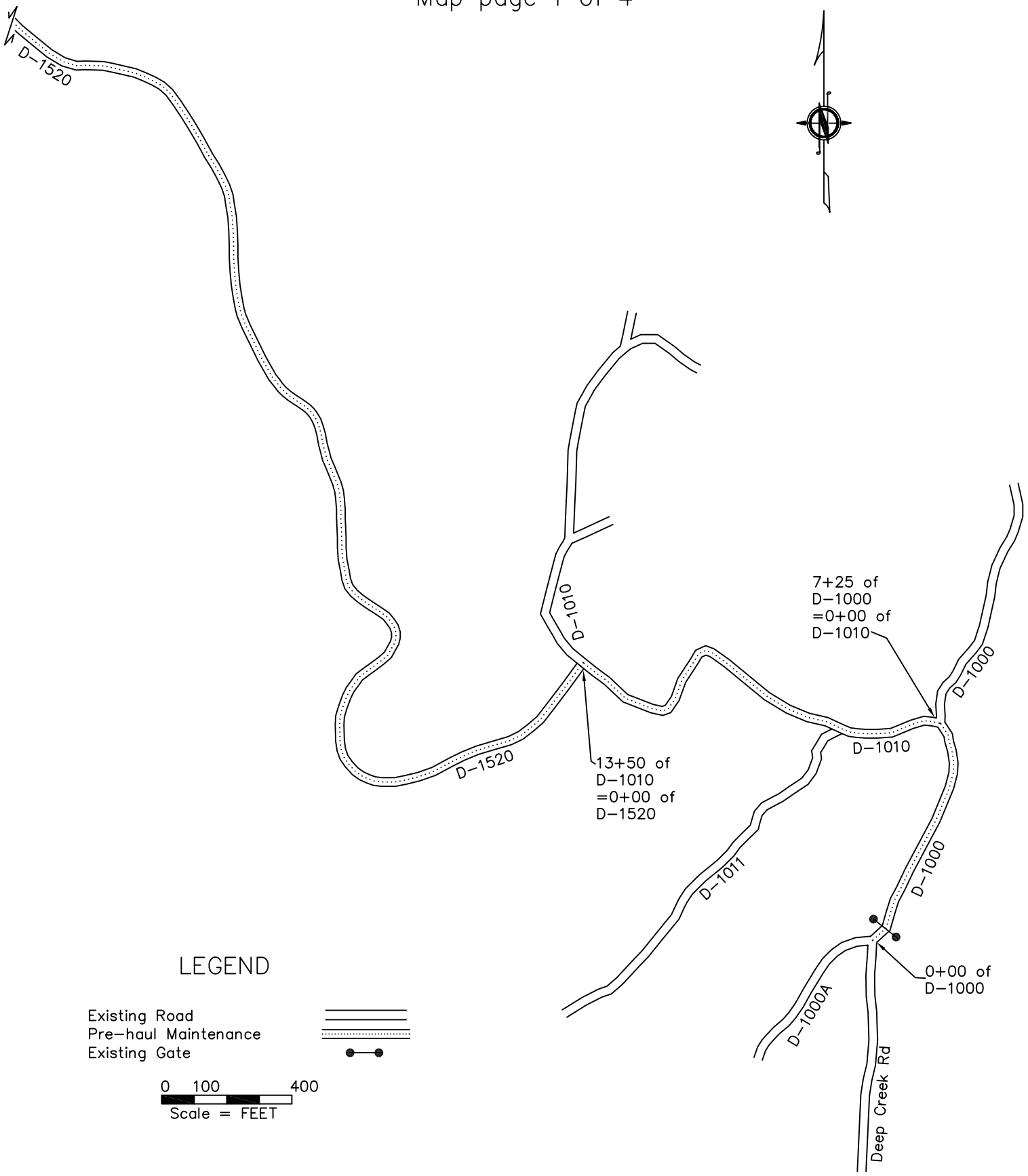
INSTRUCTIONS

HP taken at the Flywheel unless stated otherwise.
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. Rates include all costs of 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 for equipment not included in this schedule can be determined upon request. Rev. 08/2015

SHOWJUMPTER SORTS

ROAD PLAN MAP

Map page 1 of 4



LEGEND

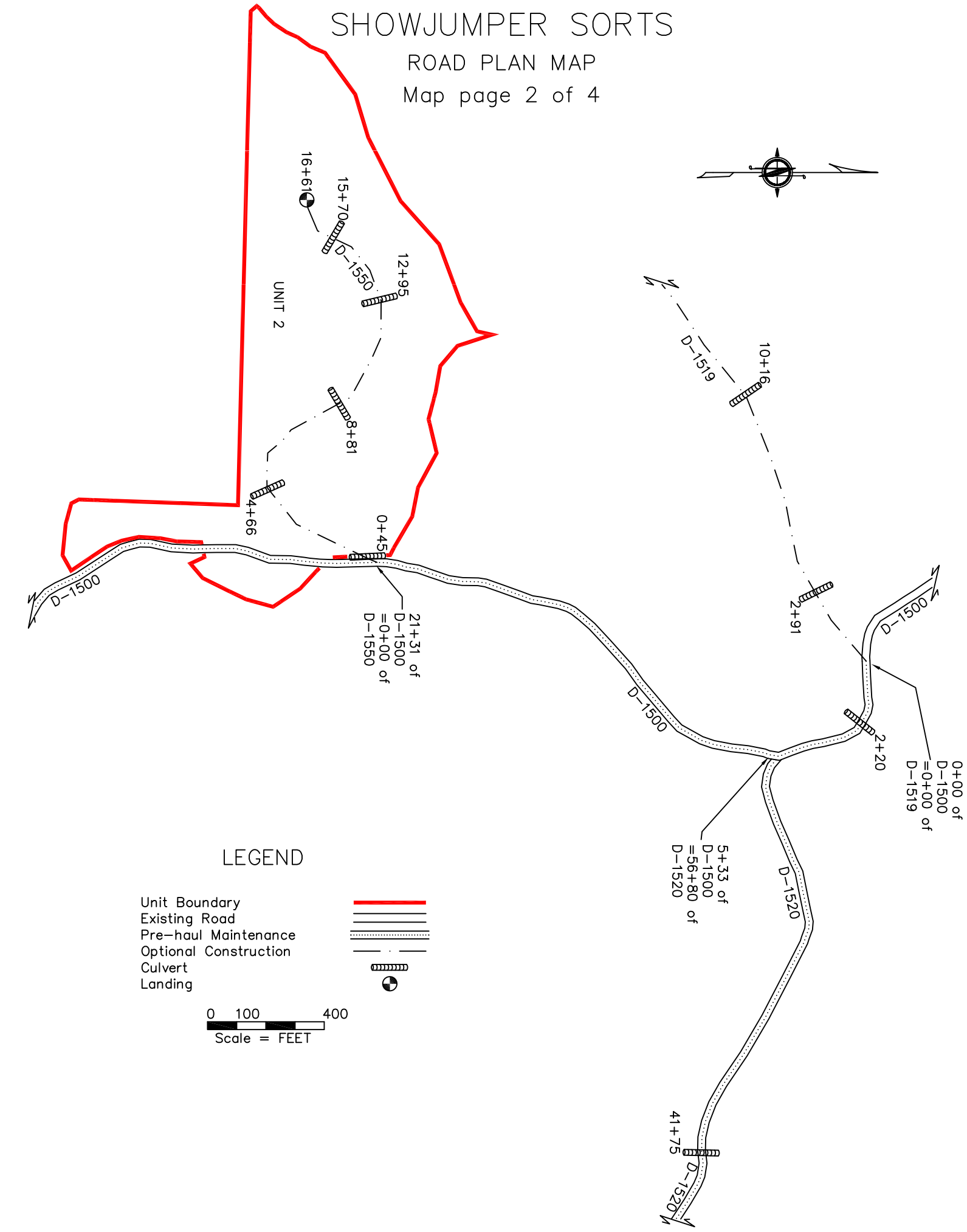
Existing Road
Pre-haul Maintenance
Existing Gate

0 100 400
Scale = FEET

SHOWJUMPER SORTS

ROAD PLAN MAP

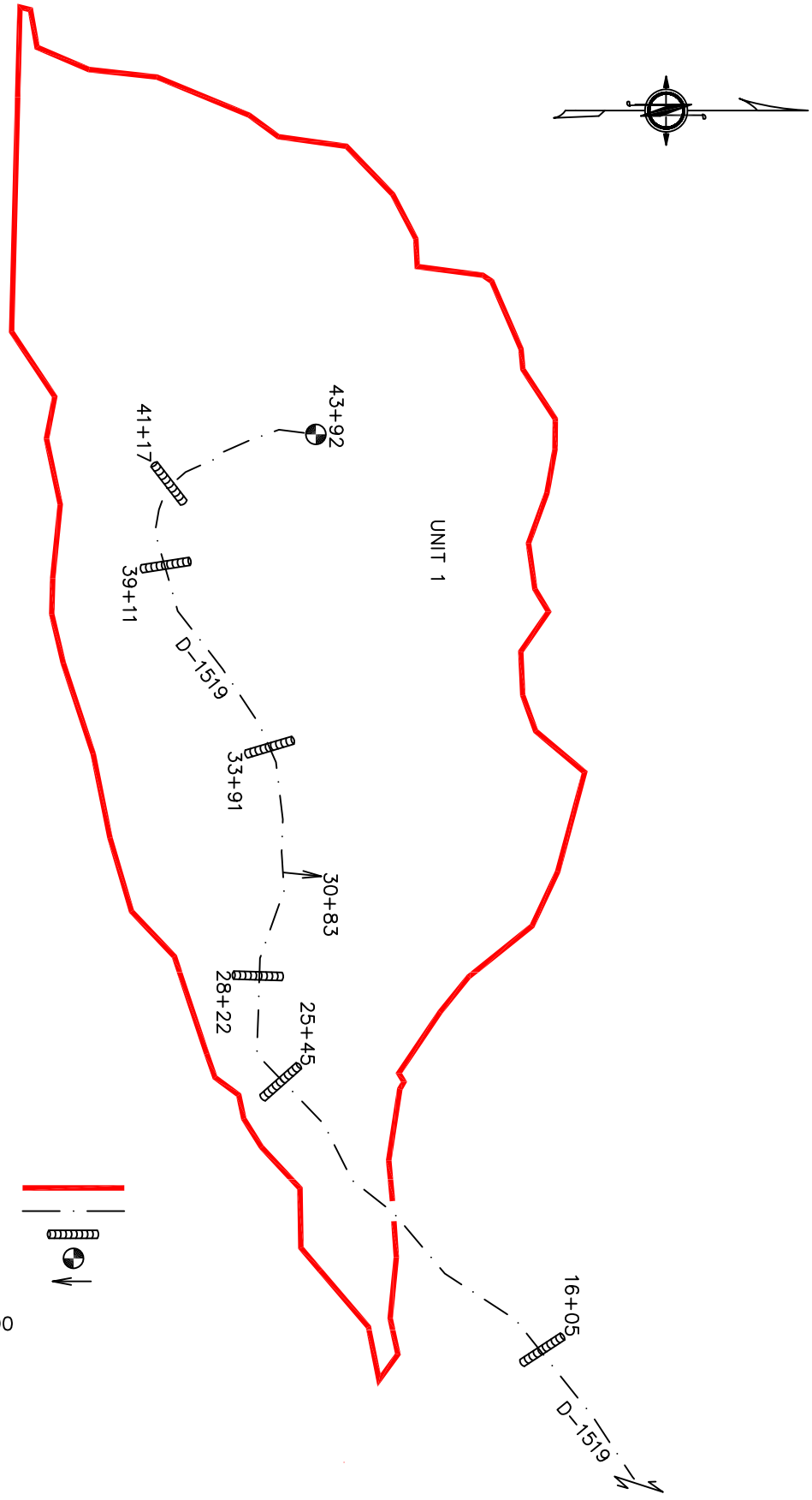
Map page 2 of 4



SHOWJUMPER SORTS

ROAD PLAN MAP

Map page 3 of 4



LEGEND

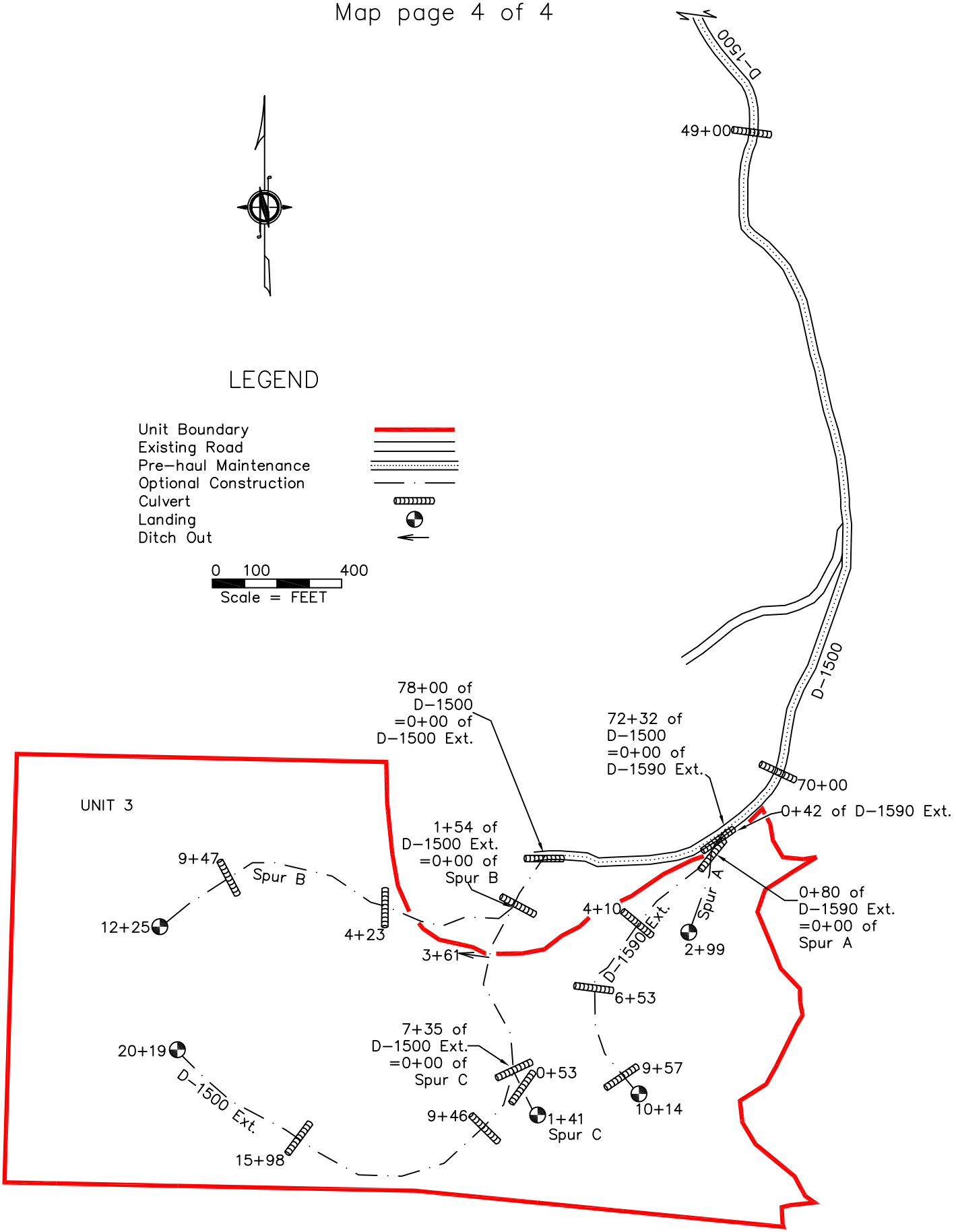
Unit Boundary
Optional Construction
Culvert
Landing
Ditch Out

0 100 400
Scale = FEET

SHOWJUMPER SORTS

ROAD PLAN MAP

Map page 4 of 4



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

SHOWJUMPER SORTS TIMBER SALE ROAD PLAN
LEWIS COUNTY
LEWIS DISTRICT

AGREEMENT NO.: 30-092774 STAFF ENGINEER: CHRIS WERNER

DATE: 06/03/2015 DRAWN & COMPILED BY: ALICIA COMPTON

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

0-2 REQUIRED ROADS

The specified work on the following roads is required.

Road	Stations	Type
D-1000	0+00 to 7+25	Pre-haul Maintenance
D-1010	0+00 to 13+50	Pre-haul Maintenance
D-1520	0+00 to 56+80	Pre-haul Maintenance
D-1500	0+00 to 78+00	Pre-haul Maintenance

0-3 OPTIONAL ROADS

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

Road	Stations	Type
D-1550	0+00 to 16+61	Construction
D-1500 EXT	0+00 to 20+19	Construction
D-1590 EXT	0+00 to 10+14	Construction
D-1519	0+00 to 43+92	Construction
Spur A	0+00 to 2+99	Construction
Spur B	0+00 to 12+25	Construction
Spur C	0+00 to 1+41	Construction

0-4 CONSTRUCTION

Construction includes, but is not limited to clearing, grubbing, right-of-way debris disposal, excavation and/or embankment to subgrade, ditch construction, ditch-out construction, landing construction, acquisition and installation of drainage structures; acquisition, processing and application of rock and grass seeding.

0-6 PRE-HAUL MAINTENANCE

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

Road	Stations	Requirements
D-1000	0+00 to 7+25	Grade, shape and compact road. Apply spot rock per ROCK LIST.
D-1010	0+00 to 13+50	Grade, shape and compact road. Install sediment traps per CLAUSE 8-1. Apply spot rock per ROCK LIST.
D-1520	0+00 to 56+80	Grade, shape and compact road. Clean ditch specified in Clause 2-7. Install sediment traps per CLAUSE 8-1. Install culvert per CULVERT LIST. Apply spot rock per ROCK LIST.
D-1500	0+00 to 78+00	Grade, shape and compact road. Clean Inlets specified in Clause 2-6. Clean ditch specified in Clause 2-7. Brush road in accordance with BRUSHING DETAIL and per Clause 3-1. Install culverts per CULVERT LIST. Apply spot rock per ROCK LIST.

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 must be submitted in writing to the Contract Administrator for consideration. Before work begins, Contractor shall obtain approval from the State for any submitted plan that changes the scope of work or environmental condition from the original road plan.

1-2 NON-COMPLIANCE WITH STATE ROAD PLAN

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to non-compliance or the Contractor's choice of construction techniques will be at the Contractor's expense.

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.

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.

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

1-6 ORDER OF PRECEDENCE

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

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

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

1-7 TEMPORARY ROAD CLOSURE

Contractor shall notify the Contract Administrator a minimum of 5 days before the closure of any road. Construction may not close any road for more than 21 consecutive calendar days.

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 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.

1-15 ROAD MARKING

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

- Wooden stakes, orange flagging and Reference points.

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.

1-20 COMPLETE BY DATE

Contractor shall complete pre-haul road work before the start of timber haul.

1-21 HAUL APPROVAL

Contractor shall not use roads under this road plan for any hauling, without written approval from the Contract Administrator.

1-22 WORK NOTIFICATIONS

Contractor shall notify the Contract Administrator a minimum of 7 calendar 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
- Rock application

1-25 ACTIVITY TIMING RESTRICTION

The operation of road construction equipment is not allowed on weekends or state recognized holidays, unless authorized in writing by the Contract Administrator.

1-26 OPERATING DURING CLOSURE PERIOD

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

1-29 SEDIMENT RESTRICTION

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 6 inches on pit run roads.
- Wheel track rutting exceeds 4 inches on crushed rock roads.
- Wheel track rutting exceeds 4 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.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

1-33 SNOW PLOWING RESTRICTION

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

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.

1-41 REQUIREMENTS FOR PAVED ROAD APPROACHES

Requirements for the Deep Creek Road road approaches:
Contractor shall build up approaches to allow a smooth grade transition between the D-1000 and Deep Creek Road. The top of the D-1000 surfacing must be kept level with the surface of the Deep Creek Road at all times.

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

2-4 PASSAGE OF LIGHT VEHICLES

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

2-5 MAINTENANCE GRADING – EXISTING ROAD

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

Road	Stations
D-1000	0+00 to 7+25
D-1010	0+00 to 13+50
D-1520	0+00 to 56+80
D-1500	0+00 to 78+00

2-6 CLEANING CULVERTS

On the following road the Contractor shall clean the inlets and outlets of all culverts.

Road	Stations
D-1500	33+30, 61+85, 65+25

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

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

Road	Stations
D-1520	41+75 to 45+00
D-1500	57+00 to 70+00

3-1 BRUSHING

On the following road the Contractor shall cut vegetative material up to 3 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by 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.

Road	Stations
D-1500	6+00 to 78+00

3-2 BRUSHING RESTRICTION

Pulling, digging, pushing over, and other non-cutting methods used for vegetation removal may not be used for brushing.

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 or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-7 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 45%.
- Against standing trees unless approved by the Contract Administrator.

3-10 GRUBBING

Contractor shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Contractor shall also remove stumps with undercut roots outside the grubbing limits. Contractor shall remove stumps using a hydraulic mounted excavator unless authorized in writing by the Contract Administrator. Stumps over 24 inches diameter must be split. Stumps over 40 inches must be quartered. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

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

3-14 STUMPS WITHIN DESIGNATED WASTE AREAS

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 Clause G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume within the clearing limits as shown on the TYPICAL SECTION SHEET.

3-21 DISPOSAL COMPLETION

All disposal of organic debris shall be completed before the removal of timber.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located within the cleared right-of-way or in natural openings as designated 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, or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-25 SCATTERING ORGANIC DEBRIS

Contractor shall scatter organic debris outside of the clearing limits or in natural openings unless otherwise detailed in this road plan or as directed by the Contract Administrator.

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 in areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANICE DEBRIS. Piles must be free of rock and soil.

3-32 END HAULING ORGANIC DEBRIS

On slopes greater than 45%, Contractor shall end haul or push organic debris to the designated waste areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS or to a waste area located by the Contract Administrator.

4-2 PIONEERING

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

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

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Contractor shall follow these standards for road grade and alignment:

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

4-4 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% of the curve radius.
- 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:

Material Type	Excavation Slope Ratio	Excavation Slope Percent
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:

Material Type	Embankment Slope Ratio	Embankment Slope Percent
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:

- 6 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 2 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

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

4-14 ONE-FOOT EXCAVATION LIMIT

Contractor shall not exceed a one-foot cut at centerline unless approved by the Contract Administrator.

4-21 TURNOUTS

Contractor shall construct turnouts intervisible with a maximum distance of 1,000 feet between turnouts. Locations may be adjusted to fit the final subgrade alignment and sight distances. Locations are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

4-22 TURNAROUNDS

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

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

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.

4-27 DITCH WORK – MATERIAL USE PROHIBITED

Contractor shall not pull ditch material across the road or mix in with the road surface. Excavated material must be scattered outside the grubbing limits.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

On the following road(s), Contractor shall construct ditchouts as identified and as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio. Locations may not be changed without written approval from the Contract Administrator. L or R denotes ditchout left or ditchout right.

Road	Stations	L or R
D-1500 Ext.	3+61	R
D-1519	30+83	R

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 45% if the waste material is compacted and free of organic debris. On side slopes greater than 45%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37 WASTE AREA LOCATION.

4-37 WASTE AREA LOCATION

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

4-38 PROHIBITED WASTE DISPOSAL AREAS

Contractor shall not deposit waste material in the following areas:

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

4-47 NATIVE MATERIAL

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

4-55 ROAD SHAPING

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. Contractor shall accomplish all shaping using a motor grader with a minimum of 175 horsepower.

4-56 DRY WEATHER SHAPING

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

4-60 FILL COMPACTION

Contractor shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift.

4-61 SUBGRADE COMPACTION

Contractor shall compact subgrades in accordance with the COMPACTION LIST by routing equipment over the entire width except ditch.

4-62 DRY WEATHER COMPACTION

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

4-63 EXISTING SURFACE COMPACTION

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

SECTION 5 – DRAINAGE

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 LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and meet the specifications in Clauses 10-15 through 10-23.

5-11 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials 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 Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations.

5-17 CROSS DRAIN SKEW AND SLOPE

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

5-18 CULVERT DEPTH OF COVER

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

5-20 ENERGY DISSIPATERS

Contractor shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock.

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

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.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Contractor shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins.

SECTION 6 – ROCK AND SURFACING

6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the ROCK LIST shall be obtained from any commercial source at the Contractor's expense. Rock sources are subject to written approval by the Contract Administrator before their use. Rock source(s) must be a WSDOT certified source.

6-20 ROCK GRADATION TYPES

Contractor shall provide rock in accordance with the types and amounts listed in the ROCK LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles**.**

6-22 FRACTURE REQUIREMENT FOR ROCK

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

6-29 1 ½-INCH MINUS CRUSHED ROCK

% Passing 1 ½" square sieve	100%
% Passing 1" square sieve	50 - 85%
% Passing U.S. #4 sieve	30 - 50%
% Passing U.S. #40 sieve	16% maximum
% Passing U.S. #200 sieve	5% 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 PIT RUN ROCK

No more than 50 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. 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.

6-43 QUARRY SPALLS

% Passing 8" square sieve	100%
% Passing U.S. #40 sieve	5% maximum

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

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are loose yards. 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.

6-56 ROCK MEASURMENT BY TRUCK VOLUME

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

6-70 APPROVAL BEFORE ROCK APPLICATION

Subgrade drainage installation shall be completed and approved in writing by the Contract Administrator, before rock application.

6-71 ROCK APPLICATION

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

6-73 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.

SECTION 7 – STRUCTURES

7-70 GATE CLOSURE

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

Road	Station
D-1000	0+00

SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES

On the following roads, Contractor shall install Sediment Traps in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

Road	Stations	Comments
D-1010	8+30	Install Sediment Traps
D-1520	0+50	Install Sediment Traps

8-2 PROTECTION FOR EXPOSED SOIL

Contractor shall provide and evenly spread a 6-inch layer of straw to all exposed soils at culvert installations. Soils must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

8-15 REVEGETATION

Contractor shall spread grass seed on all exposed soils resulting from road work activities. Cover all exposed soils using manual or mechanical methods. Other methods of covering must be approved in writing by the Contract Administrator. Required seed not spread by the termination of this contract will become the property of the state.

Road	Location	Qty (lbs)*	Type
All Roads	All Stations	100	Grass Seed

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

8-17 REVEGETATION TIMING

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

8-18 PROTECTION FOR SEED

Contractor shall provide a protective cover for seed on all exposed soils within 50 feet of streams or wetlands if revegetation occurs between July 1 and March 31. The protective cover may consist of Straw. Seed must be covered before the first anticipated storm event. Seed may not be allowed to sit exposed during any rain event. The protective cover requirement may be waived in writing by the Contract Administrator if Contractor is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50% coverage) of 3-inch tall grass by October 31.

8-19 ASSURANCE FOR SEEDED AREA

Contractor shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. Contractor shall reapply the grass seed in areas that have failed to germinate or have been damaged through any cause. Restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed at no addition cost to the state.

8-25 GRASS SEED

Contractor shall evenly spread the seed mixture listed below on all exposed soil inside the grubbing limits at a rate of 40 pounds per acre of exposed soil. Grass seed must meet the following specifications:

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

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

SECTION 9 – POST-HAUL ROAD WORK

9-10 LANDING DRAINAGE

Contractor shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Contractor shall slope landing embankments to the original construction specifications.

SECTION 10 MATERIALS

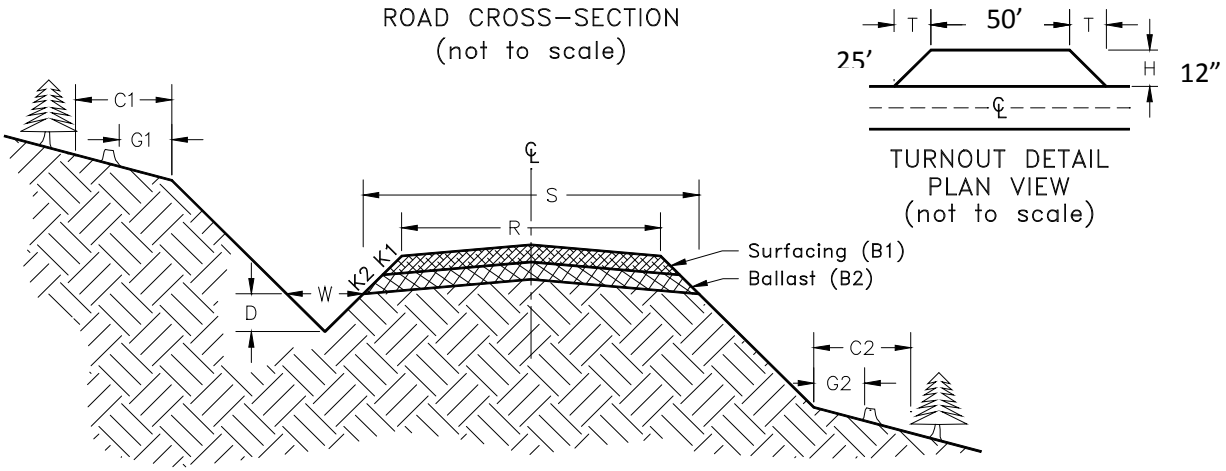
10-17 CORRUGATED PLASTIC CULVERT

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

10-22 PLASTIC BAND

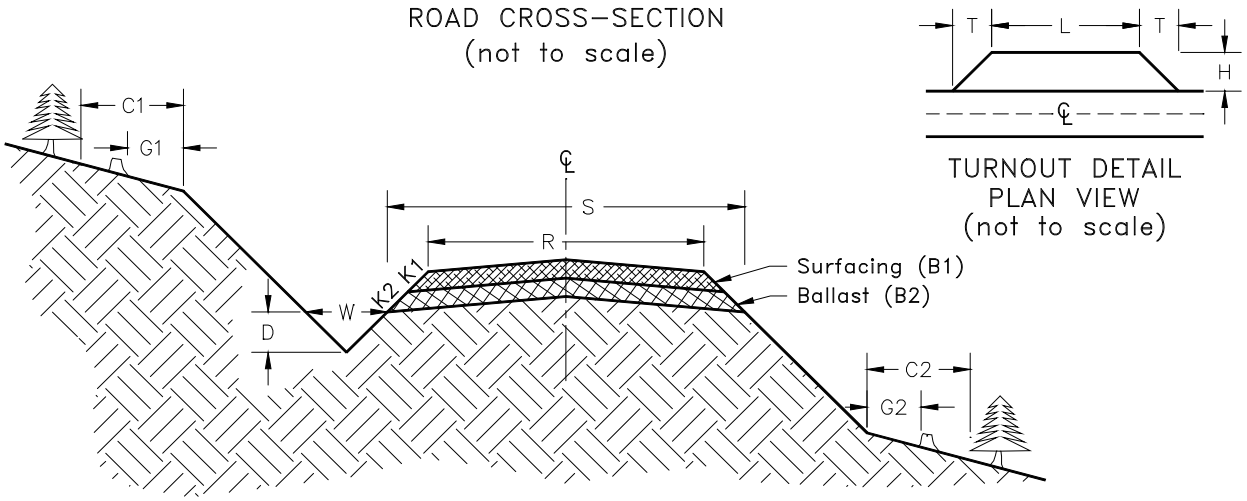
Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used. Couplings must be split coupling band. Split coupling bands must have a minimum of four corrugations, two on each side of the pipe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

TYPICAL SECTION SHEET



Road Number	From Station	To Station	Tolerance Class	Subgrade Width	Road Width	Ditch		Crown in. @ CL	Grubbing Limits		Clearing Limits	
						Width	Depth					
				S	R	W	D		G1	G2	C1	C2
D-1550	0+00	16+61	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
D-1500 EXT	0+00	20+19	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
D-1590 EXT	0+00	10+14	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
D-1519	0+00	43+92	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
Spur A	0+00	2+99	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
Spur B	0+00	12+25	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
Spur C	0+00	1+41	C	16′	12′	3′	1′	4″	5′	5′	10′	10′
D-1000	0+00	7+25	A	17′	14′	3′	1′	4″				
D-1010	0+00	13+50	A	17′	14′	3′	1′	4″				
D-1520	0+00	56+80	A	17′	14′	3′	1′	4″				
D-1500	0+00	78+00	A	17′	14′	3′	1′	4″				

ROCK LIST
(Page 1 of 2)



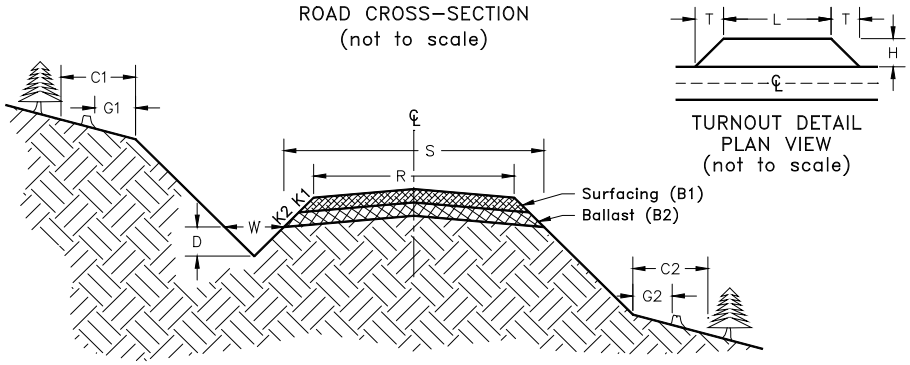
BALLAST

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source
			K2	B2	**PIT RUN**			
*D-1550	0+00	16+61	1 ½ : 1	15”	81	16.61	1345	Commercial
*D-1500 EXT	0+00	20+19	1 ½ : 1	15”	81	20.19	1635	
*D-1590 EXT	0+00	10+14	1 ½ : 1	15”	81	10.14	821	
*D-1519	0+00	43+92	1 ½ : 1	15”	81	43.92	3558	
*Spur A	0+00	2+99	1 ½ : 1	15”	81	2.99	242	
*Spur B	0+00	12+25	1 ½ : 1	15”	81	12.25	992	
*Spur C	0+00	1+41	1 ½ : 1	15”	81	1.41	114	
LANDINGS					75	7	525	
TURN AROUNDS					50	2	100	
TURNOUTS					50	8	400	

*Optional Roads- If Optional Roads are built, Rock is REQUIRED per the ROCK LIST.

BALLAST TOTAL 9,732 Cubic Yards

ROCK LIST
(Page 2 of 2)



SURFACE

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Total	Rock Source
			K1	B1	**1 ½ " MINUS**			
D-1000	0+00	7+25	1 ½ : 1		SPOT ROCK		100	Commercial
D-1010	0+00	13+50	1 ½ : 1		SPOT ROCK		100	
D-1520	0+00	56+80	1 ½ : 1		SPOT ROCK		400	
D-1500	0+00	78+00	1 ½ : 1		SPOT ROCK		400	

SURFACE TOTAL 1000 Cubic Yards

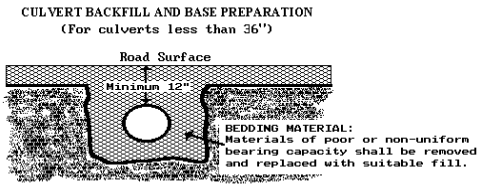
QUARRY SPALLS

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Total	Rock Source
			K1	B1	**QUARRY SPALLS**			
Culverts					1	30	30	Commercial

QUARRY SPALLS TOTAL 30 Cubic Yards

CULVERT LIST

Road Number	Location	Culvert Dia.	Culvert Gauge	Length (ft) Culvert	Length (ft) Downspt	Length (ft) Flume	Quarry Spalls (C.Y.) Inlet	Quarry Spalls (C.Y.) Outlet	Quarry Spalls (C.Y.) Type	Backfill Material	Placement Method
D-1550	0+45	18″		40			.5	.5	QS	NT	ZDH
D-1550	4+66	18″		40			.5	.5	QS	NT	ZDH
D-1550	8+81	18″		30			.5	.5	QS	NT	ZDH
D-1550	12+95	18″		30			.5	.5	QS	NT	ZDH
D-1550	15+70	18″		30			.5	.5	QS	NT	ZDH
D-1500 Ext	0+00	18″		40			.5	.5	QS	NT	ZDH
D-1500 Ext	1+54	18″		40			.5	.5	QS	NT	ZDH
D-1500 Ext	3+61	DOR									
D-1500 Ext	7+35	18″		30			.5	.5	QS	NT	ZDH
D-1500 Ext	9+46	18″		30			.5	.5	QS	NT	ZDH
D-1500 Ext	15+98	18″		30			.5	.5	QS	NT	ZDH
D-1590 Ext	0+42	18″		80			.5	.5	QS	NT	ZDH
D-1590 Ext	4+10	18″		30			.5	.5	QS	NT	ZDH
D-1590 Ext	6+53	18″		30			.5	.5	QS	NT	ZDH
D-1590 Ext	9+57	18″		30			.5	.5	QS	NT	ZDH
D-1519	2+91	18″		30			.5	.5	QS	NT	ZDH
D-1519	10+16	18″		30			.5	.5	QS	NT	ZDH
D-1519	16+05	18″		30			.5	.5	QS	NT	ZDH
D-1519	25+45	18″		30			.5	.5	QS	NT	ZDH
D-1519	28+22	18″		30			.5	.5	QS	NT	ZDH
D-1519	30+83	DOR									
D-1519	33+91	18″		30			.5	.5	QS	NT	ZDH
D-1519	39+11	18″		30			.5	.5	QS	NT	ZDH
D-1519	41+17	18″		30			.5	.5	QS	NT	ZDH
Spur A	0+00	18″		80			.5	.5	QS	NT	ZDH
Spur B	4+23	18″		30			.5	.5	QS	NT	ZDH
Spur B	9+47	18″		30			.5	.5	QS	NT	ZDH
Spur C	0+53	18″		30			.5	.5	QS	NT	ZDH
D-1520	41+75	18″		30			.5	.5	QS	NT	ZDH
D-1500	2+20	18″		30			.5	.5	QS	NT	ZDH
D-1500	49+00	18″		30			.5	.5	QS	NT	ZDH
D-1500	70+00	18″		50			.5	.5	QS	NT	ZDH



Key:

QS - Quarry Spalls
NT - Native (bank run)
ZDH - Zero Drop Height
DOR - Ditchout Right
LL - Light Loose Riprap
Flume - Half round pipe
Downspout - Full round pipe

COMPACTION LIST

Road	From Station	To Station	Type	Max Depth Per Lift (inches)	Equipment Type	Equipment Weight (lbs)	Minimum Number of Passes	Maximum Operating Speed (mph)
D-1550	0+00	16+61	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
D-1500 EXT	0+00	20+19	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
D-1590 EXT	0+00	10+14	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
D-1519	0+00	43+92	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
Spur A	0+00	2+99	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
Spur B	0+00	12+25	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
Spur C	0+00	1+41	Subgrade/Rock	6”	Vibratory Smooth Drum	14000	3	4
D-1000	0+00	7+25	Pre-haul Surface		Vibratory Smooth Drum	14000	3	4
D-1010	0+00	13+50	Pre-haul Surface		Vibratory Smooth Drum	14000	3	4
D-1520	0+00	56+80	Pre-haul Surface		Vibratory Smooth Drum	14000	3	4
D-1500	0+00	78+00	Pre-haul Surface		Vibratory Smooth Drum	14000	3	4

CULVERT AND DRAINAGE SPECIFICATION DETAIL

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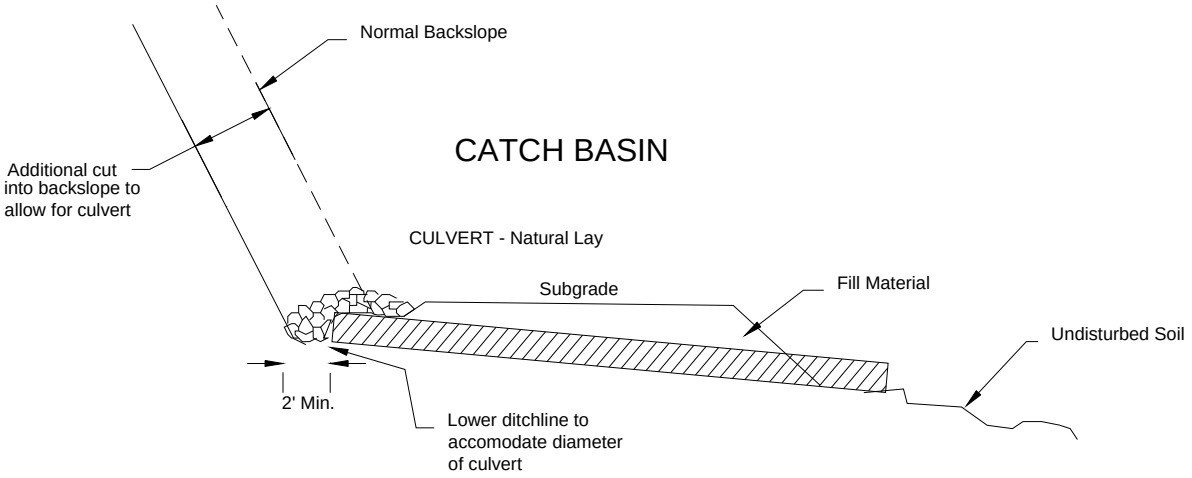
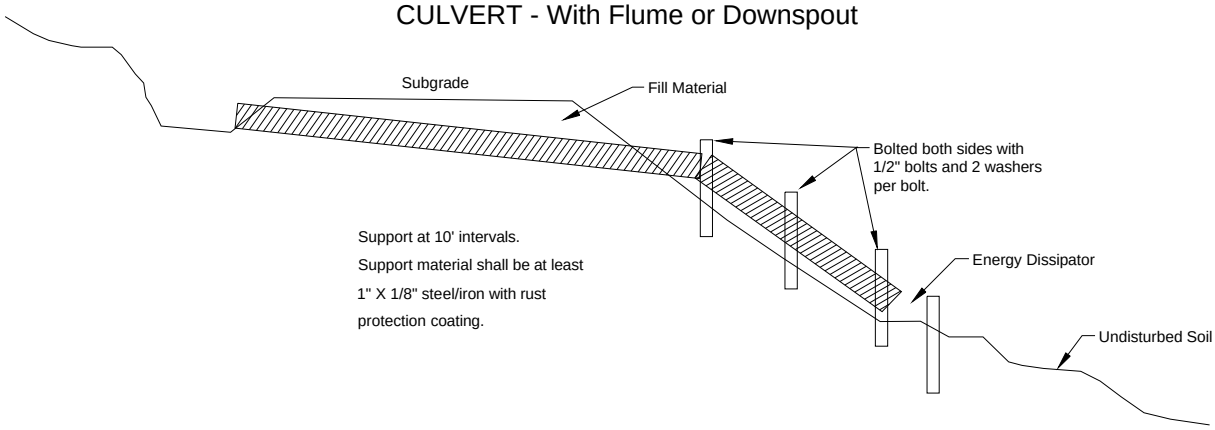


CULVERT - With Flume or Downspout

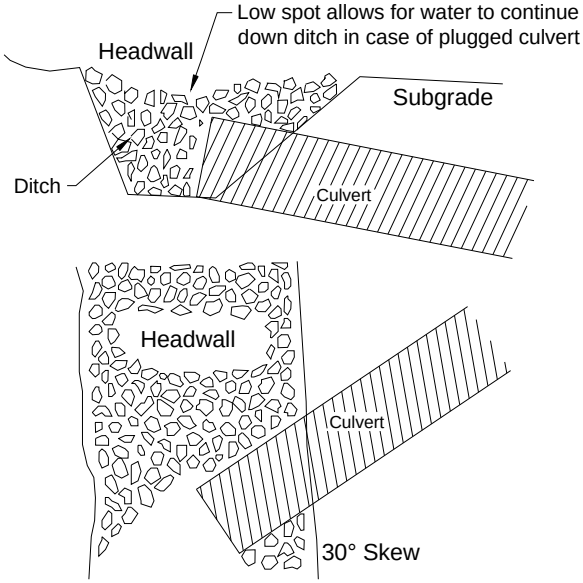


CULVERT AND DRAINAGE SPECIFICATION DETAIL

(Page 2 of 3)

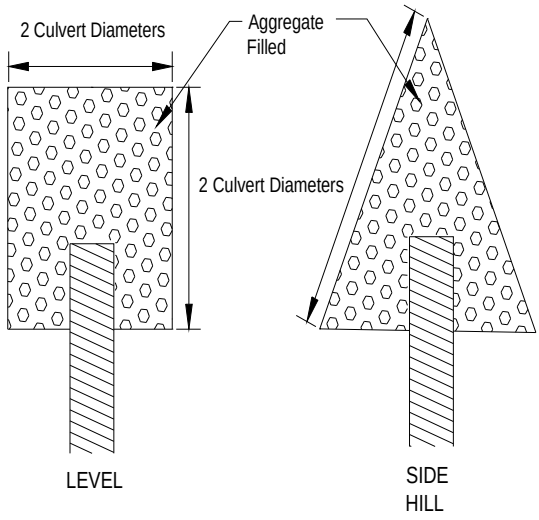
Proper preparation of foundation and placement of bedding material shall precede the installation of all culvert pipe. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform dense unyielding base. The backfill material shall be placed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

HEADWALLS



Headwalls to be constructed of material that will resist erosion.

ENERGY DISSIPATORS



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

CULVERT AND DRAINAGE SPECIFICATION DETAIL

(Page 3 of 3)

POLYETHYLENE PIPE INSTALLATION

INSTALLATION REQUIREMENTS:

1. Crushed stone, gravel, or compacted soil backfill material shall be used as the bedding and envelope material around the culvert. The aggregate size shall not exceed 1/6 pipe diameter or 4" diameter, whichever is smaller.

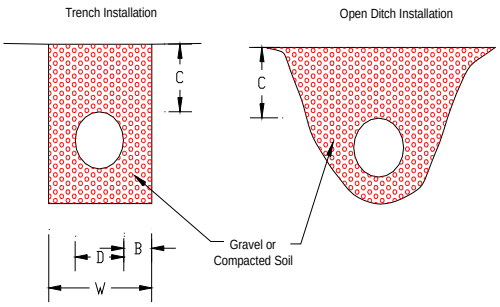
2. The corrugated pipe shall be laid on grade, on a layer of bedding material as shown for the two types of installations. If native soil is used as the bedding and backfill material, it shall be well compacted in six inch layers under the haunches, around the sides and above the pipe to the recommended minimum height of cover.

3. Either crushed aggregate or flexible (asphalt) pavement may be laid as part of the minimum cover requirements.

4. Site conditions and availability of bedding materials often dictate the type of installation method used.

5. The load bearing capability of flexible conduits is dependent on the type of backfill material used and the degree of compaction achieved. Crushed stone and gravel backfill materials typically reach a compaction level of 90-95% AASHTO standard density without compaction. When native soils are used as backfill material, a compaction level of 85% is required. This minimum compaction can be achieved by either hand or mechanical tamping.

MINIMUM DIMENSIONS
Trench or Open Ditch Installation



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

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS
Page 1 of 2

Cuts and Fills

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

Surface

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

Drainage

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

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS
Page 2 of 2

Preventative Maintenance

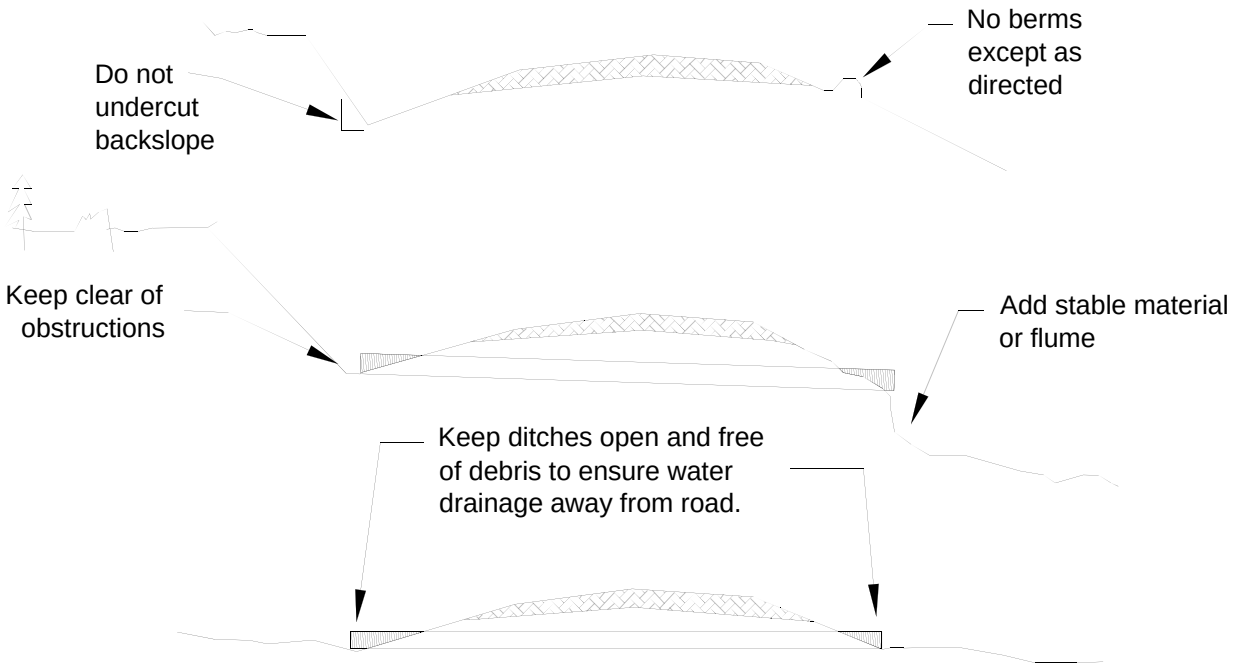
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

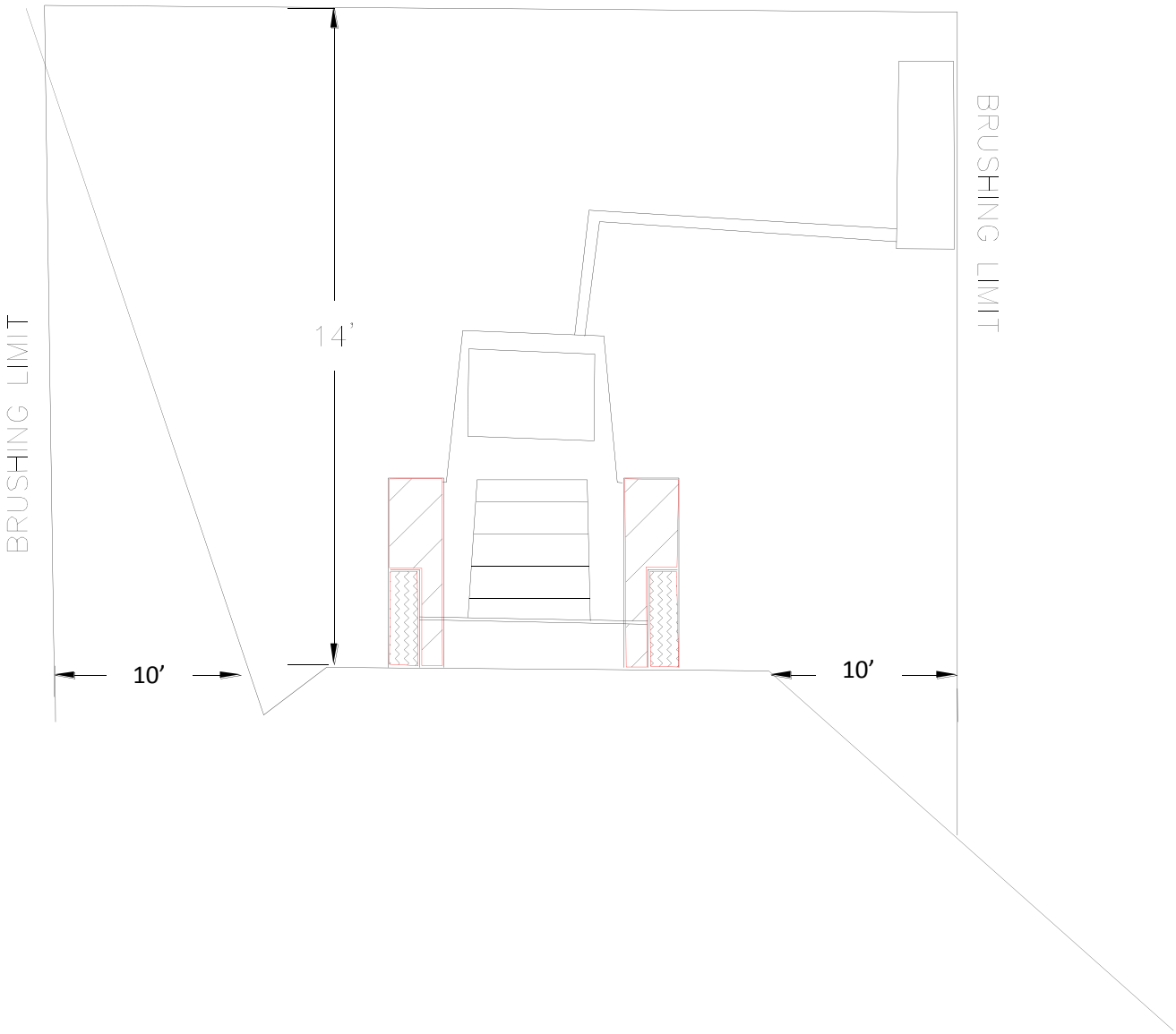
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

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



BRUSHING DETAIL



DEPARTMENT OF NATURAL RESOURCES

SUMMARY - Road Development Costs

REGION: PACIFIC CASCADE

DISTRICT: LEWIS

SALE/PROJECT NAME: Showjumper Sorts CONTRACT NUMBER: 30-092774

LEGAL DESCRIPTION: 0

ROAD NUMBER:

Required: D-1000, D-1010, D-1520, D-1500

Optional: D-1550, D-1500 EXT, D-1590 EXT, D-1519, Spur A, Spur B, Spur C

ROAD STANDARD:	Construction	Reconstruction	Pre-haul maintenance
NUMBER OF STATIONS:	107.51	0.00	155.55
SIDESLOPE:	25%	20%	20%
CLEARING AND GRUBBING:	$9,676	$0	
EXCAVATION AND FILL:	$21,771	$0	
MISC. MAINTENANCE:	$300	$0	$3,384
ROCK TOTALS:			
Required:	$218,770	$0	$24,005
Optional:	$0	$0	$0
Total:	$218,770	$0	$24,005
CULVERTS AND FLUMES:	$16,560	$0	$2,520
PAVING:	$0	$0	$ -
GENERAL EXPENSES:	$24,064	$0	$2,692
MOBILIZATION:	$1,268	$0	$1,268
TOTAL COSTS:	$292,108	$0	$33,868
COST PER STATION:	$2,717	#DIV/0!	$218

ROAD DEACTIVATION AND ABANDONMENT COSTS: $0

NOTE: Profit and risk are included in equipment rates used for this appraisal.

TOTAL (All Roads) = **$325,976**

TOTAL w/o Optional Rock (All Roads) = **$325,976**

SALE VOLUME MBF = **5,342**

TOTAL COST PER MBF = **$61.02**

TOTAL COST PER MBF w/o Optional Rock = **$61.02**

Compiled by: Chris Werner Date: 06/01/15

Plans to be furnished by:

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - CONSTRUCTION

SALE NAME: Showjumper Sorts CONTRACT NUMBER: 30-092774 Road No. 0 Stations: 107.5 Date: 06/01/15

I. CLEARING AND GRUBBING:

	Flat Rate -	% Side Slope	MBF/ac	Disposal Factor	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
D-1550		25	20.0	1.00	2.00	$45	1.00	16.61	$1,495
D-1500 EXT		25	20.0	1.00	2.00	$45	1.00	20.19	$1,817
D-1590 EXT		25	20.0	1.00	2.00	$45	1.00	10.14	$913
D-1519		25	20.0	1.00	2.00	$45	1.00	43.92	$3,953
Spur A		25	20.0	1.00	2.00	$45	1.00	2.99	$269
Spur B		25	20.0	1.00	2.00	$45	1.00	12.25	$1,103
Spur C		25	20.0	1.00	2.00	$45	1.00	1.41	$127

Total Stations= 107.51

II. EXCAVATION:

Required Stations=
Optional Stations= 107.51

Required Clear and Grub Sub-total=
Optional Clear and Grub Sub-total= $9,676
Clear and Grub TOTAL = $9,676

	Flat Rate -	% Side Slope	Exc. Type Fact.	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
D-1550		25	1.0	2.25	$90	1.00	16.61	$3,364
D-1500 EXT		25	1.0	2.25	$90	1.00	20.19	$4,088
D-1590 EXT		25	1.0	2.25	$90	1.00	10.14	$2,053
D-1519		25	1.0	2.25	$90	1.00	43.92	$8,894
Spur A		25	1.0	2.25	$90	1.00	2.99	$605
Spur B		25	1.0	2.25	$90	1.00	12.25	$2,481
Spur C		25	1.0	2.25	$90	1.00	1.41	$286

Total Stations=

*End Haul, Over Haul, Large Fills/Cuts

	Estimated Vol. (cy)	No. of Equip. Days	Cost/day	Sub Total
End Haul/ Over Haul				$0
Large Fills/ Cuts				$0

IV. CULVERTS AND FLUMES:

Required Stations=
Optional Stations=

Required Excavation Sub-total=
Optional Excavation Sub-total= $21,771
Excavation TOTAL = $ 21,770.78

Required

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CPP	20		18	30	$18.00	$10,800
	4		18	40	$18.00	$2,880
	2		18	80	$18.00	$2,880
						$0
						$0
						$0
Bands & Gaskets					$20.00	$0

Required Culvert Subtotal = $16,560

Optional

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CPP						$0
						$0
						$0
						$0
						$0
						$0
Bands & Gaskets						$0

Optional Culvert Subtotal = $0

V. STRUCTURES

Culvert Total = $16,560

Description	Type	Width	Length	Cost/ft.	Sub-total
					$0
					$0
					$0

Structure Total = $0

VI. GRASS SEEDING

Required Pounds	$/lb	Sub-total
100	$3.00	$300

Optional Pounds	$/lb	Sub-total
	$3.00	$0

Grass Seeding Total = $300

III. BALLAST AND SURFACING :

Required Rock

Ballast source:
Surface source:
Landing source
Culvert source
Riprap source :
Stockpile source:

R.T. Miles = 30.0
Ave. Speed = 35
Delay (Hrs.)= 0.3
Cost / Hour = $90.00
CY / Load = 10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Turnouts
Drill & Shoot					
Dig and load					
Crushing					
Purchase	$8.65		$8.65	$11.30	$8.65
Haul *	$10.41	$10.41	$10.41	$10.41	$10.41
Spread	$2.00		$2.00	$2.00	
Compact	$1.50		$1.50		
Strip					
Reclamation					
Use tax					
TOTAL ($/cy)	$22.56	$10.41	$22.56	$23.71	$19.06

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast	Pit Run	8,707
Surfacing		
Landings	Pit Run	525
Culverts	Quarry Spalls	28.0
Turnouts	Pit Run	400
Turn Arounds	Pit Run	100

Total Rock= 9,760

Ballast	8707	Cu. yds @	$22.56	/cu. yd =	$196,430
Surfacing	0	Cu. yds @	$10.41	/cu. yd =	$0
Landings	525	Cu. yds @	$22.56	/cu. yd =	$11,844
Culverts	26	Cu. yds @	$23.71	/cu. yd =	$616
Riprap	400	Cu. yds @	$19.06	/cu. yd =	$7,624
Turn Arounds	100	Cu. yds @	$22.56	/cu. yd =	$2,256

Required Rock total = $218,770

Optional Rock

Ballast source:
Surface source:
Landing source
Culvert source
Riprap source :
Stockpile source:

R.T. Miles = 35.0
Ave. Speed = 40
Delay (Hrs.)= 0.5
Cost / Hour = $90.00
CY / Load = 10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot					
Dig and load					
Crushing					
Purchase					
Haul *	$12.38		$12.38	$12.38	
Spread	$2.00		$2.00	$2.00	
Compact	$1.50		$1.50		
Strip					
Reclamation					
Use tax					
TOTAL ($/cy)	$15.88	$0.00	$15.88	$14.38	$0.00

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast		
Surfacing		
Landings		
Culverts		
Turnouts		
Stockpile		

Total Rock= 0

Ballast	0	Cu. yds @	$15.88	/cu. yd =	$0
Surfacing	0	Cu. yds @	$0.00	/cu. yd =	$0
Landings	0	Cu. yds @	$15.88	/cu. yd =	$0
Culverts	0.0	Cu. yds @	$14.38	/cu. yd =	$0.00
Turnouts	0	Cu. yds @	$15.88	/cu. yd =	$0
Stockpile	0	Cu. yds @	$0.00	/cu. yd =	$0

Optional Rock total = $0

Rock Total= $218,770

Required Construction= $ 16,860.00
Optional Construction= $ 31,746.68
Required Rock= $218,770
Optional Rock= $0

Required Sub-total= $ 235,630.38
Optiona Sub-total= $ 31,746.68
Sub-TOTAL = $267,377

VI. GENERAL EXPENSES:

Overhead & General Exp. Add 9% $24,064

VII. MOBILIZATION:

Total Mobilization = $2,535 Mobilization sub-total = $1,267.50

SHEET TOTAL = $292,708

By: Chris Werner

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - RE-CONSTRUCTION

SALE NAME: Showjumper Sorts CONTRACT NUMBER: 30-092774 Road No. 0 Stations: 0.00 Date: 06/01/15

I. CLEARING AND GRUBBING:

Flat Rate -	% Side Slope	MBF/ac	Disposal Factor	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
			1.00	1.00	$45	1.00		$0
			1.00	1.00	$45	1.00		$0
			1.00	#N/A	$45	1.00		#N/A
								$0
								$0

Total Stations= 0.00

Required Stations= Required Clear and Grub Sub-total=

Optional Stations= Optional Clear and Grub Sub-total= 0

Clear and Grub TOTAL = $0

II. EXCAVATION:

Flat Rate -	% Side Slope	Exc. Type Fact.	Production Factor	Cost/ Station	Width Factor	Total Stations	Sub Total
		1.0	1.00	$90	1.00		$0
		1.0	1.00	$90	1.00		$0
	25	1.0	2.25	$90	1.00		$0
							$0
							$0

Total Stations= 0.00

*End Haul, Over Haul, Large Fills/Cuts

	Estimated Vol. (cy)	No. of Equip. Days	Cost/day	Sub Total
End Haul/ Over Haul				$0
Large Fills/ Cuts				$0

Required Stations= Required Excavation Sub-total=

Optional Stations= Optional Excavation Sub-total= 0

Excavation TOTAL = $0

IV. CULVERTS AND FLUMES:

Required

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CPP			18	30	$17.00	$0
			18	40	$18.00	$0
						$0
						$0
						$0
						$0
Bands & Gaskets					$20.00	$0

Required Culvert Subtotal = $0

Optional

Description	Qty.	Gauge	Diameter	No/Length	Installed Cost/ft	Sub-total
CPP			18		$18.00	$0
						$0
						$0
						$0
						$0
						$0
Bands & Gaskets						$0

Optional Culvert Subtotal = $0

Culvert Total = $0

V. STRUCTURES

Description	Type	Width	Length	Cost/ft.	Sub-total
					$0
					$0
					$0

Structure Total = $0

VI. GRASS SEEDING

Required		
Pounds	$/lb	Sub-total
	$2.00	$0

Optional		
Pounds	$/lb	Sub-total
	$2.00	$0

Grass Seeding Total = $0

III. BALLAST AND SURFACING :

Required Rock

Ballast source: N-1000 Quarry
Surface source: N-1000 Quarry
Landing source N-1000 Quarry
Culvert source N-1000 Quarry
Riprap source : N-1000 Quarry
Stockpile source: N-1000 Quarry

R.T. Miles = 7.0
Ave. Speed = 19
Delay (Hrs.)= 0.2
Cost / Hour = $90.00
CY / Load = 10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot	$2.25		$2.25	$2.25	
Dig and load	$1.00		$1.00	$1.00	
Crushing	$3.50		$3.50		
Purchase					
Haul *	$5.12	$5.12	$5.12	$5.12	$5.12
Spread	$1.00		$1.00	$1.00	
Compact	$1.00		$1.00		
Strip	$2.50		$2.50	$2.50	
Reclamation					
Use tax	$0.08	$0.08	$0.08	$0.08	$0.08
TOTAL ($/cy)	$17.68	$5.53	$17.68	$12.82	$5.53

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast	4" Jaw Run	
Surfacing	2 1/2" minus	
Landings	4" Jaw Run	
Culverts	Quarry Spalls	
Riprap		
Stockpile		

Ballast	0	Cu. yds @	$17.68	/cu. yd = $0
Surfacing	0	Cu. yds @	$5.53	/cu. yd = $0
Landings	0	Cu. yds @	$17.68	/cu. yd = $0
Culverts	0	Cu. yds @	$12.82	/cu. yd = $0
Riprap	0	Cu. yds @	$5.53	/cu. yd = $0
Stockpile	0	Cu. yds @	$5.53	/cu. yd = $0

Total Rock= 0 Required Rock total = $0

Optional Rock

Ballast source:
Surface source:
Landing source
Culvert source
Riprap source :
Stockpile source:

R.T. Miles = 6.0
Ave. Speed = 19
Delay (Hrs.)= 0.2
Cost / Hour = $90.00
CY / Load = 10

UNIT COSTS	Ballast	Surfacing	Landing	Culvert	Riprap
Drill & Shoot					
Dig and load	$2.00			$3.00	
Crushing					
Purchase					
Haul *	$4.37	$4.37	$4.37	$4.37	$4.37
Spread	$2.00			$2.00	
Compact	$1.50				
Strip					
Reclamation					
Use tax	$0.08	$0.08	$0.08	$0.08	$0.08
TOTAL ($/cy)	$10.66	$4.72	$4.72	$10.12	$4.72

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

Item	Description	Cubic Yards
Ballast		
Surfacing		
Landings		
Culverts		
Riprap		
Stockpile		

Ballast	0	Cu. yds @	$10.66	/cu. yd = $0
Surfacing	0	Cu. yds @	$4.72	/cu. yd = $0
Landings	0	Cu. yds @	$4.72	/cu. yd = $0
Culverts	0	Cu. yds @	$10.12	/cu. yd = $0
Riprap	0	Cu. yds @	$4.72	/cu. yd = $0
Stockpile	0	Cu. yds @	$4.72	/cu. yd = $0

Total Rock= 0 Optional Rock total = $0

Rock Total= $0

Required Re-Construction= $0
Optional Re-Construction= $0
Required Rock= $0
Optional Rock= $0

Required Sub-total= $0
Optional Sub-total= $0
Sub-TOTAL = $0

VI. GENERAL EXPENSES:

Overhead & General Exp. Add 9% $0

VII. MOBILIZATION:

Total Mobilization = $0 Mobilization sub-total = $0.00

SHEET TOTAL = $0

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - PRE-HAUL MAINTENANCE

SALE NAME: Showjumper Sorts CONTRACT NUMBER: 30-092774

Total stations Pre-Haul Maintenance =

I. MISC. MAINTENANCE ITEMS:

	Cost/ Station	Total Stations	Sub Total
mechanical brushing ($/sta) =	20.00	72.00	$1,440
Sediment Traps (ea.) =	50.00	2.00	$100
ditch cleaning ($/sta) =	40.00	16.25	$650
culvert cleanout (ea.) =	35.00	3.00	$105
grading ($/sta) =	5.50	155.55	$856
compacting ($/sta) =	1.50	155.55	$233

Misc TOTAL = $3,384

III. BALLAST AND SURFACING :

Ballast source:
Surface source:
Riprap source :

Description	cu.yds/sta x stations =	cubic yards
Ballast (4" Jaw Run)		0
Surfacing (1 1/2"-)		1,000
Culverts (QS)		4

UNIT COSTS	Ballast	Surfacing	Quarry Spalls
Drill & Shoot			
Dig and load			
Crushing			
Purchase		$11.00	$11.30
Haul *		$10.41	$10.41
Spread		$1.50	$2.00
Compact		$1.00	
Strip			
Reclamation			
Use tax			
TOTAL ($/cy)	$0.00	$23.91	$23.71

* Haul Formula: (R.T.Miles/MPH+Delay)($/hr / Cy/load)

R.T. Miles =	30.0
Ave. Speed =	35
Delay (Hrs.)=	0.3
Cost / Hour =	$90.00
CY / Load =	10

Ballast (4" Jaw Run)		Cu. yds @	$0.00	/cu. yd =	$0
Surfacing (1 1/2"-)	1000	Cu. yds @	$23.91	/cu. yd =	$23,910
Culverts (QS)	4	Cu. yds @	$23.71	/cu. yd =	$95

Rock total = $24,005

IV. CULVERTS AND FLUMES:

Description	Qty.	Gauge	Diameter (in.)	No/Length (ft)	Installed Cost/ft	Sub-total
CPP	3		18	30	$18.00	$1,620
	1		18	50	$18.00	$900
						$0
						$0
						$0
Bands & Gaskets						$0

Culvert total = $2,520

V. STRUCTURES

Description	Type	Width	Length	Cost/ft.	Sub-total
					$0
					$0
					$0

HMA Paving total = $0

Sub-TOTAL = $29,909

VI. GENERAL EXPENSES: Overhead & General Exp. Add 9% $2,692

VII. MOBILIZATION: Total Mobilization = $2,535 Mobilization sub-total = $1,267.50

Road No. 0
Standard: Pre-haul maintenance
Stations: 0.00

SHEET TOTAL = $33,868

By: Chris Werner

Date: 06/01/15

PACIFIC CASCADE REGION - ROAD COST ESTIMATE - ROAD CLOSURE

SALE NAME: Showjumper Sorts CONTRACT NUMBER: 30-092774

Total stations Road Closure = 77.16

I. MISC. ROAD CLOSURE COSTS:

	Cost	Units	Sub Total
water barring =	$75.00		$0
ripping =			$0
culvert removal =	$800.00		$0
sidecast pullback =			$0
grass seeding =	$2.50		$0
straw bales =	$5.00		$0
			$0
			$0
			$0
			$0
			$0
			$0
			$0
			$0
			$0

EQUIP	$ / Hr
Excavator	150.00
Dozer	130.00
Dump Truck	100.00
Lowboy	125.00

Misc TOTAL = $0

VI. GENERAL EXPENSES: Overhead & General Exp. Add 10% $0

VII. MOBILIZATION:

Description	$ per Move	# of Moves	Sub-total
Excavator	500		$0
Dozer	500		$0
Dump Truck	100		$0

* These move in costs are separate since they will occur after logging is done

Total Mobilization = $0

Road No. 0
Standard: Road Closure
Stations:

SHEET TOTAL = $0

By: Chris Werner Sheet 5 of 5 Date: 06/01/15

FOREST EXCISE TAX -- ROAD SUMMARY SHEET

Region: PACIFIC CASCADE

Timber Sale Name: SHOWJUMPER SORTS TIMBER SALE

Application Number: 30-092774

Excise Tax Applicable Activities

Construction: 10,751 linear feet
Road to be constructed (optional and required) but not abandoned

Reconstruction: 0 linear feet
Road to be reconstructed (optional and required) but not abandoned

Abandonment: 0 linear feet
Abandonment of existing roads not reconstructed under the contract

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

Pre-Haul Maintenance: 15,555 linear feet
Existing road to receive maintenance work (specifically required by the contract) prior to haul

Excise Tax Exempt Activities

Temporary Optional Construction: 0 linear feet
Optional roads to be constructed and then abandoned

Temporary Optional Reconstruction: 0 linear feet
Optional roads to be reconstructed and then abandoned

New Abandonment: 0 linear feet
Abandonment of roads constructed or reconstructed under the contract

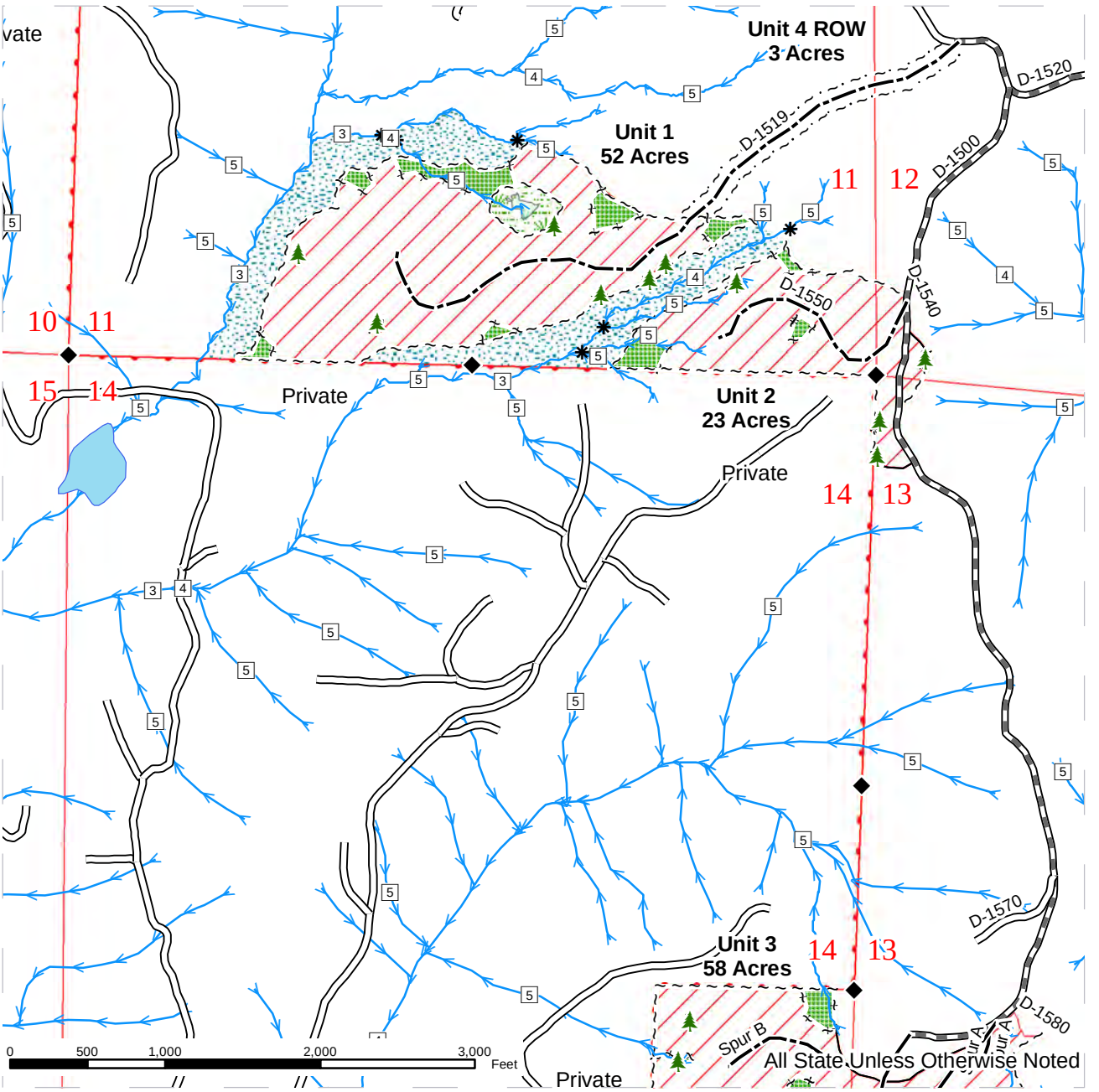
All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contact. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact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

(Revised 7/04)

TIMBER SALE MAP

SALE NAME: SHOWJUMPER SORTS
AGREEMENT#: 30-092774
TOWNSHIP(S): T14R04W
TRUST(S): State Forest Transfer(1), Common School and Indemnity(3), Capitol Grant(7)

REGION: Pacific Cascade Region
COUNTY(S): LEWIS
ELEVATION RGE: 305-736



- Variable Retention Harvest
- Leave Tree Area
- Riparian Mgt Zone
- Wetland Mgt Zone
- Forested Wetland
- Sale Boundary Tags
- Leave Tree Tags
- Right of Way Tags
- Reprod
- Existing Roads
- Required Pre-Haul Maintenance
- Optional Construction
- Streams
- Stream Type
- Stream Type Break
- < 1/4 Acre Leave Tree Area
- Gate (PCP 1-1)
- Monumented Corners

N

Prepared By: hdec490

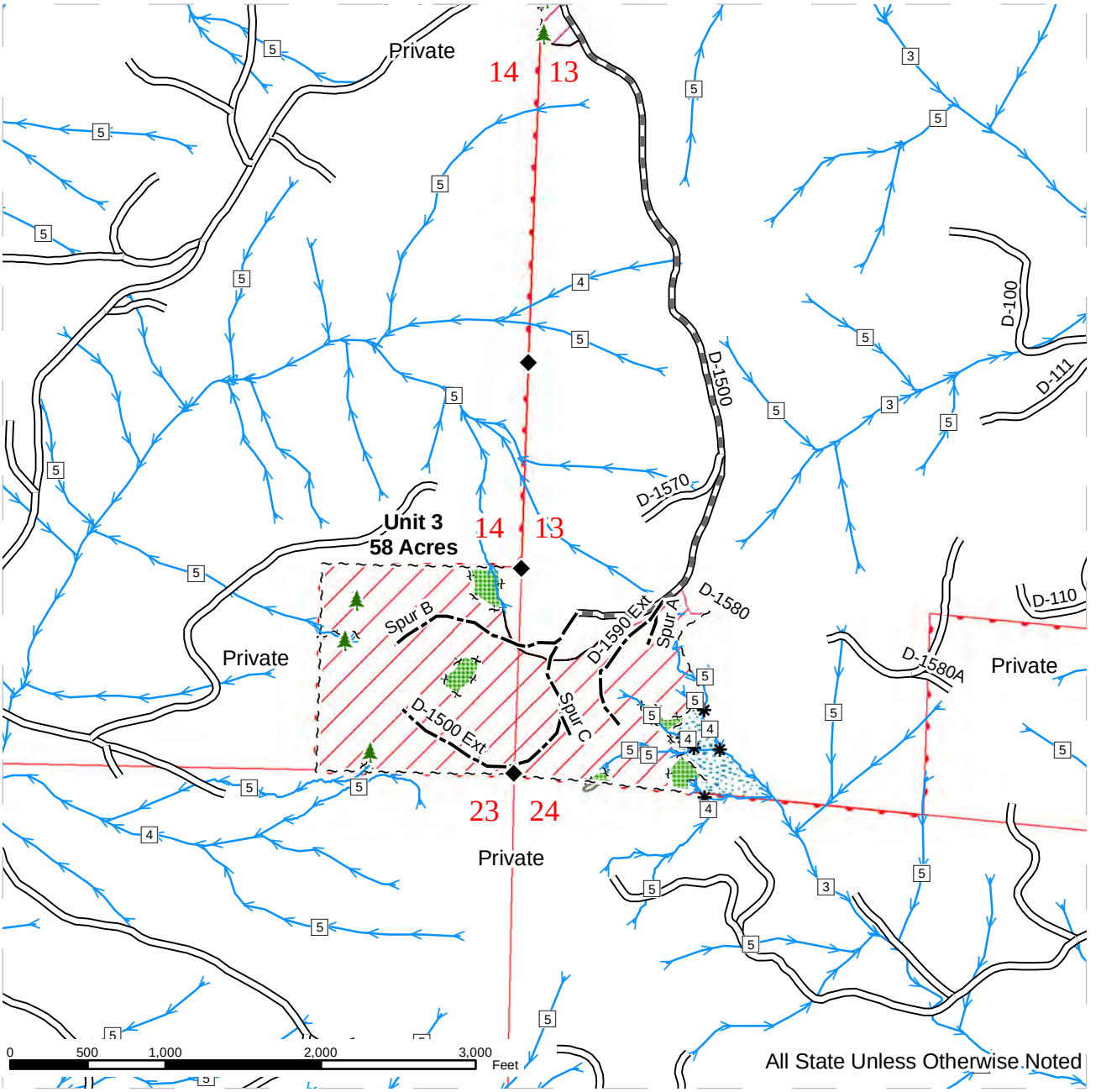
Creation Date: 3/3/2015

Modification Date: 7/20/2015

TIMBER SALE MAP

SALE NAME: SHOWJUMPER SORTS
AGREEMENT#: 30-092774
TOWNSHIP(S): T14R04W
TRUST(S): State Forest Transfer(1), Common School and Indemnity(3), Capitol Grant(7)

REGION: Pacific Cascade Region
COUNTY(S): LEWIS
ELEVATION RGE: 305-736



- Variable Retention Harvest
- Leave Tree Area
- Riparian Mgt Zone
- Wetland Mgt Zone
- Forested Wetland
- Sale Boundary Tags
- Leave Tree Tags
- Right of Way Tags
- Reprod
- Existing Roads
- Required Pre-Haul Maintenance
- Optional Construction
- Streams
- Stream Type
- Stream Type Break
- < 1/4 Acre Leave Tree Area
- Gate (PCP 1-1)
- Monumented Corners

N

Prepared By: hdec490

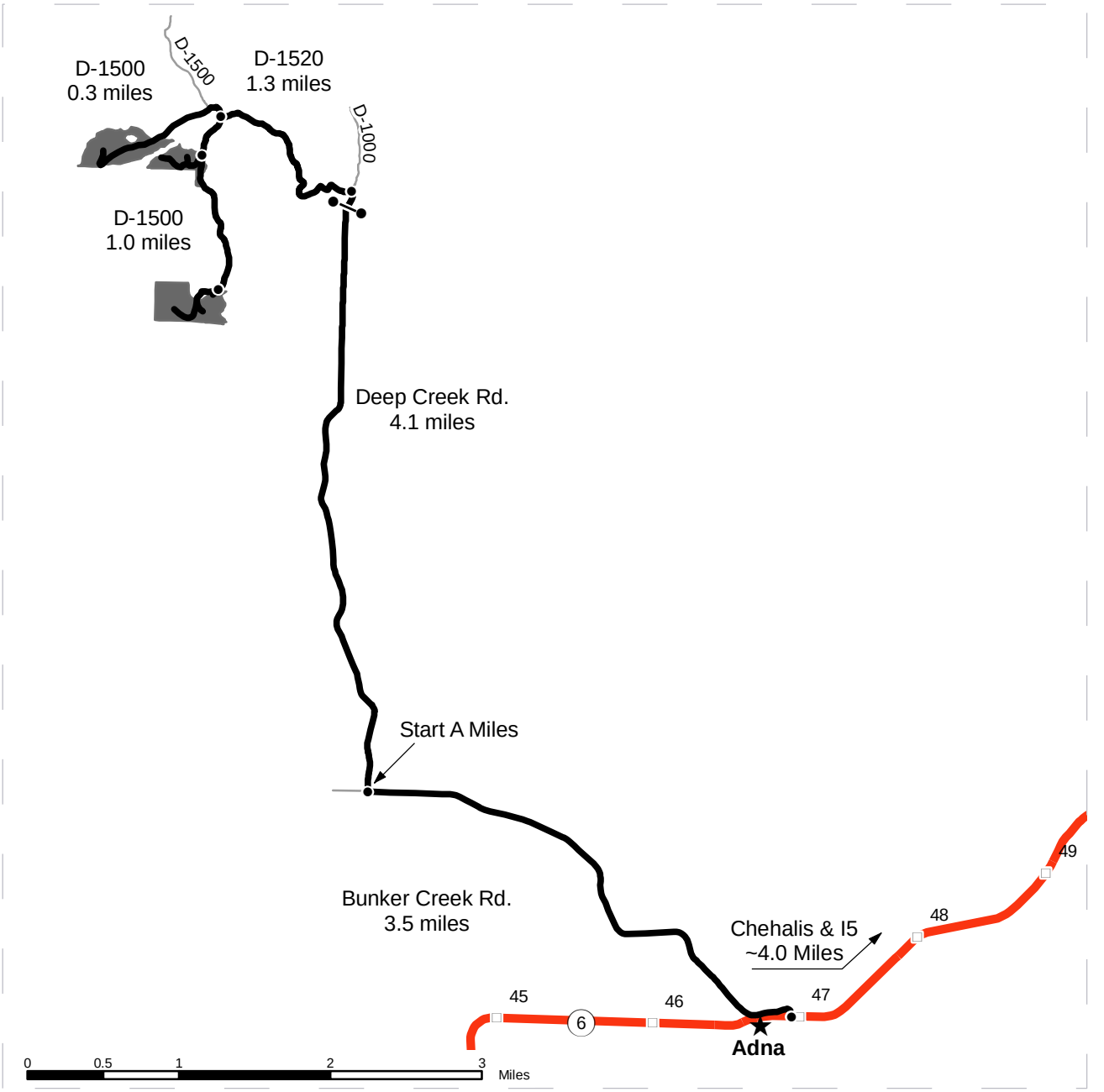
Creation Date: 3/3/2015

Modification Date: 7/20/2015

DRIVING MAP

SALE NAME: SHOWJUMPER SORTS
AGREEMENT#: 30-092774
TOWNSHIP(S): T14R04W
TRUST(S): State Forest Transfer(1), Common School and Indemnity(3), Capitol Grant(7)

REGION: Pacific Cascade Region
COUNTY(S): LEWIS
ELEVATION RGE: 305-736



Timber Sale Unit
Highways
Haul Route
Other Route
Distance Indicator
Milepost Markers

DRIVING DIRECTIONS:

From I-5, head west on State highway 6 (exit 77) for approximatley 4 miles. After milepost 47, turn right onto Bunker Creek Road and travel for about 3.5 miles to Deep Creek Road. Turn right (north) onto Deep Creek Road. Travel on Deep Creek Road for 4 miles which turns into the D-1000. go through the gate for about 0.1 miles and turn left onto the D-1520. Continue on the D-1520 for 1.3 miles and turn left onto the D-1500.
Follow the D-1500 for 0.3 miles and Unit 1 and 2 will be on your right. Follow the D-1500 for 1.0 mile and Unit 3 will be on your left.

N

Prepared By: hdec490 Creation Date: 3/3/2015 Modification Date: 7/20/2015

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PETER GOLDMARK
COMMISSIONER OF PUBLIC LANDS

HARVESTING SERVICES CONTRACT
SEALED BID FORM

Showjumper Sorts
(Print Project Name)

30-092774
(Agreement No.)

_____
(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:

(check box for appropriate project payment method. RFQ section 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:

(check box for appropriate project payment method. RFQ section 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:

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.

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

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-027.

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 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.

****

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)

Statement of Available Resources and Work Plan

Attach additional pages if necessary.

1. List your available resources (i.e. # of sides, crew & equipment dedicated to the project, use of subcontractors) and describe your plans how you will complete this project within the project schedule.

2. Provide an estimated time-line indicating your expected rate of log deliveries to the state's designated log purchaser locations for this project.

3. Describe how you plan to complete any additional special work requirements identified in section 3.02 of the project's RFQ.

EXHIBIT G

SHOWJUMPER SORTS

Roads or Structures	Type	Stations or Quantities	Work Completion Type	Contractor Proposed Stations or Quantities	Price per Unit (Station, CY, or Each)	Total Price
D-1000	Pre-haul Maintenance	7+25	Required	Surface rock quantities are listed in the Road Plan on page 2 of the Rock List	Per Station	
D-1010	Pre-haul Maintenance	13+50	Required		Per Station	
D-1520	Pre-haul Maintenance	56+80	Required		Per Station	
D-1500	Pre-haul Maintenance	78+00	Required		Per Station	
D-1550	Construction	16+61	Optional +		Per Station	
	Ballast Rock	1345 c.y.	Optional +		Per c.y.	
D-1500 EXT	Construction	20+19	Optional +		Per Station	
	Ballast Rock	1635 c.y.	Optional +		Per c.y.	
D-1590 EXT	Construction	10+14	Optional +		Per Station	
	Ballast Rock	821 c.y.	Optional +		Per c.y.	
D-1519	Construction	43+92	Optional +		Per Station	
	Ballast Rock	3558 c.y.	Optional +		Per c.y.	
Spur A	Construction	2+99	Optional +		Per Station	
	Ballast Rock	242 c.y.	Optional +		Per c.y.	
Spur B	Construction	12+25	Optional +		Per Station	
	Ballast Rock	992 c.y.	Optional +		Per c.y.	
Spur C	Construction	1+41	Optional +		Per Station	
	Ballast Rock	114 c.y.	Optional +		Per c.y.	
*Landing	Ballast Rock	525 c.y.	Optional		Per c.y.	
*Turn Arounds	Ballast Rock	100 c.y.	Optional		Per c.y.	
*Turnout	Ballast Rock	400 c.y.	Optional		Per c.y.	

+ Required Rock on Optional Roads – If Contractor builds optional roads, rock is required per ROCK LIST. If optional roads are not built, rock does not have to be provided.

* If landings, Turnouts and Turn Arounds are constructed, rock is required per the ROCK LIST for each one.

Note: All Construction listed above includes culvert/crossdrain installs as shown in the CULVERT LIST. Price per station cost should reflect this.

Additional Payments in Excess of Road Plan Specifications			
	Stations or Quantities	**Unit Price**	**Total**
Extra 18" CPP Cross Drains			
Additional road construction			

PRE-CRUISE NARRATIVE

Sale Name: **Show Jumper Sorts**	Region: **Pacific Cascade**
Agreement #: **30-092774**	District: **Lewis**
Contact Forester: **Hunter Decker** Phone / Location: **360-623-9909 / Lewis**	County(s): Lewis, Choose a county
Alternate Contact: Jacob Vaughn Phone / Location: 360-880-5801 / Lewis	Other information: Click here to enter text.

Type of Sale: Log Sort (Contract harvest)	
Harvest System: Ground based Unit 1 is all ground based.	100%
Harvest System: Ground based Unit 2 is all ground based.	100%
Harvest System: Other(Specify) Unit 3 could be a mixture of ground and cable systems.	75% Ground, 25% Cable

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # **Harvest R/W or RMZ WMZ**	**Legal Description** (Enter only one legal for each unit) **Sec/Twp/Rng**	**Grantor Trust**	**Gross Proposal Acres**	**Deductions from Gross Acres (No harvest acres)**				**Net Harvest Acres**	**Acreage Determination** (List method and error of closure if applicable)
				RMZ/ WMZ Acres	**Leave Tree Acres**	**Existing Road Acres**	**Other Acres (Reprod)**		
1	S11,T14,R04W	01, 03, 07	82	26	4	N/A	N/A	52	GPS (Garmin)
2	S11,T14,R04W S12,T14,R04W S13,T14,R04W	01, 03, 07	32	5	3	N/A	1	23	GPS (Garmin)
3	S13,T14,R04W S14,T14,R04W	01	65	4	3	N/A	N/A	58	GPS (Garmin)
4 (ROW)	S11,T14,R04W S12,T14,R04W	01, 03	3	N/A	N/A	N/A	N/A	3	Laser/compass
TOTAL ACRES			182	35	10	N/A	1	136	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Variable Retention Harvest- Boundaries marked with white "Timber Sale Boundary" tags and pink flagging.	None	464 Leave trees marked. Leave tree areas marked with yellow "Leave Tree Area" tags and pink flagging.
2	Variable Retention Harvest- Boundaries marked with white "Timber Sale Boundary" tags and pink flagging and South line will have tags plus property line carsonite posts.	None	224 Leave trees marked. Leave tree areas marked with yellow "Leave Tree Area" tags and pink flagging.
3	Variable Retention Harvest- Boundaries marked with white "Timber Sale Boundary" tags and pink flagging and North, West, and South lines will have tags plus property line carsonite posts.	None	488 Leave trees marked. Leave tree areas marked with yellow "Leave Tree Area" tags and pink flagging.
4 (ROW)	Right-of-Way clearing marked with orange "Right-of-Way" tags and orange flagging.	None	None

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	Douglas-fir, Western Red Cedar / 1,795 MBF	(Deep Creek Gate, PCP-1-1)	See Driving Map
2	Douglas-fir, Western Red Cedar / 1,037 MBF	(Deep Creek Gate, PCP-1-1)	See Driving Map
3	Douglas-fir, Red Alder / 2,443 MBF	(Deep Creek Gate, PCP-1-1)	See Driving Map
4 (ROW)	Douglas-fir, Big Leaf Maple / 111 MBF	(Deep Creek Gate, PCP-1-1)	See Driving Map
TOTAL MBF	5,386 MBF		

REMARKS:

This is a sort sale.

Prepared By: Hunter Decker **Date: 5/5/2015**	**Title: Forester**	**CC: Jacob Vaughn**

Cruise Narrative

Sale Name: Show Jumper Sorts	**Region:** Pacific Cascade
App. #: 30-092774	**District:** Lewis
Lead Cruiser: Bryce Frank	**Completion date:** 6-22-2015
Other Cruisers: Kalvin Bailey	

Unit acreage specifications:

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	52	Yes	
2	23	Yes	
3	58	Yes	
4 (ROW)	3	Yes	
Total	136	Yes	

Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/ half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (Cru./Tally)	Total number of plots
1	VP	MAJOR: 54.44 MINOR: 40	4.5 ft	180' x 180'	1:1	69
2	VP	MAJOR: 40 MINOR: 33.61	4.5 ft	180' x 180'	1:1	31
3	VP	MAJOR: 40 MINOR: 33.61	4.5 ft	190' x 190'	1:1	69
4 (ROW)	VP	40	4.5 ft	400'	Cruise All	5

Sale/Cruise Description:

Minor species cruise intensity:	Cruised on appropriate plots.					
Minimum cruise spec:	40% 0f Form- Factor at 16 feet D.O.B or 5 inch Top, and merchantable top.					
Avg. ring count by sp:	**DF** =	7	**WH** =	7	**SS** =	n/a
Leave/take tree description:	Leave tree clumps are bounded with yellow "Leave Tree Area" tags and pink flagging in Units 1, 2 and 3. Individual leave trees are marked with a single band of blue paint with a butt mark within the harvest area.					
Sort Description:	**HA**– Logs meeting the following criteria: Surface characteristics for a high quality A sort will have sound tight knots not to exceed 1 ½" in diameter, numbering not more than an average of one per foot of log length. May include logs with not more than two larger knots. Knots and knot indicators ½" in diameter and smaller shall not be a determining factor. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log. (min dia 8".) **HB** – Logs meeting the following criteria: Surface characteristics for a B sort will have sound tight knots not to exceed 1 ½" in diameter. May include logs with not more than two larger knots up to 2 ½" in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third to end of the log. (min dia 8".) **R** – Logs meeting the following criteria: Gross diameter of 12 inches or					

	greater, excessive knots greater than 2 ½ inches with recovery less than 65% of the net scale.

Field observations:

Show Jumper Sorts consists of 3 VRH units. Units 1 and 2 will be harvested using only ground based methods and Unit 3 will use a mixture of ground and cable methods (75% and 25% respectively).

Unit 1 is variable in stand structure, consisting of large gaps in consistent timber throughout the center and northern side of the unit. More consistent stands of Western Red Cedar (RC) and Douglas-fir (DF) exist in the southeastern quarter. Defect is common (5.5%) throughout the unit, consisting mainly of large spike knots, forks, sweep, bear damage (especially on RC) and butt rot. Unit 1 is composed mainly of Douglas-fir at 88% net merchantable volume. Some high quality is present in this unit at ~17% of DF net merchantable volume, all as B sort. Western Red Cedar at 7% net merchantable volume. Minor amounts of Big Maple, Grand Fir and Red Alder are present in Unit 1. Average diameter and bole height for Douglas-fir are 24.9 inches and 96 ft respectively. Average diameter and bole height for Western Red Cedar are 15.4 inches and 86 ft respectively.

Unit 4 is an ROW that connects the D-1500 to Unit 1. It is approximately three acres in size and contains approximately 112 net MBF of almost entirely Douglas-fir (99%) and very minor amounts of BM. The timber in the ROW is smaller than in the VRH units, and as such is composed mainly of domestic 3S at 44% merchantable volume, followed by domestic 2S at 27% merchantable volume. Some high quality B sort is also present in the unit.

Unit 2 presents a mixture of Douglas-fir, Western Red Cedar, Bigleaf Maple. Minor amounts of Red Alder and Grand Fir are also present but were not picked up in the cruise. Size and quality varied from clean 18-24" Douglas-fir to rougher 36"+ Douglas-fir. Both A and B sort high quality logs are present in this unit, most aggressively in B at ~44% of DF net merchantable volume. Average diameter and bole height for DF are 24.6 in and 107 ft respectively A fair amount of defect was present in the Douglas-fir including butt swell, spikes, forks and sweep. Some standing dead is present.

Unit 3 is consistent in stand structure, save for the far eastern quarter which is composed mostly of a BM and RA stand. Douglas-fir comprises the rest of the unit with minor amounts of Western Red Cedar intermixed. Defect was present at 4.9% sharing similar characteristics to units 1 and 2. Substantial amounts of high quality exist in the Douglas-fir as B sort (~44% of DF volume). Average diameter and bole height for Douglas-fir are 20.5 inches and 98 ft respectively.

Grants: 01, 03, 07 **Prepared by: Bryce Frank** **Title: Timber Cruiser**

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: **SHOWJUMP**
Acres **136.00**

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Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU		100.0	71											2	12		0.00	12.9
DF		HA	2S		1.3	289	285	39			100					100	40	14	312	1.75	.9
DF		HB	2S	28	2.8	9,374	9,111	1,239			38	62			3	97	40	16	391	2.12	23.3
DF		HB	3S	6	.8	2,224	2,206	300		100					9	91	39	10	134	0.80	16.5
DF		D	SM	1	2.2	218	214	29				100				100	40	20	659	3.33	.3
DF		D	2S	48	5.7	17,121	16,143	2,195			24	76	0	0	3	96	40	17	472	2.53	34.2
DF		D	3S	12	2.0	4,007	3,926	534	20	80			1	7	21	71	36	8	92	0.71	42.6
DF		D	4S	3		905	905	123	94	6			18	38	9	35	27	6	31	0.32	29.3
DF		D	UT	1	.4	302	300	41	58	14	10	18	57	11	4	29	21	6	33	0.37	9.2
DF		RO	3S	1	8.4	302	277	38			65	35	2	16	18	64	33	14	244	1.91	1.1
DF	**Totals**			84	4.2	34,812	33,367	4,538	5	16	23	55	1	2	6	91	33	11	196	1.35	170.3
DF	D	CU	CU		100.0	45											19	6		0.00	1.8
DF	D	D	2S	24	14.0	106	91	12			22	78				100	40	15	340	2.16	.3
DF	D	D	3S	15	19.7	68	55	7		60	40			30		70	34	10	98	0.88	.6
DF	D	D	4S	4	33.3	22	15	2	100							100	40	6	40	0.43	.4
DF	D	D	UT	57		210	210	29	70	12	18		4	7	19	70	35	6	56	0.41	3.8
DF	**Totals**			1	17.8	452	371	51	44	16	21	19	2	9	11	79	31	7	55	0.48	6.8
RC		CU	CU		100.0	47											3	7		0.00	4.9
RC		D	3S	83	2.5	1,571	1,532	208	12	21	19	47	0	8	26	66	36	11	177	1.34	8.7
RC		D	4S	14		250	250	34	91	9			5	37	13	45	31	5	34	0.38	7.3
RC		D	UT	3		44	44	6	100							100	40	6	60	0.49	.7
RC	**Totals**			5	4.5	1,913	1,827	248	25	19	16	40	1	11	24	64	27	8	84	0.89	21.6
BM		CU	CU		100.0	178											6	9		0.00	9.8
BM		D	UT	39	.6	485	482	66	40	39	9	12	40	14	19	27	24	7	51	0.65	9.4
BM		D	1S	8	17.3	114	94	13				100	79	21			19	20	266	3.03	.4
BM		D	2S	11	12.0	150	132	18			100		76	24			19	13	92	1.47	1.4
BM		D	3S	14	7.4	182	168	23		100			14	55		31	26	10	94	1.02	1.8
BM		D	4S	12	11.7	160	142	19		100			6	36	29	30	30	9	65	0.75	2.2
BM		D	4S	16	10.1	213	192	26	100				7	12	26	55	33	6	40	0.49	4.8
BM	**Totals**			3	18.4	1,483	1,210	165	32	41	14	12	34	24	15	27	20	8	41	0.64	29.8
WH		CU	CU															5		0.00	.3
WH		D	4S	100		13	13	2	100							100	40	5	40	0.53	.3
WH	**Totals**			0		13	13	2	100							100	20	5	20	0.53	.7
GF		CU	CU		100.0	6											6	24		0.00	.1
GF		HB	2S	11		83	83	11			57	43				100	40	16	417	2.02	.2
GF		HB	3S	3		24	24	3		100						100	40	11	180	0.94	.1
GF		D	2S	77	8.5	624	571	78			41	59		8	2	90	38	16	405	2.35	1.4
GF		D	3S	5		44	44	6	46	54			9	9	22	60	33	8	71	0.62	.6
GF		D	4S	3		17	17	2	87	13			29	31	40		24	6	34	0.46	.5
GF		RO	3S	1	31.0	8	5	1			100					100	40	14	200	2.25	.0
GF	**Totals**			2	7.7	806	744	101	5	7	38	50	1	7	4	88	34	13	252	1.67	2.9
CW		D	2S	100	6.8	37	34	5			100			27		73	31	14	205	1.55	.2

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: **SHOWJUMP**
Acres **136.00**

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Date **7/6/2015**
Time **9:07:56AM**

Spp	S T	So Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
CW Totals			0	6.8	37	34	5			100			27		73	31	14	205	1.55	.2
RA	CU	CU		100.0	4											2	7		0.00	5.8
RA	D	UT	5		103	103	14	100				42	7		51	23	5	24	0.26	4.3
RA	D	1S	3	8.8	86	78	11				100		100			30	17	312	2.73	.3
RA	D	2S	13	6.1	283	265	36			100			14	11	75	37	13	201	1.49	1.3
RA	D	3S	18	4.9	383	365	50		100					16	84	38	10	149	1.09	2.5
RA	D	4S	31	8.4	690	632	86		100			5		11	84	37	9	99	0.86	6.4
RA	D	4S	30	1.7	606	595	81	100				16	31	3	50	28	6	36	0.41	16.6
RA Totals			5	5.4	2,154	2,039	277	34	49	13	4	9	15	8	68	26	7	55	0.64	37.1
Totals				5.0	41,670	39,605	5,386	9	19	23	50	3	4	7	86	30	10	147	1.16	269.3

TC PSTATS

PROJECT STATISTICS

PROJECT SHOWJUMP

DATE 7/6/2015

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
14N	04	11	SHOWJUMPERSO	00U1	THR	136.00	174	934	S	W
14N	04W	11	SHOWJUMPERS	ROW1						

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	174	934	5.4		
CRUISE	99	504	5.1	14,954	3.4
DBH COUNT					
REFOREST					
COUNT	71	381	5.4		
BLANKS	4				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	348	61.7	22.1	97	34.8	163.6	34,812	33,367	7,482	7,472
DOUG FIR-D	13	3.8	12.3	75	0.9	3.1	452	371	111	101
BL MAPLE	46	14.4	15.2	47	4.6	18.1	1,483	1,210	421	384
WR CEDAR	38	11.6	16.1	72	4.1	16.5	1,913	1,827	530	521
R ALDER	46	17.0	14.8	67	5.3	20.3	2,154	2,039	616	615
GRAND F	11	1.0	25.0	100	0.7	3.6	806	744	170	169
WHEMLOCK	1	.3	13.0	46	0.1	.3	13	13	7	7
COTWOOD	1	.1	22.0	63	0.0	.2	37	34	8	8
TOTAL	*504*	*110.0*	*19.4*	*82*	*51.2*	*225.7*	*41,670*	*39,605*	*9,345*	*9,277*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

SAMPLE TREES - BF

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	69.1	3.7	838	871	903			
DOUG FIR-D	132.0	38.1	143	231	319			
BL MAPLE	101.8	15.0	102	120	138			
WR CEDAR	95.0	15.4	332	392	452			
R ALDER	51.1	7.5	140	152	163			
GRAND F	68.7	21.7	842	1,075	1,309			
WHEMLOCK								
COTWOOD								
TOTAL	*88.9*	*4.0*	*657*	*684*	*712*	*315*	*79*	*35*

SAMPLE TREES - CF

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	62.3	3.4	182	188	194			
DOUG FIR-D	117.9	34.0	39	60	80			
BL MAPLE	71.9	10.6	32	36	40			
WR CEDAR	87.8	14.2	91	106	121			
R ALDER	49.9	7.4	42	46	49			
GRAND F	68.5	21.6	188	240	292			
WHEMLOCK								
COTWOOD								
TOTAL	*79.5*	*3.6*	*147*	*152*	*157*	*252*	*63*	*28*

TREES/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	93.8	7.1	57	62	66			
DOUG FIR-D	571.4	43.3	2	4	5			
BL MAPLE	232.0	17.6	12	14	17			
WR CEDAR	319.5	24.2	9	12	14			
R ALDER	282.8	21.4	13	17	21			
GRAND F	505.0	38.2	1	1	1			
WHEMLOCK	1319.1	99.9	0	0	1			

PROJECT STATISTICS

PROJECT SHOWJUMP

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
14N	04	11	SHOWJUMPERSO	00U1	THR	136.00	174	934	S	W
14N	04W	11	SHOWJUMPERS	ROW1						

CL 68.1 SD: 1.00

TREES/ACRE

	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
COTWOOD	1319.1	99.9	0	0	0			
TOTAL	*66.1*	*5.0*	*104*	*110*	*115*	*174*	*44*	*19*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	75.3	5.7	154	164	173			
DOUG FIR-D	410.7	31.1	2	3	4			
BL MAPLE	215.4	16.3	15	18	21			
WR CEDAR	276.6	21.0	13	16	20			
R ALDER	273.5	20.7	16	20	25			
GRAND F	394.4	29.9	2	4	5			
WHEMLOCK	1319.1	99.9	0	0	1			
COTWOOD	1319.1	99.9	0	0	0			
TOTAL	*52.5*	*4.0*	*217*	*226*	*235*	*110*	*28*	*12*

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	79.4	6.0	31,360	33,367	35,374			
DOUG FIR-D	410.4	31.1	256	371	487			
BL MAPLE	217.3	16.5	1,011	1,210	1,409			
WR CEDAR	287.6	21.8	1,429	1,827	2,225			
R ALDER	273.7	20.7	1,616	2,039	2,462			
GRAND F	379.3	28.7	530	744	957			
WHEMLOCK	1319.1	99.9	0	13	26			
COTWOOD	1319.1	99.9	0	34	69			
TOTAL	*64.1*	*4.9*	*37,683*	*39,605*	*41,527*	*164*	*41*	*18*

CL 68.1 SD: 1.0

NET CUFT FT/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	77.7	5.9	7,032	7,472	7,912			
DOUG FIR-D	402.3	30.5	71	101	132			
BL MAPLE	215.2	16.3	321	384	446			
WR CEDAR	281.2	21.3	410	521	632			
R ALDER	273.0	20.7	488	615	742			
GRAND F	382.2	28.9	120	169	218			
WHEMLOCK	1319.1	99.9	0	7	14			
COTWOOD	1319.1	99.9	0	8	16			
TOTAL	*59.4*	*4.5*	*8,860*	*9,277*	*9,694*	*141*	*35*	*16*

CL 68.1 SD: 1.0

TONS/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	77.7	5.9	201	213	226			
DOUG FIR-D	396.8	30.1	2	3	4			
BL MAPLE	216.9	16.4	9	11	13			
WR CEDAR	282.8	21.4	10	12	15			
R ALDER	273.2	20.7	13	17	20			
GRAND F	382.2	29.0	4	5	7			
WHEMLOCK	1319.1	99.9	0	0	0			
COTWOOD	1319.1	99.9	0	0	0			
TOTAL	*59.4*	*4.5*	*251*	*263*	*275*	*141*	*35*	*16*

CL 68.1 SD: 1.0

V_BAR/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR			192	204	216			
DOUG FIR-D	410.4	31.1	82	119	156			
BL MAPLE	127.9	9.7	56	67	78			
WR CEDAR	187.7	14.2	87	111	135			
R ALDER	159.7	12.1	80	100	121			
GRAND F	308.7	23.4	149	209	269			
WHEMLOCK	1319.1	99.9	0	43	87			
COTWOOD	1319.1	99.9	0	155	310			

TC PSTATS

PROJECT STATISTICS

PROJECT SHOWJUMP

DATE 7/6/2015

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
14N	04	11	SHOWJUMPERSO	00U1	THR	136.00	174	934	S	W
14N	04W	11	SHOWJUMPERS	ROW1						

CL 68.1 COEFF **V_BAR/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.00 VAR. S.E.% LOW AVG HIGH 5 10 15

TOTAL	*65.8*	*5.0*	*167*	*175*	*184*	*173*	*43*	*19*

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SHOWJUMP

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T14N R04W S11 T00U1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	00U1	52.00	69	130	S	W

T14N R04W S11 T00U1

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU		100.0	139											1	14		0.00	9.4
DF		HB	2S	14	2.4	4,332	4,230	220			34	66				100	40	16	388	2.14	10.9
DF		HB	3S	3		1,133	1,133	59		100					12	88	38	9	126	0.77	9.0
DF		DM	2S	70	5.9	22,463	21,147	1,100			20	80		1	2	97	40	18	543	2.85	39.0
DF		DM	3S	9	.4	2,528	2,516	131	17	83			1	15	31	53	34	8	88	0.74	28.5
DF		DM	4S	1		470	470	24	94	6			18	45		36	26	6	30	0.34	15.6
DF		DM	UT	1	1.2	277	273	14	41	9	8	42	79			21	19	7	43	0.52	6.3
DF		RO	3S	2	8.1	455	418	22			63	37	3	28	21	48	30	14	218	1.93	1.9
DF	**Totals**			88	5.1	31,796	30,187	1,570	3	11	20	66	1	3	5	91	32	12	250	1.70	120.5
RC		CU	CU		100.0	97											3	6		0.00	7.5
RC		DM	3S	85	1.7	2,019	1,984	103	20	24	19	38			12	88	38	9	145	1.06	13.7
RC		DM	4S	9		210	210	11	98	2			6	28		65	33	5	35	0.29	6.1
RC		DM	UT	6		116	116	6	100							100	40	6	60	0.49	1.9
RC	**Totals**			7	5.4	2,442	2,310	120	31	20	16	32	1	3	10	87	28	8	79	0.79	29.1
BM		CU	CU		100.0	91											5	11		0.00	6.5
BM		DM	UT	48	.8	388	385	20	32	33	19	16	68	13		19	24	9	65	0.77	6.0
BM		DM	1S	5	12.5	48	42	2				100	100				16	16	140	1.81	.3
BM		DM	2S	26	11.6	233	206	11			100		60	40			21	13	105	1.47	2.0
BM		DM	3S	12	11.1	108	96	5		100				100			24	10	80	0.81	1.2
BM		DM	4S	9		69	69	4	100				53	47			20	7	34	0.59	2.0
BM	**Totals**			2	14.8	938	799	42	24	28	35	13	58	33		9	16	10	44	0.78	18.0
GF		CU	CU		100.0	16											8	25		0.00	.1
GF		DM	2S	87	7.4	778	720	37			47	53		6		94	39	15	364	2.20	2.0
GF		DM	3S	7		60	60	3	40	60				17	42	40	34	7	64	0.58	.9
GF		DM	4S	4		31	31	2	82	18			42		58		23	6	32	0.45	.9
GF		RO	3S	2	31.0	21	14	1			100					100	40	14	200	2.25	.1
GF	**Totals**			2	8.9	905	825	43	6	5	43	46	2	6	5	87	33	11	206	1.51	4.0
RA		DM	4S	79	16.3	228	191	10		100					43	57	36	8	75	0.76	2.5
RA		DM	4S	21		51	51	3	100				47	53			21	5	20	0.26	2.5
RA	**Totals**			1	13.3	279	242	13	21	79			10	11	34	45	29	7	48	0.57	5.1
WH		CU	CU															5		0.00	.9
WH		DM	4S	100		34	34	2	100							100	40	5	40	0.53	.9
WH	**Totals**			0		34	34	2	100							100	20	5	20	0.53	1.7
CW		DM	2S	100	6.8	97	90	5			100			27		73	31	14	205	1.55	.4
CW	**Totals**			0	6.8	97	90	5			100			27		73	31	14	205	1.55	.4
Type Totals					5.5	36,491	34,487	1,793	6	12	20	62	2	4	5	89	30	11	193	1.47	178.9

T14N R04W S11 T00U1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	00U1	52.00	69	130	S	W

T14N R04W S11 T00U1

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

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T14N R04W S11 T00U2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	00U2	23.00	31	105	S	W

T14N R04W S11 T00U2

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU														1	13		0.00	9.5
DF		HA	2S	2		965	965	22			100					100	40	14	311	1.73	3.1
DF		HB	2S	39	2.4	14,843	14,481	333			22	78				100	40	17	494	2.47	29.3
DF		HB	3S	5		1,848	1,848	43		100					13	87	39	9	126	0.73	14.7
DF		DM	2S	42	4.5	16,174	15,443	355			12	88	1		3	96	39	18	528	2.66	29.2
DF		DM	3S	8	1.6	3,293	3,239	74	12	88			1	9	37	53	35	9	93	0.78	34.8
DF		DM	4S	2		717	717	16	94	6			8	46	15	31	28	5	33	0.29	21.8
DF		DM	UT			82	82	2		82	18		71	29			17	10	48	0.79	1.7
DF		RO	3S	2		416	416	10			100				25	75	38	13	245	1.65	1.7
DF Totals				82	3.0	38,338	37,191	855	3	13	17	67	1	2	6	92	34	12	255	1.59	145.8
DF	D	CU	CU		100.0	26											34	8		0.00	.4
DF	D	DM	2S	42	14.2	305	262	6			45	55				100	40	14	253	1.79	1.0
DF	D	DM	3S	36	18.6	282	229	5		43	57			43		57	29	11	117	1.06	2.0
DF	D	DM	UT	22		131	131	3	45		55			15	55	30	32	8	77	0.59	1.7
DF D Totals				1	16.4	744	622	14	9	16	52	23		19	12	69	33	10	123	1.00	5.1
BM		CU	CU		100.0	315											8	7		0.00	29.0
BM		DM	UT	41		997	997	23	70	22	8		13	24	54	9	27	6	41	0.49	24.6
BM		DM	2S	11	10.8	288	257	6			100		100				16	12	77	1.49	3.3
BM		DM	3S	9	7.2	255	237	5		100				54		46	29	11	108	1.35	2.2
BM		DM	4S	17	4.5	419	400	9		100			13	49	38		27	8	54	0.64	7.3
BM		DM	4S	22	8.2	566	519	12	100						13	87	37	6	56	0.56	9.2
BM Totals				5	15.1	2,839	2,409	55	51	36	14		18	23	31	27	20	7	32	0.52	75.6
RC		CU	CU		100.0	60											9	7		0.00	5.6
RC		DM	3S	91	4.4	2,797	2,674	62	6	15	8	71		22	32	46	34	12	234	1.95	11.4
RC		DM	4S	9		261	261	6	54	46				86	14		27	6	35	0.56	7.4
RC Totals				7	5.9	3,118	2,935	68	11	17	7	65		28	30	42	26	9	120	1.36	24.4
RA		CU	CU															8		0.00	.9
RA		DM	UT	2		43	43	1	100					100			28	5	30	0.34	1.4
RA		DM	2S	51	6.2	870	816	19			100				22	78	38	13	202	1.42	4.0
RA		DM	3S	21	8.3	370	339	8		100					100		32	10	110	0.93	3.1
RA		DM	4S	13	12.0	234	206	5		100					100		32	9	73	0.71	2.8
RA		DM	4S	13		203	203	5	100					55		45	29	5	31	0.42	6.6
RA Totals				4	6.5	1,720	1,608	37	15	34	51			10	45	45	31	8	85	0.81	18.9
GF		DM	2S	89	9.7	338	305	7				100				100	40	22	790	3.87	.4
GF		DM	3S	11		35	35	1		100						100	39	11	180	1.31	.2
GF Totals				1	8.8	373	340	8		10		90				100	40	18	587	3.04	.6
Type Totals					4.3	47,133	45,105	1,037	6	15	18	60	2	5	10	83	29	10	167	1.30	270.5

T14N R04W S11 T00U2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	00U2	23.00	31	105	S	W

T14N R04W S11 T00U2

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

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T14N R04W S11 T00U3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	00U3	58.00	69	236	S	W

T14N R04W S11 T00U3

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU		100.0	27											2	11		0.00	15.6
DF		HA	2S		3.1	294	285	17			100					100	40	14	313	1.77	.9
DF		HB	2S	34	3.1	12,044	11,668	677			47	53			5	95	39	15	356	1.99	32.8
DF		HB	3S	10	1.2	3,370	3,331	193		100					7	93	38	10	139	0.83	24.0
DF		DM	SM	1	2.2	512	501	29				100				100	40	20	659	3.33	.8
DF		DM	2S	36	6.2	13,059	12,255	711			36	64	1		3	96	39	16	381	2.15	32.2
DF		DM	3S	14	2.5	4,952	4,828	280	24	76			1	5	14	80	37	8	92	0.68	52.5
DF		DM	4S	3		1,168	1,168	68	93	7			21	38	7	34	26	6	31	0.32	38.1
DF		DM	UT	1		378	378	22	82	5	13		42	18		40	22	5	26	0.29	14.6
DF		RO	3S	1	19.3	136	110	6			22	78				100	40	17	403	2.41	.3
DF		**Totals**		82	3.9	35,940	34,523	2,002	7	21	30	43	2	2	6	91	32	10	163	1.16	211.8
DF	D	CU	CU		100.0	94											18	6		0.00	4.1
DF	D	DM	2S	17	13.8	128	111	6				100				100	40	19	500	2.86	.2
DF	D	DM	3S	6	22.2	49	38	2		100						100	40	8	70	0.70	.5
DF	D	DM	4S	6	33.3	53	35	2	100							100	40	6	40	0.43	.9
DF	D	DM	UT	71		441	441	26	73	14	13		4	6	15	75	36	6	54	0.40	8.2
DF	**D**	**Totals**		1	18.4	765	624	36	57	16	9	18	3	4	11	82	31	6	45	0.40	13.9
RA		CU	CU		100.0	10											2	7		0.00	13.2
RA		DM	UT	5		224	224	13	100				45			55	23	5	24	0.26	9.4
RA		DM	1S	5	8.8	202	184	11				100		100			30	17	312	2.73	.6
RA		DM	2S	7	6.0	318	299	17			100			29		71	36	13	201	1.58	1.5
RA		DM	3S	19	4.2	752	720	42		100						100	40	11	159	1.13	4.5
RA		DM	4S	31	6.9	1,320	1,230	71		100			6			94	37	9	106	0.90	11.6
RA		DM	4S	33	1.8	1,294	1,270	74	100				16	28	4	52	28	6	37	0.42	34.1
RA		**Totals**		9	4.7	4,119	3,927	228	38	50	8	5	10	16	1	73	25	7	52	0.63	74.9
BM		CU	CU		100.0	211											5	11		0.00	5.6
BM		DM	UT	32		369	369	21	18	61		21	45	5		50	21	8	55	0.78	6.7
BM		DM	1S	16	18.2	224	183	11				100	74	26			20	22	326	3.51	.6
BM		DM	2S	2	20.0	29	23	1			100		100				16	13	80	1.45	.3
BM		DM	3S	18	5.9	228	215	12		100			26	38		36	27	10	95	0.97	2.3
BM		DM	4S	16	17.4	210	173	10		100				23	21	57	35	9	78	0.86	2.2
BM		DM	4S	16	14.9	214	182	11	100					13	49	37	34	5	32	0.42	5.8
BM		**Totals**		3	22.8	1,484	1,145	66	22	53	2	23	33	19	11	37	22	9	49	0.70	23.4
RC		CU	CU														0	8		0.00	2.6
RC		DM	3S	71	1.6	765	753	44		26	37	37	1	4	51	43	33	12	211	1.65	3.6
RC		DM	4S	29		295	295	17	100				6	25	21	48	31	5	34	0.39	8.8
RC		**Totals**		2	1.1	1,060	1,048	61	28	19	27	26	2	10	43	45	26	7	70	0.77	14.9
GF		CU	CU														5	23		0.00	.1

T14N R04W S11 T00U3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	00U3	58.00	69	236	S	W

T14N R04W S11 T00U3

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
GF		HB	2S	22		195	195	11			57	43				100	40	16	417	2.02	.5
GF		HB	3S	6		56	56	3		100						100	40	11	180	0.94	.3
GF		DM	2S	66	9.6	632	571	33			42	58		11	5	84	38	16	416	2.38	1.4
GF		DM	3S	4		35	35	2	73	27			27			73	31	8	67	0.56	.5
GF		DM	4S	2		12	12	1	100					100			27	7	40	0.46	.3
GF Totals				2	6.5	930	870	50	4	8	41	47	1	9	3	87	35	14	281	1.72	3.1
Type Totals					4.9	44,298	42,137	2,444	12	24	27	38	3	4	6	86	30	9	123	1.00	342.0

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SHOWJUMP

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T14N R04W S11 TROW1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
14N	04W	11	SHOWJUMPERS	ROW1	3.00	5	33	S	W

T14N R04W S11 TROW1

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU	CU		100.0	293											6	5		0.00	48.8
DF		HB	2S	8	2.0	3,189	3,126	9			64	36				100	40	15	354	1.89	8.8
DF		HB	3S	5	2.4	1,857	1,812	5		100						100	40	10	136	0.83	13.3
DF		DM	2S	27	3.7	10,303	9,926	30			42	58			10	90	39	15	360	1.97	27.6
DF		DM	3S	44	4.0	16,874	16,198	49	19	81					13	87	39	9	104	0.77	156.4
DF		DM	4S	13		4,803	4,803	14	98	2			14	20	24	43	29	5	31	0.29	154.4
DF		DM	UT	3		943	943	3		55		45	45		55		28	10	88	0.78	10.7
DF	**Totals**			99	3.8	38,263	36,808	110	21	42	17	20	3	3	13	82	31	8	88	0.72	420.1
BM		DM	UT	100	16.7	488	406	1		100						100	40	9	100	1.42	4.1
BM	**Totals**			1	16.7	488	406	1		100						100	40	9	100	1.42	4.1
Type Totals					4.0	38,751	37,214	112	21	43	17	20	3	3	13	82	31	8	88	0.73	424.1

TC TSTATS

STATISTICS

PROJECT **SHOWJUMP**

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**00U1**	52.00	69	242	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	69	242	3.5		
CRUISE	36	130	3.6	3,691	3.5
DBH COUNT					
REFOREST					
COUNT	29	107	3.7		
BLANKS	4				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	98	42.8	24.9	96	29.1	145.2	31,796	30,187	6,655	6,637
WR CEDAR	13	15.3	15.4	86	5.0	19.7	2,442	2,310	661	642
BL MAPLE	9	7.7	16.6	43	2.8	11.6	938	799	246	228
GRAND F	6	1.6	23.3	86	1.0	4.7	905	825	204	202
R ALDER	2	2.5	14.5	61	0.8	2.9	279	242	84	84
WHEMLOCK	1	.9	13.0	46	0.2	.8	34	34	18	18
COTWOOD	1	.2	22.0	63	0.1	.6	97	90	21	21
TOTAL	*130*	*71.0*	*21.9*	*86*	*39.6*	*185.5*	*36,491*	*34,487*	*7,889*	*7,833*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	53.5	5.5	1,114	1,179	1,244			
WR CEDAR	102.2	29.5	263	372	482			
BL MAPLE	74.7	26.4	102	139	175			
GRAND F	87.2	38.8	530	867	1,203			
R ALDER	7.4	7.0	88	95	102			
WHEMLOCK								
COTWOOD								
TOTAL	*70.7*	*6.3*	*913*	*974*	*1,036*	*200*	*50*	*22*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	48.7	5.0	239	252	264			
WR CEDAR	91.9	26.5	72	98	124			
BL MAPLE	61.9	21.9	29	38	46			
GRAND F	89.1	39.7	126	208	291			
R ALDER	3.0	2.8	32	33	34			
WHEMLOCK								
COTWOOD								
TOTAL	*65.0*	*5.8*	*200*	*212*	*224*	*169*	*42*	*19*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	83.4	10.0	39	43	47			
WR CEDAR	340.5	41.0	9	15	22			
BL MAPLE	227.1	27.3	6	8	10			
GRAND F	488.7	58.8	1	2	3			
R ALDER	360.8	43.4	1	3	4			
WHEMLOCK	830.7	99.9	0	1	2			
COTWOOD	830.7	99.9	0	0	0			
TOTAL	*94.3*	*11.3*	*63*	*71*	*79*	*355*	*89*	*39*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15

STATISTICS

PROJECT **SHOWJUMP**

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	04W	11	SHOWJUMPERSO	00U1	52.00	69	242	S	W

CL: 68.1 % COEFF

SD: 1.0 VAR.

BASAL AREA/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	8.7	133	145	158			
WR CEDAR	36.0	13	20	27			
BL MAPLE	27.7	8	12	15			
GRAND F	45.9	3	5	7			
R ALDER	43.3	2	3	4			
WHEMLOCK	99.9	0	1	2			
COTWOOD	99.9	0	1	1			
TOTAL	*8.2*	*170*	*185*	*201*	*184*	*46*	*20*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET BF/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	9.6	27,303	30,187	33,070			
WR CEDAR	35.5	1,490	2,310	3,130			
BL MAPLE	28.5	571	799	1,026			
GRAND F	44.0	462	825	1,188			
R ALDER	43.5	137	242	347			
WHEMLOCK	99.9	0	34	68			
COTWOOD	99.9	0	90	180			
TOTAL	*9.0*	*31,390*	*34,487*	*37,584*	*223*	*56*	*25*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET CUFT FT/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	9.2	6,026	6,637	7,248			
WR CEDAR	35.6	413	642	871			
BL MAPLE	27.4	166	228	291			
GRAND F	44.5	112	202	292			
R ALDER	43.4	47	84	120			
WHEMLOCK	99.9	0	18	36			
COTWOOD	99.9	0	21	42			
TOTAL	*8.6*	*7,157*	*7,833*	*8,509*	*206*	*51*	*23*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

TONS/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	9.2	172	190	207			
WR CEDAR	35.8	10	16	21			
BL MAPLE	27.3	5	7	8			
GRAND F	44.5	4	7	9			
R ALDER	43.4	1	2	3			
WHEMLOCK	99.9	0	1	1			
COTWOOD	99.9	0	1	1			
TOTAL	*8.5*	*203*	*222*	*240*	*197*	*49*	*22*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

V-BAR/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR		188	208	228			
WR CEDAR	26.0	76	117	159			
BL MAPLE	16.7	49	69	89			
GRAND F	44.0	98	174	251			
R ALDER	26.0	47	83	120			
WHEMLOCK	99.9	0	43	87			
COTWOOD	99.9	0	155	310			
TOTAL	*24.9*	*169*	*186*	*203*	*1,717*	*429*	*191*

TC TSTATS

STATISTICS

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PROJECT SHOWJUMP

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**00U2**	23.00	31	201	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	31	201	6.5		
CRUISE	17	105	6.2	2,515	4.2
DBH COUNT					
REFOREST					
COUNT	14	90	6.4		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	63	47.9	24.6	107	32.0	158.7	38,338	37,191	7,804	7,804
DOUG FIR-D	3	1.7	20.5	102	0.9	3.9	744	622	175	167
BL MAPLE	19	37.9	13.6	49	10.3	37.9	2,839	2,409	872	805
WR CEDAR	12	12.7	20.2	55	6.3	28.2	3,118	2,935	886	874
R ALDER	7	9.0	16.9	68	3.4	14.1	1,720	1,608	469	470
GRAND F	1	.2	35.0	123	0.2	1.3	373	340	70	70
TOTAL	*105*	*109.3*	*20.2*	*78*	*54.3*	*244.1*	*47,133*	*45,105*	*10,276*	*10,189*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF

SAMPLE TREES - BF

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	51.3	6.5	1,035	1,106	1,177			
DOUG FIR-D	39.2	27.1	289	397	504			
BL MAPLE	53.8	12.7	71	82	92			
WR CEDAR	76.4	23.0	365	474	583			
R ALDER	33.5	13.6	168	194	221			
GRAND F								
TOTAL	*82.5*	*8.0*	*711*	*774*	*836*	*272*	*68*	*30*

CL: 68.1 % COEFF

SAMPLE TREES - CF

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	46.3	5.8	214	227	240			
DOUG FIR-D	29.7	20.5	83	105	126			
BL MAPLE	52.5	12.4	24	28	31			
WR CEDAR	69.4	20.9	106	134	162			
R ALDER	35.0	14.3	49	57	65			
GRAND F								
TOTAL	*72.8*	*7.1*	*155*	*167*	*179*	*212*	*53*	*24*

CL: 68.1 % COEFF

TREES/ACRE

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	75.1	13.5	41	48	54			
DOUG FIR-D	319.7	57.4	1	2	3			
BL MAPLE	155.5	27.9	27	38	48			
WR CEDAR	176.2	31.6	9	13	17			
R ALDER	236.0	42.4	5	9	13			
GRAND F	556.8	99.9	0	0	0			
TOTAL	*48.5*	*8.7*	*100*	*109*	*119*	*94*	*23*	*10*

CL: 68.1 % COEFF

BASAL AREA/ACRE

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	68.1	12.2	139	159	178			
DOUG FIR-D	310.6	55.7	2	4	6			
BL MAPLE	151.3	27.1	28	38	48			
WR CEDAR	174.4	31.3	19	28	37			
R ALDER	236.7	42.5	8	14	20			
GRAND F	556.8	99.9	0	1	3			

STATISTICS

PROJECT **SHOWJUMP**

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**00U2**	23.00	31	201	S	W

CL: 68.1 % COEFF

SD: 1.0 VAR.

BASAL AREA/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
TOTAL	*7.0*	*227*	*244*	*261*	*60*	*15*	*7*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET BF/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	69.4	12.4	32,561	37,191	41,820			
DOUG FIR-D	312.5	56.1	273	622	971			
BL MAPLE	152.0	27.3	1,752	2,409	3,067			
WR CEDAR	183.5	32.9	1,969	2,935	3,902			
R ALDER	235.9	42.3	927	1,608	2,288			
GRAND F	556.8	99.9	0	340	680			
TOTAL	*51.1*	*9.2*	*40,967*	*45,105*	*49,244*	*104*	*26*	*12*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET CUFT FT/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	68.7	12.3	6,842	7,804	8,765			
DOUG FIR-D	311.5	55.9	74	167	261			
BL MAPLE	147.3	26.4	592	805	1,018			
WR CEDAR	179.7	32.2	592	874	1,156			
R ALDER	236.4	42.4	271	470	669			
GRAND F	556.8	99.9	0	70	139			
TOTAL	*45.9*	*8.2*	*9,351*	*10,189*	*11,028*	*84*	*21*	*9*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

TONS/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	68.7	12.3	195	222	250			
DOUG FIR-D	311.4	55.9	2	5	8			
BL MAPLE	148.5	26.6	17	23	29			
WR CEDAR	178.9	32.1	14	21	28			
R ALDER	236.4	42.4	7	13	18			
GRAND F	556.8	99.9	0	2	4			
TOTAL	*46.5*	*8.3*	*263*	*286*	*310*	*86*	*22*	*10*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

V-BAR/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR			205	234	264			
DOUG FIR-D	312.5	56.1	71	161	251			
BL MAPLE	86.1	15.4	46	63	81			
WR CEDAR	72.4	13.0	70	104	138			
R ALDER	146.8	26.3	66	114	162			
GRAND F	556.8	99.9	0	263	527			
TOTAL	*191.0*	*34.3*	*168*	*185*	*202*	*1,457*	*364*	*162*

TC TSTATS

STATISTICS

PAGE 1

PROJECT SHOWJUMP

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**00U3**	58.00	69	458	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	69	458	6.6		
CRUISE	41	236	5.8	8,169	2.9
DBH COUNT					
REFOREST					
COUNT	28	184	6.6		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	155	77.5	20.5	98	39.2	177.4	35,940	34,523	7,991	7,985
DOUG FIR-D	10	8.2	11.4	73	1.7	5.8	765	624	190	171
R ALDER	37	34.0	14.6	67	10.3	39.5	4,119	3,927	1,183	1,181
BL MAPLE	17	11.7	16.1	48	4.1	16.6	1,484	1,145	410	363
WR CEDAR	13	8.6	14.4	58	2.6	9.7	1,060	1,048	300	300
GRAND F	4	.9	26.4	119	0.7	3.6	930	870	187	187
TOTAL	*236*	*140.9*	*18.1*	*83*	*59.3*	*252.5*	*44,298*	*42,137*	*10,261*	*10,187*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF

SD: 1.0 VAR.%

SAMPLE TREES - BF

	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	69.8	5.6	658	697	736		
DOUG FIR-D	180.3	60.0	72	181	290		
R ALDER	53.9	8.8	134	146	159		
BL MAPLE	114.7	28.6	110	154	198		
WR CEDAR	116.0	33.4	224	336	449		
GRAND F	63.5	36.3	776	1,218	1,659		
TOTAL	*91.8*	*6.0*	*507*	*539*	*571*	*336*	*84*	*37*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

SAMPLE TREES - CF

	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	61.8	5.0	148	156	164		
DOUG FIR-D	160.8	53.5	21	46	71		
R ALDER	52.9	8.7	40	44	48		
BL MAPLE	80.1	20.0	35	43	52		
WR CEDAR	110.4	31.8	60	88	116		
GRAND F	62.0	35.4	167	258	349		
TOTAL	*81.1*	*5.3*	*117*	*124*	*130*	*263*	*66*	*29*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

TREES/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	85.5	10.3	70	77	85		
DOUG FIR-D	381.9	45.9	4	8	12		
R ALDER	192.5	23.2	26	34	42		
BL MAPLE	239.5	28.8	8	12	15		
WR CEDAR	303.2	36.5	5	9	12		
GRAND F	358.7	43.1	1	1	1		
TOTAL	*43.5*	*5.2*	*133*	*141*	*148*	*76*	*19*	*8*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

BASAL AREA/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	77.8	9.4	161	177	194		
DOUG FIR-D	296.4	35.7	4	6	8		
R ALDER	189.3	22.8	30	39	48		
BL MAPLE	229.9	27.6	12	17	21		
WR CEDAR	296.4	35.7	6	10	13		
GRAND F	340.9	41.0	2	4	5		

STATISTICS

PROJECT SHOWJUMP

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**00U3**	58.00	69	458	S	W

CL: 68.1 % COEFF

SD: 1.0 VAR.

BASAL AREA/ACRE

	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
TOTAL	*5.0*	*240*	*253*	*265*	*69*	*17*	*8*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET BF/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	82.3	9.9	31,104	34,523	37,942			
DOUG FIR-D	303.2	36.5	397	624	852			
R ALDER	189.7	22.8	3,030	3,927	4,823			
BL MAPLE	231.4	27.8	826	1,145	1,464			
WR CEDAR	333.6	40.1	627	1,048	1,469			
GRAND F	341.3	41.0	513	870	1,227			
TOTAL	*7.0*	*39,167*	*42,137*	*45,108*	*137*	*34*	*15*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET CUFT FT/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	80.1	9.6	7,215	7,985	8,754			
DOUG FIR-D	295.0	35.5	111	171	232			
R ALDER	190.2	22.9	911	1,181	1,451			
BL MAPLE	231.3	27.8	262	363	464			
WR CEDAR	311.0	37.4	188	300	412			
GRAND F	341.0	41.0	110	187	264			
TOTAL	*6.2*	*9,554*	*10,187*	*10,820*	*107*	*27*	*12*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

TONS/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	80.1	9.6	206	228	250			
DOUG FIR-D	288.9	34.8	4	5	7			
R ALDER	190.3	22.9	25	33	40			
BL MAPLE	231.9	27.9	8	11	14			
WR CEDAR	311.0	37.4	4	7	10			
GRAND F	341.1	41.0	4	6	8			
TOTAL	*6.3*	*271*	*290*	*308*	*110*	*27*	*12*

CL: 68.1 % COEFF

SD: 1.0 VAR.%

V-BAR/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR			175	195	214			
DOUG FIR-D	303.2	36.5	68	108	147			
R ALDER	93.2	11.2	77	100	122			
BL MAPLE	119.2	14.3	50	69	88			
WR CEDAR	253.1	30.4	64	108	151			
GRAND F	229.0	27.5	143	242	341			
TOTAL	*24.1*	*155*	*167*	*179*	*1,596*	*399*	*177*

TC TSTATS

STATISTICS

PAGE 1

PROJECT SHOWJUMP

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**ROW1**	3.00	5	33	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	5	33	6.6		
CRUISE	5	33	6.6	579	5.7
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	32	188.9	15.8	76	64.5	256.0	38,263	36,808	9,523	9,474
BL MAPLE	1	4.1	19.0	52	1.8	8.0	488	406	231	232
TOTAL	*33*	*193.0*	*15.8*	*75*	*66.3*	*264.0*	*38,751*	*37,214*	*9,755*	*9,706*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	114.5	20.2	272	341	410			
BL MAPLE								
TOTAL	*115.8*	*20.1*	*266*	*333*	*400*	*536*	*134*	*60*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	95.2	16.8	67	80	94			
BL MAPLE								
TOTAL	*94.7*	*16.5*	*67*	*80*	*93*	*358*	*89*	*40*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	40.9	20.3	151	189	227			
BL MAPLE	223.6	111.1		4	9			
TOTAL	*37.5*	*18.7*	*157*	*193*	*229*	*70*	*17*	*8*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	32.4	16.1	215	256	297			
BL MAPLE	223.6	111.1		8	17			
TOTAL	*34.9*	*17.3*	*218*	*264*	*310*	*60*	*15*	*7*

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	58.9	29.2	26,042	36,808	47,573			
BL MAPLE	223.6	111.1		406	858			
TOTAL	*60.3*	*29.9*	*26,071*	*37,214*	*48,357*	*179*	*45*	*20*

CL: 68.1 % COEFF — **NET CUFT FT/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	47.3	23.5	7,247	9,474	11,702			
BL MAPLE	223.6	111.1		232	489			
TOTAL	*50.0*	*24.8*	*7,295*	*9,706*	*12,117*	*123*	*31*	*14*

CL: 68.1 % COEFF — **TONS/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	46.5	23.1	209	271	334			
BL MAPLE	223.6	111.1		6	13			
TOTAL	*49.0*	*24.4*	*210*	*278*	*345*	*119*	*30*	*13*

CL: 68.1 % COEFF — **V-BAR/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15

STATISTICS

PROJECT **SHOWJUMP**

DATE 7/6/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
14N	**04W**	**11**	**SHOWJUMPERSO**	**ROW1**	3.00	5	33	S	W

CL: 68.1 %
SD: 1.0

	COEFF VAR.	S.E.%	V-BAR/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	58.9	29.2	102	144	186			
BL MAPLE	223.6	111.1		51	107			
TOTAL	*60.3*	*29.9*	*99*	*141*	*183*	*179*	*45*	*20*

TC PSPCTLTCM

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

T14N R04W S11 Ty00U	52.0
T14N R04W S11 Ty00U	23.0
T14N R04W S11 TyROW	3.0

Project SHOWJUMP
Acres 136.00

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Species	ST	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
DOUG FIR		8,390	21,431	29,000	121.12	47.42	1.38	10,176	10,162	4,734	4,538
R ALDER		2,313	4,289	2,304	36.15	19.50	0.65	838	836	293	277
WR CEDAR		1,582	2,274	1,695	44.79	31.17	0.92	721	709	260	248
BL MAPLE		1,958	2,736	1,518	26.63	19.06	0.70	573	522	202	165
GRAND F		142	391	739	161.79	58.75	1.67	231	230	110	101
DOUG FIR	D	512	676	430	26.93	20.39	0.57	151	138	61	51
COTWOOD		11	23	27	94.76	47.38	1.53	11	11	5	5
WHEMLOCK		45	45	30	21.16	21.16	0.53	9	9	2	2
Totals		14,954	31,865	35,743	84.37	39.59	1.19	12,709	12,616	5,667	5,386

Wood Type Species	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
C	10,671	24,817	31,894	105.40	45.32	1.32	11,288	11,248	5,167	4,940
H	4,283	7,048	3,848	31.95	19.42	0.67	1,421	1,369	500	447
Totals	14,954	31,865	35,743	84.37	39.59	1.19	12,709	12,616	5,667	5,386

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
Acres 136.00

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Date 7/6/2015
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Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		HA	2S	40	39	1.3	39	.9						7	32					
DF		HB	2S	32	32		32	.7						11	13	8				
DF		HB	2S	36	16		16	.3						8	8					
DF		HB	2S	40	1,227	2.9	1,192	26.3						189	241	379	334	48		
DF		HB	3S	32	27		27	.6				14	13							
DF		HB	3S	36	30	1.6	30	.7				8	22							
DF		HB	3S	40	245		244	5.4				68	176							
DF		DM	SM	40	30	2.2	29	.6								9	21			
DF		DM	2S	18	5	4.6	5	.1										5		
DF		DM	2S	20	6	10.5	5	.1									5			
DF		DM	2S	24	9	3.4	8	.2										8		
DF		DM	2S	31	1		1	.0						1						
DF		DM	2S	32	58	2.6	56	1.2						15	6	5	11	10	9	
DF		DM	2S	35	1		1	.0						1						
DF		DM	2S	36	16	3.0	16	.4						6	4	6				
DF		DM	2S	37	2		2	.0						2						
DF		DM	2S	40	2,231	5.8	2,101	46.3						235	257	593	580	405	31	
DF		DM	3S	16	1		1	.0					1							
DF		DM	3S	19	1		1	.0				1	1							
DF		DM	3S	20	2		2	.0					2							
DF		DM	3S	21	2		2	.0				1	1							
DF		DM	3S	22	1	11.1	1	.0					1							
DF		DM	3S	23	2		2	.0				1	1							
DF		DM	3S	24	1		1	.0					1							
DF		DM	3S	25	5	2.0	5	.1				3	2							
DF		DM	3S	26	4		4	.1				4								
DF		DM	3S	27	3	4.3	3	.1				2	1							
DF		DM	3S	28	6		6	.1			2	2	2							
DF		DM	3S	29	9		9	.2			2	6								
DF		DM	3S	30	8		8	.2			3	4								
DF		DM	3S	31	11		11	.2			2	6	3							
DF		DM	3S	32	87	4.2	83	1.8			18	46	18							
DF		DM	3S	33	8	1.4	8	.2				3	4							
DF		DM	3S	34	7		7	.1				3	4							
DF		DM	3S	35	6	3.2	6	.1			1	1	3							

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
Acres 136.00

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Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		DM	3S	36	15		15	.3			3	10	2							
DF		DM	3S	37	8		8	.2			3	3	2							
DF		DM	3S	38	8		8	.2				7	1							
DF		DM	3S	39	18		18	.4			5	10	3							
DF		DM	3S	40	335	2.0	329	7.2			67	127	134							
DF		DM	4S	8	0		0	.0				0								
DF		DM	4S	9	0		0	.0			0									
DF		DM	4S	12	1		1	.0		0		1								
DF		DM	4S	13	1		1	.0			1									
DF		DM	4S	14	2		2	.1		0	1	0	0							
DF		DM	4S	15	2		2	.0		0	1	0								
DF		DM	4S	16	5		5	.1		3	2	1								
DF		DM	4S	17	3		3	.1		1	1	1								
DF		DM	4S	18	4		4	.1		3		0								
DF		DM	4S	19	1		1	.0			1									
DF		DM	4S	20	3		3	.1			2	1								
DF		DM	4S	21	4		4	.1		1	2									
DF		DM	4S	22	9		9	.2		5	4	1								
DF		DM	4S	23	6		6	.1		2	3	1								
DF		DM	4S	24	1		1	.0		1		1								
DF		DM	4S	25	6		6	.1		4	2									
DF		DM	4S	26	4		4	.1		2	2									
DF		DM	4S	27	8		8	.2		5	3									
DF		DM	4S	28	2		2	.0		1	1									
DF		DM	4S	29	4		4	.1		2	2									
DF		DM	4S	30	3		3	.1		3										
DF		DM	4S	31	2		2	.0		2										
DF		DM	4S	33	7		7	.1		7										
DF		DM	4S	34	3		3	.1		3										
DF		DM	4S	36	14		14	.3		14										
DF		DM	4S	37	7		7	.2		7										
DF		DM	4S	38	5		5	.1		5										
DF		DM	4S	39	4		4	.1		4										
DF		DM	4S	40	12		12	.3		12										
DF		DM	UT	11	1		1	.0				0	0	0						
DF		DM	UT	12	2		2	.0		2										
DF		DM	UT	13	1		1	.0		1										

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
Acres 136.00

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Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		DM	UT	14	2		2	.1				1	1	1						
DF		DM	UT	15	1	17.2	1	.0				0		0						
DF		DM	UT	16	7		7	.2								1	6			
DF		DM	UT	17	2		2	.0		1			1							
DF		DM	UT	19	5		5	.1		5										
DF		DM	UT	20	2		2	.0		2										
DF		DM	UT	21	1		1	.0				1								
DF		DM	UT	24	1		1	.0			1									
DF		DM	UT	30	3		3	.1		3										
DF		DM	UT	31	2		2	.0				2								
DF		DM	UT	36	3		3	.1						3						
DF		DM	UT	39	6		6	.1		6										
DF		DM	UT	40	3		3	.1			3									
DF		RO	3S	15	1		1	.0						1						
DF		RO	3S	21	1		1	.0								1				
DF		RO	3S	24	1	11.8	1	.0								1				
DF		RO	3S	25	1		1	.0						1						
DF		RO	3S	29	1	11.1	1	.0						1						
DF		RO	3S	30	1		1	.0						1						
DF		RO	3S	31	1		1	.0						1						
DF		RO	3S	32	5		5	.1						3		2				
DF		RO	3S	40	27	11.5	24	.5						8		2	3	10		
DF		Totals			4,734	4.2	4,538	84.2		109	138	341	399	498	567	1003	967	476	40	
DF	D	DM	2S	40	14	14.0	12	24.6						3		5	4			
DF	D	DM	3S	24	3	21.1	2	4.5					2							
DF	D	DM	3S	40	6	19.1	5	10.3				2		3						
DF	D	DM	4S	40	3	33.3	2	4.0			2									
DF	D	DM	UT	19	1		1	2.0		1										
DF	D	DM	UT	24	1		1	1.3					1							
DF	D	DM	UT	25	0		0	.9			0									
DF	D	DM	UT	28	1		1	1.9		1										
DF	D	DM	UT	32	2		2	3.3						2						
DF	D	DM	UT	35	4		4	7.6		4										
DF	D	DM	UT	40	20		20	39.6		3	11	3		3						
DF		Totals			61	17.8	51	.9		9	13	5	3	11		5	4			

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
Acres 136.00

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Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RC		DM	3S	17	0		0	.2					0							
RC		DM	3S	24	6	6.1	6	2.4						2			4			
RC		DM	3S	25	1		1	.2				1								
RC		DM	3S	26	1		1	.2				1								
RC		DM	3S	30	9	5.4	9	3.4								3	6			
RC		DM	3S	32	53	1.6	52	21.0					6	4	12	10	11	9		
RC		DM	3S	33	1		1	.4					1							
RC		DM	3S	35	1		1	.4				1								
RC		DM	3S	36	100	2.9	97	38.9			4	11	23	9	6	27	17			
RC		DM	3S	37	1		1	.4				1								
RC		DM	3S	38	2		2	1.0			2									
RC		DM	3S	40	39	1.9	38	15.4			19			8		6	6			
RC		DM	4S	8	0		0	.1		0										
RC		DM	4S	11	1		1	.3			0	0								
RC		DM	4S	18	1		1	.3		1										
RC		DM	4S	21	1		1	.2			1									
RC		DM	4S	23	1		1	.3			1									
RC		DM	4S	24	3		3	1.1				3								
RC		DM	4S	25	1		1	.2			1									
RC		DM	4S	26	3		3	1.3		3										
RC		DM	4S	27	0		0	.1		0										
RC		DM	4S	28	1		1	.4			1									
RC		DM	4S	29	2		2	.6		2										
RC		DM	4S	30	2		2	.9		2										
RC		DM	4S	31	4		4	1.5		3	1									
RC		DM	4S	32	1		1	.3		1										
RC		DM	4S	36	1		1	.4			1									
RC		DM	4S	40	14		14	5.8		14										
RC		DM	UT	40	6		6	2.4			6									
RC		Totals			260	4.5	248	4.6		26	36	17	30	22	18	46	44	9		
BM		DM	UT	8	0		0	.1				0								
BM		DM	UT	10	0		0	.1			0									
BM		DM	UT	12	7		7	4.4			0		2	2			3			
BM		DM	UT	13	0		0	.1			0									
BM		DM	UT	14	1		1	.5		0		0								
BM		DM	UT	16	3		3	1.6					3							

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
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Date 7/6/2015
Time 9:08:02AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
BM		DM	UT	17	0	33.3	0	.2				0								
BM		DM	UT	18	6		6	3.8						2			4			
BM		DM	UT	19	1		1	.5		1										
BM		DM	UT	20	8		8	4.7		1	1	2				4				
BM		DM	UT	21	2		2	1.2		2										
BM		DM	UT	24	2		2	1.4			2									
BM		DM	UT	26	5		5	2.9		4	0									
BM		DM	UT	32	10		10	6.0		4	3			3						
BM		DM	UT	34	2		2	1.5			2									
BM		DM	UT	36	2		2	1.3				2								
BM		DM	UT	40	16	1.5	16	9.5			4	6		6						
BM		DM	1S	16	7	23.2	6	3.4								2	3			
BM		DM	1S	20	5	10.0	5	2.8										5		
BM		DM	1S	24	3	15.6	3	1.7								3				
BM		DM	2S	16	12	14.9	10	6.2						10						
BM		DM	2S	18	4	9.1	3	2.1						3						
BM		DM	2S	30	5	6.7	4	2.6						4						
BM		DM	3S	20	4	12.5	3	2.0					3							
BM		DM	3S	24	13	4.7	13	7.7					13							
BM		DM	3S	36	3	14.3	3	1.5					3							
BM		DM	3S	40	5	6.7	4	2.7					4							
BM		DM	4S	20	1		1	.7				1								
BM		DM	4S	24	6	16.0	5	3.2				3	2							
BM		DM	4S	30	2		2	.9				2								
BM		DM	4S	32	3		3	2.1				3								
BM		DM	4S	34	3	20.0	2	1.3				2								
BM		DM	4S	40	7	15.4	6	3.5				6								
BM		DM	4S	16	2		2	1.1			2									
BM		DM	4S	25	2		2	1.0			2									
BM		DM	4S	27	1		1	.8		1										
BM		DM	4S	32	7	7.2	7	4.1		3	4									
BM		DM	4S	36	5	13.0	5	2.8		1	3									
BM		DM	4S	39	3	25.0	3	1.6		3										
BM		DM	4S	40	8	10.5	7	4.3		1	6									
BM		Totals			202	18.4	165	3.1		22	30	28	40	20		4	9	7	5	

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
Acres 136.00

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Date 7/6/2015
Time 9:08:02AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
WH		DM	4S	40	2		2	100.0		2										
WH		Totals			2		2	.0		2										
GF		HB	2S	40	11		11	11.2							6	5				
GF		HB	3S	40	3		3	3.2					3							
GF		DM	2S	24	3	30.5	2	2.1										2		
GF		DM	2S	28	4	15.5	4	3.7										4		
GF		DM	2S	32	2		2	1.7						2						
GF		DM	2S	36	4		4	4.1						4						
GF		DM	2S	39	1	20.8	1	1.2						1						
GF		DM	2S	40	70	7.6	65	63.9						13	12	2	20	13	5	
GF		DM	3S	16	1		1	.5					1							
GF		DM	3S	24	1		1	.5				1								
GF		DM	3S	32	1		1	1.3				1								
GF		DM	3S	38	2		2	1.5			2									
GF		DM	3S	39	1		1	.8					1							
GF		DM	3S	40	1		1	1.2			1									
GF		DM	4S	13	0		0	.4			0									
GF		DM	4S	14	0		0	.3					0							
GF		DM	4S	27	1		1	.7			1									
GF		DM	4S	35	1		1	.9		1										
GF		RO	3S	40	1	31.0	1	.7							1					
GF		Totals			110	7.7	101	1.9		1	4	2	5	20	19	7	20	19	5	
CW		DM	2S	25	1	8.3	1	26.8						1						
CW		DM	2S	36	4	6.2	3	73.2							3					
CW		Totals			5	6.8	5	.1						1	3					
RA		DM	UT	13	1		1	.5		1	1									
RA		DM	UT	14	1		1	.3		1										
RA		DM	UT	15	1		1	.4		1										
RA		DM	UT	16	1		1	.3		1										
RA		DM	UT	17	1		1	.5		1										
RA		DM	UT	18	1		1	.2			1									
RA		DM	UT	28	1		1	.4		1										
RA		DM	UT	40	7		7	2.6		7										

TC PLOGSTVB

Log Stock Table - MBF

T14N R04W S11 Ty00U1
THRU
T14N R04W S11 TyROW1

Project: SHOWJUMP
Acres 136.00

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Date 7/6/2015
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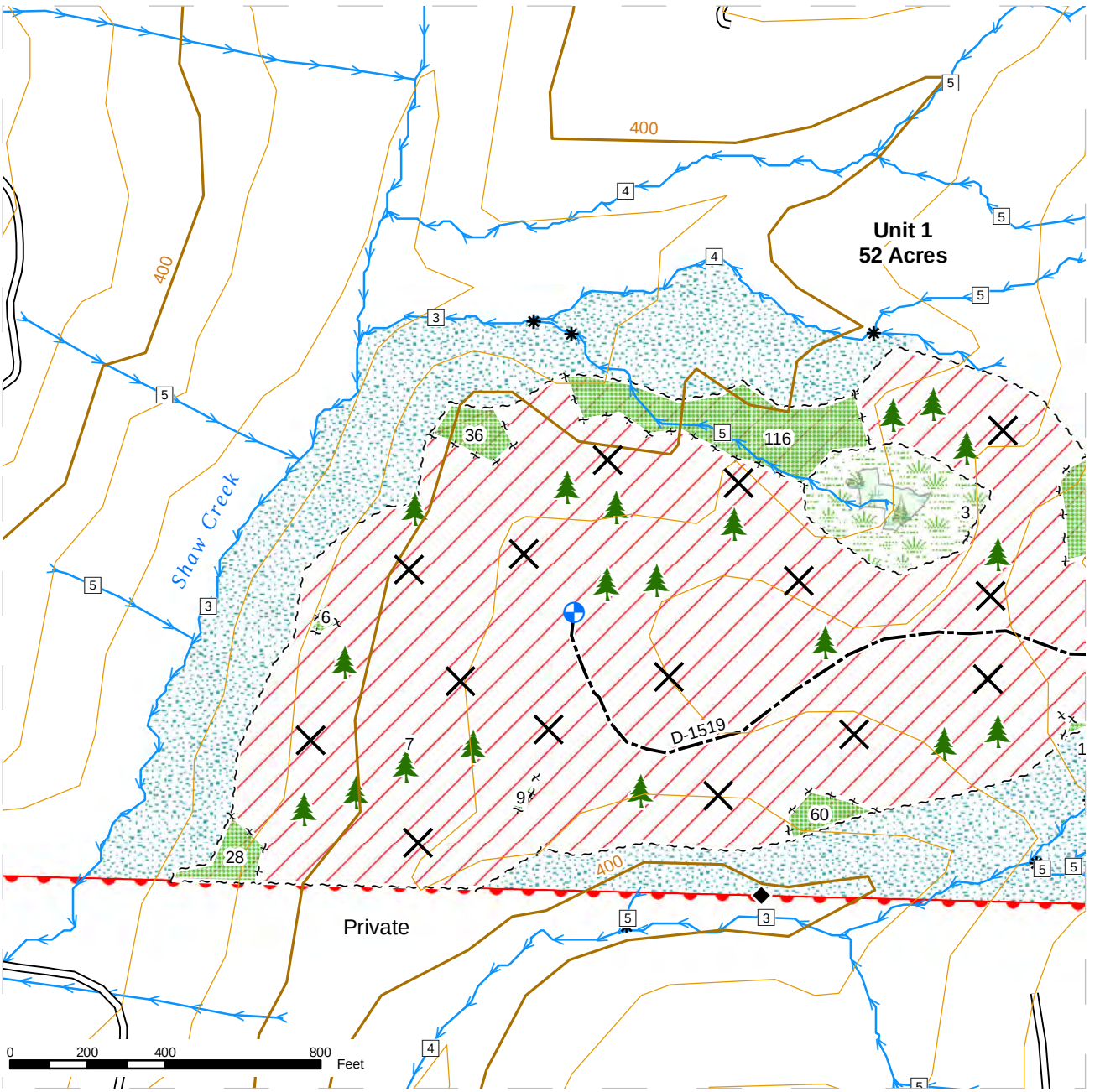
Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		DM	1S	30	12	8.8	11	3.8								11				
RA		DM	2S	28	5	5.9	5	1.8						5						
RA		DM	2S	32	4	8.7	4	1.5							4					
RA		DM	2S	40	29	5.7	27	9.7						21	6					
RA		DM	3S	32	9	8.3	8	2.8					8							
RA		DM	3S	40	44	4.2	42	15.1					42							
RA		DM	4S	16	4		4	1.5					4							
RA		DM	4S	20	1	25.0	0	.2				0								
RA		DM	4S	32	11	17.2	9	3.3				9								
RA		DM	4S	40	78	7.4	72	26.1				45	28							
RA		DM	4S	17	6		6	2.0		6										
RA		DM	4S	18	2		2	.7		2										
RA		DM	4S	19	2		2	.9		2										
RA		DM	4S	20	3		3	1.2			3									
RA		DM	4S	22	5	20.2	4	1.3		1	3									
RA		DM	4S	23	5		5	1.9		5	1									
RA		DM	4S	24	2		2	.9		2										
RA		DM	4S	25	1		1	.4		1										
RA		DM	4S	26	6	3.2	6	2.2		4	2									
RA		DM	4S	27	3		3	1.0		3										
RA		DM	4S	28	1		1	.4		1										
RA		DM	4S	30	2		2	.9		2										
RA		DM	4S	31	2		2	.5		2										
RA		DM	4S	32	1	16.7	1	.4			1									
RA		DM	4S	36	1		1	.4		1										
RA		DM	4S	37	3		3	1.0		3										
RA		DM	4S	39	1		1	.4		1										
RA		DM	4S	40	36		36	12.8		3	33									
RA		Totals			293	5.4	277	5.1		50	45	54	81	26	10	11				
Total		All Species			5,667	5.0	5,386	100.0		219	266	448	558	598	622	1081	1041	509	46	

LOGGING PLAN MAP

SALE NAME: SHOWJUMPER SORTS
AGREEMENT#: 30-092774
TOWNSHIP(S): T14R04W
TRUST(S): State Forest Transfer(1), Common School and Indemnity(3), Capitol Grant(7)

REGION: Pacific Cascade Region
COUNTY(S): LEWIS
ELEVATION RGE: 324-736



Ground Based
Cable
Sale Area
Leave Tree Area
Riparian Mgt Zone
Wetland Mgt Zone
Forested Wetland

Sale Boundary Tags
Leave Tree Tags
Right of Way Tags
Reprod
Existing Roads
Required Pre-Haul Maintenance
Optional Construction

Streams
Stream Type
Stream Type Break
Landing
Leave Trees
Gate (PCP 1-1)
Monumented Corners

N

Prepared By: hdec490
Creation Date: 1/13/2015
Modification Date: 7/20/2015

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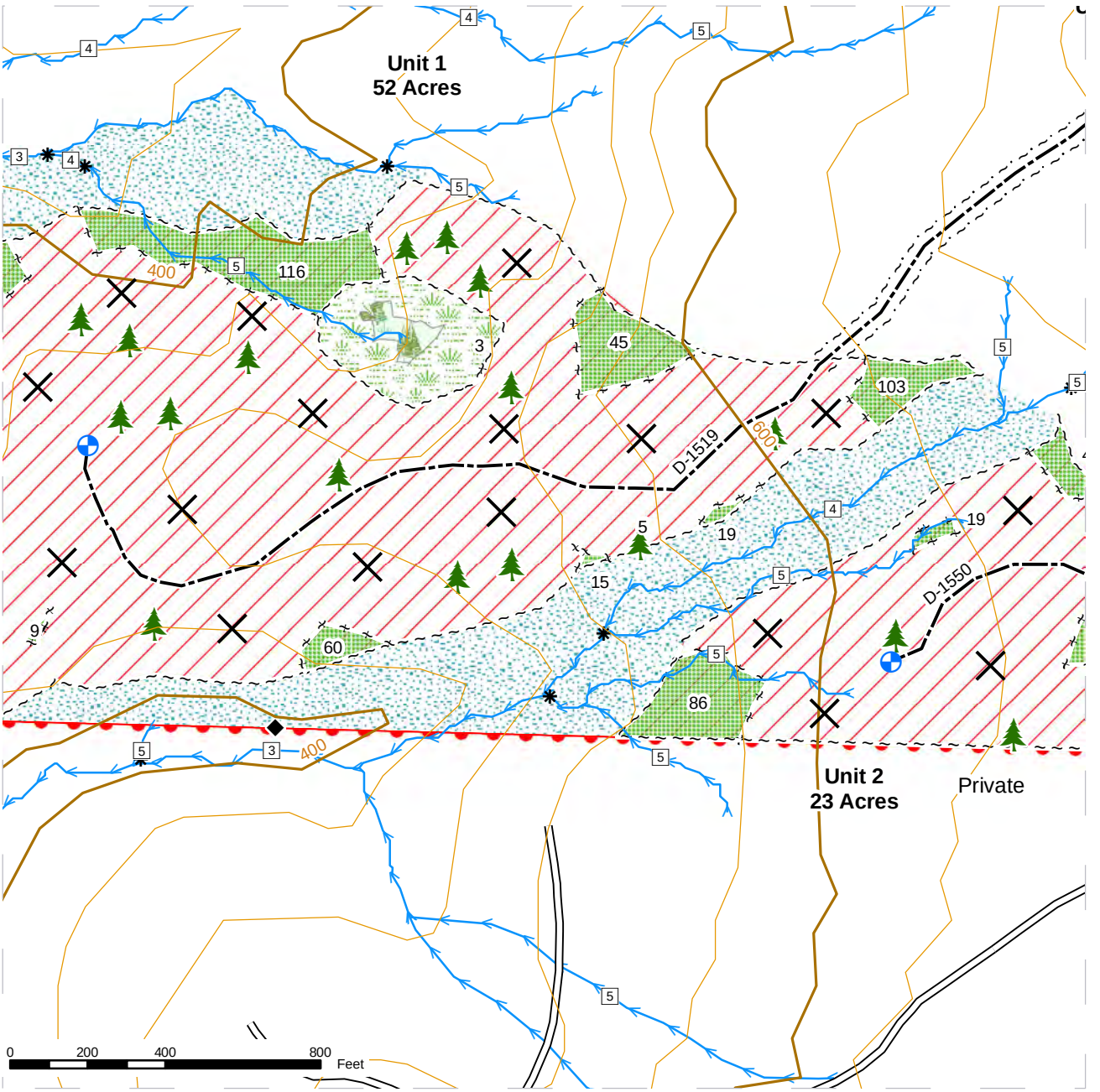

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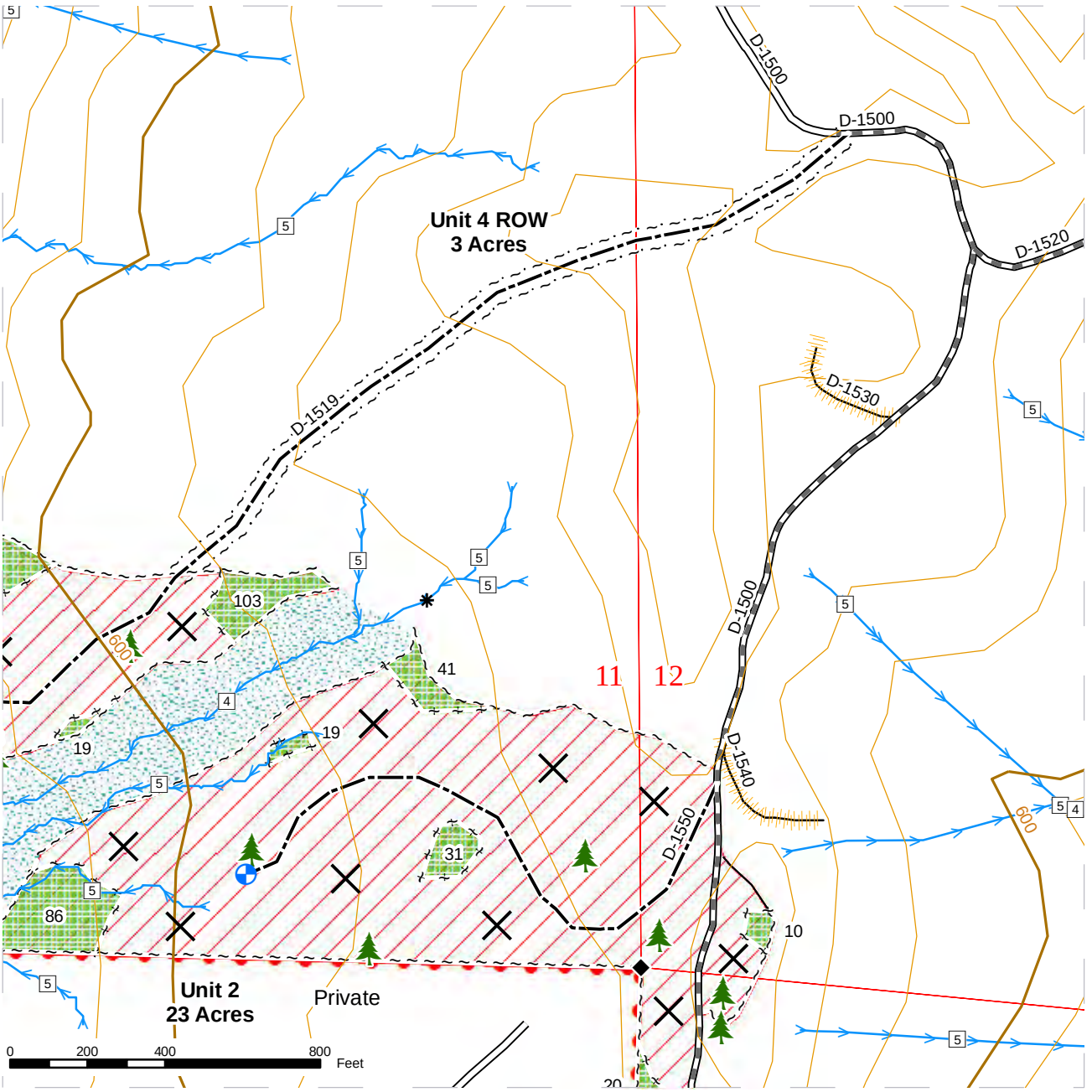

- Ground Based
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- Leave Tree Area
- Riparian Mgt Zone
- Wetland Mgt Zone
- Forested Wetland
- Sale Boundary Tags
- Leave Tree Tags
- Right of Way Tags
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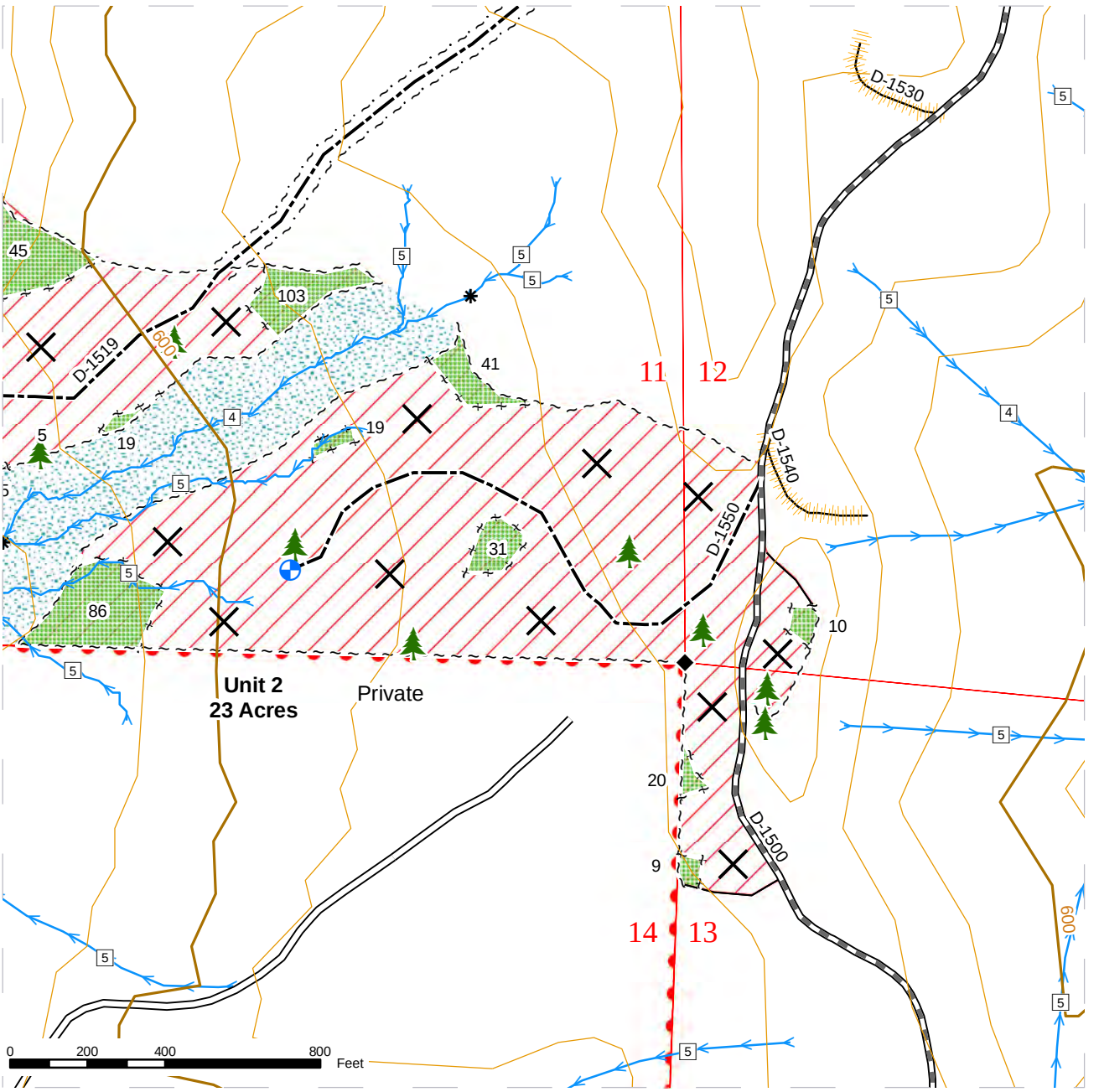

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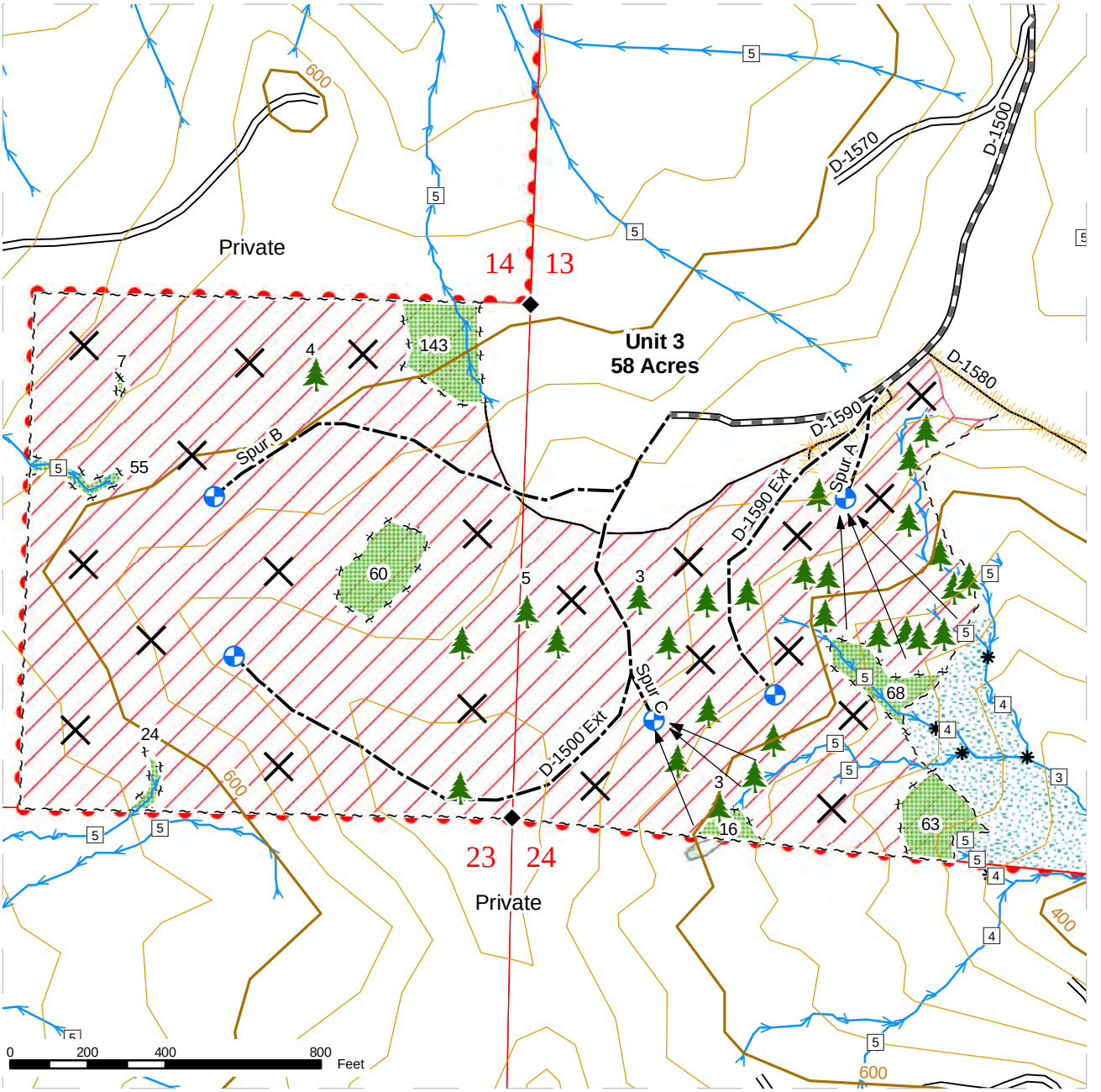

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