NOTICE OF TIMBER SALE

SALE NAME/NO.: North Lobster GNA
AUCTION DATE/TIME: June 15, 2022, starting at 2:00 PM.
AUCTION LOCATION: ODF office, Coos Bay, Oregon
DISTRICT/UNIT OFFICE (MAILING ADDRESS FOR BIDS):
Oregon Department of Forestry
63612 Fifth Road
Coos Bay, OR 97420
541-267-4136

HARVEST TYPE: 269 acres, Partial Cut.
SALE LOCATION: Portions of Sections 4, 5, 8, 9, 16, 17, and 21, Township 34S R13W, Willamette Meridian, Curry County Oregon.

DIRECTIONS TO TIMBER SALE AREA:
From Port Orford, proceed 3 miles north on Highway 101, turn right (east) onto Elk River Road. Proceed 14.8 miles on Elk River Road, turn right (south) onto USFS 5502 road for 11.1 miles until the 220 spur. Proceed south on the 220 road for 0.6 mile until you enter Area 1. The 223 road into Area 2, and 226 road through Area 2 is drivable. As of March 2022, the 220 is open to passenger vehicles shy of point P. Most spur roads are very brushy, though the 220 from point O to point V is accessible by ATV.

APPRaised VOLUMES AND QUALITY:

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>AVG DBH</th>
<th>TOTAL TONS</th>
<th>GRADES BY TON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>3P</td>
</tr>
<tr>
<td>Douglas-fir</td>
<td>12</td>
<td>17,582</td>
<td>340</td>
</tr>
<tr>
<td>Sale Total</td>
<td></td>
<td>17,582</td>
<td>340</td>
</tr>
</tbody>
</table>

MINIMUM BID: BID SPECIES
Douglas-fir .............................................. $ 19.17 per Ton

NO-BID SPECIES
Other Conifer................................. $ 6.42 per Ton
Cedars................................................. $ 26.22 per Ton
Hardwoods................................. $ 19.46 per Ton
Conifer and Hardwood Pulp.......... $ 0.25 per Ton

In order to compensate PURCHASER for Project Work, ODF will credit PURCHASER’s timber account in the amount of $230,279 after the project work is completed and accepted, as described in Section 2630, “Credit for Project Work.”

The Timber Sale Areas contain negligible volumes of other logs to be paid for at the prices in Section 1740.

PERFORMANCE SECURITY: 20% of bid value (unknown) or the total value of the project work ($230,279) whichever is greater, not to exceed $500,000. Actual bond amount will be rounded up to an even $1,000 unit.

EXPIRATION DATE: March 31, 2026
BID DEPOSIT: $11,300
SALE TYPE: Recovery/Good Neighbor Authority (USFS)
10% of the net appraised value, not to exceed $500,000. Bond amount will be rounded down to an even $100 unit.

INSURANCE: $2,000,000 Commercial General Liability; $2,000,000 Automobile Liability; $2,000,000 Logger's Broad Form.

HARVEST METHOD: Ground Based (24%) and Cable Logging (76%)

PROJECTS: Project No. 1. Road and Landing Improvement (primary haul route 5502 rd.)
Project No. 2. Road Improvement (alternate/optional haul route 3402 rd.)
Project No. 3. Retaining wall construction

FEES: None

COMPLIANCE STATEMENT: Purchasers are required to comply with all Federal and state laws, including but not limited to the Forest and Rangeland Renewable Resources Planning Act of 1974 (88 Stat. 476 et seq.) as amended by the National Forest Management Act of 1976, (90 Stat. 2949 et seq.; 16 U.S.C. 1601-1614) (NFMA); the Endangered Species Act of 1973 (16 USC 1531, et seq.) (ESA); and the National Environmental Policy Act of 1969, 42 USC 4321-4347 (NEPA). Purchaser should take steps to be certain that Purchaser's operations comply with all Federal and state laws. During the contract term, ODF may modify, suspend or terminate the Contract to prevent environmental degradation or resource damage; to ensure consistency with land and resource management plans, terms and conditions in Incidental Take Statements prepared under the ESA, or documents prepared pursuant to the NEPA; to conduct environmental analysis; or to address issues raised in administrative appeals or in anticipated or pending litigation, protect the interests of the State and U.S. Forest Service, including contract alteration, suspension, or termination. Prospective purchasers are encouraged to contact the Southwest Oregon District at (541) 474-3152 for further information or questions relative to threatened or endangered species surveys, future planned survey information, or other threatened or endangered species information.

SPECIAL REMARKS: NO PERSONAL OR COMPANY CHECKS ACCEPTED FOR THE BID DEPOSIT.

SEASONAL RESTRICTIONS APPLY - SEE SECTION 2455.

Extension of this contract is possible only if the Master agreement between ODF and USFS is extended beyond March 31, 2026 (Section 1530).

Log hauling on unsurfaced roads and ground based logging shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by State. Additional restrictions apply to hauling down the 3402 and up the 220 (Section 2035).

Low Stocking Areas identified on maps do not contain suitable stocking to be commercially thinnable. If Purchaser determines adequate stocking exists within Low Stocking Areas, Purchaser may commercially thin in those areas while adhering to all other specifications in this contract. (Section 2320 (e)).

Cut and Leave trees have not been marked. Fallers will be provided wedge prisms by State and taught how to estimate Basal Area through sample plots and estimated tree spacing (Section 2320).

Patch cuts of ¼ acre are prescribed (Section 2320 (e))

The 220 road to point R is a Fire Management Area, requiring endhaul of tree tops (Section 2320 (f)).

Subsoiling is required on temporary roads and landings (Section 2365).
Area 7 is adjacent to uninfected populations of Port Orford Cedar. In order to minimize risk of introducing *Phytophthora lateralis*, special restrictions are applied to seasonal operating and vehicle washing (Section 2416).

Seasonal restrictions apply in areas identified as MaMu Seasonal Restrictions and NSO Seasonal Restrictions on timber sale maps (Section 2455).

Project and appraisal costs are estimates and will not be adjusted for actual purchaser costs. Purchasers should seek due diligence in obtaining actual costs and adjust their bids accordingly.

Pulp removal is optional

40% of the sale net proceeds are due on May 7, 2024.

See inside front cover of Timber Sale Schedule handbook for disclaimer regarding all governmental regulatory actions. The handbook can be accessed online at: http://www.oregon.gov/ODF/Working/pages/TimberSales.aspx

SALE NAME: North Lobster GNA
COUNTY: Curry
CONTRACT NO.: CS-341-2022-GF8518-01
FORM OF PROPOSAL

The undersigned agrees to accept and perform all of the above terms and conditions as stated in the form of contract for the above-cited timber sale, and bids, and will pay:

Bid Species:

Douglas-fir, sawmill grade or better,

Dollars $_________ per Ton

(TOTAL PRICE).

Minimum grades and volumes for bid species are stated in the timber sale prospectus.

No-bid species will remain as shown:

Other Conifer ................................................................................................................. $ 6.42 per Ton
Hardwoods ..................................................................................................................... $19.46 per Ton
Cedars ......................................................................................................................... $26.22 per Ton
Pulp Conifer and hardwood pulp ................................................................................. $ 0.25 per Ton

Enclosed is a bid deposit as required, consisting of a $11,300 payable to the Oregon Department of Forestry.

The undersigned agrees to execute and deliver the contract, initial payment, required certificates of insurance, and performance bond, within thirty (30) days of the date of the written notice of intent to award; and that any cash bid deposit may be applied to the first required timber sale payment.

The undersigned understands that the bid is irrevocable and further agrees that if they fail to qualify under the terms of the contract within the thirty-day period, the bid deposit shall become the property of the Oregon Department of Forestry as liquidated damages. If the undersigned fails to qualify within the thirty-day period, STATE may disqualify the undersigned from submitting another bid on this timber sale.

BIDDER

(Name of Individual or Company and Authorized Official)

EMPLOYER IDENTIFICATION NUMBER (EIN)

ADDRESS

PHONE

BUSINESS EMAIL

BY

(Signature of Authorized Official & Title)

COMPLETE PURCHASER’S STATUS ON PAGE 2
### PURCHASER'S STATUS

<table>
<thead>
<tr>
<th>Purchaser is a corporation</th>
<th>Check</th>
<th>Incorporated in the State of</th>
</tr>
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<tbody>
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<td>( )</td>
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</tbody>
</table>

President's Name ___________________________  ___________________________

Secretary's Name ___________________________

Purchaser is: ( ) a partnership  ( ) an assumed (business) name  ( ) company

( ) an individual

List names of all persons doing business under the partnership or assumed name:

| ___________________________ | ___________________________ |
| ___________________________ | ___________________________ |
| ___________________________ | ___________________________ |

If assumed name is subsidiary to a corporation, fill in data requested of corporation also and write in corporation name here:

| ___________________________ |
| ___________________________ |
CERTIFICATION OF ELIGIBILITY
TO BID ON FEDERAL TIMBER

______________________________ hereby certifies that they:

EXPORT

(a) Are in compliance with applicable prohibitions against export and substitution prescribed in the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.)

(b) Will not directly or indirectly export the unprocessed State timber as defined in OAR 629-031-0020 which is the subject of this transaction.

(c) Shall not engage in export of unprocessed timber originating from private lands in Oregon until such time as all interests in contracts for State timber held by the above have terminated, per OAR 629-031-0010(1)(d).

(d) Will not sell, transfer, exchange, or otherwise convey the unprocessed timber as defined above which is the subject of this transaction to any other person that is not a STATE’s approved location.

(e) Are not prohibited by OAR’s 629-031-0005 through 0045 from bidding for unprocessed State timber as defined above directly from the State Forester.

(f) Understand that falsely entering into this certification is a violation of the Forest Resources Conservation Amendments Act of 1993 and OAR Chapter 629, Division 31, and is subject to any and all penalties contained therein.

DEFAULT, TERMINATION, AND OTHER RELATED MATTERS

(a) Are not currently in default status under any timber sale contract sold by the State Forester.

(b) Has not, within a 3-year period preceding this bid, had one or more Federal, State, or local timber sales terminated for cause or default.

(c) Is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from timber sales (covered transactions) by any Federal department or agency.

(d) If (b) or (c) above is Yes, has submitted an explanation, in writing, with this bid for consideration by STATE. Any such explanation shall be submitted at the time of bid on a separate piece of paper.

Signed

______________________________
Title

Dated

[NOTE: For the purpose of this form, the definition of unprocessed timber is the same as in OAR 629-031-0005.]
2020 GNA CONTRACT DIRECTORY
Effective April 2019

Reference Only – Does not need to be completed

CONTRACT COVER PAGE

Page EXECUTION OF CONTRACT
1. Section 1000. Signatures of Contract Parties

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5. Section 1040. Quality and Quantity of Timber
5. Section 1050. Examination of Plans, Exhibits, and Areas of Operations

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6. Section 1120. Completion Date of Contract
6. Section 1130. Pre-Operations Meeting
6. Section 1140. Operations Plan

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8. Section 1230. Payment Bond
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11. Section 1325. Subcontracting
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11. Section 1335. Hazardous Substances Discovered by PURCHASER
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13. Section 1380. Entire Agreement; No Modification

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Version April 2019
TIMBER SALE CONTRACT

SALE NAME: North Lobster GNA
CONTRACT NO: CS-341-2022-GF8518-01
ODF DISTRICT: Coos

Section 1000. Signatures of Contract Parties.

This Contract (the “Contract”) is by and between the STATE OF OREGON, acting by and through the State Forester on behalf of the DEPARTMENT OF FORESTRY (“STATE”) and ________________________________ (“PURCHASER”). The Contract shall be effective as of the latest date signed below. The parties do hereby agree as follows:

1) Signature of STATE means he/she is a duly Authorized Representative of the STATE and is authorized by STATE to make all representations, attestations, and certifications contained in this Contract and all addenda, if any, issued, and to execute this Contract document on behalf of STATE;

2) Signature of PURCHASER means he/she is a duly Authorized Representative of the PURCHASER, has been authorized by PURCHASER to make all representations, attestations, and certifications contained in this bid/proposal document and all addenda, if any, issued, and to execute this bid/proposal document on behalf of PURCHASER;

3) PURCHASER, acting through its Authorized Representative, has read, understands, and agrees to all Contract instructions, specifications, and terms and conditions contained in this Contract document (including all listed attachments and addenda, if any, issued);

4) PURCHASER is bound by and shall comply with all requirements, specifications, and terms and conditions contained in this Contract document (including all listed attachments and addenda, if any, issued);

5) PURCHASER shall furnish the designated item(s) and/or service(s) in accordance with the bid/proposal specifications and requirements, and shall comply in all respects with the terms of the resulting agreement upon award.

IN WITNESS WHEREOF, the State of Oregon hereby awards the Contract to the above Purchaser for the item(s) and/or service(s) contained in the Contract, including all terms, conditions, and specifications. The Parties have affixed their signatures as of the latest date indicated below.

STATE: State of Oregon, acting by and through the DEPARTMENT OF FORESTRY

Chief, State Forests Division

Date: _______________________________

PURCHASER: (Purchaser Name) (SEAL)

By: _______________________________

(Signature of Purchaser Authorized Representative)

Printed Name: _______________________________

As its: _______________________________

Date: _______________________________
PART I: SALE OF TIMBER

GENERAL

Section 1010. Definitions of Terms.

Anchor Stump - a stump used to tie off or wrap a cable or line to firmly secure it.

Archaeological or Historical Resource - those sites, buildings, structures, and artifacts, which possess material evidence of human life and culture of prehistoric and historic past.

Areas of Operations - the locations where PURCHASER performs the Operations described in the Contract. Each Area of Operation usually has specific operating requirements.

At Price Above – material will be charged at the highest rate for that species.

Authorized Representative - a representative of the PURCHASER authorized to receive any notice or instructions from STATE on behalf of PURCHASER and to take any action required in regard to performance of PURCHASER under this Contract.

Basal Area - a measure of the cross-sectional area of a Tree Bole, in square feet, measured 4½ feet above the ground on the uphill side of the tree.

Bidder – is a person, business, corporation, or other entity recognized by the STATE that submits a bid to enter into a contract with the STATE to purchase forest products, and that certifies that the timber will be harvested.

Bunk – a bed for logs with a pair of stakes at each end.

Contract - the entire written agreement between the parties, including but not limited to the Notice of Timber Sale, Invitation to Bid or Request for Proposal, Instructions to Bidders, specifications, terms, and conditions, Exhibits, Operations Plan, change notices, if any, and the accepted bid.

Cultural Resource - an Archaeological or Historical Resource. They may include objects, structures, or sites used by people in the past.

DBH (Diameter at Breast Height) - the diameter of a standing tree inclusive of the bark measured 4½ feet above the ground on the uphill side of the tree.

Down Timber - timber that is down as of the date of this Contract, as determined by STATE.

Down Wood - trees and logs on the ground.

Fire Season - when the State Forester has declared that conditions of fire hazard exist in a forest protection district or any part thereof. The State Forester designates for each district or any part thereof the date of the beginning of a Fire Season for that year. The Fire Season continues for each district or part thereof until ended by order of the State Forester when conditions of fire hazard no longer exist in that district or part thereof.

Green Tree Retention - the practice of leaving live growing trees on a site during timber harvest as a future source of Snags, old growth trees, large diameter wood, and native seed.

Group Selection Area (GSA) – an area within the Timber Sale Area that has a unique prescription as described in this Contract. Group Selection Areas are less than five acres in most circumstances and are usually marked on the ground with boundary signs. Prescription trees are marked with paint within the Group Selection Area.

Guy Stump - a stump used to tie off or wrap a cable or line to firmly secure it.
Guyline - a cable or rope attached to something to brace, steady, or guide it.

Hazardous Substances - any substance or material that is hazardous or toxic to health or otherwise regulated or controlled under any applicable federal, state or local statute, regulation, ordinance or law.

Improvements - a permanent addition or change to real property, such as a road, structure, or utility, which increases the value of the property.

Landing - a collecting point for logs; the place to which logs are yarded for loading and transportation from the woods.

Live Crown Ratio - the length of a Tree Bole supporting the growth of live branches compared to total tree height, expressed as a percentage.

"Live" Stream - a stream with water flowing through it.

Log Load Receipt Book - a book issued by the STATE used for log load accountability. In each book there are sequentially numbered multipart pages (tickets). Each page is a four-part form. Each of the four parts, on each page, has the same identifying number. The four parts are:

Woods Receipt
Turned in to the ODF District Office that the timber sale is in.

Trucker Receipt
Retained by the log truck driver.

Load Receipt
Stapled to the log load on the truck before the truck leaves the Timber Sale Area Landing. Stays with the log load until the load is dispersed and processed at the mill.

Scaler Receipt
Stapled to the log load on the truck before the truck leaves the Timber Sale Area Landing. When the load is scaled (measured) the Scaler Receipt is transferred to the Scaling Bureau's printout of the log breakdown of the load. This log breakdown (which shows number of logs, species of logs, grades of logs, and board foot volume), along with the Scaler Receipt is sent to ODF headquarters in Salem.

Low Relative Density – an area of heavy thinning where the Relative Density of the residual stand is less than 15.

Major Catastrophes - windstorms, floods, fire, landslides, or other acts of God, which are beyond the control of PURCHASER and in no way connected with negligent acts or omissions of PURCHASER, its officers, employees, agents, or subcontractors.

MBF - thousand board feet.

Operations - all the activities conducted by PURCHASER under this Contract, including Project Work, logging, or post-harvest activities; or the furnishing of all materials, equipment, labor, and incidentals necessary to successfully complete any individual item or the entire Contract.

Operations Plan - the document by which PURCHASER notifies STATE of the plans and schedule for completing the Operations described in the Contract. It also contains the names of the subcontractors, PURCHASER's Authorized Representatives, and STATE's Authorized Representatives.

Patchcut – a small area; ¼ to ½ acre in size retaining in the center one dominant or co-dominant Douglas-fir with a large, healthy live crown ratio. Surrounding Douglas-fir trees shall be removed.

Permit - any Permit required by a federal, STATE, or local government agency before Operations under this Contract may lawfully begin or continue. Permit includes an incidental take Permit under the federal Endangered Species Act.
**Pre-Operations Meeting** – the initial meeting between the Authorized Representatives of PURCHASER and STATE to discuss operational issues and requirements of the Contract, and to identify the elements to be addressed in the Operations Plan.

**Project Location** - the points or areas designated as such on Exhibit A and located on the ground by reference to points, stations, natural land features, Improvements, or area boundary signs. The location(s) where project activities occur.

**Project Work** - work required of the PURCHASER in addition to normal log removal and hauling activities. The PURCHASER is usually compensated for Project Work with Project Work Credits. Project Work can include, but is not limited to, road building, road improvement, rock quarry development, stream enhancement, site preparation, soil stabilization, and water runoff control measures.

**Protected Genetic Parent Tree** - a seed tree selected for its desirable characteristics that is designated not to be cut or harmed.

**Pulp** – any log (tops only) that does not meet the minimum requirements for removal in Section 2040 or 2045, Log Removal.

**Purchase Price** - for each species sold on a recovery basis, "Purchase Price" is defined as the price per MBF listed in Section 1740, "Log Prices." If species is not listed in Section 1740, "Log Prices," the highest price listed in Section 1740, "Log Prices," shall apply.

For bid species sold on a lump sum basis, the Purchase Price for each species shall be determined by using STATE’s unamortized timber appraisal value, multiplied by the bid-up factor. Bid-up factor shall be calculated by STATE using the following calculation: Bid value all species/appraised value all species = bid-up factor.

For no-bid species sold on a lump sum basis, the Purchase Price for each species shall be determined by using STATE’s unamortized timber appraisal value.

**PURCHASER's Authorized Representatives** - the representatives authorized by PURCHASER to receive any notice or instructions from STATE on behalf of PURCHASER and to take any action required in regard to performance of PURCHASER under the Contract. PURCHASER's Authorized Representatives are identified in the Operations Plan.

**PURCHASER’s Deposit Account** - an account where PURCHASER timber sale payments are deposited. This is an account set up by the State of Oregon to accept regular and advance timber sale payments from the PURCHASER. Advance payments are defined in the Payment Schedule section of the Contract.

**Relative Density** - a measure of the degree of closeness of trees growing side by side in a stand, in relationship with their size. The measure is expressed as a ratio of actual stand density to the maximum stand density attainable in a stand with the same mean tree volume. Relative Density is calculated by dividing the residual Basal Area by the square root of the average residual stand DBH.

**Residual Tree** - green tree left standing on an Area of Operation or Timber Sale Unit.

**Right-of-Way Timber** - trees harvested from a strip of land to enable a road to be constructed.

**Setting** - the area of a logging operation from which logs are yarded to a single Landing.

**Slash** - all woody Slash resulting from logging Operations, construction of roads, or other Improvements.

**Snag** - a standing dead tree, or portion of a tree, from which most of the foliage and limbs have fallen.

**Stand Density Index** – a measure of the degree of closeness of trees growing side by side in a stand, in relationship with their size. Stand Density Index (SDI) is calculated by dividing the average stand diameter by 10 taken to the 1.605 power, multiplied by the average trees per acre (TPA), and divided by the maximum SDI of that species. SDI = TPA x (Diameter/10)^1.605
STATE - the Oregon Department of Forestry, State Forester, or a duly Authorized Representative of the State Forester.

Stream Buffer - designated areas adjacent to a stream where timber is left uncut, or there are other special management or operational requirements. Stream Buffer may be marked in the field.

SUB - Submerchantable materials. SUB, as used by STATE, references that material containing at least 10 board feet (net) but less than the lower merchantable net volume limit or grade requirements for other merchantable material, as defined in Section 2045, “Log Removal.”

Subcontract - assign responsibility for work required under the Contract to a party other than the PURCHASER.

SUM - lump sum material.

Tailblock - a pulley that is attached to an Anchor Stump, Guy Stump, Tailhold Stump, tree, or other sturdy object, through which a cable is passed and used to return the mainline and chokers to the cutting area from the Landing.

Tailhold - a stump, tree, or other sturdy object to which a Tailblock, cable, or line is attached.

Tailhold Stump - a stump used to tie off or wrap a cable or line to firmly secure it.

Temporary (Temp) Road – a road used for limited activities which can include but are not limited to skidding, hauling, yarding, and loading. Temporary roads are not part of the US Forest Service road network.

Timber Harvesting Operations - activities conducted by the PURCHASER on a timber sale to remove logs from the woods. These activities can include, but are not limited to, felling, bucking, Yarding, loading, and hauling.

Timber Sale Area - the area or areas designated as such on Exhibit A and located on the ground by reference to legal subdivisions, monuments, natural land features, Improvements, or sale boundary signs. It is the entire area encompassing the material that is required to be harvested.

Timber Sale Unit - a sub-area within an Area of Operation. A Timber Sale Unit usually has more operational requirements, in addition to the operational requirements of the Area of Operation.

Total Purchase Price - For sales with species sold on a recovery basis or a combination recovery basis and lump sum, Total Purchase Price is the sum of each recovery basis species’ volume multiplied by the price per MBF listed in Section 1740, “Log Prices,” and each lump sum basis species’ lump sum price.

For sales with all species sold on a lump sum basis, Total Purchase Price is the total bid price.

TPSO (Third-Party Scaling Organization) - a scaling organization not affiliated with either the PURCHASER or STATE.

Tree Bole - the trunk of a tree.

Unsurfaced Road - A road in which the running surface consists of the same materials as the surrounding native soils. Unsurfaced roads may also include those roads that have had some minimal surfacing added but are inadequate for use during wet weather as determined by ODF.

Utilization Scale - scaling of logs to account for merchantable material that has been lost due to logs not removed from the harvest area, or from improper logging practices that resulted in breakage or wastage to otherwise merchantable logs.

Written Plan - a plan that describes how an operation will be conducted, including the means to protect resource sites described in ORS 527.710(3)(a) (relating to the collection and analysis of resource site inventories), if applicable.

Yarding - the process of conveying logs from the cutting area to the Landing.

YUM (Yarding Unmerchantable Material) - to yard logging residue to a Landing or other specified location.
Section 1020. Sale of Timber. Under the terms and conditions of this Contract, STATE sells to PURCHASER, and PURCHASER buys from STATE, that Federal timber designated and described in Section 2210, "Designated Timber," which for all purposes of this Contract is hereinafter referred to as "timber." The location of Designated Timber is shown on Exhibit A. PURCHASER shall pay STATE the Total Purchase Price for timber set forth in Section 1710, "Purchase Price," or 1740, "Log Prices." The Total Purchase Price shall be paid to STATE in accordance with the payment schedule in Section 1720, 1751, or 1752, "Payment Schedule."

This is a sale of Federal Timber and timber harvested or sold under this Contract must not be exported from the United States. PURCHASER must comply with the provisions of the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.), which authorizes the U.S. Forest Service, Oregon and other western states to prohibit the export of unprocessed timber from public lands and prohibit export in disposing of timber from this timber sale.

Section 1030. Title to Timber. During the period of this Contract, and any extension, PURCHASER shall have the right to cut and remove the timber. Such right shall be conditioned upon PURCHASER complying with the provisions of this Contract.

The ownership of and title to the timber shall pass to PURCHASER as the timber is paid for following removal from the Timber Sale Area. Any right of PURCHASER to cut and remove the timber shall expire and end at the time this Contract, or any extension, terminates. All rights and interests of PURCHASER in and to timber and logs remaining on the Timber Sale Area shall, at that time, automatically revert to and revest in the U.S. Forest Service, without compensation to PURCHASER.

Section 1040. Quality and Quantity of Timber. STATE makes no guarantee or warranty to PURCHASER as to the quality or quantity of the Designated Timber. PURCHASER shall be liable to STATE for the Total Purchase Price set forth in Section 1710, "Purchase Price," or 1740, "Log Prices," even if the quantity or quality of Designated Timber actually cut, removed, or designated for taking is more or less than that estimated by STATE to be available for harvesting on the Timber Sale Area.

Further, STATE makes no representation, warranty, or guarantee of the accuracy of any information either provided by STATE or made available by STATE under the Public Records Law with respect to this Contract. PURCHASER agrees to bear exclusive responsibility for, and to accept all risks associated with, the actual conditions on the Areas of Operations and PURCHASER's computation of its bid for this Contract.

Section 1050. Examination of Plans, Exhibits, and Areas of Operations. PURCHASER acknowledges and agrees that, before submitting a bid, PURCHASER: (i) has made a careful examination of the terms and conditions of the Contract; (ii) has become fully informed as to the quality and quantity of materials and the character of the Operations required; and (iii) has made a careful examination of the Areas of Operations and the location and conditions of the Operations, including the sources of supply for materials. STATE will in no case be responsible for any loss or for any unanticipated costs that may be suffered by PURCHASER as a result of PURCHASER's failure to acquire full information in advance in regard to all conditions pertaining to the Operations.

COMMENCEMENT AND COMPLETION OF CONTRACT

Section 1110. Commencement of Work. PURCHASER shall not commence work under the Contract until STATE provides written notification to PURCHASER that STATE has received and accepted the following:

(a) The performance bond required under Section 1210, "Performance Bond";
(b) The payment bond required under Section 1230, "Payment Bond";
(c) The certificate of insurance required under Section 1240, "Insurance," subpart (i);
(d) The first payment on the Contract specified in Section 1751, or 1752, "Payment Schedule"; and

(e) A fully executed original of the Contract.

Further, PURCHASER shall not commence work under the Contract until PURCHASER has attended the Pre-Operations Meeting and STATE has approved the Operations Plan as specified in Section 1140, "Operations Plan."

**Section 1120. Completion Date of Contract.** Time is of the essence in this Contract. PURCHASER shall complete and fully perform all Operations under this Contract no later than March 31, 2026, unless the term of the Contract is extended in accordance with Section 1530, "Extension of Time." PURCHASER may be required to perform uncompleted Contractual obligations at a time later than stated above or in Section 1530, "Extension of Time." STATE shall notify PURCHASER in writing of these obligations and their required completion date. Upon completion of final Operations, PURCHASER shall notify STATE as required under Section 1315, "Inspection and Acceptance." The Contract will not be complete until STATE has inspected and accepted PURCHASER's performance as specified in Section 1315, "Inspection and Acceptance."

**Section 1130. Pre-Operations Meeting.** PURCHASER shall meet with STATE prior to STATE approval of the initial Operations Plan required by Section 1140, "Operations Plan," and prior to commencement of operations, to discuss Contract matters, including Threatened and Endangered Species protection efforts, protection of Timber Sale Area resources, and to identify key issues to be addressed in the Operations Plan.

**Section 1140. Operations Plan.** PURCHASER shall prepare an Operations Plan for all Operations to be conducted under this Contract and shall submit the plan to STATE at least fifteen (15) calendar days prior to commencement of any Operations. This plan shall be prepared on a form provided by STATE, and shall be used for all types of Operations, including road maintenance, Project Work, logging, and post-harvest requirements. In addition to the Pre-Operations Meeting required by Section 1130, "Pre-Operations Meeting," STATE may require an on-site meeting prior to approval of the Plan, to be attended by PURCHASER, subcontractor, and STATE representatives. STATE's approval of the Plan must be obtained prior to commencement of any Operations. Upon approval by STATE, the Operations Plan(s) shall automatically be incorporated into, and made part of, this Contract as Exhibit B. Each Operations Plan shall be dated.

PURCHASER shall notify STATE prior to any period of inactivity of Operations for more than three (3) days, and again prior to resumption of Operations.

**BONDING AND INSURANCE**

**Section 1210. Performance Bond.** PURCHASER shall furnish STATE with a performance bond, in an amount of not less than the greater of (a) the value of all Project Work to be completed under the Contract, as specified in Section 2630, "Credit for Project Work," or (b) twenty percent (20%) of the Total Purchase Price, not to exceed $500,000, rounded up to an even $1,000 unit, which bond shall guarantee complete compliance by PURCHASER with the terms and conditions of this Contract and the faithful performance of all required obligations, including payments to all suppliers, materialmen, Contractors, and subcontractors of PURCHASER. PURCHASER's bond may be in the form of one or more of the following: surety bonds, cash, cashier's or certified check, money order, assignment of surety, irrevocable letters of credit, or other securities determined acceptable by the State Forester. Surety bonds must be written by a surety company authorized to do business in the State of Oregon, on a form provided by STATE.
Performance Bond Release

PURCHASER shall keep the performance bond in effect during the term of the Contract, until released by STATE. STATE shall release PURCHASER's bond upon the later of: (a) 180 days after final acceptance of completed Timber harvesting Operations or (b) 180 days after STATE's acceptance of all Project Work required under Section 2610, "Project Work." "Acceptance" under (a) or (b) shall not be provided until STATE has inspected and approved the work and PURCHASER has provided satisfactory evidence of PURCHASER's compliance with all other terms and conditions of the Contract.

Performance Bond Reduction

STATE shall permit PURCHASER to reduce its performance bond under the following circumstances:

180 days after final acceptance of completed Timber harvesting Operations, upon PURCHASER's request and provided no claims are then pending, STATE may permit PURCHASER to reduce the amount of their bond to an amount equal to the value of all Project Work remaining to be performed or accepted.

180 days after STATE has accepted all Project Work required under Section 2610, "Project Work," upon PURCHASER's request and provided no claims are then pending, STATE may permit PURCHASER to reduce the amount of their bond to an amount equal to twenty percent (20%) of the Total Purchase Price.

180 days after final inspection and acceptance of timber removal Operations as provided in Section 1315, "Inspection and Acceptance," STATE may approve reduction of the performance bond to $5,000.00 provided no claims are pending at the time. The reduced bond amount shall cover outstanding Contract requirements.

Section 1220. Claims Against PURCHASER's Performance Bond.

(a) Claims against PURCHASER's performance bond for failure to make payments when due to suppliers, materialmen, Contractors, and subcontractors of PURCHASER shall be processed in the following manner:

(1) Upon receiving notice from a supplier, materialman, Contractor, or subcontractor of an unpaid obligation of PURCHASER, STATE shall notify PURCHASER and PURCHASER's surety in writing, describing the claim and specifying a date not later than fifteen (15) days from the date of the notice within which PURCHASER shall be expected to respond to the claim.

(2) PURCHASER shall provide, within the time requested by STATE, verification reasonably satisfactory to STATE that the claim has been satisfied or is being addressed in a manner reasonably satisfactory to STATE. If PURCHASER fails to provide such evidence within the time requested, PURCHASER shall be deemed to be in default of the Contract, and STATE shall be entitled to make a claim against PURCHASER's performance bond on behalf of the claimant.

(b) Claims against PURCHASER's performance bond for failure to comply with or perform other obligations under the Contract shall be processed in the following manner:

(1) STATE shall provide notice in writing to PURCHASER and PURCHASER's surety of the nature of the failure to comply or the unperformed obligation, and shall specify a date by which the failure must be remedied.

(2) If PURCHASER fails to remedy the failure or to respond in writing with reasons adequate in STATE's judgment to waive the failure within the time specified in STATE's notice, PURCHASER shall be deemed to be in default and STATE shall be entitled to make a claim against PURCHASER's performance bond on behalf of STATE for an amount deemed reasonably sufficient to cure the failure.

(c) STATE reserves the right to invoke any remedy available to it under the Contract or at law or in equity in the event STATE is required to seek redress from PURCHASER's surety for a Contract violation or default by PURCHASER including, without limitation, termination of the Contract.

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Section 1230. Payment Bond.

PURCHASER shall furnish a payment bond (or blanket payment bond for multiple Contracts) acceptable to STATE guaranteeing payment for all monies due STATE through this Contract, including all timber harvested. PURCHASER shall keep the payment bond in effect during the term of the Contract, until released by STATE. Payment bonds may be in the form of one or more of the following: surety bonds, cash, cashier's or certified check, money order, assignment of surety, irrevocable letters of credit, or other securities determined acceptable by the State Forester. Surety bonds (including riders) must be written by a surety company authorized to do business in the State of Oregon, on a form provided by STATE. PURCHASER's bond shall be in an amount at least equal to the value of timber estimated to be removed during a one-month plus 15-day billing period, as determined by STATE. In any event, the amount shall not be less than one installment payment as specified in Section 1751, or 1752, "Payment Schedule," rounded up or down to the nearest $500 unit. Provision of a satisfactory payment bond will permit PURCHASER to remove timber for a 30-day period, after which time, payment for all such removed timber shall be due and owing. PURCHASER shall make cash payment within fifteen (15) days following the end of the monthly period. Upon payment for timber removed in the monthly period, the payment guarantee may be applied as a guarantee for a subsequent period.

A payment bond (or blanket payment bond for multiple Contracts) shall be in an amount at least equal to the value of the timber estimated to be removed from all Contracts covered by the blanket payment bond during a one-month plus 15-day billing period as determined by STATE. PURCHASER shall obtain and furnish STATE with a written consent of surety on forms provided by STATE for coverage of any Contracts to which the blanket payment bond may apply. In no event shall PURCHASER remove timber with a value greater than the amount of the payment guarantee.

Section 1240. Insurance. PURCHASER shall secure, at PURCHASER's expense, and keep in effect during the term of this Contract, the following insurance coverages, in a policy or policies issued by an insurance company or companies authorized to do business in the State of Oregon. The issuing company or companies shall indicate on the insurance certificates required below that STATE shall be given not less than thirty (30) days' notice of any cancellation, material change, or intent not to renew such policy. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverage(s) provided to the State of Oregon, STATE, and their divisions, officers, and employees. PURCHASER shall be financially responsible for all deductibles included hereunder.

The coverage shall be as follows:

(a) Commercial General Liability insurance covering personal injury, death, and property damage or destruction in an amount not less than $2,000,000 combined single limit per occurrence and an amount not less than $4,000,000 per aggregate, with Contractual liability coverage to include all Contracts involving the work to be performed under this Contract, Premises Operations, Products and Completed Operations, and Independent Contractors. Required coverage shall be for explosion, collapse, and underground damage if blasting or excavation is required or performed under the Contract. Excess or Umbrella Liability policies may be used in combination with the Commercial General Liability insurance to cover the required liability limits.

(b) Automobile Liability insurance in an amount not less than $2,000,000 combined single limit per accident. This required insurance coverage shall include Business Automobile, an endorsement for auto pollution, and shall cover pollutants such as fuel tanks carried in vehicles. Excess or Umbrella Liability policies may be used in combination with the Automobile Liability insurance to cover the required liability limits.

(c) Loggers Broad Form coverage in an amount not less than $2,000,000 for costs of fire control, losses or damage from fire, and other causes arising or resulting from activities of PURCHASER, employees, Contractors, subcontractors, and others working or acting for PURCHASER.

(d) Worker's Compensation insurance as statutorily required for persons performing work under the Contract.
(e) **Primary Coverage.** Insurance carried by PURCHASER under this Contract shall be the primary coverage, and the STATE's insurance is excess and solely for damages or losses for which the STATE is responsible.

(f) **"Tail" or "Basis of Occurrence" Coverage.** If any of the aforementioned liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this Contract for a duration of 24 months, or the maximum time period reasonably available in the marketplace if less than 24 months. PURCHASER shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 months following Contract completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this Contract. If Continuous "claims made" coverage is used, Contractor shall be required to keep the coverage in effect for a duration of not less than 24 months from the end of the Contract.

(g) The Commercial General Liability insurance and the Automobile Liability insurance required under this Contract shall include the State of Oregon, the Oregon Board of Forestry, the Department of Forestry, the State Forester, the U.S. Forest Service, their officers, agents, employees, and members as additional insureds. The following language shall be used for naming additional insureds:

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ADDITIONAL INSURED: The State of Oregon, the U.S. Forest Service, the Department of Forestry, the State Forester, their officers, agents, employees and members as additional insureds.
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(h) As evidence of the insurance coverage required by this Contract, PURCHASER shall furnish a certificate or certificates of insurance including all of the foregoing coverages to STATE. PURCHASER must provide this proof of insurance to STATE before the Contract period begins and prior to the commencement of work.

(i) All insurance shall be provided by a company with an A or better rating, as determined by A.M. Best Company, unless otherwise approved in writing by STATE.

**GENERAL TERMS AND CONDITIONS**

**Section 1310. Authorized Representatives.** During any period of Operations, PURCHASER shall have a designated representative(s) available to STATE on the Timber Sale Area or Project Location, or both, where such activity is separated. The representative(s) shall be authorized to receive any notice or instructions from STATE on behalf of PURCHASER and to take any action required in regard to performance of PURCHASER under this Contract. STATE shall designate a field representative(s) who shall be authorized to receive notices, inspect progress of the Operations, and issue instructions in regard to plans and schedules under the terms of this Contract. State Forests Division Chief is the authorized representative to provide payment instructions. Authorized field representatives of STATE and PURCHASER shall be designated in the Operations Plan required by Section 1140, "Operations Plan."

**Section 1315. Inspection and Acceptance.** STATE and its authorized and designated representative shall at all times be allowed access to all parts of the Operations and Areas of Operations of PURCHASER, as STATE may determine to be necessary or desirable to make a complete and detailed inspection of the Operations and PURCHASER's compliance with all terms and conditions of this Contract. STATE shall be furnished operation progress status or other information and assistance by PURCHASER, or the Authorized Representative(s), as STATE may determine necessary to permit STATE to verify PURCHASER's compliance with all terms and conditions of this Contract.

PURCHASER shall notify STATE in writing upon completion of final Operations. STATE will inspect the Operations completed by PURCHASER within twenty (20) business days after receipt of written notification that final Operations are complete. Following inspection, STATE shall notify PURCHASER in writing of STATE's acceptance of PURCHASER's performance of the Contract or, if PURCHASER's Operations are not acceptable
to STATE, shall advise PURCHASER in writing of the particular defects to be remedied before final acceptance by STATE can be granted.

Section 1320. Assignment of Contract. PURCHASER shall not assign, sell, or transfer rights, or delegate responsibilities under this Contract, in whole or in part, without the prior consent of the STATE. STATE will consent only when assignment is consistent with STATE's fiduciary duties. No such written approval shall relieve PURCHASER of any obligations under this Contract, and any transferee shall be considered the agent of the PURCHASER and bound to perform in accordance with the Contract. PURCHASER shall remain liable as between the original parties to the Contract as if no assignment had occurred. PURCHASER agrees to pay STATE a $250 administrative fee for processing each assignment.

Section 1325. Subcontracting. PURCHASER acknowledges and agrees that if PURCHASER subcontracts all or any part of the Operations, such subcontracting shall in no way relieve PURCHASER of any responsibility under this Contract. PURCHASER shall notify STATE in writing of the names and addresses of each subcontractor prior to the commencement of any Contract work by the subcontractor.

Section 1330. Conditions of Areas of Operations.

Use of Areas of Operations. PURCHASER shall follow the STATE's Authorized Representative's instructions, if any, regarding use of the Areas of Operations. STATE reserves the right to issue written authorization to others to use the Areas of Operations when, in the determination of STATE, such use will not materially interfere with the Operations of PURCHASER. During the term of this Contract, STATE reserves the right to sell any products or materials from the Areas of Operations, provided that the products or materials are not timber included in this Contract and that removal will not materially interfere with the Operations of PURCHASER. PURCHASER shall not interfere with the use of roads by other authorized users. PURCHASER shall not be held liable for any acts, omissions, or neglect of authorized simultaneous users.

In an emergency affecting the safety of life or of the Operations or of adjoining property, PURCHASER, without special instruction or authorization from STATE's Authorized Representative, shall act reasonably to prevent threatened loss or injury, and shall so act, without appeal, if instructed by STATE's Authorized Representative. Any compensation claimed by PURCHASER on account of emergency work shall be equitably determined by STATE.

Section 1335. Hazardous Substances Discovered by PURCHASER. Unless disposition of Hazardous Substances is specifically made a part of PURCHASER's Operations under this Contract, PURCHASER shall immediately notify STATE of any Hazardous Substances which PURCHASER discovers or encounters during performance of Operations. PURCHASER shall immediately cease operating in any part of the Area of Operations where Hazardous Substances have been discovered or encountered, if continued Operations in such area would present a bona fide risk or danger to the environment or to the health or well-being of PURCHASER's or any subcontractor's work force.

Unless disposition of Hazardous Substances is specifically made a part of PURCHASER's Operations under this Contract, upon being notified by PURCHASER of the presence of Hazardous Substances in the Area of Operations, STATE shall arrange for the proper disposition of such Hazardous Substances.

Section 1340. Hazardous Substances Generated/Aggravated by PURCHASER. PURCHASER shall be held responsible for any and all releases of Hazardous Substances during performance of the Contract which occur as a result of, or are aggravated by, actions of its agents, personnel, or subcontractors. PURCHASER shall immediately notify STATE of any release of Hazardous Substances and, as directed by STATE, shall promptly dispose of or otherwise remediate such spills or leaks to the satisfaction of STATE and proper regulatory agencies in a manner that complies with applicable federal, state, and local laws and regulations. Remediation shall be at no cost to STATE.
PURCHASER, at all times, shall:

(a) Properly handle, use, and dispose of all Hazardous Substances brought onto the Areas of Operations, in accordance with all applicable federal, state, or local statutes, rules, or ordinances;

(b) Be responsible for any spills, releases, discharges, or leaks of (or from) Hazardous Substances which PURCHASER has brought onto the Areas of Operations; and

(c) Promptly remediate, without cost to STATE, such spills, releases, discharges, or leaks to the STATE's satisfaction and in compliance with all applicable federal, state, or local statutes, rules or ordinances.

PURCHASER shall report all reportable quantity releases of Hazardous Substances and petroleum products to applicable federal, state, and local regulatory and emergency response agencies. Reportable quantities are found in 40 CFR, Part 302, Table 302.4 for Hazardous Substances and in OAR 340-142 for petroleum products.

Section 1350. Environmental Indemnification. PURCHASER shall indemnify and hold harmless the STATE from any claims resulting from the use, release or disposal of Hazardous Substances including their removal, encapsulation, transportation, handling, and other disposal, during the performance of this Contract, whether or not such use, release or disposal occurs within or outside the Timber Sale Area.

Section 1355. General Indemnification. PURCHASER shall indemnify, defend and hold harmless the State of Oregon, the Department of Forestry, the State Forester, their officers, agents, employees, and members ("Indemnified Parties"), from all claims, suits, actions, or liens of any nature resulting from or arising out of the activities of PURCHASER or its subcontractors, agents, or employees under this Contract, including any claim based upon an alleged failure to obtain any necessary Permit, license, or approval, or any claim of liability for premiums, contributions, or taxes payable under any Workers' Compensation, Disability Benefits, Old Age Benefits, including FICA, or tax withholding laws; provided, however, the Oregon Attorney General must give written authorization to any legal counsel purporting to act in the name of, or represent the interests of, any of the Indemnified Parties prior to such action or representation. Further, STATE, acting by and through its Department of Justice, may assume its own defense, including that of its officers, employees and agents, at any time when in STATE's sole discretion it determines that (i) proposed counsel is prohibited from the particular representation contemplated; (ii) counsel is not adequately defending the interests of STATE; (iii) important governmental interests are at stake; or (iv) the best interests of STATE are served thereby. PURCHASER's obligation to pay for all costs and expenses shall include those incurred by STATE in assuming its own defense. All provisions of this Section shall survive the termination of this Agreement.

Section 1360. Severability. If any provision of this Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular provision held to be invalid.

Section 1365. Waiver. Failure of STATE to enforce any provision of this Contract shall not constitute a waiver or relinquishment by STATE of the right to such performance in the future, nor of the right to enforce any other provision of this Contract.

Section 1370. Choice of Law and Venue. This Contract shall be governed by, construed and enforced in accordance with, the laws of the State of Oregon, without regard to principles of conflicts of law. Any claim, action, suit or proceeding (collectively, "Claim") between State (or any other agency or department of the State of Oregon) and Purchaser that arises from or relates to the Contract shall be brought and conducted solely and exclusively within the Circuit Court of Marion County for the State of Oregon; provided, however, if a Claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this Section be construed as a waiver by the State of Oregon of any form or defense or immunity, whether based on sovereign immunity, governmental immunity, immunity based on the
Section 1375. Notices. Any written notice to PURCHASER which may be required under this Contract to be served on PURCHASER by STATE may be served by personal delivery to PURCHASER or designated representative(s) by mailing the notice to the address of PURCHASER as is given in this Contract, or by leaving the notice at said address. Should PURCHASER be required to notify STATE concerning the progress of the Operations, or concerning any matter or complaint which PURCHASER may have regarding the Contract subject matter, or for any other reason, that notification is to be made in writing and delivered or mailed to the designated representative of STATE.

Section 1380. Entire Agreement; No Modification. This Contract consists of the entire written agreement between the parties, including but not limited to the Notice of Timber Sale, Invitation to Bid or Request for Proposal, Instructions to Bidders, specifications, terms, and conditions, Exhibits, Operations Plan, change notices, if any, and the accepted bid. No waiver, consent, modification, or change of terms of this Contract shall bind either party, unless in writing and signed by both parties. Such waiver, consent, modification, or change, if made, shall be effective only for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Contract. PURCHASER, by the signature of its Authorized Representative in Section 1000, “Signatures of Contract Parties,” hereby acknowledges that she/he has read this Contract, understands it, and agrees to be bound by its terms and conditions.

OWNERSHIP OF MATERIALS AND IMPROVEMENTS

Section 1410. Materials from Federal Property. PURCHASER shall not take, sell, use, remove, or otherwise dispose of any sand, gravel, rock, earth, or other material obtained or produced from within the limits of rights-of-way, gravel pits, rock quarries, or other property owned by or held by the U.S. Forest Service, unless authorized by this Contract or separate written consent of STATE.

Section 1420. Materials and Improvements. Title to materials, Improvements, and other property the Contract requires PURCHASER to provide shall vest in and become the property of the U.S. Forest Service at the time such are furnished by PURCHASER and accepted by STATE. All materials, Improvements, and property furnished by PURCHASER shall be free and clear of liens, claims, and encumbrances.

PURCHASER shall keep in good repair all Improvements located on Federal land and existing at the time of execution of the Contract and any Improvements placed on Federal Land by PURCHASER which become the property of the U.S. Forest Service under this Contract. PURCHASER shall promptly repair or replace, without cost to STATE, any Improvement injured, damaged, or removed from the Areas of Operations by PURCHASER or by Contractors of PURCHASER.

Section 1430. Removal of Equipment and Materials. Within thirty (30) days after completion, and as a condition of final acceptance of PURCHASER’s Operations, PURCHASER shall remove from the Areas of Operations and other property owned or controlled by the U.S. Forest Service, all equipment, materials, and other property PURCHASER has placed or caused to be placed thereon that is not to become the property of the U.S. Forest Service. PURCHASER acknowledges and agrees that any such equipment, materials, and other property that is not removed within thirty (30) days shall become the property of the U.S. Forest Service and may be used or otherwise disposed of by the U.S. Forest Service without notice or obligation to PURCHASER or to any party to whom PURCHASER may transfer title. Nothing in this section shall be construed as relieving PURCHASER from an obligation to clean up and to burn, remove, or dispose of debris, waste materials, and such, in accordance with the provisions of this Contract and applicable law. PURCHASER shall indemnify STATE or the U.S. Forest Service for any cost or expense incurred by STATE or the U.S. Forest Service as a result of PURCHASER’s failure to satisfy this obligation.
CONTRACT CHANGES: EXTENSIONS, MODIFICATIONS, SUSPENSIONS, CANCELLATIONS, DELAYS, AND DEFAULT

Section 1510. Causes Beyond Control. Neither party of this Contract shall be held responsible for delay or default caused by fire, riot, acts of God, sovereign, public enemy, and/or war which is beyond that party's control. STATE may terminate this Contract upon written notice after determining such delay or default will reasonably prevent successful performance of the Contract.

In the event a cause or causes beyond the control of PURCHASER impact PURCHASER's ability to continue to perform under this Contract, STATE may grant a reasonable extension of time but shall not additionally compensate PURCHASER.


(a) PURCHASER acknowledges that legal challenges involving compliance with Federal laws may occur and may affect PURCHASER's Operations under the Contract, and PURCHASER agrees to cooperate with STATE and the U.S. Forest Service's efforts to respond, as STATE and the U.S. Forest Service deem necessary or expedient, to those challenges.

(b) PURCHASER acknowledges STATE may, by written order, delay or interrupt authorized operations under this Contract or modify this Contract, in whole or in part:
   (i) To prevent environmental degradation or resource damage, including, but not limited to, harm to habitat, plants, animals, cultural resources, or cave resources;
   (ii) To ensure consistency with land and resource management plans, terms and conditions in Incidental Take Statements prepared under the ESA, or documents prepared pursuant to the NEPA;
   (iii) To conduct environmental analysis, including, but not limited to, engaging in consultation pursuant to the ESA or completing supplemental analyses under the NEPA; or
   (iv) To address issues raised in administrative appeals or in anticipated or pending litigation, regardless of whether STATE's order is required by a court order or this Contract is named in such a proceeding.

(c) PURCHASER further acknowledges and agrees that in the event of Contract modification, suspension, or termination, in no event is PURCHASER entitled to, nor is STATE or the U.S. Forest Service under any obligation, contractual or otherwise, to provide, lost profits, attorney fees, replacement cost of timber or other materials, or any other anticipatory losses or consequential damages, such as but not limited to reimbursement for interest or lost market opportunities, suffered by PURCHASER as a direct or indirect result of restrictions on Operations due to modification, suspension, or termination of Contract in accordance with this provision.

Section 1530. Extension of Time. STATE may extend the time for performance of this Contract upon written request from PURCHASER or at STATE's discretion. A request for extension:

   (1) shall be accompanied by the written consent to an extension of the security by PURCHASER's surety;
shall state the date to which the extension is desired, the Area of Operations to be affected, and the reason(s) for the extension; and

must be received by STATE no later than thirty (30) days prior to the expiration date of this Contract unless the need for extension occurred within the thirty (30) days prior to the expiration date, in which case the request must be received prior to the expiration date.

Requests for extension will not be granted solely due to changes in timber market conditions. STATE shall grant a request for an extension only when it determines that extension would be in the best interests of STATE. Extension of this contract is possible only if the Master agreement between ODF and USFS is extended beyond March 31, 2026.

When STATE grants a request for extension, it may condition that grant upon any condition it determines is necessary to protect the interests of the STATE. Such conditions may include, but may not be limited to, the following:

(a) Payment at time of extension of the full amount of the unpaid balance of the Total Purchase Price. In the case of scale or weight sales, such payment shall be an advance deposit, based on remaining volume, as estimated by STATE.

(b) If PURCHASER is not otherwise in arrears in required payments, STATE may grant additional time for payment of the unpaid balance on the condition that PURCHASER make installment payments based on removal of Designated Timber as required by Section 1751, or 1752, "Payment Schedule," of this Contract, plus interest on all payments received after the original Contract expiration date, for material harvested, removed, and scaled, after the original Contract expiration date.

(c) Completion of designated requirements of this Contract, such as fire trail construction, Snag felling, Slash preparation Operations on logged portions of the Timber Sale Area, and road construction or maintenance.

(d) There will be a required payment of an Administrative Fee of $250.

(e) Payment of an extension fee in an amount determined by STATE (not less than $50). Such fee shall be based upon the loss of production, extra reforestation costs, brush control costs, Slash disposal costs, or other costs which may be caused by the extension.

(f) Require interest will be applied to all advertised volume hauled after the original expiration date. ORS 82.010 mandates the collection of interest at the annualized rate of 9 percent.

(g) Waiver of full payment or payment of interest on the unpaid balance of the Total Purchase Price, if STATE determines that extenuating circumstances warrant waiver or waiver is otherwise in the best interests of STATE.

Section 1540. Contract Modifications. PURCHASER and STATE acknowledge that changes are inherent in Operations of the type covered by this Contract. The number of changes, the scope of those changes, and the impact they have on the progress of the original Operations cannot be defined at the outset of the Contract. These changes may include, but are not limited to, changes in project specifications, project completion dates, Exhibit specifications, rock sources, excavator time requirements, seasonal restrictions, Timber Sale Area resource protection requirements, harvest methods, harvest completion dates, thinning prescriptions, tree harvest size limits, removal specifications, Reserved Timber specifications, haul route requirements, scaling requirements, and Timber Sale Area boundaries. PURCHASER acknowledges and agrees that PURCHASER is not entitled to any reduction in the Purchase Price or Total Purchase Price solely due to the number of changes required to be made in the Contract. Each change will be evaluated on its own merit to determine if an extension of the time for performance under the Contract or an increase or decrease in the Purchase Price or Total Purchase Price is warranted.

STATE reserves the right to make, at any time during the Contract, such modifications as is necessary or desirable; provided such modifications shall not change the character of the Operations to be done nor increase the cost to the PURCHASER of performing the Project Work, unless such change in the Operations or cost increase is approved in writing by PURCHASER. Any modifications so made shall not invalidate this Contract nor
release PURCHASER from its obligations under the performance bond and payment bond. PURCHASER agrees to complete the modified Operations as if they had been included in the original Contract.

If any change under this section causes an increase or decrease in PURCHASER's cost of performance or the time required for the performance of any part of the Operations for which PURCHASER wishes to claim a reduction in the Purchase Price or Total Purchase Price, PURCHASER must submit a written statement setting forth the nature and specific extent of the claim. Such claim shall include all time and cost impacts against the Contract and must be submitted as soon as possible following the change, but in any event no later than thirty (30) days after receipt of any written notice of modification of the Contract.

If PURCHASER discovers site conditions which differ materially from what was represented in the Contract or from conditions that would normally be expected to exist and be inherent to the activities defined in the Contract, PURCHASER shall notify STATE's Authorized Representative immediately and before the area has been disturbed. STATE's Authorized Representative will investigate the area and make a determination as to whether or not the conditions differ materially from either the conditions stated in the Contract or those which could reasonably be expected in execution of this Contract. If it is determined that a differing site condition exists, any compensation or credit will be determined based on an analysis by STATE's Authorized Representative. If PURCHASER does not concur with the decision of STATE's Authorized Representative and/or believes that it is entitled to additional compensation, PURCHASER may proceed to file a claim.

Claims Review Process. PURCHASER acknowledges that its exclusive remedies are defined in this Contract and all PURCHASER claims lie exclusively against STATE, not the U.S. Forest Service. All PURCHASER claims shall be referred to STATE's Authorized Representative for review. All claims shall be made in writing to STATE's Authorized Representative not more than ten (10) days from the date of the occurrence of the event which gives rise to the claim or not more than ten (10) days from the date that the PURCHASER knew or should have known of the problem. Any claim not submitted in accordance with these time requirements shall be waived.

All claims shall be submitted in writing and shall include a detailed, factual statement of the basis of the claim, pertinent dates, Contract provisions which support or allow the claim, reference to or copies of any documents which support the claim, the exact dollar value of the claim, and any specific time extension requested for the claim. If the claim involves Operations to be completed by subcontractors, PURCHASER shall analyze and evaluate the merits of the subcontractor's claim. PURCHASER shall forward the subcontractor's claim and PURCHASER's evaluation of such claim to STATE's Authorized Representative. STATE's Authorized Representative will not consider direct claims from subcontractors, suppliers, manufacturers, or others not a party to this Contract.

The decision of STATE shall be final and binding unless PURCHASER requests mediation within ten (10) days following notice of STATE's decision.

Section 1550. Adjustment of Contract. Notwithstanding any other provisions of this Contract, STATE may, pursuant to Oregon law, make adjustments in the Contract when Major Catastrophes or significant changes in State and Federal law after the date of this Contract materially affect the volume and value of timber, or Project Work to be done, as specified in Section 2610, "Project Work," under the Contract. Major Catastrophes are defined as windstorms, floods, fire, landslides, or other acts of God, which are beyond the control of PURCHASER and in no way connected with negligent acts or omissions of PURCHASER, its officers, employees, agents, or subcontractors. Market conditions shall not be considered a reason for Contract adjustments. Adjustments made under this Section, if any, shall be for the sole purpose of placing the parties in their original status under the Contract insofar as possible; provided, however, that no adjustment shall be made in response to any loss or cost to PURCHASER that is recoverable from third parties by PURCHASER.

PURCHASER shall make written application to STATE within 30 days after discovery of the damage done by the Major Catastrophe.

If, prior to completion of the Contract, a Major Catastrophe (as defined above) caused by a single event or significant changes in State and Federal law results in additional Project Work for PURCHASER involving an additional estimated cost of more than: (1) $1,000 for sales less than one-half million board feet; (2) $1,500 for sales of one-half million to three million board feet; or (3) $3,000 for sales over three million board feet, STATE may adjust the Contract Project Work Credits, in which event STATE will assume responsibility for any additional cost to complete the Project Work which exceeds the original project work amount. Adjustments by STATE shall
be based on advertised volumes and may be accomplished by adjusting stumpage prices or payment of such additional costs to PURCHASER or by STATE assuming responsibility for performing that portion of the Project Work in excess of the original project work amount. The estimated cost of additional work shall be calculated by STATE.

If, prior to completion of the Contract, a change in State and Federal law, or a Major Catastrophe (as defined above), materially affects the volume and value of timber, STATE may adjust the volume and value accordingly. STATE shall determine the adjustment volume by either an individual tree sample cruise, or a point sample cruise to a 5 percent sampling error of the volume. For purposes of this Contract, "materially affect" shall mean more than $5,000.

Value adjustment shall be calculated by multiplying the volume adjustment times the Purchase Price.

For each species sold on a recovery basis, the Purchase Price is defined as the price per MBF listed in Section 1740, "Log Prices." If species is not listed in Section 1740, "Log Prices," the highest price listed in Section 1740, "Log Prices," shall apply.

For species sold on a lump sum basis, the Purchase Price for each species shall be determined by using STATE's unamortized timber appraisal value, multiplied by the bid-up factor. Bid-up factor shall be calculated by STATE using the following calculation: Bid value of all species/appraised value of all species = bid-up factor.

Section 1560. Violations; Default; Remedies. Any failure by PURCHASER to comply with the terms and conditions of this Contract is a violation. If PURCHASER commits a violation, STATE may, after giving written notice, suspend any further Operations of PURCHASER under this Contract, except those Operations necessary to remedy any violations.

If PURCHASER fails to remedy a violation within the time allowed and as instructed by STATE, or if PURCHASER fails to complete work as required under any interim Contract completion date or the Contract expiration date, or if PURCHASER injures or severs any timber other than Designated Timber, STATE may declare PURCHASER to be in default by providing notice of the default as required under OAR 629-032-0030. If the default is due to failure of PURCHASER to correct a violation as previously instructed, STATE may terminate the Contract as of the date specified in the earlier instruction. If the default is due to failure by PURCHASER to complete work prior to the expiration date or any interim completion date required under the Contract, or if PURCHASER injures or severs timber that is not Designated Timber, STATE may terminate the Contract without providing PURCHASER an opportunity to cure the default.

As provided in OAR 629-032-0050, within fifteen (15) days following receipt of a notice of default, PURCHASER may request a hearing before the State Forester to determine whether a default has in fact occurred. Hearings shall be governed by ORS 183-413 to ORS 183.497.

The provisions of OAR 629-032-0000 through -0070, and any future amendments, are incorporated into this Contract and made a permanent part hereof by reference as though fully set forth herein. THE PROVISIONS OF OAR 629-032-0000 THROUGH -0070 ARE IN ADDITION TO, AND NOT IN LIEU OF, ANY OTHER REMEDIES STATE MAY HAVE FOR THE PURCHASER'S BREACH OF CONTRACT. In the event of a default STATE may pursue any and all remedies available to STATE. Such remedies include, but are not limited to: (1) making a claim on each bond provided by PURCHASER; (2) suing PURCHASER for all damages STATE incurs as a result of PURCHASER's breach; (3) suing PURCHASER for specific performance of the Contract; or (4) terminating the Contract and reselling the timber.

Section 1570. STATE's Right to Suspend Operations. STATE and/or STATE's Authorized Representative may suspend portions or all of the Operations due to causes including, but not limited to:

(a) Failure of the PURCHASER to correct unsafe conditions;

(b) Failure of the PURCHASER to carry out any provision of the Contract;

(c) Failure of the PURCHASER to carry out written instructions from STATE's Authorized Representative;
(d) Conditions which, in the opinion of STATE's Authorized Representative, are unsuitable for performing the Operations;

(e) Time required by STATE to investigate differing site conditions;

(f) Any of the conditions listed in Section 1520. Cooperation With Resource Protection Efforts;

(g) STATE-ordered identification or protection of a state or federally listed threatened or endangered species; or

(h) Any reason considered by STATE to be in the public interest.

In the event a suspension of Operations under (d), (e), (f) or (g) above imposes additional costs on PURCHASER, PURCHASER may submit a request for a modification of the Contract under Section 1540, "Contract Modifications"; provided, however, that no claim for a reduction in the Purchase Price or Total Purchase Price will be allowed due to changes in market conditions or lost market opportunities occurring following any suspension of Operations. In addition, in no event shall STATE be liable for any costs incurred by PURCHASER by reason of delay or suspension under this section, including but not limited to costs of additional move-in/move-out of equipment and personnel, extra fire and equipment security, and insurance or bonding expenses.

Extension After Suspension. When a suspension occurs under (d), (e), (f) or (g) above, PURCHASER may request an extension of time for performance of this Contract, for a period not to exceed the period of time during which Operations were suspended. The request for extension must be in writing and:

1. Shall be accompanied by the written consent to an extension of the security by PURCHASER's surety;

2. Shall state the date to which the extension is desired and the Area(s) of Operations affected; and

3. Shall be received by STATE no later than ten (10) days following notice to PURCHASER that Operations may recommence.

STATE normally will not withhold approval of reasonable extension requests made under this section.

PURCHASER's Responsibilities. For the duration of the suspension, PURCHASER is responsible to continue maintenance at the Area(s) of Operations just as if Operations were in progress. This includes, but is not limited to, protection of completed Operations, maintenance of access, protection of stored materials, temporary facilities, and clean-up.

When Operations re-commence after the suspension, PURCHASER shall replace or renew any Operations damaged during the suspension, remove any materials or facilities used as part of temporary maintenance, and complete Operations in every respect as though prosecution had been continuous and without suspension.

PURCHASER shall not cut or remove any timber under this Contract during any period of suspension. Any such cutting or removing shall be considered a willful trespass and shall render PURCHASER liable for triple damages in accordance with Section 1580, "Trespass."

Section 1580. Trespass. PURCHASER shall be exclusively responsible for any damage or removal of other than Designated Timber, and for damage to or removal of timber or other property beyond the boundaries of the Areas of Operations resulting from any activities of PURCHASER. Any such activity resulting from the activities of PURCHASER shall constitute a trespass, and a violation of the Contract. In addition to, and without limiting in any way any other remedies that may be available to STATE, PURCHASER shall pay to STATE damages for any trespass as follows:

(a) For each species involved in the trespass, triple the Purchase Price if PURCHASER's action is willful or intentional; or
(b) For each species involved in the trespass, double the Purchase Price if PURCHASER’s action is not willful or intentional.

As used in this section, the term "willful" or "intentional" includes, but is not limited to: any voluntary or deliberate activity by PURCHASER, its employees, Contractors, subcontractors, or agents which results in the removal or damage to any timber not described under Section 2210, "Designated Timber," including removal or damage arising from a mistake of law or fact concerning the Designated Timber.

**COMPLIANCE WITH LAWS AND REGULATIONS**

**Section 1605. Nondiscrimination.** The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, and so forth.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

**Section 1607. Compliance with Federal Laws.** PURCHASER, by signature below, certifies that: (1) Neither the corporation or its principals have been convicted of a felony violation under any Federal law within the preceding 24 months of the effective date of the Contract; and (2) Neither the corporation or its principals have failed to file all Federal tax returns required during the three years preceding the Contract; have been convicted of a criminal offense under the Internal Revenue Code; or have been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default.

**Section 1610. Permits; Licenses; Safety.** PURCHASER shall procure all Permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the Operations, and shall maintain and keep such Permits and licenses current throughout the term of the Contract. PURCHASER shall notify STATE immediately if such Permits or licenses are revoked or suspended by the relevant government agency.

STATE may at any time require PURCHASER to satisfy STATE that Operations under this Contract comply with State and Federal laws, codes, regulations, and ordinances. STATE may require PURCHASER to obtain a Permit, license, or approval from the governmental body or agency responsible for administering applicable laws before PURCHASER may begin or continue Operations under this Contract.

PURCHASER shall comply with all federal, state, and local laws, regulations, and ordinances applicable to this Contract or to PURCHASER’s obligations under this Contract, as those laws, regulations, and ordinances may be adopted or amended from time to time. Without limiting the generality of the foregoing, PURCHASER expressly agrees to comply with the following laws and regulations to the extent they are applicable to the Contract: (i) the Oregon Forest Practices Act and all regulations promulgated pursuant thereto; (ii) all rules and regulations of the Oregon State Board of Health; (iii) all rules and regulations of the Oregon Environmental Quality Commission relating to the protection of soil, air, and water resources, and (iv) compliance with updated Federal Law Worker Protection Standards and applicable federal regulations related to the protection of workers, handlers and other persons from agricultural pesticides, including all required training for workers on state forestland.

Regarding pesticide application, it is the responsibility of the PURCHASER to ensure sufficient actions are taken to prevent any and all individuals from entering an Application Exclusion Zone. This includes federal regulations that require handlers of pesticides to temporarily suspend applications of pesticides if any worker or any person is in the treated area or an Application Exclusion Zone (zone or area surrounding pesticide application equipment). And includes federal requirements to display, maintain, and provide access to pesticide safety information and
pesticide application and hazard information in accordance with federal regulations if workers or handlers are on an application area and within the last 30 days a pesticide product has been used or a restricted-entry interval for such pesticide has been in effect on an application area. PURCHASER shall bear the burden/costs associated with any such pesticide related delays.

In the performance of the Operations, PURCHASER shall use every reasonable and practicable means to avoid damage to property and injury to persons. The responsibility of PURCHASER stated herein shall cease upon the Operations being accepted as complete by STATE.

PURCHASER shall take all necessary precautions for the safety of all personnel in the Areas of Operations, and shall comply with the Contract and all applicable provisions of State and Federal safety laws or regulations designed to prevent accidents or injury to persons on, about, or adjacent to the Areas of Operations. PURCHASER shall erect and properly maintain at all times, as required by the conditions and progress of PURCHASER's Operations, all necessary safeguards for protection of workers and the public against any hazards created by the Operations. The STATE's Authorized Representative has no responsibility for safety in the Areas of Operations. Safety in the Areas of Operations is the sole responsibility of PURCHASER.

Section 1630. Threatened and Endangered Species. PURCHASER shall at all times observe and comply with all State and Federal laws, including the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1536, 1538-1540), ORS 496.172 to 496.192 (Threatened and Endangered Wildlife Species), and ORS 564.100 to 564.135 (Threatened and Endangered Plants), and lawful regulations issued thereunder, and local bylaws, ordinances, and regulations, which relate to threatened or endangered plant or animal species while performing Operations under this Contract.

Section 1640. Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources.

(a) Areas, known by STATE prior to timber sale advertisement, needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Sale Area Map and/or identified on the ground, and shall be treated as follows:

(i) Unless agreed otherwise, wheeled or track laying equipment shall not be operated in areas identified as needing special measures except on roads, landings, tractor roads, or skid trails approved by STATE. PURCHASER may be required to backblade skid trails and other ground disturbed by PURCHASER's Operations within such areas.

(ii) Unless agreed otherwise, trees will not be felled into areas identified as needing special measures.

(iii) PURCHASER shall conduct operations in a manner that does not damage or disturb identified areas. In the event that protective measures identified by the STATE are for any reason inadequate, STATE may delay or interrupt PURCHASER's operations, under this Contract, and/or modify this Contract pursuant to Section 1520.

(iv) PURCHASER shall immediately notify the STATE if its operations disturb or damage any area identified as needing special protection, and shall immediately halt its operations in the vicinity of such area until STATE authorizes continued operations. In the event that PURCHASER's operations disturb or damage an area identified as needing special protection, then PURCHASER shall reimburse the STATE for the full cost and expense of any evaluative and remedial measures undertaken by the STATE in connection with such disturbance or damage. Such payment shall not relieve PURCHASER from civil or criminal liability under applicable law.

(b) Nothing contained in this Subsection shall establish, or be deemed to establish any express or implied warranty on the part of STATE (i) that STATE has identified all areas within the Sale Area requiring special protection, or (ii) that measures prescribed by STATE for protection of such areas are adequate.

(c) Following sale advertisement, additional areas needing special measures for protection may be discovered or identified; protective measures may be revised or newly prescribed; and, additional species of plants and/or animals may be added to federal lists of protected species. In such event, STATE may delay or
interrupt PURCHASER's operations, under this Contract, and/or modify this Contract pursuant to Section 1520. Cooperation With Resource Protection Efforts.

(d) Discovery, by either PURCHASER or STATE, of additional areas, resources, species, or members of species needing special protection shall be promptly reported to the other party.

**Section 1650. Protection of Soil, Air, and Water Resources.** PURCHASER shall comply with State and Federal law, including the Oregon Forest Practices Act and rules promulgated thereunder, and with rules and regulations of the Oregon State Board of Health, the Environmental Quality Commission and other agencies relating to the protection of soil, air, and water resources.

**Section 1660. Tax Liability.** STATE makes no representations concerning tax liability or consequences arising from this sale of Federal timber. It is PURCHASER's sole responsibility to determine what tax liability may be incurred as a result of purchasing Federal timber, regardless of whether the Federal timber is growing or located on Federal land or elsewhere. PURCHASER shall be responsible for paying all applicable timber harvest or severance taxes and shall indemnify and hold harmless the U.S. Forest Service and STATE against any tax claims arising from the purchase of Federal timber.

**Section 1670. Compliance with Tax Laws.** By execution of this Contract, the person signing this Contract on behalf of PURCHASER certifies, under penalty of perjury, that to the best of his or her knowledge, PURCHASER is not in violation of any Federal tax laws.

**PAYMENTS**

**Section 1740. Log Prices.** The following price schedule shall be designated as the “Purchase Price” and shall apply to all logs removed from Designated Timber. Payment shall be for net log scale, unless noted.

<table>
<thead>
<tr>
<th>Conifer Logs</th>
<th>Price per Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas-fir ................................</td>
<td>$ Bid Species</td>
</tr>
<tr>
<td>Western Hemlock and other true firs</td>
<td>$ 6.42</td>
</tr>
<tr>
<td>Cedars</td>
<td>$ 26.22</td>
</tr>
<tr>
<td>Hardwoods</td>
<td>$ 19.46</td>
</tr>
<tr>
<td>Pulp Conifer and Hardwood Pulp</td>
<td>$ 0.25</td>
</tr>
</tbody>
</table>

**Contingent Price Adjustment.** As provided in Section 1020, “Sale of Timber,” in accordance with the terms of current State and Federal law, that unprocessed timber shall not be exported from Federal lands. PURCHASER specifically agrees that Section 1020, “Sale of Timber,” is a material term of this Contract and is part of the consideration offered to STATE in return for STATE's performance. In the event that any Federal or State law or any provision of this Contract concerning export of unprocessed timber is declared invalid by any court or administrative tribunal, PURCHASER agrees to pay to STATE, in addition to the Total Purchase Price, an incremental amount equal to the difference between the Total Purchase Price and any greater price obtained by PURCHASER for the exported unprocessed timber.

In the event that timber made available under this Contract is exported in violation of this Contract, PURCHASER shall be in material breach of the Contract. In such event, STATE shall be entitled to cease performance of the Contract and bar PURCHASER from the Timber Sale Area, and to recover, in addition to the Total Purchase Price and additional increment set out above, a further sum estimated by STATE to compensate for administrative expense and the economic impact of the violation upon the U.S. Forest Service. In no case shall this additional amount be less than $10,000 per incident.
Section 1751. Payment Schedule. The Total Purchase Price for timber sold under this Contract shall be paid in advance as follows:

The first payment shall be paid within 30 days of the notice of intent to award or before beginning Operations, whichever occurs first. The first payment shall be the total estimated bid value divided by 10. The total estimated bid value shall be the sum obtained by multiplying the estimated timber volumes by the Purchase Prices given in Section 1740, "Log Prices," less the value of the Project Work. Cash bid deposits shall be applied to the initial payment.

Subsequent payments shall be made in advance of timber removal when log hauling begins. Each payment shall be made before the value of timber removed equals one-half of an advance payment or within the time period stated on the billing if PURCHASER is more than one-half of a payment in advance. The amount of each advance payment shall be calculated by dividing the total estimated bid value less the initial payment by 9; with the total estimated bid value being the sum obtained by multiplying the estimated timber volumes by the Purchase Prices given in Section 1740, "Log Prices," less the value of the Project Work.

In addition, and notwithstanding the above schedule, a minimum of 40 percent of the estimated bid value shall be paid on or before March 23, 2025.

STATE may accept partial payment, upon written request, if logging is inactive. However, the full amount of advance payment must be paid before Operations resume. Partial payment must be sufficient to maintain a payment deposit equal to one-half of a regular advance payment.

The Total Purchase Price shall be calculated after all log scale is reported by multiplying prices in Section 1740, "Log Prices," by the scaled volume. STATE shall refund any advance payment in excess of the Total Purchase Price, or PURCHASER shall pay any deficit within thirty (30) days of notice. PURCHASER's Deposit Account shall not accrue interest payable to PURCHASER.

Section 1760. Payments and Interest. Payments required of PURCHASER by this Contract or modifications of this Contract must be received by STATE within the time period stated on the instrument requesting payment from PURCHASER.

Payments received after the due date stated on the billing instrument may be subject to an interest charge. The interest rate shall not be less than the established minimum state rate on delinquent accounts. The interest rate applied to overdue payments shall be in accordance with ORS 82.010. ORS 82.010 mandates the collection of interest at the annualized rate of 9 percent. Interest shall be calculated from the original billing due date to the date payment is received by the State Forester.
PART II: SPECIFICATIONS

ACCOUNTABILITY

Section 2015. Log Accountability and Log Load Receipts - Sawlogs.

Load Receipt Books. STATE shall issue to PURCHASER sufficient books of serially numbered pink Log Load Receipts to cover up to 30 days of operation, as determined by STATE. PURCHASER shall sign a receipt for each book of receipts and be fully accountable for all serially numbered Woods Receipt and Scaler Receipt tickets. PURCHASER shall retain all Woods Receipts in each book and return the book to STATE as soon as all receipts in each book have been used. Unused books or portions of books shall be returned to STATE during periods of inactivity lasting over 30 days, and at the completion of timber removal from the Timber Sale Area.

Completion of Load Receipts. PURCHASER shall completely and accurately fill out all portions of the Log Load Receipt before each truck leaves the Landing area. PURCHASER shall require the truck driver of each load of logs to sign the Woods Receipt. PURCHASER shall staple the Load Receipt and Scaler Receipt parts to the load as instructed on the Log Load Receipt directions and as directed by STATE before each truck leaves the Landing area.

PURCHASER shall require the scaler to record the Log Load Receipt number on the scale ticket that is signed by the scaler, attach the Scaler Receipt part to a copy of the scale ticket, and mail the scale ticket with the attached receipt to STATE on the date scaled.

PURCHASER shall account for each and every serially numbered Log Load Receipt. For all Log Load Receipts not accounted for by proof of scaling, STATE shall determine if unaccounted tickets are to be voided or if PURCHASER shall pay damages to STATE. Damages shall consist of full value for each missing receipt, on the basis of the average value of the 10 highest value loads of logs scaled from the Timber Sale Area, or the average value of the 10 highest value loads of logs scaled at a Scaling Location, as determined by STATE.

PURCHASER shall not intermingle Federal timber or logs designated by this Contract with any other timber or logs before log weighing occurs, unless otherwise approved by STATE.

Delivery Destination and Transfer of Federal Timber. Prior to conveying unprocessed timber sold under this Contract to a delivery destination or prior to selling, trading, exchanging, or otherwise conveying unprocessed timber sold under this Contract to any other person, PURCHASER must first complete an Exhibit C form selecting a delivery destination from the STATE approved scaling locations. All STATE approved scaling locations are eligible to receive unprocessed Federal timber by adhering to the terms and conditions contained in the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.).

Section 2016. Log Accountability and Log Load Receipts – Pulp Logs.

Load Receipt Books. STATE shall issue to PURCHASER sufficient books of serially numbered yellow Log Load Receipts to cover up to 30 days of operation, as determined by STATE. PURCHASER shall sign a receipt for each book of receipts and be fully accountable for all serially numbered Woods Receipt and Scaler Receipt tickets. PURCHASER shall retain all Woods Receipts in each book and return the book to STATE as soon as all receipts in each book have been used. Unused books or portions of books shall be returned to STATE during periods of inactivity lasting over 30 days, and at the completion of timber removal from the Timber Sale Area.

Completion of Load Receipts. PURCHASER shall completely and accurately fill out all portions of the Log Load Receipt before each truck leaves the Landing area. PURCHASER shall require the truck driver of each load of logs to sign the Woods Receipt. PURCHASER shall staple the Load Receipt and Scaler Receipt parts to the load as instructed on the Log Load Receipt directions and as directed by STATE before each truck leaves the Landing area.
PURCHASER shall require the scaler to sign the machine-printed weight receipt and record the Log Load Receipt number on the weight receipt. The weigher shall mark the delivery location identification on the Scaler Receipt part, attach the weight receipt to it and mail it to the designated Third-Party Scaling Organization (TPSO) weekly.

PURCHASER shall account for each and every serially numbered Log Load Receipt. For all Log Load Receipts not accounted for by proof of weighing, STATE shall determine if unaccounted tickets are to be voided or if PURCHASER shall pay damages to STATE. Damages shall consist of full value for each missing receipt, on the basis of the average value of the 10 highest value loads of logs weighed, based on gross weight, from the Timber Sale Area, or the average value of the 10 highest value loads of logs weighed at a STATE approved delivery location, as determined by STATE.

PURCHASER shall not intermingle Federal timber or logs designated by this Contract with any other timber or logs before log weighing occurs, unless otherwise approved by STATE.

Delivery Destination and Transfer of Federal Timber. Prior to conveying unprocessed timber sold under this Contract to a delivery destination or prior to selling, trading, exchanging, or otherwise conveying unprocessed timber sold under this Contract to any other person, PURCHASER must first complete an Exhibit C form selecting a delivery destination from the STATE approved delivery locations. All STATE approved delivery locations are eligible to receive unprocessed Federal timber by adhering to the terms and conditions contained in the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.)

Section 2021. Log Measurement. Scale by weight is approved as the method used to measure the timber sold by this contract.

Weighing Locations and Rules: All logs from timber sold under this Contract shall be: (1) weighed at a location approved in writing by STATE; (2) processed by a third-party scaling organization that is a party to a current agreement with STATE. Prior to log hauling, PURCHASER shall submit a copy of current weight scale approval certificate(s) from Oregon Department of Agriculture for each approved location.

(a) All loads shall be weighed prior to unloading any logs using STATE certified and sealed scales.

(b) Every load shall be weighed for gross weight and tare weight. Average tare weights shall not be used. Unless approved in writing by STATE. The gross weight and truck tare weight for each load shall be machine printed on the weight ticket. The weight ticket shall include STATE Log Load Receipt number. The Log Load Receipt shall be stapled to the weight ticket and mailed to the TPSO of choice.

(c) Log species shall be identified on both the weight scale receipt and weight ticket.

Upon loading at the Timber Sale Area, a log load shall be directly hauled to an approved weighing location, if required to be weighed. Log loads shall not be stored for late delivery without written approval from STATE.

PURCHASER shall enter into a written agreement with a third-party scaling organization for the processing of logs removed from the Timber Sale Area (the “Scaling Agreement”). PURCHASER shall furnish STATE with a copy of the Scaling Agreement upon request.

In the event weighing is suspended for any reason, logs shall be hauled and weighed within 3 weeks of felling, unless otherwise approved in writing by STATE.

If approved weighing stations become unavailable, log hauling shall be immediately suspended until an alternate accountability plan is submitted by PURCHASER and approved by STATE.

All weight certificates shall be processed by the third party weighing organization. This volume and log load information shall be transmitted to STATE in a format compatible with STATE’s electronic transfer system. Original weight certificates shall be sent to STATE after processing by an approved third party scaling organization.
Accountability Violations - Scaling Ramp Requirement. If PURCHASER violates any of the log accountability requirements of this Contract, STATE may require all logs from timber sold under this Contract to be scaled at a ramp provided by PURCHASER, in a location designated by STATE. All costs associated with this additional scaling requirement shall be paid by PURCHASER.

Cost of Weighing. All costs of weighing and all costs in connection with reports furnished to STATE shall be paid by PURCHASER.

Utilization scale shall be in accordance with the provisions in Section 2055, "Utilization Scale."

Log Removal Delays. Any logs not hauled and weighed within 3 weeks of felling shall be accounted for by taking the average of the 10 heaviest loads of all species which have been weighed to date and applying the average load weight to these logs.

Minimum Products Specifications and Special Scale Information are shown on Exhibit C.

The Scaling Agreement shall provide, and PURCHASER shall require, that the scaling organization furnish copies each week to STATE, of all weight certificates showing tare and net weights, by species and grade, of all logs weighed during the week. Upon request by STATE, PURCHASER shall also require the scaling organization to furnish and attach a weight detail list to each weekly scale certificate showing all STATE loads included on the certificate.

Weighing Instructions. The Scaling Agreement shall authorize STATE to provide instructions to the approved third-party scaling organization for the weighing practices to be used for timber removed from the Timber Sale Area. Instructions shall conform to the terms of this Contract, including special scales as necessary. PURCHASER shall acknowledge and sign such instructions and shall be provided a copy.

Measurement by Weight. STATE requires weighing of logs in lieu of log scaling to measure the timber sold by this Contract. The scales shall be STATE certified and sealed. The gross weight and the truck tare weight for each load shall be machine printed on the weight receipt. (See Exhibit C for TPSO processing instructions.)

The Scaling Agreement shall include a provision, and PURCHASER shall require, that the third-party scaling organization that is a party to the Scaling Agreement furnish copies of all weight receipts to STATE, on a weekly basis, with summaries for all truck loads delivered during said week.

Section 2025. Log Measurement – Pulp Logs. All pulp logs shall be weighed at a location approved in writing by STATE. PURCHASER shall require the gross weight and the truck tare weight for each load to be machine printed on the weight receipt. PURCHASER shall also require the weigher to sign the weight receipt and record the Log Load Receipt number on the weight receipt. PURCHASER shall require that the Pulp facility furnish copies of all weight receipts to STATE on a weekly basis, with summaries for all truck loads delivered.

Upon loading at the Timber Sale Area, a log load shall be directly hauled to an approved Pulp facility. Log loads shall not be stored for late delivery without written approval from STATE.

Accountability Violations: If PURCHASER violates the STATE definition of approved Pulp sort in Exhibit C, STATE may require a TPSO to inspect each Pulp load prior to weighing.

PURCHASER shall enter into an agreement with a third-party scaling organization for the processing of the weight receipts.

Unless other arrangements have been made through an agreement between PURCHASER and STATE, PURCHASER shall provide STATE with remote check scaling opportunities for logs weighed under this Contract. The last two loads at each delivery point shall be continuously available for checking. They shall remain available for a minimum of 48 hours unless replaced by other STATE loads. They shall be available as originally presented; i.e., if the load was weighed, they shall be presented in bunks.
Weighing Instructions. STATE will provide instructions to the approved Pulp facility for the practices to be used for Pulp logs removed from the Timber Sale Area. Instructions will conform to the terms of this Contract, PURCHASER shall acknowledge and sign such instructions and shall be provided a copy.

Minimum Products Specifications and Weight information are shown on Exhibit C.

Section 2030. Log Branding and Painting – Sawlogs. Unless approved in writing in advance by STATE, at least one end of every saw log removed from the Timber Sale Area shall be both clearly hammer branded and painted with a minimum 2-inch diameter spot of orange paint. PURCHASER shall use only those brands issued by STATE for use on timber sold under this Contract. Only those brands issued by STATE for use on timber sold under this Contract shall be allowed on the Areas of Operations at any time.

In addition, PURCHASER shall brand and paint all logs left singly or in decks along rights-of-way, and shall brand and paint one end of all logs yarded and left on Landings after termination of Operations each day. PURCHASER shall make every effort to remove logs from roads or Landings within a reasonable period of time, and agrees to notify STATE in advance if it intends to leave logs decked along roads or on Landings for more than 96 hours. STATE may scale such decked logs, and PURCHASER shall be responsible for the costs of such scaling and for any loss due to theft or deterioration.

STATE will issue PURCHASER one or more branding hammers registered to STATE. PURCHASER shall sign a receipt for all branding hammers registered to STATE and issued to PURCHASER, and will return them in good condition within 14 calendar days following completion of log hauling. PURCHASER shall pay a fee of $100 to STATE for each branding hammer returned to STATE in damaged and unusable condition, or $200 for each branding hammer not returned within the time specified by STATE. PURCHASER may replace damaged branding hammer handles, but only with 24” wooden handles, or with handles approved by STATE.

If properly marked timber is subdivided into smaller pieces for any other purpose than immediate processing, each piece shall be branded with a STATE brand specifically used for this purpose, signifying the logs are Federal timber and ineligible for export. Additional branding hammers registered to STATE, to be used for this purpose, may be obtained from STATE upon request, at cost.

Section 2031. Log Branding – Pulp Logs. At least 4 logs on each Pulp load removed from the Timber Sale Area shall be clearly hammer branded. PURCHASER shall use only those brands issued by STATE for use on timber sold under this Contract. Only those brands issued by STATE for use on timber sold under this Contract shall be allowed on the Areas of Operations at any time.

Logs that do not meet the Contract definition for Pulp and do not meet the definition of a saw log in the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group shall be decked separately from all other logs for inspection by STATE. Utility logs approved for removal as Pulp will be marked by STATE with blue paint. PURCHASER shall not possess any blue paint on the Timber Sale Area.

STATE will issue PURCHASER one or more branding hammers registered to STATE. PURCHASER shall sign a receipt for all branding hammers registered to STATE and issued to PURCHASER, and will return them in good condition within 14 calendar days following completion of log hauling. PURCHASER shall pay a fee of $100 to STATE for each branding hammer returned to STATE in damaged and unusable condition, or $200 for each branding hammer not returned within the time specified by STATE. PURCHASER may replace damaged branding hammer handles, but only with 24” wooden handles, or with handles approved by STATE.

Section 2035. Hauling and Operating Time Restrictions. PURCHASER shall not haul logs from the Timber Sale Area on weekends, the following State-observed holidays: New Year’s Day, Independence Day, Thanksgiving Day, and Christmas Day, or outside the hours of 3:00 a.m. to 6:00 p.m. daily without notification to and prior approval by STATE.

(a) Log hauling on unsurfaced roads shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by STATE.
Log haul on the 220 road beyond (south) point J is not allowed from March 1st through August 5th. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

Log haul on the 3402 road shall generally occur during dry conditions from June 1st through October 31st, unless otherwise approved in writing by STATE. During any time of year, cease hauling when 0.25” or greater precipitation is recorded in a 24 hour period at the Flynn Prairie weather station. Road improvements including additional surfacing rock are scheduled to be completed in 2023; once completed, the precipitation limitation will be increased from 0.25” to 0.5”. STATE will notify PURCHASER of the change when applicable. Additionally, haul shall cease when turbid water is observed moving from the roadway to the ditches that deliver to streams.

Section 2045. Log Removal. All logs defined below, except those specified in Sections 2220 through 2250, "Reserved Timber," shall be removed as Designated Timber under this Contract, at prices given in Section 1740, "Log Prices":

(a) Any log that conforms to grading rules for peeler or sawmill grades and meets or exceeds both of the following minimum requirements: 6 inches in gross scaling diameter, containing 20 board feet (net).

(b) Pulp removal is optional.

For purposes of log removal requirements, minimum net log volume shall be determined by the net volume of the full log length rather than the volume of individual segments.

Other logs may be removed from Designated Timber under this Contract at prices given in Section 1740, "Log Prices."

Log grades are defined in the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group in effect at the time logs are scaled.

PURCHASER shall not deliberately buck logs to reduce log sizes to less than minimum requirements for log removal, and shall take reasonable precautions to prevent breakage losses in felling and Yarding.

Section 2055. Utilization Scale. STATE shall scale logs or portions of logs that are broken, wasted, or not removed by PURCHASER due to: (1) improper felling or bucking of the logs; (2) failure to remove the logs prior to deterioration; and (3) logs remaining on the Timber Sale Area after completion of logging, provided the logs were merchantable prior to breakage or wastage. Material used to meet down material requirements in Sections 2220 through 2250, "Reserved Timber," shall not be considered for Utilization Scale. PURCHASER shall pay for the logs at the Purchase Price designated in Section 1740, "Log Prices." STATE shall notify PURCHASER of the volume of logs so scaled. Payment shall be considered due on such volume as if the logs were removed on the date of said notification.

In the event PURCHASER disagrees with the findings made by STATE under this section, PURCHASER may furnish scaling by a third-party scaling organization acceptable to STATE. Costs and expenses of such third party shall be paid for by PURCHASER, and the findings of the third party shall be final.

Section 2060. Special Products. "Special products" are any products not in log form manufactured from material having a price, or listed as "No Charge," under the Contract. PURCHASER shall not sell special products from the Timber Sale Area, or allow firewood, shake, or post cutting, or any other special product manufacturing on the Timber Sale Area without prior written approval of STATE.
ACCESS AND ROAD MAINTENANCE

Section 2120. Access. PURCHASER shall use the roads shown on Exhibit A for access to the Timber Sale Area and Project Locations. If gate keys are required to access the Timber Sale Area, they can be obtained at the ODF District Office by a designated PURCHASER’s Authorized Representative. Any keys not returned at the completion of all operations under this Contract shall be subject to a fee of $100 per key not returned. If PURCHASER desires to use an alternative route, it shall be PURCHASER’s responsibility to secure that access and obtain STATE approval for the route. The use of access roads shall be limited to that necessary to carry out the terms and provisions of this Contract. Except as otherwise provided for in this Contract, PURCHASER shall have the right of access over, in, and through the Timber Sale Area for the purpose of cutting and removing timber or performing other Operations. PURCHASER, in so using, improving, or constructing roads, shall at no time have an interest in the land, other than the temporary right of access during the term of the Contract.

Section 2130. Road Maintenance. PURCHASER is responsible for normal road maintenance on roads used for any activity under this Contract. Normal road maintenance shall provide for safe forest driving conditions, continuous access and road use, protection of roads from damage, water quality, and compliance with all applicable laws. All required road work would be completed prior to haul.

PURCHASER’s responsibility for normal road maintenance commences with PURCHASER’s first use of a road for any activity under the Contract period and shall continue until final acceptance of the maintenance is made by STATE. In addition, PURCHASER is responsible for normal road maintenance needs that are caused by public use of the roads.

If other parties are authorized under Section 1330, "Conditions of Areas of Operations," to use roads in the Timber Sale Area, PURCHASER and each party so authorized shall be responsible for a proportionate share of normal maintenance, based upon the ratio of each party’s use to total road use, as determined by STATE.

STATE will determine when maintenance is needed and will issue instructions to PURCHASER specifying work to be done and the date by which it must be completed.

“Normal road maintenance” shall include any action needed to prevent and protect the road from soil contamination, seasonal weather damage, protect water quality, repair damage caused by road use, and restore the road to at least the road condition at commencement of use, including, but not limited to:

(a) Cut Banks and Fill Slopes.

(1) Remove Slash created by Operations.
(2) Remove obstructions and fallen timber.
(3) Restore stability impacted by Operations.
(4) All cut bank and fill slope maintenance work shall be performed in such a manner that soil and vegetative material does not contaminate the road surface.

(b) Ditches.

(1) Remove bank slough, minor slides, and obstructions.
(2) Remove Slash created by Operations.
(3) Restore to functional drainage.
(4) Minimize erosion and/or sediment delivery by placement and maintenance of filtering systems.
(5) Soil and vegetative material shall not be pulled across the road surface.

(c) Drainage Systems.

(1) Clear all culverts, including inlets, outlets, half rounds, rock ditch filters, and sediment catching basins.

(2) Maintain waterbars, drainage dips, and other water diversion measures.

(3) During active use, patrol and maintain functional drainage.

(4) Repair damaged culvert ends.

Damaged culvert inlets and/or outlets shall be repaired by opening them with a hydraulic jack, or cutting off the culvert end to allow for free passage of water at peak flow levels. Install a culvert marker at each newly installed culvert and at each existing culvert that is missing a marker that could be reached by a grader blade.

(d) Road Surfaces.

(1) Grade, shape, crown, and/or outslope surface and shoulders at such time that the moisture content will bind the rock surfacing. Rip potholes prior to grading.

(2) Provide leveling, patching, and/or reinforcement rock for restoring purposes. All rock shall be from weed-free sources. Source of rock shall be provided to STATE and truck tickets by request. Written approval of the specific source is required prior to materials (e.g. soil, gravel, sand, aggregate, etc.) being transported onto National Forest System land.

(3) Prevent contamination of road surface materials with soil and vegetative material.

(4) Prevent road surface materials from being bladed off the road.

(5) Temporarily cease road use to prevent and/or protect the road during adverse weather conditions. Examples of adverse weather conditions are freezing and thawing cycles, high soil moisture caused by rainfall events, and accumulation of snow that requires removal to continue hauling activity.

(6) Roads with vegetation impeding traffic shall be brushed to remove vegetation from the road profile.

Unsurfaced roads shall be closed from November 1st through May 31st, unless otherwise approved in writing by STATE. These roads shall be closed by constructing a barrier which makes the road impassable to vehicular traffic. All road closures shall be approved by STATE. Closed roads shall be water barred when erosion potential exists, or where directed by STATE. PURCHASER shall construct waterbars as directed by STATE and as specified in Exhibit E. Road segments may be reopened upon written approval by STATE.

Log hauling on unsurfaced roads shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by State.

“Adverse maintenance” is defined as repair work of damage resulting from PURCHASER’s failure to comply with “normal road maintenance,” as determined by STATE. STATE may require PURCHASER to perform “adverse maintenance.” STATE will specify rock type needed for repairs. The required rock shall be from STATE approved, private rock sources, at PURCHASER's expense. “Adverse maintenance” is determined by STATE, and shall not be subject to Section 1550, “Adjustment of Contract.”

“Extraordinary maintenance” is defined as major repair work and/or damage caused by acts of God or causes beyond the control of PURCHASER, as defined in Section 1550, “Adjustment of Contract.” STATE may require PURCHASER to perform extraordinary maintenance in addition to normal road maintenance. STATE shall
describe the amount and specifications of work to be done in writing, and make adjustments in the Contract in accordance with Section 1550, “Adjustment of Contract.”

“US Forest Service Commercial Road Use Rules and Road Use Permit Requirements” (https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5390704.pdf) apply to this contract. Forest Service permits required shall be acquired from the US Forest Service. Approving authority for all other road use shall be the State Forester.”

**TIMBER SALE AREA**

**Section 2210. Designated Timber.** The timber is located on the Timber Sale Area designated on Exhibit A.

In accordance with Section 1020, “Sale of Timber,” the following is Designated Timber, except as excluded by Sections 2220 through 2250, “Reserved Timber,” and may be removed by PURCHASER in accordance with the terms and conditions of this Contract:

(a) All timber cut in accordance with the specifications in Section 2310, "Felling," and Section 2320, "Thinning Specifications," within the Timber Sale Area.

(b) All trees that are not reserved from cutting (section 2240).

**Section 2220. Reserved Timber.** Reserved Timber is that timber, including trees, Snags, and logs, on the Timber Sale Area which is not sold to PURCHASER. Reserved Timber shall not be damaged, cut, or removed by PURCHASER, unless otherwise approved in writing by STATE. Failure to leave the required Reserved Timber shall be handled as described in Section 2260, “Reserved Timber - Damages.”

**Section 2230. Reserved Timber - Down Material.**

(a) Existing down trees and logs.

**Section 2240. Reserved Timber - Trees and Snags.**

(a) Hardwood trees, except those within rights-of-way, skid roads, cable corridors, waste areas, and Landings. Hardwood trees felled in-unit to facilitate operations shall be retained in-unit, lopped and scattered with material confined to less than 18” from the ground

(b) All Snags unless determined to be a safety hazard. Felled Snags shall not be yarded or removed.

(c) Bearing (witness) trees (Section 2310) for felling specifications.

(d) Trees required to meet the Residual Tree requirements in Section 2320, "Thinning Specifications."

**Section 2250. Reserved Timber - Boundary Trees and Markings.**

(a) Trees posted with boundary signs or orange paint are reserved from cutting.

Boundary markings are as follows:

1. The Timber Sale Area is posted with yellow “Area Boundary”, white “Timber Sale Boundary, or blue “Boundary Cutting Unit” signs, orange flagging, and orange paint.
Section 2260. Reserved Timber - Damages.

PURCHASER shall be exclusively responsible for any damage to, or removal of, Reserved Timber. If damage to Reserved Timber occurs and is determined unavoidable by STATE, no charge will be made for damage.

If PURCHASER's activities result in avoidable damage to Reserved Timber as determined by STATE, PURCHASER shall pay for such damage at the following rates:

(a) The Purchase Price shall be paid when:
   (1) "Minor damage" to Reserved Timber occurs during the course of normal logging. Minor damage is defined as bark removed down to the cambium layer of a tree, such removal affecting at least 24 square inches, but less than damage defined as "major damage."
   (2) Trees must be cut in order to facilitate Operations, or for safety around Landings, as approved in writing by STATE.

(b) Double the Purchase Price or $50, whichever is greater, shall be paid when:
   (1) "Major damage" to Reserved Timber is caused by Operations of PURCHASER. Major damage is defined as follows:
      (x) Bark removed down to the cambium layer over an area of the bole which has one dimension greater than the diameter of the tree, or any visible bark removal on the tree roots.
   (2) More than 50 percent of live crown is removed.
   (3) Tree is knocked down, or leaning more than 10 degrees from vertical.

(c) Triple the Purchase Price (or $100, whichever is greater,) shall be paid when:
   (1) Reserved Timber is intentionally cut or removed.
   (2) Reserved Timber is intentionally damaged.
   (3) Repeated major damage occurs to Reserved Timber.
   (4) Any intentional "notching" or undercutting of Reserved Timber with an axe or saw occurs.

STATE may direct damaged timber to be left. In that case, payment for damage shall be reduced by the Purchase Price of such timber.

Payment for damage to or removal of Reserved Timber shall not release PURCHASER from liability for other damage to property of STATE.

If more than 10 percent of reserved trees on any acre suffer "minor damage," or if any Reserved Timber suffers "major damage" as defined above, STATE reserves the right to Suspend felling and/or Yarding until corrective measures have been agreed upon by STATE and PURCHASER.

HARVESTING OPERATIONS

Section 2310. Felling. PURCHASER shall comply with the following requirements for felling, unless otherwise approved in writing by STATE:
(a) Prior to the beginning of felling Operations, PURCHASER shall identify all skid roads to be used, subject to STATE approval. Felling shall be “to lead” to those trails and those trail locations adhered to.

(b) Prior to felling in the Timber Sale Area, PURCHASER shall arrange to have all the fallers who will work in the Timber Sale Area meet with STATE to review the requirements specified in Section 2310, "Felling," Section 2320, "Thinning Specifications," and Sections 2220 through 2250, "Reserved Timber." PURCHASER shall give STATE 48 hours’ advance notice before starting a new faller on the Timber Sale Area to allow STATE the opportunity to brief the faller on these sections.

(c) Spotted Owl Seasonal Restrictions prohibit any felling activities from March 1st through June 30th in NSO Seasonal Restrictions as identified on Exhibit A maps.

(d) Marbled Murrelet Seasonal Restrictions prohibit felling activities from April 1st through August 5th in MAMU Seasonal Restrictions as identified on Exhibit A maps. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

STATE may require certain trees or Snags, described by the preceding specifications, to be left standing if they are needed for wildlife habitat, or if the Snags do not constitute a (fire or) safety hazard. STATE shall designate such trees or Snags at the time of timber felling.

Trees shall not be felled across Timber Sale Area boundaries, unless authorized in writing by STATE. Any trees that fall across Timber Sale Area boundaries shall be yarded back into the Timber Sale Area prior to limbing or topping.

PURCHASER shall employ the following timber cutting practices on the Timber Sale Area(s), unless otherwise approved by STATE:

1. Trees shall be felled to the longest lay, using the necessary means (wedging, jacking, etc.), favoring a quartering uphill lead.

2. Trees shall not be felled across draws, over ridges, or across previously felled trees.

3. Windfalls shall be bucked off as close as practicable to the roots to ensure maximum recovery of merchantable volume. Those which cannot be bucked safely shall be left with a merchantable log attached and either bucked on the Landing or moved by rigging into a safe position for bucking.

4. Maximum stump height shall be 10 inches or 50 percent of stump diameter, whichever is greater, unless otherwise approved by STATE. Heights shall be measured on the uphill side.

**Section 2320. Thinning Specifications.** PURCHASER shall comply with the following requirements for selecting Residual conifer trees on the Timber Sale Area, except for those specifications listed in Section 2310, “Felling”:

(a) Cut and Leave trees have not been marked. Fallers will be provided wedge prisms by STATE and taught how to estimate Basal Area through sample plots.

(b) Residual tree spacing shall be varied to preserve the trees of good form and vigor with the largest diameter, height, and live crown ratios to maintain a residual stand structure within the following limits:

1. Residual Basal Area on each acre shall be at least 80 square feet and not more than 100 square feet for all harvest units. Only Douglas-fir will be included for residual basal area calculations. Other conifer species may be thinned along with Douglas-fir. Felled conifer minor species shall be harvested following Log Removal specifications.
(2) Douglas-fir less than 8 inches shall not be counted when calculating the residual specifications listed above.

(3) Low Stocking Areas as identified on Exhibit “A” and “C” do not contain suitable basal area to be commercially thinnable. If PURCHASER determines adequate stocking exists within Low Stocking Areas, PURCHASER may commercially thin in those areas while adhering to all other specifications in this contract.

(c) Acceptable residual conifer trees are those having a Live Crown Ratio of at least 30 percent, and without sweep, scarring, disease, or leaning more than 10 degrees from vertical. Conifer trees with multiple tops and crooks are acceptable if the defect is at least 20 feet above the ground.

(d) Low Stocking Areas and portions of the Timber Sale Area may have an insufficient number of trees to make thinning silviculturally desirable. PURCHASER may propose to exclude such areas from the thinning specifications and felling requirements. PURCHASER shall designate on the Operations Plan proposed excluded areas. Proposed areas approved by STATE shall be excluded from the thinning specifications and felling requirements.

(e) PURCHASER shall implement patch cuts in the Timber Sale Area. Patch cuts are designated here and not marked on the ground by STATE. STATE will provide maps and work with PURCHASER to identify suitable locations for Patch cuts. Patch cuts shall:

1. Cut all trees in a ¼ acre around one central Douglas-fir (approx. 60’ radius). The central Douglas-fir shall be retained and be a larger dominant or co-dominant tree with a large, healthy live crown ratio.

2. Patch cuts shall be spaced at least 75 feet apart to be separate, distinct treatments, however up to two patch cuts may be connected to one another for a total 1/2 acre patch cut.

3. Patch cuts must be at least 175 feet from all buffered streams and 100 feet from major roads (220, 223, 226) as shown on maps. Patch cuts must be at least 85 feet away from MAMU habitat (trees with >4” diameter limbs located outside the timber sale boundary).


5. Patch cuts shall prioritize the following locations: adjacent to small existing openings, southern aspects, shallow soils and adjacent to sandstone openings, adjacent to tanoak or pine species.

6. The maximum number of patch cuts allowed are as follows:
   a. Area 1: 7
   b. Area 2: 10
   c. Area 3: 10
   d. Area 4: 10
   e. Area 5: 2
   f. Area 6: 15
   g. Area 7: 5

(f) The first 200’ on either side of the 220 road within Areas 1, 2, 3, and 6 to point R are Fire Management Areas. The goal of Fire Management Area is to target the low end of residual trees per acre and remove slash to reduce fuel loading. In these Fire Management Areas, harvested trees shall be yarded with tops attached. Tops shall be endhauled and piled at an approved location or utilized for slash covering temporary roads as described in Section 2365. Any slash created during road reconstruction and brushing must be lopped and scattered with material confined to less than 18” from the ground.

If the above conditions are not met by PURCHASER, STATE reserves the right to suspend felling until corrective measures have been taken by PURCHASER as directed by STATE. Corrective measures may include, but need not be limited to:

(A) Replacement of timber fallers by PURCHASER; and

(B) Approval of fallers by STATE based on fallers’ satisfactory completion of STATE test plots.
**Section 2325. Felling Inspection.** STATE may inspect the felling operations to determine compliance with the thinning specifications established by sample plots. Inspection by visual reconnaissance may supplement plot data. Plot records may include: (1) residual Basal Area per acre; (2) Residual Tree DBH; (and) (3) general comments on selection of Residual Trees and work quality; and (4) Residual Trees per acre damaged by PURCHASER. The plot data and visual reconnaissance may be used for determining the need for corrective measures, as outlined in Section 2320, "Thinning Specifications," and Sections 2220 through 2250, "Reserved Timber."

**Section 2345. Substitution of Trees.** PURCHASER shall leave acceptable substitute trees as approved by STATE for any conifer Reserved Timber which must be cut to facilitate logging (i.e., cable corridors, Landings, or skid trails) or to resolve safety problems pursuant to Section 1610, "Permits; Licenses; Safety" (i.e., danger trees, Guyline trees, hang-ups).

An acceptable substitute tree is defined as any sound, live-topped conifer tree that is the nearest tree to a Reserved tree that must be cut.

PURCHASER shall leave acceptable substitute Snags as approved by STATE for any reserved Snag which must be cut to facilitate logging (i.e., cable corridors, Landings) or to resolve safety problems pursuant to Section 1610, "Permits; Licenses; Safety" (i.e., danger trees, hang-ups).

STATE reserves the right to require PURCHASER to:

(a) Leave substitute trees of a different species; and

(b) Leave substitute trees for reserved Snags that must be cut.

Substitution of trees without approval of STATE is prohibited. Any Reserved Timber cut without approval by STATE shall be paid for in accordance with Sections 2220 through 2250, "Reserved Timber."

**Section 2350. Cable Yarding Specifications.** Yarding systems shall be designed to minimize soil disturbance and damage to Reserved Timber. PURCHASER shall use cable Yarding, except as approved by STATE in the Operations Plan. PURCHASER shall comply with the following when Yarding the Timber Sale Area, except as approved by STATE in the Operations Plan:

(a) Logs shall be fully suspended when Yarding across streams shown on Exhibit A, and single end suspension elsewhere where not yarding laterally.

(b) When cables pass through or over streams shown on Exhibit A, all necessary precautions shall be taken to protect all Stream Buffer components.

Necessary measures include, but are not limited to, the following:

(1) Pull cables out of the Reserved Timber prior to rigging the next Yarding road.

(2) Yarding roads shall be at least 200 feet apart where they extend over or through stream buffers. Corridors where logs will pass through the buffer must be 12' wide or less.

(3) Trees needing to be cut to facilitate operations must be approved in writing by STATE. Felled trees will be required to be retained in place.

(c) Soil gouging shall be limited to a depth of one foot.

(d) If Tailhold or Guyline trees outside of the Timber Sale Area are necessary to facilitate Yarding Operations, PURCHASER shall acquire approval from STATE prior to their use. PURCHASER shall select and use trees that do not have nesting characteristics of protected species (>4" diameter limbs).
(e) Use a self-clamping carriage that can be positioned and repositioned for each turn of logs without lowering the skyline.

(f) Control logs being yarded to minimize damage to Reserved Timber.

(g) String cables in a manner that makes minimum contact with Reserved Timber.

(h) Spotted Owl Seasonal Restrictions prohibit internal combustion operations from March 1st through June 30th in NSO Seasonal Restrictions as identified on Exhibit A maps.

(i) Marbled Murrelet Seasonal Restrictions prohibit internal combustion operations from April 1st through August 5th in MaMu Seasonal Restrictions as identified on Exhibit A maps. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

In addition, if Operations of PURCHASER threaten or cause excessive damage to the soil or Reserved Timber, STATE may require PURCHASER to comply with one or more of the following:

(A) Use a carriage or a skyline Yarding system.

(B) Reduce the length of logs.

(C) Reduce the number of logs in each Yarding turn.

(D) Do not yard logs longer than 40 feet plus trim.

Section 2355. Ground-Based Operations. Timber Sale Areas, or portions thereof, where ground-based Yarding has been approved in the Operations Plan are subject to the following restrictions, unless otherwise approved in writing by STATE:

(a) PURCHASER shall limit skid roads and trails, and all other locations where soil is compacted or displaced, to less than 10 percent of the ground yarded area. New skid trails shall be spaced at least 150 feet apart.

(b) Preexisting skid roads and trails shall be used whenever possible, and soil disturbance or construction of new skid roads and trails shall be limited to that necessary to log the area.

(c) Operations shall not be conducted under conditions where soils are rutted or excavated or show evidence of compaction or puddling to a depth of 6 inches or more.

(d) Equipment shall not operate on slopes greater than 30 percent. Written approval may be granted for short distances on slopes exceeding 30 percent when, in the opinion of STATE, it would be unreasonable to yard by pulling line.

(e) Ground Yarding equipment shall not be operated within 100’ of streams identified on Exhibit A.

(f) PURCHASER shall suspend ground Yarding during periods of high soil moisture.

(g) Operations shall be designed to minimize soil disturbance and damage to Reserved Timber.

(h) PURCHASER shall restrict ground Yarding to those skid roads approved by STATE.

(i) Ground-Based Operations shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by State.
Operations shall maximize equipment passing over slash to prevent soil compaction.

Spotted Owl Seasonal Restrictions prohibit operations from March 1st through June 30th in NSO Seasonal Restrictions as identified on Exhibit A maps.

Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th in MaMu Seasonal Restrictions as identified on Exhibit A maps. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

After logging, all temporary roads, main skid roads, and landings shall be subsoiled to a depth of at least 20 inches utilizing an excavator. Shape roadbed to the original slope Subsoiling shall employ a discontinuous “hen scratch” pattern over the ground, and method shall lift and fracture the compacted soil rather than plowed, mixed, or displacement of surface soils. If large tree roots, bedrock or subsurface boulders prevent subsoiling, purchaser shall work around them so as to avoid pulling these to the surface or ripping through them. Pull slash back across the subsoiled roadbed, for 85% effective ground cover no deeper than 18” over exposed mineral soil.

Skid roads used infrequently, protected by a slash mat, or not compacted will not be required to be subsoiled.

If the above conditions are not met by PURCHASER, STATE at its option, may require PURCHASER to suspend Yarding activities until corrective measures have been agreed upon by STATE and PURCHASER.

Time lost while STATE exercises any of the above options shall not constitute grounds for Contract extension.

Section 2360. Non-Project Roads and Landings. Improvement or construction of roads or Landings not required in Section 2610, "Project Work," but approved in the Operations Plan, shall be subject to the following requirements, unless otherwise approved in writing by STATE:

Prior to felling, PURCHASER shall mark Right-of-Way clearing limits and obtain STATE approval.

Landings shall be constructed no more than ¼ acre. The surface shall be crowned for drainage.

Roads shall be waterbarred according to the specifications in Exhibit E and blocked to vehicular traffic as directed by STATE or upon completion of use, whichever occurs first.

After logging, all temporary roads, main skid roads, and landings shall be subsoiled to a depth of at least 20 inches. Shape roadbed to the original slope. Subsoiling shall employ a discontinuous “hen scratch” pattern over the ground, and method shall lift and fracture the compacted soil rather than plowed, mixed, or displacement of surface soils. If large tree roots, bedrock or subsurface boulders prevent subsoiling, purchaser shall work around them so as to avoid pulling these to the surface or ripping through them. Pull slash back across the subsoiled roadbed, for 85% effective ground cover no deeper than 18” over exposed mineral soil.

Skid roads used infrequently, protected by a slash mat, or not compacted will not be required to be subsoiled.

Operations on non-project roads and Landings shall not be allowed from November 1st through May 31st unless otherwise approved in writing by STATE.

Spotted Owl Seasonal Restrictions prohibit operations from March 1st through June 30th in NSO Seasonal Restrictions as identified on Exhibit A maps.

Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th in MaMu Seasonal Restrictions as identified on Exhibit A maps. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.
Section 2365. Progressive Operations. PURCHASER shall complete the following requirements on each Timber Sale Area prior to moving to a new Timber Sale Area, unless otherwise approved in writing by STATE:

(a) Remove all logs as described under Section 2045, "Log Removal."

(b) Construct cross-drainage ditches or waterbars as specified in Exhibit E and as directed by STATE.

(c) Block roads and skid trails to vehicular traffic as directed by STATE.

(d) After logging, all temporary roads, main skid roads, and landings shall be subsoiled to a depth of at least 20 inches. Shape roadbed to the original slope. Subsoiling shall employ a discontinuous "hen scratch" pattern over the ground, and method shall lift and fracture the compacted soil rather than plowed, mixed, or displacement of surface soils. If large tree roots, bedrock or subsurface boulders prevent subsoiling, purchaser shall work around them so as to avoid pulling these to the surface or ripping through them. Pull slash back across the subsoiled roadbed, for 85% effective ground cover no deeper than 18" over exposed mineral soil.

Skid roads used infrequently, protected by a slash mat, or not compacted as identified by STATE will not be required to be subsoiled.

(e) Within 14 days after completion of each Setting, pile all Slash within reach of the Landings by a log loader in the center of the landing, or alternatively, spread slash less than 18" in depth with a goal of 85% ground cover. Piles shall be covered by 3 mil plastic no smaller than 100 square feet. Additional woody material shall be placed on top to avoid plastic being blown off the pile. No soil, other than adhering to the bark or contained in root ends shall be acceptable in piles. Piles shall be constructed as compact as possible to not topple over. Piles shall be at least 1.25 times the pile diameter in height. Slash that extends more than 3 feet beyond the general contour of the pile shall be bucked off and placed into the pile. Slash piles shall be placed no closer than 20 feet from live trees.

(f) Separate and deck firewood separately on landings that are on surfaced roads and will not be blocked at the end of operations, as identified by STATE. Firewood decks shall:

   a. consist of non-merchantable material not utilized for pulp at least 10 feet long
   b. Immediately accessible from a surfaced road
   c. At least 20 feet from slash piles and residual trees

(g) Spotted Owl Seasonal Restrictions prohibit operations from March 1st through June 30th in NSO Seasonal Restrictions as identified on Exhibit A maps.

(h) Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th in MAMU Seasonal Restrictions as identified on Exhibit A maps. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

In addition, PURCHASER shall complete the following requirements within the following time frames, on an Area basis, unless otherwise approved in writing by STATE:

(1) Complete all felling requirements as required by Section 2310, "Felling, within 14 calendar days after completion of Yarding activities."

(2) Remove all trash from the Timber Sale Area within 14 calendar days after completion of log hauling activities.

(3) Remove all equipment and materials from the Timber Sale Area, as required by Section 1430, "Removal of Equipment and Materials," within 30 calendar days after completion of log hauling activities.
(4) Complete Slash piling within 14 calendar days after completion of Yarding Operations on a Timber Sale Area.

(5) Complete road maintenance requirements of Section 2120, "Access," and Section 2130, "Road Maintenance," within 14 calendar days after completion of log hauling activities.

PROTECTION DURING OPERATIONS

Section 2410. Damage to Reforested Areas. PURCHASER shall take all necessary precautions to avoid damage to reforested areas adjacent to, within, or near the Timber Sale Area. If PURCHASER's Operations damage reforestation areas shown on Exhibit A, STATE shall determine the extent of the damage and PURCHASER shall reimburse STATE or appropriate landowner at double the calculated value of the damaged reforestation as determined by STATE or landowner.

Section 2415. Protection of Watershed. PURCHASER shall take all necessary precautions to prevent damage to stream banks, any stream course, lake, reservoir, or forested wetland within or adjacent to the Timber Sale Area.

In addition, PURCHASER shall perform all measures necessary to protect the stream banks, streambed, and vegetation within the Stream Buffers. Stream Buffers are excluded from the Timber Sale and posted with yellow "Area Boundary", white "Timber Sale Boundary", or blue "Boundary Cutting Unit" signs, orange flagging, and orange paint.

Necessary measures include, but are not limited to, the following, unless otherwise approved in writing by STATE:

(a) Fell adjacent trees and Snags away from or parallel to the buffer to prevent them from entering the buffer.
(b) Do not operate ground-based equipment within the buffer.
(c) Do not fell trees within the buffer.
(d) Cable Yarding over or within the buffer shall be done in accordance with the requirements of Section 2350, "Cable Yarding Specifications."

In addition to other protective measures required, PURCHASER shall discontinue all or part of its Operations under this Contract upon notice from STATE that Operations will cause excessive damage to the watershed.

Section 2416. Protection from Invasive Plants and Noxious Weeds. PURCHASER shall ensure all ground-based yarding, earth disturbing, road constructing, and road maintenance equipment moved onto National Forest or between National Forest sites is free of soil, seeds, vegetative matter, or other debris that could contain, or hold, seeds. PURCHASER shall employ cleaning methods necessary to ensure compliance with the terms of this section. PURCHASER shall notify STATE's Authorized Representative at least 24 hours prior to moving each piece of equipment onto National Forest or between National Forest sites unless otherwise agreed in writing. Notification shall include identification of the equipment’s most recent operation.

(x) Arrangements shall be made for STATE inspection of each piece of equipment prior to entry upon National Forest sites.

(x) All road maintenance and logging equipment shall be cleaned prior to working in the area.

Specifications above does not apply to log trucks, service trucks, water trucks, pickup trucks, cars, and other passenger vehicles, used in the daily transport of personnel, except as specified below.
Area 7 of this timber sale has nearby populations of Port Orford Cedar, a species susceptible to *Phytophthora lateralis* (PL) which can kill these trees. There is no known infested site around this Timber Sale Area. The following mitigation measures are put into place to minimize the risk of PL being introduced and are applicable to the area between Point T and Point V.

1. Schedule projects and logging during the dry season.
2. Wash all equipment and vehicles used in this location. Log trucks, service trucks, water trucks, pickup trucks, cars, and other transport are included in vehicle washing. Once a vehicle has been washed, it may continue to operate in this location unless operating in an infested site.
   a. Wash water should be from uninfested water sources or treated with bleach (See Exhibit H for bleach mixing instructions.
   b. Wash location on National Forest Lands shall be agreed upon with STATE.
   c. Wash water shall not drain into watercourses or into areas with uninfected Port Orford Cedar.
3. Operations in this location shall cease during dry season rain events causing roadway puddles, or water in roadside ditches that indicate an unacceptable increase in the likelihood of spreading PL.

Section 2430. Protection of Markings and Monuments. PURCHASER shall not remove, alter, damage, or destroy any signs, posters, markings, land survey markers and corners, witness trees, seed trees, or corner reference tags pertaining to the timber sale or land survey. Should such damage or disturbance occur, PURCHASER shall report it to STATE within 24 hours of the incident and shall prevent any further damage or disturbance from occurring. PURCHASER shall, in a manner or method as directed by STATE, re-establish legal subdivision markers or monuments damaged by PURCHASER's activities. STATE may re-establish such markers or monuments and bill PURCHASER for the expense incurred.

In the event it is necessary to disturb any legal land survey corner in order to conduct any activity under this Contract, PURCHASER shall notify STATE. PURCHASER shall not disturb any corner until STATE has referenced or otherwise preserved the corner.

Section 2435. Protection of Cultural Resources. PURCHASER shall not remove any historic artifact, including old logging equipment or camp refuse, or other Cultural Resources from the Timber Sale Area. If any such items are discovered, PURCHASER shall notify the STATE’s Authorized Representative. If cultural resource are encountered during the course of this project, all activities in the vicinity of the find must be suspended, in accordance with Federal Regulations, and the Zone Archeologist notified to evaluate the discovery and recommend subsequent sources of action such as changes to unit configuration to protect known or unknown heritage resources. STATE will notify PURCHASER once the Archeologist has cleared the area or appropriate mitigation has been identified.

Section 2455. Seasonal Restrictions. PURCHASER shall adhere to the following restrictions, unless otherwise approved in writing by STATE:

a) Unsurfaced roads shall be closed from November 1st through May 31st, unless otherwise approved in writing by STATE. Log hauling on unsurfaced roads shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by STATE (Section 2130).

b) Log haul on the 220 road beyond (south) point J is not allowed from March 1st through August 5th. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset. (Section 2035).

c) Ground-based Operations shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by STATE (Section 2355).

d) Operations on non-project roads and Landings shall occur during dry conditions from June 1st through October 31st unless otherwise approved in writing by STATE (Section 2360).
e) Spotted Owl Seasonal Restrictions prohibit operations from March 1st through June 30th in NSO. Seasonal Restrictions as identified on Exhibit A maps (Sections 2310, 2350, 2355, 2360, and 2365).

f) Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th in MAMU. Seasonal Restrictions as identified on Exhibit A maps. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset (Sections 2310, 2350, 2355, 2360, and 2365).

g) Projects 1, and 2 on unsurfaced roads shall not be allowed from November 1st through May 31st unless otherwise approved in writing by STATE. Additionally, Project 1 beyond point J is subject to the following restrictions: Spotted Owl Seasonal Restrictions prohibiting operations from March 1st through June 30th. Additionally, Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

h) Project 3 shall not be allowed from November 1st through May 31st unless otherwise approved in writing by STATE, and subject to the following additional restrictions: Spotted Owl Seasonal Restrictions prohibiting operations from March 1st through June 30th. Additionally, Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

Section 2460. Repair of Injury or Damage. Prior to the completion and as a condition of final acceptance by STATE of PURCHASER’s Operations, PURCHASER shall repair or correct any injury or damage to the Areas of Operations or any part of the Timber Sale Area arising from PURCHASER’s Operations, unless adjustment is made pursuant to Section 1550, "Adjustment of Contract."

PROTECTION FROM FIRE

Section 2510. Precautions Against Fire. PURCHASER acknowledges that their Operations under this Contract may cause extraordinary fire risk in the Areas of Operations. PURCHASER covenants and agrees that it will use the highest degree of care to prevent forest fires from starting on or from spreading to or from the Areas of Operations. PURCHASER shall require its employees and Contractors and the employees of such Contractors to employ a similar degree of care. STATE may, at any time during the term of the Contract, require PURCHASER to prepare and submit to STATE for approval a Fire Plan for the Areas of Operations. The plan shall set forth the resources and required actions to be taken by PURCHASER and Contractors of PURCHASER for the prevention and suppression of fire in the Areas of Operations. The plan must meet with the approval of STATE and STATE reserves the right to require revisions to the plan as STATE, in its sole discretion, may determine to be necessary.

Section 2520. Efforts on Fire. If a fire occurs in any part of the Areas of Operations, notwithstanding the origin, PURCHASER shall require its employees and Contractors and the employees of such Contractors to immediately proceed to extinguish the fire. PURCHASER acknowledges and agrees that the provisions of this section may impose obligations on PURCHASER that are separate from or in addition to any duty or responsibility required by law. However, in no event shall the requirements of this section be construed as relieving PURCHASER of the duty and responsibility under Oregon law to fight, control, and suppress fire on forestland.

Section 2530. Indemnification. In addition to the general indemnification contained in Section 1355, "General Indemnification," PURCHASER shall indemnify, defend and hold STATE and the U.S. Forest Service harmless from any and all loss, costs, damage, and expense that STATE or the U.S. Forest Service may incur as a result of any fire caused by the Operations of PURCHASER, employees and Contractors of PURCHASER, and employees of such Contractors.
Section 2540. Fire Equipment. During Fire Season, PURCHASER shall provide an engine with at least a 500 gallon capacity, enough feet of hose to reach from the water supply to any location in the operation affected by power driven machinery or 500 feet, whichever is greater. One gated wye valve, and two adjustable nozzles in constant readiness in the Timber Sale Area. The engine must be self-filling and be able to travel fully loaded, under its own power, on all truck roads providing access to or within the Timber Sale Area. Such equipment shall be credited toward the requirements of OAR 629-043-0020 for water supply, hose, and nozzle, subject to STATE approval. PURCHASER shall comply with all other Fire Season requirements as established by the USFS District in which the Timber Sale Area is located.

PROJECTS

Section 2610. Project Work. PURCHASER shall complete the following Projects (the “Project Work”) in accordance with the specifications provided in Exhibits and written instructions from STATE. Project locations are shown on Exhibit A unless otherwise described. PURCHASER shall furnish all material unless otherwise specified. Written approval of the specific source is required prior to materials (e.g. soil, gravel, sand, aggregate, etc.) being transported onto National Forest System land.

Project Period. Projects 1, and 2 on unsurfaced roads shall not be allowed from November 1st through May 31st unless otherwise approved in writing by STATE. Additionally, Project 1 beyond (south of point) J is subject to the following restrictions: Spotted Owl Seasonal Restrictions prohibiting operations from March 1st through June 30th. Additionally, Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

Project 3 shall not be allowed from November 1st through May 31st unless otherwise approved in writing by STATE, and subject to the following additional restrictions: Spotted Owl Seasonal Restrictions prohibiting operations from March 1st through June 30th. Additionally, Marbled Murrelet Seasonal Restrictions prohibit operations from April 1st through August 5th. From August 6th through September 15th, operations are allowed from 2 hours after sunrise until 2 hours before sunset.

Project No.1: Road and Landing improvement (primary 5502 haul route)

Project No. 2: Road improvement (alternative / optional 3402 haul route). This haul route has road failures along Euchre Creek. The USFS has received approval to repair these failures and anticipates completion in 2022 or 2023 in-water work period, allowing haul after repairs are completed.

Project No. 3: Mechanically stabilized earth wall (welded wire face) construction.

Section 2620. Completion of Projects. PURCHASER shall complete the Project Work in the preceding section as follows:

(a) Complete all Projects on a road section prior to log hauling on that section. If PURCHASER and STATE agree a particular project or portion of project is unnecessary, STATE will waive the requirement in writing and PURCHASER will not be credited the appropriate funds.

(b) Project 3 shall be completed prior to timber harvest activities or log haul.

If the logging operation will cause damage to a project, STATE may waive the completion date requirement until logging in that area is completed.

Section 2630. Credit for Project Work. In order to compensate PURCHASER for Project Work that PURCHASER agrees to complete under Section 2610, "Project Work," of this Contract, STATE agrees to credit
PURCHASER's timber account in the sum of $230,279 upon completion of and STATE's acceptance of all work, unless otherwise approved in writing by STATE.

PURCHASER may request partial credit for the Project Work when PURCHASER has completed and STATE has accepted the Project Work. STATE will not credit PURCHASER's account for work not completed or not completed to STATE approval.
EXHIBIT A
Areas 1, 2, & 3

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.

Curry County, Oregon

Regulated Use Area SK-2

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
Approximately 269 Net Harvest Acres

The information shown on map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
Date Received by State: _________________________________

(1) Contract Number: CS-341-2022-GF8518-01

(2) Sale Name: North Lobster GNA

(3) Contract Expiration Date: 12/31/2027

(4) Purchaser Name: ________________________________

(6) State Representatives:

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(8) Name of Subcontractors and Start Dates:

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(9) Comments:

________________________________________________________________________

(10) Operations Map: Attach a copy of timber sale Exhibit A or other suitable map which plainly shows the items listed on the instruction sheet.
SUBMIT ONE COPY OF PLAN STATE

Operations shall be limited to the work shown in the plan until a revised plan or supplemental plan is submitted covering additional work. Compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act. If STATE has prepared a required Forest Practices Act (FPA) “Written Plan” for operations, PURCHASER shall comply with all provisions of the Written Plan.

Explanation of Item No.(from Page 1)

(5) All sales require you to use a brand furnished by STATE. If the State brand has not been assigned when the plan is submitted, it will be furnished and assigned later. Complete drawing. If more than one brand is assigned to the sale, complete both drawings.

(6) The contract requires you to have a designated representative available on the sale area or work location who is authorized to receive in your behalf any notice or instruction given by STATE and to take action in regard to performance under the contract. If logging and project work is widely separated, a representative is required for each.

(7) The STATE representative will be designated when your plan is approved and is the person who will inspect and issue instructions regarding performance.

(8) Show names of subcontractors to be used for any or all phases of the operations. If subcontractors are not Known, or are changed later, give notification to the STATE representative prior to commencement of work by subcontractor.

(9) Show projected dates for commencement of both projects and logging. If projected dates need to be changed at a later date, notification must be given to the STATE representative by supplemental plan or otherwise, prior to commencement of such operations.

(10) The STATE representative will furnish extra copies of Exhibit A of the contract for your use in preparing the operations map. The map shall use the following legend and show:

1. Landing locations, approximate setting boundaries, and probable sequence of logging the settings. Number the settings in sequence.

2. Locations of spur roads planned for construction, other than required by the timber sale contract. Provide spur road specifications

3. Locations of proposed tractor yarding roads. Show if and how marked on the ground.

4. Locations of temporary stream crossings.

5. List the sequence of performing project work.

6. Location of rock sources - attach pit development plans.

   | 1 | Cable Landing, with numbers for sequence. |
   | A | Tractor Landing with alphabetical sequence. |
   |   | Approximate setting boundary. |
   |   | Spur truck roads. |
   |   | Tractor yarding roads. |
   | X | Temporary stream crossings. |
Completion Timeline

Indicate on the appropriate timeline below, the dates by which you plan to complete the work as required under this contract. The purpose of this section is to develop a plan that will ensure you complete the work as required, and meet the interim completion date(s) and contract expiration date. This plan is incorporated and made a part of the contract. When, in the opinion of STATE, operations are not commencing in a manner that meets the intent of this plan, you may be placed in violation of contract and your operations suspended until an amended plan is submitted and approved by STATE.

Projects

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Harvest & Other Requirements

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The Federal Endangered Species Act (ESA) prohibits a person from taking any federally listed threatened or endangered species. Taking under the federal ESA may include alteration of habitat. STATE's approval of this plan does not certify that PURCHASER's operation under the plan is lawful under the federal ESA. As provided in the timber sale contract, PURCHASER's must comply with all applicable state, federal, and local laws.

PURCHASER's compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act.

APPROVED; Date: ____________________________  SUBMITTED BY: PURCHASER

STATE OF OREGON - DEPARTMENT OF FORESTRY

Title ____________________________  Title ____________________________
Oregon Department of Forestry
EXHIBIT C - SAWMILL GRADE (WESTSIDE SCALE)
SCALING INSTRUCTIONS - LOCATION APPROVAL - BRAND INFORMATION
Coos - SOA

(1) ORIGINAL REGISTRATION □ Date __________
REVISION NUMBER 000 □ Date __________
CANCELLATION □ Date __________

(2) TO: ________________________________
(Third Party Scaling Organization)

(3) FROM: Coos Phone (541) 267-4136
(State Forestry District)
Address: 63612 FIFTH RD
COOS BAY, OR 97420

(4) PURCHASER: ________________________________
Mailing Address: ________________________________
Phone Number: ________________________________

(5) MINIMUM SCALING SPECIFICATIONS

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<thead>
<tr>
<th>SPECIES</th>
<th>MINIMUM NET VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conifers</td>
<td>10</td>
</tr>
<tr>
<td>Hardwoods</td>
<td>10</td>
</tr>
</tbody>
</table>

*Apply minimum volume test to whole logs over 40’ Westside

(6) WESTSIDE SCALE:
Use Region 6 actual taper rule. Logs over 40’.

YES □ NO ☑

(7) Weight Scale Sample □ ☑

(8) APPROVED SCALING LOCATIONS
(as shown on the ODF Approved Locations web-site)

<table>
<thead>
<tr>
<th>Species</th>
<th>Yard</th>
<th>Truck</th>
<th>Weight</th>
</tr>
</thead>
</table>

(9) SALE NAME: North Lobster GNA
COUNTY: Curry

(10) STATE CONTRACT NUMBER:
CS-341-2022-GF8518-01

(11) STATE BRAND REGISTRATION NUMBER:

(12) STATE BRAND INFORMATION:

(13) PAINT REQUIRED: YES ☑
COLOR: Orange

(14) SPECIAL REQUESTS (Check applicable)

PEELABLE CULL (all species)...................... ☑
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE.............................. ☑
ADD-BACK VOLUME - Deductions due to delay... ☑

(15) REMARKS: Loads shall be weight scaled in lieu of scaling. Tons shall be short tons or 2,000 lbs. Loads shall have a pink Weight Load and Weight Scale Receipt attached. Weigher shall attach a machine-printed weight ticket, with the ODF weight load number on it, to the ODF Weight Scale Receipt and mail them weekly to the approved Third-Party Scaling Organization for processing.
Operator's Name (Optional inclusion by District): ________________________________

(16) Purchaser or Authorized Representative Date

State Forester Representative Date

Notify the District within one hour when branding or painting is inadequate for quick identification, the receipts are missing, not correctly or completely filled out, and/or when logs presented for scaling are impossible to scale accurately.
General Distribution: TPSO, Approved Scaling Locations and Purchaser.
(1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers.

(2) Check appropriate box. CANCELLATION requires logging and hauling to be complete, recall branding hammers.

Columbia River Log Scaling & Grading Bureau
P.O. Box 7002, Eugene, OR 97401
Phone: (541) 342-6007 Fax: (541) 342-2631
Email: services@crlsb.com

Mountain Western Log Scaling & Grading Bureau
P.O. Box 580, Roseburg, OR 97470
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@mwsgb.com

Northwest Log Scalers Inc.
6137 NE 63rd St, Vancouver, WA, 98681
Phone: (360) 553-7212 ext. 4 Fax:(360) 553-7213
Email: info@nwlogscalers.com

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Yamhill Log Scaling & Grading Bureau
P.O. Box 708, Forest Grove, OR 97116
Phone: (503) 359-4474 Fax: (503) 359-4476
Email: yamhilllog@frontier.com

(3) State District office, address and phone.

(4) Enter Purchaser's business name, address, and phone number as it appears on the Contract.

(5) Minimum Scaling Specifications.


(7) Weight Scale Sample - Check box if sale is to be a Weight Scale Sample. All specifies for handling, scaling and processing will be attached or explained in the Remarks section item (15).

(8) Show scaling locations only applicable to TPSO. Location name should appear as it does on the ODF Approved Scaling Location web site: https://apps.odf.oregon.gov/Divisions/management/asset_management/scalinglocation.asp Locations with scaling and processing directions specific to their location should be on a separate form. Species should be identified if not capable of receiving “all” species. Check appropriate box for either: yard, truck scale, or weight. Refer to the web site listed above for the locations approval status.

(9) Enter sale name and county.

(10) Enter sale Contract number.

(11) Enter Oregon's State Brand Registry Number (REQUIRED).

(12) Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section item (15).

(13) Check yes for Paint Required and designate "Orange" for color. Non required removal volumes may sometimes require blue paint.

(14) Special Requests. These are requests that will be applied to ODF timber sales. All boxes applicable to the timber sales designated in the Exhibit C form must be "marked". If "Other" is indicated, it must contain a description and any necessary comments. Special Requests must be typed or written in black ink. Special Requests cannot be prepared by fax or email.

(15) Use this space to designate any weight scale sample instructions or any other explanations to clarify scaling, processing and/or mailing requirements. If additional scaling locations are approved, revise original or current form showing all (old and new) locations. Check REVISION box at top of form and explain under Remarks. Route as indicated.

(16) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form. Signatures not required on revisions.
Oregon Department of Forestry
EXHIBIT C - PULP SORT
PROCESSING INSTRUCTIONS - LOCATION APPROVAL
BRAND INFORMATION
Coos, SOA

(1) ORIGINAL REGISTRATION □ Date □
REVISION NUMBER 000 □ Date □
CANCELLATION

(2) (Approved Pulp Processing Facility)

(3) FROM: Coos Phone (541) 267-4136
(State Forestry District)
Address: 63612 FIFTH RD
COOS BAY, OR 97420

(4) PURCHASER:

(5) Scaling Bureau (TPSO) Processing Weight receipts:

Mailing Address:

Phone Number:

(6) STATE Definition of Approved Pulp Sort:
• Top portion of the tree (tops).
• All logs with a diameter (Big End) greater than 8 inches marked with blue paint.

(7) PULP FACILITY PROCESSING INSTRUCTIONS:
• Pulp loads shall be weighed in lieu of scaling.
• One Ton = 2000 lbs (Short Ton).
• Pulp loads shall have a yellow Log Load Receipt attached.
• Gross weight and truck tare weight for each load shall be machine printed on the weight receipt.
• Weigher shall sign the weight receipt.
• Weigher shall record the Log Load Receipt number on the weight receipt.
• Weigher shall attach the Weight receipt to the Log Load Receipt and mail them weekly to the TPSO processing the Weight receipt.

(8) TPSO PROCESSING INSTRUCTIONS
• Submit data files daily (or each day of activity).
• Mail or deliver scale tickets weekly to ODF Headquarters in Salem.

Notify the District within one hour when branding is inadequate for quick identification, the logs are marked with orange paint, the receipts are missing, not correctly or completely filled out, and/or logs do not meet the specifications of the STATE definition of Approved Pulp Sort.

General Distribution: TPSO, Approved Scaling Locations and Purchaser.
EXHIBIT C - PULP SORT
INSTRUCTIONS FOR EXHIBIT C
Coos, SOA

(1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers.


(3) State District office, address and phone.

(4) Enter Purchaser's business name, address, and phone number as it appears on the Contract.

(5) Third Party Scaling Organization that will be processing the weight tickets, mailing address, and phone number.

<table>
<thead>
<tr>
<th>Columbia River Log Scaling &amp; Grading Bureau</th>
<th>Pacific Rim Log Scaling Bureau, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O.Box 7002, Eugene, OR 97401</td>
<td>8288 28th Court North East, Lacey, WA 98516</td>
</tr>
<tr>
<td>Phone: (541) 342-6007 Fax: (541) 342-2631</td>
<td>Phone: (360) 528-8710 Fax: (360) 528-8718</td>
</tr>
<tr>
<td>Email: <a href="mailto:services@crls.com">services@crls.com</a></td>
<td>Email: <a href="mailto:office@prlsb.com">office@prlsb.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mountain Western Log Scaling &amp; Grading Bureau</th>
<th>Yamhill Log Scaling &amp; Grading Bureau</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O.Box 580, Roseburg, OR 97470</td>
<td>P.O.Box 709, Forest Grove, OR 97116</td>
</tr>
<tr>
<td>Phone: (541) 673-5571 Fax: (541) 672-6381</td>
<td>Phone: (503) 359-4474 Fax: (503) 359-4476</td>
</tr>
<tr>
<td>Email: <a href="mailto:info@mwlsgb.com">info@mwlsgb.com</a></td>
<td>Email: <a href="mailto:yamhilllog@frontier.com">yamhilllog@frontier.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Northwest Log Scalers Inc.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6137 NE 63rd St, Vancouver, WA, 98661</td>
<td></td>
</tr>
<tr>
<td>Phone: (360) 553-7212 ext. 4 Fax:(360) 553-7213</td>
<td></td>
</tr>
<tr>
<td>Email: <a href="mailto:info@nwlogscalers.com">info@nwlogscalers.com</a></td>
<td></td>
</tr>
</tbody>
</table>

Big end of log is not to exceed 2 inches greater than the minimum removal specifications in the contract. Example: Minimum removal specifications 6 inches and 20 board feet, then the Big end of log not to exceed 8 inches. When conifer and hardwood removal specifications are different, use the smaller removal diameter to determine this specification.

(9) Enter sale name and county.
(10) Enter sale Contract number.
(11) Enter Oregon's State Brand Registry Number (REQUIRED).
(12) Show brand assigned to timber sale. One brand only, if more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (13).
(13) Use this section to list any special instructions or the reason for any revisions in section item (1).
(14) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form. Signatures not required on revisions.
## SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<table>
<thead>
<tr>
<th>Road or Project Points</th>
<th>Work Description</th>
</tr>
</thead>
</table>
| USFS Road #5502, A to X, X to F | Mile 0.0  
Leave Elk River Road right onto Forest Service road 5502. Begin light brushing. Cut limbs and brush overhanging road that would impede haul traffic, following Exhibit G. Begin grading the road to remove ruts and drain water off the road. Beware there are patches of pavement remaining, do not grade these areas. Begin light ditch cleaning. Only clean ditches in locations where ditches route water into roadway or have large pieces of wood or rock impeding flow. Leave as much vegetation in ditches as possible. Clean cross drain culvert inlets, remove woody debris from stream crossing culvert inlets. Grass seed and mulch any exposed dirt in ditch line that drains into stream crossing within 100 feet. At completion of the road work place Carsonite lane markers on outside road edge (to be provided by contract administrator) at narrow areas designated by contract administrator. |
|                         | Mile 1.6  
Road narrows. Remove brush and ditch ravel to gain width. |
|                         | Mile 2.5  
Narrow point. Remove brush, ditch ravel and small conifers < 4” diameter on cutbank to gain width. |
|                         | Mile 3.2  
Hole in outside edge of subgrade, creates road hazard. Fill hole with free draining rock, create a channel through the outside edge of the hole that allows the placed rock to drain downslope. Cut alder that is directly below the hole, do not excavate the stump. |
|                         | Mile 9.2  
Road widening project. (See project 3) |
| Road #220 F to V        | 11.1 Junction right onto FS road number 220  
The portions of this road from points F to R are a fire management area. Any slash created during road reconstruction and brushing must be lopped and scattered with material confined to less than 18” from the ground as described in Section 2365. Trees shall be yarded with tops attached. Tops must be end... |
hauled and piled at an approved location or utilized for slash covering temporary roads. Root wads may be left in the fire management area.

Mile 0.0
Begin moderate brushing remove woody brush from road edges including ditchline. Limb trees overhanging the roadway. Cut trees with diameters less than three inches on road edges and ditches as needed. Blade road to remove ruts and direct water off of the road surface.

Mile 1.4 Junction road 223 takes off left toward sale area 2. Road brushing becomes heavy after junction. Remove stobs from road running surface where needed.

Mile 3.4 End of drivable road. Remove trees and brush from the road surface and ditchline. Remove trees from cutbank and outside road edge where needed. Remove stobs and stumps from the road surface. Widen road as needed to reconstruct a 14-foot-wide native surface road. Do not sidecast on slopes greater than 45%. End haul material generated by widening to approved locations. Between Points T and V, cut all live Port Orford cedar less than 12” DBH to the top of the cutbank or 25’, and 25 – 50’ below road to prevent spread of Port Orford cedar root disease.

Potential waste area at point U.

<p>| O to OA, R to RA, MA to MC (optional) | Reconstruct 14-foot-wide native surface road. |
| Q to QA | Reconstruct 14-foot-wide native surface road. Potential Waste area. |
| M to MA (optional), MA to MC (optional) | Reconstruct 14-foot-wide native surface road. |
| P to PC, V to VD | Reconstruct existing 14 wide native surface road. Remove brush, trees, and stobs from the road surface and cutbanks as needed. Widen and smooth road surface as needed. |
| Haul Route | Damaged areas shall be repaired as needed during active haul. |
| USFS Road 3402, Y to X | Mile 1.8 Leave Euchre Creek Road onto Forest Service road 3402. Road is in good condition. |
| | Mile 3.6 Approximate location of undercut paved road due to adjacent creek. USFS repairs estimated in 2022 or 2023. Environmental compliance and funding is secured. |
| | Mile 4.0 Begin light grading and pothole repair to eliminate rutting, establish proper drainage. Clean any ditches or culvert inlets blocked by organic matter. |
| | Mile 14.1 |</p>
<table>
<thead>
<tr>
<th>Mile 15.4 – Point X - Junction right onto FS road number 5502</th>
</tr>
</thead>
</table>

| Project 3, Point E, 5502 Mile 9.2 | Road failure. Retaining wall construction. Purchaser will need to obtain a stamped wall design from a welded wire retaining wall manufacturer. See Exhibit I for USFS current and proposed plan views, estimate of quantities and notes, profiles and cross-section drawings. Exhibit J is the USFS Road 5502 Retaining Wall Foundation Investigation. Project 3 shall be completed using “Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects FP-14” specifications and will be inspected by USFS engineers during construction. STATE will provide approval of project. Payment by STATE to PURCHASER will be made when the project or portions thereof are completed and approved by STATE and will not follow FP-14 payment schedule. Wall will be constructed in accordance with the plans and standard drawings. Project 3G (560 yards of granular backfill) need is dependent on quality of excavated material. Project 3G may not be needed or reduced if sufficient backfill material is available on-site. |

| Project 3A | Equipment mobilization – Includes weed washing of off-road equipment, fire protection equipment, fire watch, equipment for completing project. STATE must approve weed washed equipment prior to beginning work. |

| Project 3B | Survey and stake using method 2 (conventional) per FP-14 Section 152. Prior to excavation and subject to STATE approval, centerline, uphill and downhill clearing limits, and reference stakes must be established with a tolerance of +/- 0.2 feet. Post excavation, and subject to STATE approval, centerline, uphill and downhill clearing limits, and reference stakes must be established with a tolerance of +/- 0.2 feet. Post-excision, stakes at wall location requires tolerance +/- 0.1 feet. |

| Project 3C | Soil erosion & Pollution control – Submit written plan to STATE within 30 days prior to construction outlining temporary erosion control measures to minimize erosion during operations. Install and maintain throughout project. Remove temporary measures at end of project. |

| Project 3D | Clearing and grubbing, disposal of tops and limbs by scattering, logs by decking, and stumps by scattering on stable slopes. |

| Project 3E | Endhaul waste to disposal site at MM12.0. |

| Project 3F | Procurement of mechanically stabilized earth wall, excavation, construction, and backfill. Representative from wall manufacturer required during installation. FP-14 Section 257. |

| Project 3G | Select weed-free granular backfill as specified by wall manufacturer. Need is dependent on quality of excavated material. Project 3G may not be needed or reduced if sufficient backfill material is available on-site. Source of weed-free rock shall be provided to STATE and truck tickets available upon request. |

| Project 3H | Acquire stamped engineered design for a mechanically stabilized earth wall design consistent with FP-14 section 257. Submit written design to STATE at least 7 days prior to construction. Manufacturer or contractor should be provided Exhibit J, USFS’s USFS Road 5502 Retaining Wall Foundation Investigation. |
While the USFS performed a preliminary topographic site survey, additional topographic survey data may be needed. Contractor shall provide additional topographic site survey data as needed.

<table>
<thead>
<tr>
<th>Project 3I</th>
<th>Clean culverts, shape roadway, shape ditches, compact road surface on either side of construction area with compaction method B. FP-14 section 303.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 3J</td>
<td>Deliver and apply 150 cubic yards, 1 inch minus for road surfacing using compaction method 1 in FP-14 section 302.</td>
</tr>
<tr>
<td>Project 3K</td>
<td>Stake culvert location, verify length, provide 24-inch, aluminized-corrugated steel pipe, 16 gage. Backfill with native material, using compaction method B. FP-14 section 602.</td>
</tr>
<tr>
<td>Project 3L</td>
<td>Supply and install geocomposite sheet drain system as per manufacturers design and FP-14 Section 605.</td>
</tr>
<tr>
<td>Project 3M</td>
<td>Use of rock hammer as necessary.</td>
</tr>
<tr>
<td>Project 3N</td>
<td>On exposed soils as designated by STATE, apply certified weed free straw mulch and weed free seed. Seed will be provided by STATE/USFS at no cost.</td>
</tr>
<tr>
<td>Project 3O</td>
<td>Temporary traffic control: Provide and locate signs as directed. Signs shall follow notes in Exhibit I: Traffic Control Detail.</td>
</tr>
<tr>
<td></td>
<td>- Elk River Road / 5502 Jct: 48” x 48” “ROAD CLOSED 9.2 MILES AHEAD”</td>
</tr>
<tr>
<td></td>
<td>- 5325 / 5502 Jct: 48” x 48” “ROAD CLOSED AHEAD”</td>
</tr>
<tr>
<td></td>
<td>- 5502 / 3402 Jct: 48” x 48” “ROAD CLOSED AHEAD”</td>
</tr>
<tr>
<td></td>
<td>- Both sides of construction site: Type III barricade with R11-2 ROAD CLOSED signs.</td>
</tr>
</tbody>
</table>
EXHIBIT D

SKID ROAD and TEMPORARY ROAD VACATING SPECIFICATIONS

SUBSOILING, WOODY DEBRIS, WATERBARS AND BLOCKING ROADS

(1) **Equipment.** A track mounted excavator shall be used for all road blocking, waterbarring, and subsoiling unless otherwise approved in writing by STATE.

(2) **Dry Conditions.** All work shall be performed between June 1st and October 31st during dry conditions acceptable to STATE, or other dry periods as approved by STATE.

**SPECIFIC INSTRUCTIONS/SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Work Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary skid roads, temporary roads, and landings</td>
<td><strong>Subsoiling:</strong> After logging, all temporary roads and the main skid roads, shall be subsoiled to a depth of at least 20 inches. Shape roadbed to the original slope. Subsoiling shall employ a discontinuous “hen scratch” pattern over the ground, and method shall lift and fracture the compacted soil rather than plowed, mixed, or displacement of surface soils. If large tree roots, bedrock or subsurface boulders prevent subsoiling, purchaser shall work around them so as to avoid pulling these to the surface or ripping through them.</td>
</tr>
<tr>
<td>Primary skid roads, temporary roads, and landings</td>
<td><strong>Woody Debris</strong> Shall be placed on the surface of subsoiled main skid roads and temp roads. Pull slash back across the subsoiled roadbed, for 85% effective ground cover no deeper than 18” over exposed mineral soil.</td>
</tr>
<tr>
<td>Unsurfaced roads not subsoiled</td>
<td><strong>Construct Waterbars</strong> as directed by STATE and Exhibit E.</td>
</tr>
<tr>
<td>Primary skid roads, unsurfaced temporary roads</td>
<td><strong>Block Roads.</strong> All unsurfaced temporary roads and skid roads shall be blocked immediately after completion of logging operation, or at the end of logging season to prevent off highway vehicle use. Use excavated material and cull logs to block temporary roads and skid roads from vehicle access, as directed by STATE.</td>
</tr>
</tbody>
</table>
EXHIBIT D

ROCK ACCOUNTABILITY

PURCHASER shall obtain subgrade approval from STATE prior to rocking. Rocking shall be limited to periods when weather conditions are acceptable to STATE and when sediment will not enter streams. Additional surfacing needed because of construction season or construction practice shall be furnished at PURCHASER expense.

Rock accountability shall be determined by the following methods, as directed by STATE. STATE shall be given 24 hours’ notice prior to rocking.

All rock shall be from weed-free sources. Written approval of the specific source is required prior to materials (e.g. soil, gravel, sand, aggregate, etc.) being transported onto National Forest System land.

Depth Measurement. Rock shall be spread and compacted according to the depths specified by contract administrator.

Depth shall be determined in the most compacted area of the surface cross section. The depth of compacted aggregates shall not vary more than 1 inch from the depth specified by contract administrator. The average depth for each road segment shall be the specified depth or greater. If additional rock is required because of insufficient depth, the locations and volumes to be added shall be determined by STATE.

Load Records. Notify STATE before spreading the rock and maintain a record of all rock delivered for spreading. Make the record available for STATE inspection. A report listing the amount of rock delivered the prior month must be submitted weekly.
EXHIBIT E

WATERBAR SPECIFICATIONS

<table>
<thead>
<tr>
<th>ROAD GRADE</th>
<th>DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 5%</td>
<td>400'</td>
</tr>
<tr>
<td>6-10%</td>
<td>200'</td>
</tr>
<tr>
<td>11-15%</td>
<td>150'</td>
</tr>
<tr>
<td>16-20% or greater</td>
<td>100'</td>
</tr>
</tbody>
</table>
(3) Equipment. A Cat with ripper or a track mounted excavator shall be used for all road blocking, and waterbarring, unless otherwise approved in writing by STATE.

(4) Dry Conditions. All work shall be performed during dry conditions acceptable to STATE. All subsoiling shall be done when soil moisture is less than 50%.

(5) Frozen Ground Logging. If it is determined by State that Subsoiling is not required due to minimal compaction, STATE will release PURCHASER in writing. Woody Debris, Waterbars and Blocking Roads as described below shall be accomplished unless otherwise approved by STATE.

SPECIFIC INSTRUCTIONS/SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Work Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skidroads and Temp Roads</td>
<td>Subsoiling: After logging, all temporary roads shall be subsoiled to a depth of at least 20 inches. Shape roadbed to the original slope. Pull slash back across the subsoiled roadbed, for 60% effective ground cover over exposed mineral soil. Subsoiling shall employ a discontinuous &quot;hen scratch&quot; pattern over the ground, and method shall lift and fracture the compacted soil with minimal mixing or displacement of surface soils. If large tree roots, bedrock or subsurface boulders prevent subsoiling, purchaser shall work around them so as to avoid pulling these to the surface or ripping through them.</td>
</tr>
<tr>
<td>Woody Debris</td>
<td>Shall be placed on the surface of subsoiled and temp roads. Pull slash back across the subsoiled roadbed, for 60% effective ground cover over exposed mineral soil.</td>
</tr>
<tr>
<td>Skidroads and Temp Roads</td>
<td>Construct Waterbars as directed by STATE. Construct waterbars according to the specifications in Exhibit D, T-834.</td>
</tr>
<tr>
<td>Skidroads and Temp Roads</td>
<td>Block Roads. All temporary roads shall be blocked immediately after completion of logging operation, or at the end of logging season to prevent off highway vehicle use. Use excavated material and cull logs to block temporary roads and skid roads from vehicle access, as directed by STATE. See Exhibit D, T-834</td>
</tr>
</tbody>
</table>

Tank trap shall be installed in a "V" shape. It should be sloped to drain with a relief ditch through the down slope edge of the road. The trench shall be behind the berm for approaching traffic.
**REQUIREMENTS**

The minimum height of clearing shall be 15 feet from the road surface, and the minimum width of clearing on the cutslope side(s) of the road shall be 10 feet horizontal distance from the shoulder of the road and 10 feet horizontal on the down slope side from the road shoulder.

Brush and trees shall be cut to a maximum height of 6 inches above the ground surface or obstructions such as rocks or existing stumps.

Debris resulting from the brushing operation shall be removed from the roadway, cutslope, ditches, water courses, culvert inlets and outlets and sediment catching basins. Debris shall be mulched or scattered downslope from the road or placed in other stable locations. Large debris, 6 inches or larger in diameter, shall be mulched or cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.
EXHIBIT H
BLEACH MIXING INFORMATION

Clorox (bleach) Information
The following information is provided from the Clorox Service Bulletin is pertinent to POC root disease and sudden oak death control.

ULTRA CLOROX ® BRAND REGULAR BLEACH, Sodium Hypochlorite 6% (EPA Reg. No. 5813-50)

When used as directed, this product is effective in controlling the spread of the fatal fungus Phytophthora lateralis (Port Orford cedar root disease) and Phytophthora ramorum (sudden oak death) in areas of California and Oregon where Port Orford cedar and tanoak grows.

Water is commonly drafted from streams and fire ponds within forested areas to use in dust abatement on forest roads, equipment cleaning, and for fire suppression. The water source can spread the root disease fungus to uninfested areas. Treating water prior to use helps control the spread of the fungus.

Directions for Use: Add 1 gallon regular 5% - 6.5% Sodium Hypochlorite bleach to 1000 gallons (~50 parts per million available chlorine) of drafted water. Prepare the mixture at least 5 minutes prior to application for dust abatement; fire suppression; and cleaning trucks, and logging, road building, and maintenance equipment. DO NOT allow bleach to enter lakes, streams, storm drains, or other bodies of water.

<table>
<thead>
<tr>
<th>Approximate ppm available Chlorine</th>
<th>Volume of regular bleach (Sodium Hypochlorite 5% - 6.5%)</th>
<th>Volume of concentrated bleach (Sodium Hypochlorite 7.5% - 8.5%)</th>
<th>Volume of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>16 drops</td>
<td>12 drops</td>
<td>1 quart</td>
</tr>
<tr>
<td>3/4 tsp.</td>
<td>1/2 tsp.</td>
<td>1 gallon</td>
<td></td>
</tr>
<tr>
<td>1 gallon</td>
<td>3/4 gallon</td>
<td>1000 gallons</td>
<td></td>
</tr>
</tbody>
</table>
**POINT MATERIAL REMARKS**

- **CP-1 ROCKLINE PROJECTED 2 FEET HD TOWARDS THE CUT BOTTOM OF CUT 13 FEET HD TOWARDS OUT**
- **A RU-10 POSSIBLE ROCK LINE 58 DEGREES TO POINT F AND 50 DEGREES TO POINT G**
- **B RU-10 8-10 FEET HD TOWARDS CUT**
- **C RU-10 POSSIBLE ROCK LINE 50 DEGREES TO POINT F AND 50 DEGREES TO POINT G**
- **D SU-F 8-10 FEET HD TO HINGE BEFORE FAILURE AND FILLSLOPE ABOUT 100% ROCKLINE PROJECTED 6-8 FEET HD TOWARDS CUT**
- **E RU-10**
- **F RU-10**
- **G RU-10**

**TOP OF CUT SLOPE SCARP 52-A DOWN TO POINT B**

*OTHER SURVEY NOTES:*
- Top width of cut slope failure about 20 FEET HD
- Top width of failure below the road at point G about 30 FEET HD
- Depth to RU-10 at failure edge at hinge point 5 FEET VD
- North failure edge at hinge, rockline projected 6 FEET HD towards the cut

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**DRAWN, STAMPS, LOGOS, AND SEALS**

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**DESIGN NOTES:**

- DESIGN WALLS ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. INSTALL WALL DRAINAGE SYSTEMS ACCORDING TO SECTION 605.
- FLXIBLE DELINEATORS TO BE INCLUDE IN DESIGN.
- A DRAINAGE SYSTEM BEHIND WALL SHALL BE DESIGNED.
- MAXIMUM PARTICLE SIZE FOR BACKFILL SHALL NOT BE LARGER THAN 1.5 INCHES PER KP-14 704.03(B).
- DESIGN USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION USING SITE CLASS B AND PGA=0.5g.
- SHORTER REINFORCEMENT LENGTHS MAY BE CONSIDERED IF USING THE TRAPEZOIDAL DESIGN METHOD.

**GENERAL NOTES:**

- DISPOSAL SITE: HAUL WASTE AND EXCESS WASTE TO FSR 5502 MP 12.0.
- ALL EXCAVATION IS UNCLASSIFIED MATERIAL; ESTIMATE INCLUDES 40 HR WITH ROCK-HAMMER.
- PERFORM TRAFFIC CONTROL ACCORDING TO SECTION 156. ROAD 5502 MAY BE CLOSE AT THE WORK SITE FOR 30 DAYS.
- INSTALL ADVANCED SIGNING "ROAD CLOSED 9.17 MILES AHEAD". ALL SIGNS SHALL CONFORM TO MUTCD. NOTIFY THE FOREST SERVICE 30 DAYS PRIOR TO CLOSING THE ROAD.

### North Lobster Creek Timber Sale

#### Estimate of Quantities

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**TOTAL FOR ROAD**

All All All 560 880 560 1 1 150 36 300 1 1

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![Project Details](image-url)
ROAD CLOSED

DRAWN
4/20/21 48 x 66 in.

ARCHIVE NO.

DRAWING TITLE

CHECKED

PROJECT NO.

DRAWING SHEET NO.

NOTE:

1. All traffic control devices shall be constructed, located, installed, and maintained according to the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). Local Exception.

2. Stop signs shall be made from suitable materials and shall be in accordance with all state and federal regulations.

3. All warning signs shall be made of glass fiber reinforced plastic (GRP) or other suitable material that is in accordance with all state and federal regulations.

4. Non-standard painted wood, metal, plastic, paper or material approved by the contracting officer.

5. Signs shall be located where they will be consistently visible day and night along the right-hand side of the approaching traffic.

6. Signs shall be securely attached to signs frames or posts which shall be compatible with the standard signs frames and posts for short distances from the construction site so that signs can otherwise not be read by the driver.

7. Signs warning of construction shall be placed on all major roadways accessing the work area.

8. Selection and placement of all signs shall be subject to approval of the contracting officer. Signs other than those herein may be used provided they are in conformance with MUTCD standards and approved in writing by the contracting officer.

9. The signs shall be placed and maintained from subject to subject at all stages of the project and at all times while the project is in progress.

10. Additional signs may be required as directed by the contracting officer.

11. All signs are temporary; all temporary signs shall be removed within two hours of final acceptance.

12. Traffic signs shall be removed on other roads, if approved by the contracting officer.
Road 5502 Retaining Wall Foundation Investigation
Forest Development Road (FDR) 5502, Mile Post 9.17
Siskiyou National Forest
Curry County, Oregon

(Legal: T34S, R13S, Section 6, NE Quarter – Coordinates: 42.66653, -124.28401)

By Peter W. Bolander
October 25th, 2021

(Proposed Retaining Wall Site looking north)
**General**
The Road 5502 Retaining Wall Foundation Investigation covers the foundation conditions you can expect at the proposed retaining wall site on Forest Development Road 5502 at Mile Post 9.17 (0.75 miles east of FDR 5502/5544 junction). The retaining wall site is location in the Siskiyou National Forest, see Figure 1 and 2.

**Setting**
The proposed retaining wall site, at an elevation of approximately 2400 feet, is on a gravel surfaced single-lane road which traverses mid-slope but is close to the top of the hill (approximately 200 feet vertical to top of the hill). The objective and operational maintenance level for this section of road are both a Level 3. Natural slopes at the site are very close to 100 percent and the easterly facing slope drains into a tributary of Panther Creek. The cut slope in the vicinity of the retaining wall site is bedrock (marine sedimentary rock – Elk Subterrane Formation). The road construction method appears to be cut and fill with the fill slope material a mix of native soil and excavated rock from the cut. The need for the retaining wall stems from the failure of the fill slope reducing the road width and imposing a potential safety concern with a narrow road and vertical outside edge of road.

**Observations**
On May 12th and 14th, 2021 a subsurface investigation of the site was performed with you and Tim Merten. Various photographs were taken, the general topography and surface conditions noted, various points surveyed, and exposed bedrock locations noted as well. Photos – Select photos are attached in Appendix A.
Slope Failure – The slope failure’s scarp is at the edge of the current road (see cover photograph) and deposits from the slope failure can be observed about 150-feet slope distance downhill. It appears that the cause of failure is due to a sequence of events. First the cut slope failed and blocked the ditch. Water up-road in the ditch was then blocked and consequentially crossed the road. This water then saturated and eroded the fill slope. This ultimately lead to the fill slope failing. From looking at past Google Earth air photos it appears the likely time of the fill slope failure was somewhere between 2005 and 2013. Survey – Various points were surveyed during our site visit to compliment the survey performed by your team in early spring 2021. It was noted during the analysis that there was a limited number of points included in your survey so the AutoCAD used to determine the preliminary wall location with the “existing ground” might not truly represent actual ground conditions. Table 1 lists the points we surveyed and pertinent information for each of those survey points. Surface and Subsurface Materials – Generally two soil types and one rock type were encountered at the site. Soil Unit A (a silty gravel, GM) is the surface soil, Soil Unit F (a silty gravel, GM) is the sidecast fill slope material, and Rock Unit 10 (BBE/CB) is the in-place bedrock. Details of all encountered soil and rock units can be found in Appendix B.

Figure 3 shows a sematic of the subsurface conditions.

**Preliminary Wall Location**
The following assumptions were used in determining the wall location:
1 – a wall geometry as shown in Figure 4 using 2-foot by 8-foot welded wire “panels”
2 – locating foundation of wall completely on Rock Unit 10 in that Soil Unit A and F are very
loose and are not considered sufficiently competent to hold the weight of the wall or to
prevent overturning of the wall
3 – placing a 5-foot minimum bench in front of the toe of the wall (need 3-feet for the 2-foot
high berm, placed at 1.5H to 1V, at the toe and an additional 2-feet to account for
inaccurate survey and sloughing of the slope in front of the wall)

Preliminary Wall Location - Discussion

Road Structure Dimensions – A horizontal road alignment was determined by members of your staff
(Steven Weisner and Colton Smith) and resulted in a horizontal curve in the wall area with a radius of
60-feet and a Central/Delta angle of 49 degrees.

Using the above horizontal alignment according to Forest Service Handbook (FSH) 7709.56, Chapter
42.45 (Curve Widening) for the design vehicle (log truck) an additional 4.8-feet would be necessary for
the log-truck to stay within the roadway beyond the standard travel way. Using a standard travel way
with of 12-feet (travel speeds less than 20 Miles per Hour) the total road way would need to be 16.8-
feet, so rounded up to 17-feet. Checking the additional curve width beyond the standard travel way for
a low boy (the critical vehicle) an additional 9-feet would be necessary for the lowboy to stay within the
roadbed so a roadbed of at least 22-feet would be required. Note we have planned a 17-feet travel way
plus 2-feet aggregate taper on the cut side and 3-feet of aggregate taper on the wall side for a total road
bed width of 22-feet and a minimum toe to cut to top of wall distance of 26-feet, see Figure 4.

Based on my observations, prior to failure, the critical section was 23-feet from the bottom of cut to
hinge point of the fill.

The final wall layout has the following:
1 – a 12-foot travel way with an additional 5-feet for curve widening for a total travel
way/roadway width of 17-feet
2 – a 2-foot wide inside shoulder of aggregate (2H to 1V) and a 3-foot wide outside shoulder of
aggregate (3H to 1V) so a total road bed width of 22-feet
3 – an in-slope of 3 percent
4 – a distance from the bottom of the cut to the top of the wall of 27-feet (increased from above
to meet the wall foundation conditions described below).

Wall Foundation – To determine the location of Rock Unit 10 below the existing ground surface Rock
Unit 10 “rock lines” were projected from known Rock Unit 10 points above and below the road. The
projected Rock Unit 10 lines used are as follows:

Perpendicular to the slope along the center of the failed slope (aka the “critical section”)
1 – Projected a rock line from Survey Point B to Survey Point “Bottom Rock Chute” down to
below the failure, approximate angle of 45 degrees
2 – Projected a rock line from Survey Point E to Survey Point G, approximate angle of 38 degrees
3 – Projected a rock line from Survey Point G to Survey Point “Bottom Rock Chute” approximate
angle of 40 degrees

Perpendicular to the slope approximately 10-feet north of the edge of failure
1 – Projected a rock line from Survey Point A to Survey Point F, approximate angle of 58 degrees
2 – Projected a rock line from Survey Point A to Survey Point G, approximate angle of 50 degrees
Perpendicular to the slope approximately 30-feet south of the edge of failure

1 – Projected a rock line from Survey Point C to Survey Point F, approximate angle of 50 degrees
2 – Projected a rock line from Survey Point C to Survey Point G, approximate angle of 43 degrees

Figure 3 shows the expected rock line along the critical section.

Wall Height – The wall geometry was transposed onto the critical section and the toe of the inside aggregate slope adjusted to match the toe of the cut up and down road of the failure. Then using the above noted assumptions it was found that a 20-foot high wall would be needed to meet the above road geometry and toe bench requirements. At the critical section the toe bench in front of the wall would be approximately 5-feet. Note due to the limited number of survey points and the discrepancy between our and the Forest Service team survey points this distance might be as low as 3-feet, thus the importance of ensuring a complete survey by the designer of the wall and a verification by you that an adequate bench in front of the wall is provided.

Wall Length – End points of wall chosen by transitioning the wall up every half panel and bending the wall as needed to closely match the centerline of the road and provide a minimum 4-foot horizontal distance from the outside edge of the road bed to the top of the wall. Note the panels for each lift are stagger to provide an integral wall face. Bending of the panels would be accomplished by cutting the reinforcement layer and bending the wall layer (see Hilfiker Welded Wire M.S.E. Retaining Walls – Construction Guide, page 6.)

Nominal Bearing Capacity – With the retaining wall completely founded on Rock Unit 10 (competent foundation material) the lengths of the welded wires reinforcement lengths can be adjusted using the trapezoidal wall geometry as recommended by the LRFD Bridge Design Specifications. Using this trapezoidal wall geometry for external stability the minimum base length, \( L_o \), would be 15.4-feet (0.70 * the height of the wall so 0.70 * [20-feet + 2-feet] as recommended by LRFD Bridge Design Specifications). The nominal bearing resistance of the foundation, based on bearing capacity of a continuous footing at the top of the slope, would be 40,000 pounds per square foot (psf). Note the design should still perform a slope stability analysis checking both global and compound failure planes using the final \( L_o \) as recommended by LRFD Bridge Design Specifications. Appendix C provides the foundation design calculations for the above recommendation.

Description of Foundation Conditions at Base of Retaining Wall – The retaining wall should be completely set on Rock Unit 10. Rock Unit 10 is gray competent rock with no open planes of separation greater than 1 mm (1/32-inch) and dents to pits when struck with a ball-peen hammer; note the rock may also break into smaller pieces when struck by the ball-peen hammer but the pieces should not disintegrate when soaked in water.

Preliminary Recommendations

Figure 5 shows the recommended wall layout with the wall location and heights shown in Table 2.

It is recommended when designing the wall to:

1 – perform an adequate survey capturing the ground on the downhill hill of the road
2 – adjust length of reinforcement layers according to the LRFD AASHTO Bridge Design Specifications (Trapezoidal Walls) since the wall is founded on competent rock
3 – when excavating in rock cost the excavation using an impact hammer
4 – place a cross-drain culvert approximately 120 to 140-feet up road from the wall site
5 – since there isn’t a ditch along the inside edge of the roadway provide a drainage system behind the wall and exit it in a location that will not erode the toe of the wall
6 – place a 4-inch minimum depth leveling course under the bottom of the entire first reinforcing mat since the wall will be mostly on rock (see subsection 208.08(a))
7 – in lieu of guardrail place frequent flexible delineators along the outside edge of the roadbed to direct traffic away from the top of the wall

**Disclaimer**
The above recommendations are based on what was observed on the surface and extrapolating bedrock based on surface observations. Subsurface conditions naturally vary. If different subsurface conditions are observed during construction then the above recommendations may not be correct and the recommendations should be reconsidered.
Figure One – Proposed Retaining Wall Location (source: USGS 1996 Topographic Map, Father Mountain Quad)
Figure Two – Proposed Retaining Wall Location (source: Google Maps)
Figure Three – Profile At Critical Section
Figure Five – Recommended Wall Layout
Table One – Survey Points and Description (survey performed by cloth tape, Clinometer, and Brunton on May 12th and 14th, 2021)

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<thead>
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<th>From Point Name</th>
<th>From Point Elev</th>
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<th>HD, ft</th>
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<td>135 from survey CP-3 Elev= 505.3</td>
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</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>Est. North End Wall</td>
<td>36.5</td>
<td>1</td>
<td>36.5</td>
<td>0.6</td>
<td>500.6</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>Est. South End Wall</td>
<td>21.5</td>
<td>5</td>
<td>21.4</td>
<td>1.9</td>
<td>501.9</td>
<td>137</td>
<td></td>
</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>D</td>
<td>13</td>
<td>-3</td>
<td>13</td>
<td>-0.7</td>
<td>499.3</td>
<td>345</td>
<td></td>
</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>bottom of cut</td>
<td>12</td>
<td>-5</td>
<td>12</td>
<td>-1</td>
<td>498.3</td>
<td>est 264 from Point D RW = 9.5'</td>
<td></td>
</tr>
<tr>
<td>Est. North End Wall</td>
<td>500.6</td>
<td>A</td>
<td>64.5</td>
<td>31</td>
<td>55</td>
<td>33.2</td>
<td>533.2</td>
<td>333</td>
<td></td>
</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>C</td>
<td>68</td>
<td>47</td>
<td>46</td>
<td>49.7</td>
<td>551.6</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>499.3</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>5</td>
<td>8</td>
<td>551.3</td>
<td>est 264</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>543.3</td>
<td>Top of Cutslope Scarp</td>
<td>---</td>
<td>---</td>
<td>5</td>
<td>8</td>
<td>551.3</td>
<td>est 264</td>
<td>slope above top of cutslope scarp about 90%</td>
</tr>
<tr>
<td>Est. South End Wall</td>
<td>501.9</td>
<td>C</td>
<td>68</td>
<td>47</td>
<td>46</td>
<td>49.7</td>
<td>551.6</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>499.3</td>
<td>E</td>
<td>26</td>
<td>26</td>
<td>23</td>
<td>11.4</td>
<td>510.7</td>
<td>264</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>510.7</td>
<td>bottom rock chute</td>
<td>---</td>
<td>---</td>
<td>2</td>
<td>6</td>
<td>516.7</td>
<td>est 264</td>
<td>chute above point at 45°</td>
</tr>
<tr>
<td>D</td>
<td>499.3</td>
<td>F</td>
<td>25</td>
<td>-46</td>
<td>17</td>
<td>-18</td>
<td>481.3</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>499.3</td>
<td>G</td>
<td>41</td>
<td>-44</td>
<td>29</td>
<td>-28.5</td>
<td>470.8</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>499.3</td>
<td>est. CL wall</td>
<td>13</td>
<td>-49</td>
<td>8.5</td>
<td>-9.8</td>
<td>489.5</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>499.3</td>
<td>bottom road scarp</td>
<td>---</td>
<td>---</td>
<td>0</td>
<td>-4</td>
<td>495.3</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>top culvert inlet</td>
<td>52</td>
<td>-5</td>
<td>52</td>
<td>-4.5</td>
<td>495.5</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>CP-1</td>
<td>500</td>
<td>top culvert outlet</td>
<td>65</td>
<td>-9</td>
<td>64</td>
<td>-10.2</td>
<td>489.8</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Point | Material | Remarks
--- | --- | ---
CP-1 | rockline projected 2-feet HD towards the cut | bottom of cut 13-feet HD towards the cut
A | on RU-10 | Possible rock-line 58° to Point F and 50° to Point G
B | on RU-10 | top of rock-line and bottom of cut-slope scarp
C | on RU-10 | Possible rock-line 50° to Point F and 43° to Point G
D | SU-F to Bottom Road Scarp | about 8 to 10-feet HD to hinge before failure and fillslope was about 100%; rockline projected 6 to 8-feet HD towards the cut
E | on RU-10 | Possible rock-line 50° to Point F and 43° to Point G
F | possibly on RU-10 | Top of Cutslope Scarp SU-A down to Point B
G | on RU-10 | Top of Cutslope Scarp

Other survey notes
Top width of cut-slope failure about 20-feet HD
Top width of failure below the road at point G about 30-feet HD
Depth to RU-10 at failure edge at hinge point about 5-feet VD
north failure edge at hinge: rockline projected 8-feet HD towards the cut
Table Two – Coordinates of Control Points and Key Top/Bottom of Wall Locations

<table>
<thead>
<tr>
<th>Point</th>
<th>Top of Wall</th>
<th>Bottom of Wall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Northing</td>
<td>Easting</td>
</tr>
<tr>
<td>CP-1</td>
<td>5,000.00</td>
<td>10,000.00</td>
</tr>
<tr>
<td>CP-2</td>
<td>5099.36</td>
<td>10033.48</td>
</tr>
<tr>
<td>CP-3</td>
<td>4934.50</td>
<td>10054.99</td>
</tr>
<tr>
<td>Start of Top of Wall (Wall Station 0+07)</td>
<td>5054.59</td>
<td>10022.63</td>
</tr>
<tr>
<td>Bend in Wall (Wall Station 0+35; wall height - 16-feet)</td>
<td>5027.64</td>
<td>10015.52</td>
</tr>
<tr>
<td>Bend in Wall (Wall Station 0+51; wall height = 20-feet)</td>
<td>5011.81</td>
<td>10013.19</td>
</tr>
<tr>
<td>Bend in Wall (Wall Station 0+71; wall height = 10-feet)</td>
<td>4992.52</td>
<td>10018.83</td>
</tr>
<tr>
<td>End of Wall (Wall Station 0+87)</td>
<td>4977.88</td>
<td>10024.86</td>
</tr>
</tbody>
</table>
Looking north at proposed retaining wall site

Soil Unit F

Possible Rock Unit 10
Looking south at proposed retaining wall site

Soil Unit F
Looking northeast, down from road surface
Looking north at cut slope just north of fill slope failure
Looking west at cut slope directly above fill slope failure along critical section (depression made by failure of cut slope prior to fill slope failure)
Appendix B – Soil and Rock Unit Description

**Soil Unit A**

*Location:* Native soil above the native bedrock material  
*Description:* dry, loose, brown-gray, GM, typical max size 4 to 18-inches  
*Estimated Properties:* Not determined

**Soil Unit F**

*Location:* Found as sidecast/excavated material in the fill material  
*Description:* dry, loose, brown-gray, GM, typical max size 8 to 12-inches  
*Estimated Properties:* Not determined

**Rock Unit 10**

*Location:* Found under the surface above the top of the cut, in the face of the cut slope, and at the toe of the fill slope within the fill slope failure  
*Description:*

- **Weathering:** Visually fresh state but on planes of separation stained state  
- **Strength:** Visually fresh state is likely pit quality (8,000 to 15,000 psi unconfined strength) and stained state is likely dent quality (3,000 to 8,000 psi unconfined strength); difficult to determine reaction to hammer since the rock breaks easily along the latent planes of separation; for bearing capacity assume an unconfined compressive strength of 3000 psi  
- **Discontinuities:** 3-D planes of separation to latent planes of separation, 2-inch to 2-foot planes of separation  
- **Unit Weight:** estimated to be between 140 to 160pcf; for bearing capacity assume 150 pcf  
- **Unified Rock Classification:** BBE/CB  
- **Drill Core Quality:** unknown since not drilled; for bearing capacity assume 50%  
- **Condition of Discontinuities:** as noted above stained state along planes of separation and slightly rough to rough surfaces with < 1mm in separation  
- **Orientation of Discontinuities:** estimated to be horizontal  

*Estimated Properties:* the Rock Mass Rating System (RMR) would have a rating between 62 and 75 which equates to a cohesion of the rock mass of 7500 psf and a friction angle of 42 degrees (from Bieniawski, 1989 and Bhawani and Goel, 2011)  
*Nominal Bearing Resistance:* Using NAVFAC DM 7.2, Chapter 4 assume a continuous footing at the top of slope, b = 3-feet, B = 15.4-feet D= 0-feet, H> B, dry unit weight = 150 pcf, angle of internal friction (phi), degrees = 42, apparent cohesion = 7500 psf the ultimate bearing capacity (nominal bearing resistance) would then be 40,000 psf
Appendix C – Design Calculations
Road 5502 Retaining Wall Foundation
- Estimate of Rock Unit 10 Geomechanics Classification -

- based on Bieniawski (1976) \( \Rightarrow \) Rock Mass Rating (RMR)
  
- six parameters
  1) uniaxial compressive strength of rock material
  2) Rock Quality Designation (RQD)
  3) spacing of discontinuities
  4) condition of discontinuities
  5) ground water conditions
  6) orientation of discontinuities

- use attached Table 4 which gives rating for each designation; ratings are summed to obtain RMR

- uniaxial compressive strength of rock material
  - from reaction to ball peen hammer
    
    \[
    \begin{align*}
    \text{VFS pit quality} & \Rightarrow 8,000 \text{ to } 15,000 \text{ psi} & 55 \text{ to } 103 \text{ MPa} \\
    \text{STS drill quality} & \Rightarrow 3,000 \text{ to } 8,000 \text{ psi} & 21 \text{ to } 55 \text{ MPa} \\
    \text{for VFS rating} & = 7 \\
    \text{for STS rating} & = 4
    \end{align*}
    \]
Estimate of RMR

- Rock Quality Designation (RQD)
  not drilled but a professional estimate of 50%
  rating = 13

- Spacing of discontinuities
  from cut 2" to 2'
  50 mm to 0.6 m
  rating = 5 to 10

- Condition of discontinuities
  VRs to STS slightly rough to rough
  separation < 1 mm
  rating = 25 to 30

- Ground water condition
  none so rating = 15

- Orientation of discontinuities
  most appear to be horizontal, assume very favorable
  so rating = 0

- Sum of ratings
  4*0.7 + 13 + 5*10 + 25*30 + 15 + 0 = 62 low
  = 75 high
Estimate of RMR

- Shear strength parameters $c$ & $\phi$
  
  from Table 4

  $RMR = 62/75$
  
  $c = 300 \text{ to } 400 \text{ kPa}$
  
  $\phi = 35 \text{ to } 45^\circ$

  $\frac{62}{75} \rightarrow \frac{4}{5}$

  (Eng Rock Mass Classification)

  From Mehrotra, 1992 & Shear Strength of Rock Masses
  
  in 56 psia by Bhawani & Goel
  
  in 2011 (Fig 16.1)

  $\phi = 50^\circ$ for RMR $60^+$
  
  $c = 400 \text{ kPa}$ for RMR $60^+$

  un $\phi = 42^\circ$

  $c = 7500 \text{ psf}$ for foundation design
Road 5502. Retaining Wall Foundation
- Estimate of ultimate bearing capacity -

* based on NAVFAC DM 7.2 chapter 4, Sept 1986

* parameters
  - on slope
    - \( b = 3' \)
    - \( D = 0' \)
    - \( B = 15.4' \)
    - \( \beta = 45^\circ \)
    - \( \delta_{clay} = 150 \text{ psi} \)
    - \( \phi = 42^\circ \)
    - \( C = 7500 \text{ psf} \)
  - continuous \( f_t \) at top of slope

\[
Q_{ult} = C N_c + \frac{K B}{2} N_q + \frac{K B}{2} N_y \quad \text{NO}
\]

\[
= 7500 \text{ psf} + N_c + 0 + \frac{150 \times 15.4}{2} \times N_y
\]

\[
= 7500 N_c + 1155 N_y
\]

from Figure 4a of NAVFAC, \( B \leq H \)

\( 4b \)
Estimate of Ultimate Bearing Capacity

\[
N_c = 4 \quad \text{w}/N_0 = 0
\]

\[
N_x = 10 \quad \text{w}/\varphi = 40^\circ \text{ and } \beta = 40^\circ
\]

\[
q_{ult} = 7500 \text{psf}\ (4) + 1155 \text{psf}\ (10)
\]

\[
= 41,550 \text{psf}
\]

say 40,000 psf
# Rock Mass Classification

Table 4: Rock Mass Rating System (After Bieniawski 1989).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range of values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength of intact rock material</td>
<td></td>
</tr>
<tr>
<td>Point load strength index</td>
<td>&gt;10 MPa, 4 - 10 MPa, 2 - 4 MPa, 1 - 2 MPa</td>
</tr>
<tr>
<td>Uniaxial comp. strength</td>
<td>&gt;250 MPa, 100 - 250 MPa, 50 - 100 MPa, 25 - 50 MPa, 5 - 25 MPa, 1 - 5 MPa, &lt;1 MPa</td>
</tr>
<tr>
<td>Rating</td>
<td>15, 12, 7, 4, 2, 1, 0</td>
</tr>
<tr>
<td>Drill core quality RQD</td>
<td>90% - 100%, 75% - 90%, 50% - 75%, 25% - 50%, &lt;25%</td>
</tr>
<tr>
<td>Rating</td>
<td>20, 17, 13, 8, 3</td>
</tr>
<tr>
<td>Spacing</td>
<td>&gt;2 m, 0.5 - 2.0 m, 0.2 - 0.5 m, 0.1 - 0.2 m, 0.05 - 0.1 m, &lt;0.05 m</td>
</tr>
<tr>
<td>Rating</td>
<td>20, 15, 10, 5, 3</td>
</tr>
<tr>
<td>Condition of discontinuities</td>
<td>Very rough surfaces, Slightly rough surfaces, Separation &lt; 1 mm, Slightly weathered walls, Highly weathered walls, Slickensided surfaces or Gouge &lt; 5 mm thick, or Separation &gt; 1 mm, Continuous</td>
</tr>
<tr>
<td>Rating</td>
<td>30, 25, 20, 15, 10, 5, 3, 2</td>
</tr>
<tr>
<td>Inflow per 10 m tunnel length (litres)</td>
<td>None, &lt;10, 10 - 25, 25 - 125, &gt;125</td>
</tr>
<tr>
<td>Joint water pressure (Major principal e)</td>
<td>0, &lt;0.1, 0.1 - 0.2, 0.2 - 0.5, &gt;0.5</td>
</tr>
<tr>
<td>General conditions</td>
<td>Completely dry, Damp, Wet, Dripping, Flowing</td>
</tr>
<tr>
<td>Rating</td>
<td>15, 10, 7, 4, 0</td>
</tr>
</tbody>
</table>

## B. Rating Adjustment for Discontinuity Orientations (See F)

<table>
<thead>
<tr>
<th>Strike and dip orientations</th>
<th>Very favourable, Favourable, Fair, Unfavourable, Very Unfavourable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratings</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Tunnels &amp; mines</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Foundations</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Slopes</td>
<td>1, 2, 3, 4, 5</td>
</tr>
</tbody>
</table>

## C. Rock Mass Classes Determined from Total Ratings

<table>
<thead>
<tr>
<th>Class number</th>
<th>I, II, III, IV, V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Very good rock, Good rock, Fair rock, Poor rock, Very poor rock</td>
</tr>
</tbody>
</table>

## D. Meaning of Rock Classes

<table>
<thead>
<tr>
<th>Class number</th>
<th>I, II, III, IV, V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average stand-up time</td>
<td>20 yrs for 15 m span, 1 year for 10 m span, 1 week for 5 m span, 10 hrs for 2.5 m span, 30 min for 1 m span</td>
</tr>
<tr>
<td>Cohesion of rock mass (MPa)</td>
<td>&gt;400, 300 - 400, 200 - 300, 100 - 200, &lt;100</td>
</tr>
<tr>
<td>Friction angle of rock mass (deg)</td>
<td>&gt;45, 35 - 45, 25 - 35, 15 - 25, &lt;15</td>
</tr>
</tbody>
</table>

## E. Guidelines for Classification of Discontinuity Conditions

<table>
<thead>
<tr>
<th>Discontinuity length (perpendicular)</th>
<th>&lt; 1 m, 1 - 3 m, 3 - 10 m, 10 - 20 m, &gt; 20 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>6, 5, 4, 2, 1, 0</td>
</tr>
<tr>
<td>Separation (aperture)</td>
<td>None, &lt;0.1 mm, 0.1 - 0.2 mm, 0.2 - 0.5 mm, &gt;0.5 mm</td>
</tr>
<tr>
<td>Rating</td>
<td>6, 5, 4, 2, 1, 0</td>
</tr>
<tr>
<td>Roughness</td>
<td>Very rough, Rough, Slightly rough, Smooth, Slickensided</td>
</tr>
<tr>
<td>Rating</td>
<td>6, 5, 4, 3, 1, 0</td>
</tr>
<tr>
<td>Infilling (gouge)</td>
<td>None, Hard filling &lt; 5 mm, Hard filling &gt; 5 mm, Soft filling &lt; 5 mm, Soft filling &gt; 5 mm</td>
</tr>
<tr>
<td>Rating</td>
<td>6, 5, 4, 3, 1, 0</td>
</tr>
<tr>
<td>Weathering</td>
<td>Unweathered, Slightly weathered, Moderately weathered, Highly weathered, Decomposed</td>
</tr>
<tr>
<td>Rating</td>
<td>6, 5, 4, 3, 1, 0</td>
</tr>
</tbody>
</table>

## F. Effect of Discontinuity Strike and Dip Orientation in Tunnelling

<table>
<thead>
<tr>
<th>Strike perpendicular to tunnel axis</th>
<th>Strike parallel to tunnel axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive with dip - Dip 45° - 60°</td>
<td>Drive with dip - Dip 20° - 45°</td>
</tr>
<tr>
<td>Dips 45° - 50°</td>
<td>Dips 20° - 45°</td>
</tr>
<tr>
<td>Very favourable</td>
<td>Favourable</td>
</tr>
<tr>
<td>Drive against dip - Dip 40°-45°</td>
<td>Drive against dip - Dip 20°-45°</td>
</tr>
<tr>
<td>Dips 40°-45°</td>
<td>Dips 20° - Irrespective of strike</td>
</tr>
<tr>
<td>Fair</td>
<td>Unfavourable</td>
</tr>
<tr>
<td>Fair</td>
<td>Unfavourable</td>
</tr>
</tbody>
</table>

* Some conditions are mutually exclusive. For example, if infilling is present, the roughness of the surface will be overshadowed by the influence of the gouge. In such cases use A 4 directly.
** Modified after Wickham et al. (1973).
## Cost Summary

<table>
<thead>
<tr>
<th></th>
<th>Conifer</th>
<th>Hardwood</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Timber</td>
<td>$333,869.96</td>
<td>$0.00</td>
<td>$333,869.96</td>
</tr>
<tr>
<td>Sale Value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Work</td>
<td>($230,279.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertised Value</td>
<td></td>
<td></td>
<td>$103,590.96</td>
</tr>
</tbody>
</table>
Timber Sale Appraisal
North Lobster GNA
Sale CS-341-2022-GF8518-01

District: Coos
Date: May 05, 2022

Timber Description

Location: Portions of Sections 4, 5, 8, 9, 16, 17, and 21, Township 34S R13W, Willamette Meridian, Curry County Oregon.

Stand Stocking: 20%

<table>
<thead>
<tr>
<th>Specie Name</th>
<th>AvgDBH</th>
<th>Amortization (%)</th>
<th>Recovery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas - Fir</td>
<td>12</td>
<td>0</td>
<td>95</td>
</tr>
<tr>
<td>Western Hemlock / Fir</td>
<td>12</td>
<td>0</td>
<td>95</td>
</tr>
</tbody>
</table>

Volume by Grade

<table>
<thead>
<tr>
<th>Volume by Grade</th>
<th>2S</th>
<th>3S</th>
<th>4S</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas - Fir</td>
<td>46</td>
<td>1,255</td>
<td>1,018</td>
<td>2,319</td>
</tr>
<tr>
<td>Western Hemlock/Fir</td>
<td>10</td>
<td>60</td>
<td>33</td>
<td>103</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>1,315</td>
<td>1,051</td>
<td>2,422</td>
</tr>
</tbody>
</table>

Comments: Good Neighbor Authority sale

1. SOURCE OF POND VALUES
   Pond Values Used: Coos Region, March 2022.

2. PRICING FOR ANY SPECIES THAT DOES NOT HAVE ANY VOLUME LISTED IN THE APPRAISAL
   Port-Orford cedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
   $194/MBF = $750/MBF - $556/MBF

   Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:
   $144/MBF = $700/MBF - $556/MBF

3. PULP PRICE
   Pulp (Conifer and Hardwood) Price = $0.25/ton

4. IDENTIFY OTHER COSTS WITH PROFIT & RISK TO BE ADDED: Felling of unmerchantable material ($800), Brand and paint logs ($2423), Slash piling/landing cleanup/firewood sorting ($3625), Rig lift trees ($2250), Artificial guy anchors ($1000), plastic sheeting for slash piles ($1450), subsoiling roads ($18000), slash covering of subsoiled roads ($6000), Subsoiling landings ($5700), and Equipment move between areas ($2500). Total $47,398.

5. IDENTIFY OTHER COSTS WITH NO PROFIT & RISK ADDED: N/A

6. IDENTIFY SLASH DISPOSAL COSTS: N/A

7. IDENTIFY ROAD MAINTENANCE COSTS: Maintenance of USFS roads used under this contract.
### Logging Conditions

#### Combination# 1
- **Species**: Douglas - Fir 76.00%, Western Hemlock / Fir 76.00%
- **Logging System**: Cable: Small Tower <=40
- **Yarding Distance**: Long (1,500 ft)
- **Tree Size**: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
- **Loads / Day**: 5
- **Cost / MBF**: $297.97
- **Machines**: Log Loader (A), Stroke Delimber (A), Tower Yarder (Small)
- **Process**: Stroke Delimber
- **Downhill Yarding**: No
- **Bd. Ft / Load**: 3800

#### Combination# 2
- **Species**: Douglas - Fir 24.00%, Western Hemlock / Fir 24.00%
- **Logging System**: Shovel
- **Yarding Distance**: Medium (800 ft)
- **Tree Size**: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
- **Loads / Day**: 8
- **Cost / MBF**: $104.34
- **Machines**: Stroke Delimber (B)
- **Process**: Stroke Delimber
- **Downhill Yarding**: No
- **Bd. Ft / Load**: 3800
District: Coos
Date: May 05, 2022

## Logging Costs

<table>
<thead>
<tr>
<th>Operating Seasons:</th>
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<tbody>
<tr>
<td>Profit Risk:</td>
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</tr>
<tr>
<td>Project Costs:</td>
<td>$230,279.00</td>
</tr>
<tr>
<td>Slash Disposal:</td>
<td>$0.00</td>
</tr>
<tr>
<td>Other Costs (P/R):</td>
<td>$47,398.00</td>
</tr>
<tr>
<td>Other Costs:</td>
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### Miles of Road

<table>
<thead>
<tr>
<th>Dirt</th>
<th>Rock (Contractor)</th>
<th>Rock (State)</th>
<th>Paved</th>
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<tbody>
<tr>
<td>0.0</td>
<td>15.0</td>
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### Road Maintenance:
- $0.00

### Hauling Costs

<table>
<thead>
<tr>
<th>Species</th>
<th>$ / MBF</th>
<th>Trips/Day</th>
<th>MBF / Load</th>
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</thead>
<tbody>
<tr>
<td>Douglas - Fir</td>
<td>$0.00</td>
<td>2.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Western Hemlock / Fir</td>
<td>$0.00</td>
<td>2.0</td>
<td>3.8</td>
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### Logging Costs Breakdown

<table>
<thead>
<tr>
<th>Specie</th>
<th>Amortization</th>
<th>Pond Value</th>
<th>Stumpage</th>
<th>Amortized</th>
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</thead>
<tbody>
<tr>
<td>Douglas - Fir</td>
<td>$0.00</td>
<td>$698.20</td>
<td>$141.86</td>
<td>$0.00</td>
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<tr>
<td>Western Hemlock / Fir</td>
<td>$0.00</td>
<td>$603.88</td>
<td>$47.54</td>
<td>$0.00</td>
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</tbody>
</table>
## Summary

### Amortized

<table>
<thead>
<tr>
<th>Specie</th>
<th>MBF</th>
<th>Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas - Fir</td>
<td>0</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Western Hemlock / Fir</td>
<td>0</td>
<td>$0.00</td>
<td>$0.00</td>
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</tbody>
</table>

### Unamortized

<table>
<thead>
<tr>
<th>Specie</th>
<th>MBF</th>
<th>Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas - Fir</td>
<td>2,319</td>
<td>$141.86</td>
<td>$328,973.34</td>
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<td>Western Hemlock / Fir</td>
<td>103</td>
<td>$47.54</td>
<td>$4,896.62</td>
</tr>
</tbody>
</table>

### Gross Timber Sale Value

| Recovery:          | $333,869.96 |

Prepared By: Ryan Greco               Phone: 541-267-1742
TIMBER SALE SUMMARY

1. **Type of Sale**: Recovery sale, sealed bid auction of 269 acres of thinning.

2. **Revenue Distribution**: USFS Supplemental Project Agreement 18-GN-11061000-048
   Project GF8518-01 PCA 02604

3. **Sale Acreage**: For the sale, 269 net acres were used for the cruise expansion. Boundary posting encompasses 288 acres but includes 19 acres of poorly stocked timber that is not suitable for thinning. Acreage was determined with ArcGIS Pro.

4. **Volume**: The table below describes the volume by grade over the sale areas. The bid species is Douglas-fir by ton. A more detailed look of volume is available in the cruise report.

5. **Cruise Data**: The volume of the sale is estimated to be 2,423 MBF (5.6% sampling error), or 17,927 tons. The volume of sale areas will be more variable due to the smaller sample compared to the total volume sample. See the cruise report for more detail. Additional SuperAce reports available upon request.

6. **Timber Description**: All areas are predominantly Douglas-fir stands around 70-90’ tall and 12 inches diameter. The volume per acre is variable with portions of the stands having tanoak, western hemlock, and minor amounts of other tree species. These stands are 50 - 56 years old, having been harvested between 1966 and 1972. The merchantable species will be mostly Douglas-fir, with some western hemlock. The cruise report gives a breakdown of log lengths and scaling diameters by species for the areas in the cruise. Stand management objectives are to remove the smaller trees in suppressed and intermediate canopy positions and to release dominant and co-dominant trees and improve the quality of the residual stand.

7. **Topography and Logging Method**: The majority (76%) of the sale can be logged with cable logging equipment, while 24% can be ground based, operating on slopes 30% and less. Existing skid roads should be used whenever possible. Cable corridors will have to be planned carefully to maximize operability. See the detailed logging map which shows the logging plan. No new roads will need to be constructed, sufficient haul and skid roads are present on site. Historical aerial photographs from the prior harvest are available to assist with locating previously used skid trails and roads within the timber sale boundary.

8. **Access**: From Port Orford, proceed 3 miles north on Highway 101, turn right (east) onto Elk River Road. Proceed 14.8 miles on Elk River Road, turn right (south) onto USFS 5502 road for 11.1 miles until the 220 spur. Proceed south on the 220 road for 0.6 mile until you enter Area 1. The 223 road into Area 2, and 226 road through Area 2 is drivable. As of March 2022, the 220 is open to passenger vehicles shy of point P. Most spur roads are very brushy, though the 220 from point O to point V is accessible by ATV.

9. **Projects**: Road and landing construction and improvement, and construction of a retaining wall. Total cost for these projects is $230,279. Subsoiling Primary Skid Roads and New Construction as indicated on maps along with any primary skid roads used extensively enough to create a compacted road bed.

10. **Road Maintenance**: Normal road maintenance during operations.

11. **Other Costs**: Weed washing and slash piling, accounted for in the projects/appraisal.

12. **Slash Disposal**: Purchaser shall pile slash on landings and the tractor ground with an excavator or log loader or alternatively, spread slash throughout the units less than 18” in depth with a goal of 85% ground cover; sorting out firewood is required, utilize pieces of woody debris for down wood in the unit. USFS will burn the slash piles.
OREGON DEPARTMENT of FORESTRY CRUISE REPORT

1. **Acreage Calculation**: For the North Lobster GNA Timber Sale, there are 269 net cruise acres in the sale area determined by a combination of GPS traverse waypoints and ArcGIS Pro software. Net acres do not include the riparian management areas, regeneration areas within the stand, and low-stocked areas which were not cruised. The 19 acres of low stocked areas are within the timber sale boundary but likely lack necessary basal area to be treated. Purchasers may treat low stocked areas following the thinning prescription if sufficient basal area is present.

2. **Cruise Method**: Cruising was completed by ODF during January 2021. A variable plot cruise was conducted on the sale area.

3. **Sampling Intensity**:
   - # Plots: 101 Total Plots (31 Measured, 68 Count Plots, and 2 Blank Plots)
   - CV (BDFT): 86% (total)
   - SE (BDFT): 5.6% (total)
   As per ODF standards, total harvest volume of conifers (“take” trees) is estimated to be 17,927 tons ± 1,004 tons (2,423 MBF ± 136 MBF) at the 68% confidence level and a sampling error of 5.6%. The volume estimate will be within 16,923 tons and 18,931 tons 68% of the time.

4. **Computation Procedures**: Volume was computed using the SuperAce cruise program. Volumes reported are based on the Scribner Log Rule (West), and tonnage calculated by 7.4 tons per MBF.

5. **Form Factors**: Form factors (a ratio of diameter at 4 and 16 feet) were sampled across the diameter distribution in all strata.

6. **Height Standards**: Conifer trees were measured for total height with a laser rangefinder.

7. **Diameter standards**: Diameters were measured outside bark at breast height to the nearest inch.

8. **Grading System**: Trees were graded primarily as 34 foot segments lengths and according to the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group.

9. **Merchantable top**: Conifer were graded to a merchantable top specified by the official log scaling rules. 2S segments were graded to a 12” top inside bark, 3S to a 6” top, and 4S to a 5” top (inside bark).

10. **Deductions for Cull, Defect and Breakage**: All visible field cull was removed in the cruise computation. Additional volume was deducted for the anticipated amount of hidden cull and breakage during logging. The estimated volume reduction used for this anticipated loss to volume was 4%.

11. **Cruisers**: Cruising was performed by ODF foresters.

*ODF does not guarantee the volume of this or any other cruise. Prospective purchasers are advised to do their own cruise and sale volume calculations. Additional SuperAce Reports available upon request.*
ODF does not guarantee the volume of this or any other cruise. Prospective purchasers are advised to perform their own cruise and appraisal. These volumes reflect merchantable saw logs. A small amount of pulp logs could be harvested from the sale area.
## Summary of Construction Costs
### North Lobster GNA

### Project 1A: Road Improvement
**Points:** A - X  
**Length:** 44000’  
**Type:** Rocked Mainline

<table>
<thead>
<tr>
<th>Item</th>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road brushing</td>
<td>50</td>
<td>$100.00</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>Excavator, ditch cleaning + widening</td>
<td>16</td>
<td>$165.00</td>
<td>$2,640.00</td>
</tr>
<tr>
<td>Grader, maintenance grading</td>
<td>16</td>
<td>$90.00</td>
<td>$1,440.00</td>
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<tr>
<td>Dump Truck, end haul material</td>
<td>4</td>
<td>$100.00</td>
<td>$400.00</td>
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</table>

**Total Project 1A:** $9,480

### Project 1B: Road Improvement
**Points:** X - F  
**Length:** 13500’  
**Type:** Rocked Mainline

<table>
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<tr>
<th>Item</th>
<th>Hours</th>
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<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road brushing</td>
<td>5</td>
<td>$100.00</td>
<td>$500.00</td>
</tr>
<tr>
<td>Excavator, ditch cleaning + widening</td>
<td>4</td>
<td>$165.00</td>
<td>$660.00</td>
</tr>
<tr>
<td>Grader, maintenance grading</td>
<td>4</td>
<td>$90.00</td>
<td>$360.00</td>
</tr>
<tr>
<td>Dump Truck, end haul material</td>
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<td>$100.00</td>
<td>$0.00</td>
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</table>

**Total Project 1B:** $1,520

### Project 1C: Road Improvement
**Points:** F - J  
**Length:** 7400’  
**Type:** 14’ w/ditch

<table>
<thead>
<tr>
<th>Item</th>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>14</td>
<td>$100.00</td>
<td>$1,400.00</td>
</tr>
<tr>
<td>Excavator, ditch cleaning</td>
<td>16</td>
<td>$175.00</td>
<td>$2,800.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>4</td>
<td>$90.00</td>
<td>$360.00</td>
</tr>
<tr>
<td>Dump Truck, end haul excess material</td>
<td>10</td>
<td>$100.00</td>
<td>$1,000.00</td>
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</tbody>
</table>

**Total Project 1C:** $5,560

### Project 1D: Road Improvement
**Points:** J - P  
**Length:** 10600’  
**Type:** 14’ w/ditch

<table>
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<tr>
<th>Item</th>
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<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
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<td>$100.00</td>
<td>$2,500.00</td>
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<tr>
<td>Excavator, ditch cleaning</td>
<td>30</td>
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<td>Cat time - smooth landing surface &amp; compact</td>
<td>4</td>
<td>$165.00</td>
<td>$660.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>5</td>
<td>$90.00</td>
<td>$450.00</td>
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<tr>
<td>Dump Truck, end haul excess material</td>
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<tr>
<td>Laborer</td>
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<td>$38.00</td>
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</table>

**Total Project 1D:** $10,898

### Project 1E: Road Improvement
**Points:** P - V  
**Length:** 8400’  
**Type:** 14’ w/ditch

<table>
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<tr>
<th>Item</th>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>25</td>
<td>$100.00</td>
<td>$2,500.00</td>
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<tr>
<td>Excavator, ditch cleaning - road widening</td>
<td>35</td>
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<td>Cat time - smooth subgrade</td>
<td>10</td>
<td>$165.00</td>
<td>$1,650.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
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<td>$450.00</td>
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<td>Dump Truck, end haul excess material</td>
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<tr>
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**Total Project 1E:** $14,930
## Summary of Construction Costs
### North Lobster GNA

### Project 1F: Road Improvement
Points: J - JA  Length: 4300'  Type: 14' w/ditch

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<td>Brushing</td>
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<td>Excavator, ditch cleaning</td>
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<td>Cat time - smooth subgrade</td>
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<td>$165.00</td>
<td>$825.00</td>
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<td>Dump Truck, end haul excess material</td>
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### Project 1G: Road Improvement
Points: JA - JD  Length: 2250'  Type: 14' w/ditch

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</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>6</td>
<td>$100.00</td>
<td>$600.00</td>
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<tr>
<td>Excavator, ditch cleaning - road widening</td>
<td>15</td>
<td>$175.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>Cat time - smooth subgrade</td>
<td>4</td>
<td>$165.00</td>
<td>$660.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>4</td>
<td>$90.00</td>
<td>$360.00</td>
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<tr>
<td>Dump Truck, end haul excess material</td>
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<td><strong>Total Project 1G:</strong></td>
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</table>

### Project 1H: Road Improvement
Points: JB - JG  Length: 1600'  Type: 14' outsloped

<table>
<thead>
<tr>
<th>Task</th>
<th>Hours</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavator, road widening - stump removal</td>
<td>25</td>
<td>$175.00</td>
<td>$4,375.00</td>
</tr>
<tr>
<td>Cat time - smooth subgrade</td>
<td>10</td>
<td>$165.00</td>
<td>$1,650.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>5</td>
<td>$90.00</td>
<td>$450.00</td>
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<tr>
<td>Dump Truck, end haul excess material</td>
<td>10</td>
<td>$100.00</td>
<td>$1,000.00</td>
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<tr>
<td><strong>Total Project 1H:</strong></td>
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### Project 1I: Road Improvement
Points: M - MC  Length: 1300'  Type: 14' outsloped

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<th>Hours</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>1</td>
<td>$100.00</td>
<td>$100.00</td>
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<tr>
<td>Excavator, road widening - stump removal</td>
<td>15</td>
<td>$175.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>Cat time - smooth subgrade</td>
<td>10</td>
<td>$165.00</td>
<td>$1,650.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>2</td>
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<td>$180.00</td>
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<td>Dump Truck, end haul excess material</td>
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<td><strong>Total Project 1I:</strong></td>
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<td><strong>$4,955</strong></td>
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### Project 1J: Road Improvement
Points: O - QA  Length: 870'  Type: 14' outsloped

<table>
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<th>Task</th>
<th>Hours</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavator, road widening - stump removal</td>
<td>8</td>
<td>$175.00</td>
<td>$1,400.00</td>
</tr>
<tr>
<td>Cat time - smooth + widen subgrade</td>
<td>6</td>
<td>$165.00</td>
<td>$990.00</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>2</td>
<td>$90.00</td>
<td>$180.00</td>
</tr>
<tr>
<td><strong>Total Project 1J:</strong></td>
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<td></td>
<td><strong>$2,570</strong></td>
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### Project 1K: Road Improvement
Points: P - PC  Length: 3600'  Type: 14' outsloped
<table>
<thead>
<tr>
<th>Project 1L: Road Improvement</th>
<th>Points: Q - QA</th>
<th>Length: 350’</th>
<th>Type: 14’ outsloped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>1 hrs at $100.00 per hour</td>
<td>$100.00</td>
<td></td>
</tr>
<tr>
<td>Excavator, road widening</td>
<td>2 hrs at $175.00 per hour</td>
<td>$350.00</td>
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<tr>
<td>Cat time</td>
<td>2 hrs at $165.00 per hour</td>
<td>$330.00</td>
<td></td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>1 hrs at $90.00 per hour</td>
<td>$90.00</td>
<td></td>
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<tr>
<td>Dump Truck</td>
<td>0 hrs at $100.00 per hour</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Laborer</td>
<td>0 hrs at $38.00 per hour</td>
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<tr>
<td><strong>Total Project 1L:</strong></td>
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<td><strong>$870</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Project 1M: Road Improvement</th>
<th>Points: R - RA</th>
<th>Length: 450’</th>
<th>Type: 14’ outsloped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>1 hrs at $100.00 per hour</td>
<td>$100.00</td>
<td></td>
</tr>
<tr>
<td>Cat time</td>
<td>2 hrs at $165.00 per hour</td>
<td>$330.00</td>
<td></td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>1 hrs at $90.00 per hour</td>
<td>$90.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total Project 1M:</strong></td>
<td></td>
<td><strong>$520</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Project 1N: Road Improvement</th>
<th>Points: V - VD</th>
<th>Length: 1600’</th>
<th>Type: 14’ outsloped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>12 hrs at $100.00 per hour</td>
<td>$1,200.00</td>
<td></td>
</tr>
<tr>
<td>Excavator, road widening</td>
<td>10 hrs at $175.00 per hour</td>
<td>$1,750.00</td>
<td></td>
</tr>
<tr>
<td>Cat time</td>
<td>10 hrs at $165.00 per hour</td>
<td>$1,650.00</td>
<td></td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>4 hrs at $90.00 per hour</td>
<td>$360.00</td>
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</tr>
<tr>
<td>Laborer</td>
<td>5 hrs at $38.00 per hour</td>
<td>$190.00</td>
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<tr>
<td><strong>Total Project 1N:</strong></td>
<td></td>
<td><strong>$5,150</strong></td>
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</table>

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Brushing</td>
<td>4 hrs at $100.00 per hour</td>
</tr>
<tr>
<td>Excavator, widening</td>
<td>25 hrs at $175.00 per hour</td>
</tr>
<tr>
<td>Cat time</td>
<td>14 hrs at $165.00 per hour</td>
</tr>
<tr>
<td>Grader, final shaping</td>
<td>4 hrs at $90.00 per hour</td>
</tr>
<tr>
<td>Laborer</td>
<td>4 hrs at $38.00 per hour</td>
</tr>
<tr>
<td><strong>Total Project 1O:</strong></td>
<td></td>
</tr>
</tbody>
</table>

| **Total Project 1:**            |                      | **$87,085** |
# Summary of Construction Costs
## North Lobster GNA

### Project 2: Road Improvement

**Points:** Y to X  
**Length:** 70750’  
**Type:** Rocked Mainline

- **Road brushing**  
  10 hrs at $100.00 per hour = $1,000.00
- **Excavator, ditch cleaning + widening**  
  20 hrs at $165.00 per hour = $3,300.00
- **Grader, maintenance grading**  
  10 hrs at $90.00 per hour = $900.00
- **Dump Truck, end haul material**  
  2 hrs at $100.00 per hour = $200.00

**Total Project 2:** $5,400

### Project 3: Retaining wall construction

**Location:** Point E, Mile 9.2 on 5502 Rd.  
**Type:** Welded Wire Retaining Wall

- **Project 3A**  
  Mobilization per = $8,684.00
- **Project 3B**  
  Survey and Staking, per = $1,500.00
- **Project 3C**  
  Soil erosion & pollution control per = $800.00
- **Project 3D**  
  Clearing and grubbing, disposal of woody material per = $1,800.00
- **Project 3E**  
  Endhaul waste to disposal site at MM12.0  
  560 cubic yard at $8.00 per yard = $4,840.00
- **Project 3F**  
  Mechanically stabilized earth wall (welded wire face) with drainage features  
  880 square feet at $55.00 per foot = $48,400.00
- **Project 3G**  
  Select weed-free granular backfill - dependent on excavated material quality  
  560 cubic yard at $55.00 per yard = $30,800.00
- **Project 3H**  
  Contractor furnished mechanically stabilized earth wall design per = $2,500.00
- **Project 3I**  
  Road reconditioning roadbed per = $1,200.00
- **Project 3J**  
  Aggregate base, grading 1 inch minus  
  150 cubic yard at $84.00 per yard = $12,600.00
- **Project 3K**  
  Installation and procurement of 24-inch pipe culvert, aluminized-corrugated steel pipe, 16 gage  
  36 feet at $145.00 per foot = $5,220.00
- **Project 3L**  
  Geocomposite sheet drain system, complete with collector and outlet pipe  
  300 square yard at $15.00 per yard = $4,500.00
- **Project 3M**  
  Excavation with Rock Hammer  
  40 hours at $179.00 per hour = $7,160.00
- **Project 3N**  
  Seeding and mulching, dry method per = $1,500.00
- **Project 3O**  
  Temporary traffic control per = $1,600.00

**Total Project 3:** $132,744

### Move-in

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Miles</th>
<th>hrs/RT</th>
<th>Rate/hr</th>
<th>Total</th>
</tr>
</thead>
</table>

Page 4 of 5
## Summary of Construction Costs
### North Lobster GNA

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Hours</th>
<th>Hours</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavator</td>
<td>60</td>
<td>10</td>
<td>$125.00</td>
<td>$1,250.00</td>
</tr>
<tr>
<td>Cat</td>
<td>60</td>
<td>10</td>
<td>$125.00</td>
<td>$1,250.00</td>
</tr>
<tr>
<td>Brusher</td>
<td>60</td>
<td>7</td>
<td>$100.00</td>
<td>$700.00</td>
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<tr>
<td>Dump Truck</td>
<td>60</td>
<td>6</td>
<td>$100.00</td>
<td>$600.00</td>
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<tr>
<td>Grader</td>
<td>60</td>
<td>10</td>
<td>$125.00</td>
<td>$1,250.00</td>
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**Total Move-In**: $5,050

**Total Projects**: $230,279
### Additional "Other Cost" with additional profit and risk to be added:

<table>
<thead>
<tr>
<th>Units</th>
<th>Quantity</th>
<th>Cost/unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felling of unmerch material</td>
<td>acre</td>
<td>10</td>
<td>$80.00</td>
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<tr>
<td>Yarding and Loading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand and paint logs</td>
<td>MBF</td>
<td>2423</td>
<td>$1.00</td>
</tr>
<tr>
<td>Firewood sorting/slash piling/landing cleanup</td>
<td>landing</td>
<td>29</td>
<td>$125.00</td>
</tr>
<tr>
<td>Rig tail/lift trees</td>
<td>lift tree</td>
<td>15</td>
<td>$150.00</td>
</tr>
<tr>
<td>Artificial guy anchors (dozer, skidder)</td>
<td>anchor</td>
<td>2</td>
<td>$500.00</td>
</tr>
<tr>
<td>Cover landing slash piles w/sheeting</td>
<td>landing</td>
<td>29</td>
<td>$50.00</td>
</tr>
<tr>
<td>Equipment wash for ground operations</td>
<td>hrs</td>
<td>10</td>
<td>$65.00</td>
</tr>
<tr>
<td>Miscellaneous Costs</td>
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<td></td>
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</tr>
<tr>
<td>Subsoiling 20 inches - skid and temp roads</td>
<td>station</td>
<td>120</td>
<td>$150.00</td>
</tr>
<tr>
<td>Slash covering of subsoiled roads</td>
<td>station</td>
<td>120</td>
<td>$50.00</td>
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<tr>
<td>Subsoil 20 inches - Landings</td>
<td>landing</td>
<td>29</td>
<td>$300.00</td>
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<tr>
<td>Equipment move between areas</td>
<td>per hr</td>
<td>20</td>
<td>$125.00</td>
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Total additional "Other Cost" with additional profit and risk to be added: $47,398

### Additional "Other Cost" with no additional profit and Risk

<table>
<thead>
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<th>Units</th>
<th>Quantity</th>
<th>Cost/unit</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>yards</td>
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<td>$</td>
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Total additional "Other Cost" with no additional profit and Risk: $ -
## Operating Periods Restrictions Matrix for
### North Lobster GNA
**CS-341-2022-GF8518-01**

### Harvesting

<table>
<thead>
<tr>
<th>Activity</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground-based Yarding</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cable Yarding from unsurfaced landings or roads</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Internal combustion use in MaMu Seasonal Restriction areas (felling, yarding, etc.)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Internal combustion use in NSO Seasonal Restriction areas (felling, yarding, etc.)</td>
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<tr>
<td>Felling outside seasonal restriction areas</td>
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</table>

### Hauling

<table>
<thead>
<tr>
<th>Activity</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Hauling on 220 road south of Point J</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Haul on unsurfaced roads</td>
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</table>

### Project Work

<table>
<thead>
<tr>
<th>Activity</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects 1A, 1B, 1D, 1E, and 2 on surfaced roads outside Seasonal Restriction areas</td>
<td></td>
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</tr>
<tr>
<td>Project 1C, road improvement from Point J to Point P.</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Projects on surfaced roads inside Seasonal Restriction areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 1G, 1H, 1J, 1K, 1L, 1M, 1N on unsurfaced roads outside Seasonal Restriction areas</td>
<td></td>
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</tr>
<tr>
<td>Project 3 (5502 retaining wall)</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Internal combustion use in NSO Seasonal Restriction areas</td>
<td></td>
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</tr>
<tr>
<td>Internal combustion use in MaMu Seasonal Restriction areas</td>
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</tr>
</tbody>
</table>

- **Operations Allowed**
- **Activity Restricted 2 hours before sunset through 2 hours after sunrise**
- **Operations Prohibited - T & E**
- **Operations Prohibited for weather conditions: unless otherwise approved in writing by STATE**

Operating Matrix represents the seasonal restrictions contained within the body of the timber sale contract. See Section 2455 for further information on seasonal restrictions.
LOGGING PLAN 1 of 7

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.
Curry County, Oregon
Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit “A” map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
LOGGING PLAN 2 of 7

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.

Curry County, Oregon

Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
LOGGING PLAN 3 of 7

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.
Curry County, Oregon
Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit “A” map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
LOGGING PLAN 4 of 7

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.
Curry County, Oregon
Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit “A” map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.
Curry County, Oregon
Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.
LOGGING PLAN 6 of 7

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.
Curry County, Oregon
Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.

<table>
<thead>
<tr>
<th>Area</th>
<th>Low Stocked Acres</th>
<th>Harvest Acres</th>
<th>Total Acres</th>
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<td>31</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
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</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>269</td>
<td>288</td>
</tr>
</tbody>
</table>
LOGGING PLAN 7 of 7

Sale No. CS-341-2022-GF8518-01
North Lobster GNA

Section 4, 5, 8, 9, 16, 17, and 21
T34S, R13W, W.M.
Curry County, Oregon
Regulated Use Area SK-2
40 Foot Contours

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.