

## PROSPECTUS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
LAKEVIEW DISTRICT  
KLAMATH FALLS RESOURCE AREA OFFICE

KLAMATH FALLS RESOURCE AREA  
KLAMATH MASTER UNIT

Klamath Falls Sale No. ORL04-TS14-01  
Sale Date: **JULY 23, 2014**

**(10:00am)**

**Ham & Chase Timber Sale, Klamath County, O&C& PD Bid Deposit Required: \$10,000.00**

All timber designated for cutting in NW1/4,S1/2 Section15; Lots 1,2 Section 22; W1/2NE1/4, W1/2, W1/2SE1/4 Section 23; N1/2NE1/4 Section 27, T. 40S., R.7E., Willamette Meridian.

<u>Approximate Number of Trees</u>	<u>Species</u>	<u>Est. Volume MBF 16' Log</u>	<u>Appraised Price Per MBF*</u>	<u>Est. Volume Times Appraised Price</u>
18,069	White Fir	1,303	\$ 67.40	\$ 87,822.20
569	Douglas-Fir	41	\$137.80	\$ 5,649.80
2,596	Ponderosa Pine	144	\$ 30.00**	\$ 4,320.00
<b>21,234</b>	<b>TOTAL</b>	<b>1,488</b>		<b>\$ 97,792.00</b>

\*Stumpage values have been determined by analytical and market value appraisal methods. Additional information concerning the appraised price is available at the Klamath Falls Resource Area Office.

\*\*Minimum stumpage value was used to compute the appraised price for these species (stumpage prices were set at 10% of pond value)

**CRUISE INFORMATION - SAWLOG INFORMATION** - Timber Volumes were based upon 3-P Volt Cruise for estimating board foot volume of trees in 16 foot logs. Approximately 0% of the total sale volume is salvage material. With respect to merchantable trees of all conifer species: the average tree is 11.8 inches DBHOB; the average gross merchantable log contains 33 bd. ft.; the average tree contains approximately 78 bd. ft.; the total gross volume is approximately 1,666 M bd. ft.; and 89% recovery is expected.

Note: This timber sale has been cruised, appraised, and advertised based upon Scribner Board Foot Volumes (16 Foot Log). The minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$.10 per MBF. Cubic foot volumes by species are displayed for informational purposes only.

**LOG EXPORT AND SUBSTITUTION RESTRICTIONS** - All timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and is prohibited from use as a substitute for exported private timber.

**CUTTING AREA & Harvest Prescription** – Five (5) units containing approximately 571 acres of density management treatment.

**CUTTING TIME** - Contract duration will be twenty-eight (28) months for cutting and removal of timber.

**ACCESS** - Access to the sale area is available via existing BLM roads and via Right-of-Way and Road Use Agreement L-690 with JWTR LLC, and Road Use Agreement with Oregon Department of Forestry.

**ROAD MAINTENANCE** - The Purchaser will be required to maintain approximately ten (10) miles of existing BLM roads. The Purchaser will be required to pay a maintenance fee of \$4.93 per MBF or a total of \$7,323.01 for the use of these roads.

**ROAD CONSTRUCTION** - The contract will require the Purchaser to construct 8.4 stations of temporary road and renovate 925.5 stations. Additional information is available in the timber sale prospectus.

**SOIL DAMAGE PREVENTION** - Pursuant to Section 25 of Form 5450-3, Timber Sale Contract, the Purchaser shall not operate or cause to have operated on the contract area, any ground based logging equipment when soil moisture content exceeds 20% by weight as determined by a Speedy Moisture Meter. This requirement does not apply if snow logging conditions exist as described in the contract.

**EQUIPMENT REQUIREMENTS – LOGGING AND SITE PREPARATION:**

1. Mechanized harvesting equipment capable of cutting up to a 20 inch DBH tree and reaching a minimum of twenty (20) feet laterally.
2. At least one ground based yarding tractor shall be equipped with an integral arch and winch system capable of lining logs at least one hundred feet (100').
3. Mobile yarder with a locking carriage capable of 100 foot lateral yarding and one-end log suspension.

**SLASH DISPOSAL** - **Slash disposal will consist of:**

1. Except in the Cable Yarding Areas shown on Exhibit A, whole tree yarding is required on all trees designated for cutting.
2. In the Cable Yarding Areas all trees greater than twenty (20) inches DBH designated for cutting shall be felled, bucked and limbed up to the last log. The top shall remain attached to the last log and yarded except where excessive damage is occurring as determined by the Authorized Officer.

All other trees designated for cutting shall be felled and whole tree yarded.

3. In lieu of burning, unmerchantable timber (slash, limbs, tops, cull logs, pieces of logs, etc.) can be removed as biomass or other products. If unmerchantable timber is removed as biomass or other nontraditional products, a second contract will be used and the price of the material will be negotiated.

### **OTHER**

1. Extension of time beyond the normal 30 days may be granted for completing bonding and contract signing requirements upon written request and justification from the Purchaser.
2. All operations are seasonally restricted from October 15<sup>th</sup> of one calendar year to June 1<sup>st</sup> of the following calendar year, unless waived by the Authorized Officer or winter logging conditions exist.
3. Cut stumps of all species fourteen (14) inches in diameter and larger will be treated with a fungicide. The fungicide will contain a cement dye to help monitor application compliance.
4. Cable yarding will be required on approximately one-hundred sixty-five (165) acres. This will require a skyline system, with a locking carriage, capable of one-end suspension, and one hundred foot (100') lateral yarding.
5. All logging equipment will be cleaned prior to operating on BLM lands to prevent the spread of noxious weeds.

**CONTRACT TERMINATION** - A Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and/or to modify or terminate the contract when necessary to comply with the Endangered Species Act or comply with a court order. This contract provision limits the liability of the Government to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area.

**NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA** - The sale is located approximately twenty (20) miles west of Klamath Falls. From Klamath Falls, take Highway 66 west for approximately twelve (12) miles to Keno. Continue west on Highway 66 approximately one (1) mile to the Hamaker Mountain Road. Continue south the Hamaker Mountain Road approximately six (6) miles to the sale area.

**ENVIRONMENTAL ASSESSMENT** - An environmental assessment was prepared for this sale, and a Finding of No Significant Impact has been documented. This document is available for inspection as background information for this sale at the Klamath Falls Resource Area Office.

Notice of Decision for sale of timber dated June 25, 2014.

This advertisement includes:

**Date Mailed:** June 24, 2014

**Ham & Chase** (Lump Sum Sale)

**Sale Date:** July 23, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Klamath Falls Resource Area  
2795 Anderson Avenue, Building 25  
Klamath Falls, Oregon 97603

**TIMBER SALE NOTICE**

**NOTICE IS HEREBY GIVEN** that the Bureau of Land Management (BLM) will offer for sale timber as described herein for oral auction, pursuant to Instructions to Bidders, as stated on Form No. 5440-9 and subject to Notice of Requirement for Certification of Nonsegregated Facilities, Form No. 1140-4. Written and oral bids will be received by the Field Manager, or their representative, at the Bureau of Land Management, Klamath Falls Resource Area Office, 2795 Anderson Avenue, Building 25, Klamath Falls, Oregon, telephone (541) 883-6916. The timber sale will commence at 10:00 a.m. on July 23, 2014.

**A WRITTEN BID** on Form 5440-9 at not less than the appraised price on a unit basis per species and the required minimum bid deposit shall be required to participate in oral bidding for each tract.

**APPRAISED PRICES** are determined by analytical appraisal methods unless otherwise noted on individual timber sale notices.

**THE SUCCESSFUL BIDDER**, as a condition of award, will be required to complete and/or sign the following forms:

1. Form 1140-6, a certification that the bid was arrived at by the bidder or offeror independently, and was tendered without collusion with any other bidder or offeror.
2. Form 1140-7, Equal Opportunity Affirmative Action Program Representation, for all contracts over \$10,000.00.
3. Form 1140-8, Equal Opportunity Compliance Report Certification.
4. Form 5450-17, Export Determination.

**A PERFORMANCE BOND** in an amount not less than 20 percent of the total purchase price will be required for all contracts of \$2,500.00 or more, but the amount of the bond shall not be in excess of \$500,000.00, except when the Purchaser opts to increase the minimum bond as provided in 43 CFR 5451.2. A minimum performance bond of not less than \$500.00 will be required for all installment contracts less than \$2,500.00.

**QUALIFIED SMALL BUSINESS** concerns may apply to the Small Business Administration for a loan to provide financing for access road construction required under the terms of qualifying timber sale contracts

and necessary contract changes will be made. Approval of loan applications rests with the Small Business Administration and may be contingent upon availability of funds. Applicants for such loans shall notify the BLM of their intention to apply for such loan.

**LOG EXPORT AND SUBSTITUTION** All timber sales, including timber from Federal rights-of-ways, shall be subject to the restrictions relating to the export and substitution of unprocessed timber from the United States in accordance with P.L. 94-165 and 43 CFR 5400 and 5424 as amended.

**LOG EXPORT AND SUBSTITUTION RESTRICTIONS** Excepting Port-Orford-cedar, all timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and is prohibited from being used as a substitute for exported private timber.

The Bureau of Land Management (BLM) has revised the log export restrictions special provision to reduce the log branding and painting requirements. The new requirements include branding of one end of all logs with a scaling diameter of over 10 inches. All loads of 11 logs or more, regardless of the diameter of the logs, will have a minimum of 10 logs branded on one end. All logs will be branded on loads of 10 logs or less. One end of all branded logs will be marked with yellow paint. At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. The Purchaser shall bear any increased costs for log branding and painting.

**ADDITIONAL INFORMATION** concerning each timber sale tract described herein and a copy of the timber sale contract is available at the above Resource Area Office. The prospectuses for these timber sales are also available online at: <http://www.blm.gov/or/districts/lakeview/timbersales/index.php>

The prospectuses include maps and tables that cannot be made Section 508 compliant. For help with this data and information, please contact the above Resource Area Office.

**THE VOLUMES LISTED** herein are estimates only, based on 16-foot taper breaks, which must be taken into consideration if comparisons are made with volume predictions based on other standards. No sale shall be made for less than the total purchase price, without regard to the amount bid per unit, even though quantity of timber actually cut or removed or designated for taking is more or less than the estimated volume or quantity so listed.

**INSTALLMENT PAYMENTS** may be authorized for sales of \$500.00 or more. Required installments will be determined by BLM. For sales under \$500,000.00, installments will not be less than 10% of the total purchase price. For sales of \$500,000.00 or more, installment payments shall be \$50,000.00.

**A SALE DEPOSIT** equal to one installment is required prior to approval of the contract. This deposit must be made in cash or by check payable to the Department of Interior - BLM.

**AN IRREVOCABLE LETTER OF CREDIT (ILC)** may be used in place of bid bonds, performance bonds, and payment bonds. ILC's must be approved by the Authorized Officer prior to use and are subject to certain limitations. Contact the Klamath Falls Resource Area for further information.

**THE PURCHASER** is given no authority to enter upon or cross any private lands or to use any privately-owned property or improvements unless such rights are specifically covered in the contract stipulations. If the Purchaser desires to make any use of private property which is not specifically authorized by the contract, they must make the necessary prior-arrangements for such use with the landowner.

**PRIOR TO STARTING** any operations, the Purchaser or their designated representative will be required to meet with the Authorized Officer or their representative and the Contract Administrator for a pre-work conference. If a subcontractor is to be involved in the operation, the subcontractor must also be represented at the conference. If more than one subcontractor is to be involved in the operation, it may be necessary to have more than one pre-work conference unless all subcontractors can be present at one conference.

**PRIOR TO THE AWARD** of any timber sale, the BLM may require the high bidder to furnish such information as is necessary to determine the ability of the bidder to perform the obligations of the contract. The following information is required for first time high bidders bidding as:

1. Individuals
  - a. A Citizenship Affidavit, Form 5450-9.
  - b. A certified Financial Statement prepared no earlier than sixty (60) days prior to the sale date.
2. Partnerships or Unincorporated Associations
  - a. A Citizenship Affidavit, Form 5450-9, for each member of the partnership or association.
  - b. A copy of the partnership agreement, or if no formal partnership agreement, a letter showing the nature of the business conducted by the partnership, partnership term, and the name of the partner or partners authorized to execute timber sale contracts and performance bonds on behalf of the partnership.
  - c. A certified Financial Statement prepared no earlier than sixty (60) days prior to the sale date.
3. Corporations
  - a. A certified copy of the articles of incorporation and by-laws.
  - b. A certified copy of the resolution of the board of directors authorizing the officers to sign timber sale contracts and performance bonds on behalf of the corporation.
  - c. An original certificate from the Corporation Commissioner authorizing the corporation to transact business in the State of Oregon.
  - d. A certified Financial Statement prepared no earlier than sixty (60) days prior to the sale date.

Those bidders who have demonstrated poor performance, including recent contract defaults, may be required to provide additional performance assurances in the form of advanced payment and/or an increased performance bond as a condition for award of contract. These extraordinary requirements may be required on a case-by-case basis.

**PRE-AWARD QUALIFICATIONS** The higher bidder may be required to furnish information to determine the ability to perform the obligations of the contract. If the high bidder is determined not qualified, not responsible, or refuses to respond within five (5) days of a request for information pertaining to qualifications, the contract may be offered and awarded for the amount of the high bid to the highest of the bidders who is qualified, responsible, and willing to accept the contract.

**OTHER** 43 CFR Chapter 11 (10-1-92 Edition), Subpart 5442- Bidding Procedure.

§ 5442.3 Rejection of Bids; Waiver of Minor Deficiencies. When the Authorized Officer determines it to be in the interest of the Government to do so, he may reject any or all bids and may waive minor deficiencies in the bids or the timber sale advertisement. (38 CFR 6280, March 8, 1973)

**ENVIRONMENTAL ASSESSMENTS** were prepared for this sale, and a Finding of No Significant Impact has been documented. These documents are available for inspection as background for this sale at the Klamath Falls Resource Area Office.

## Section 41

### (A) Timber Reserved from Cutting

The following timber on the contract area is hereby reserved from cutting and removal under the terms of this contract and is retained as the property of the Government:

- (1) **AR-1** All timber on the Reserve Areas as shown on Exhibit A, all orange painted and/or posted trees which are on, or mark the boundaries of the Reserve Areas, and all orange trees within the cutting areas shown on Exhibit A.
- (2) **I-2** All timber except trees marked for cutting heretofore by the Government with green paint above and below stump height in all cutting areas, except area 23-2, as shown on Exhibit A.
- (3) **I-2** All timber except trees marked for cutting heretofore by the Government with yellow paint above and below stump height in cutting area 23-2 as shown on Exhibit A

## Section 42

### (A) Periodic Payment and First Installment Adjustment

- (1) Notwithstanding the provisions of Section 3 (b), the amount of the first installment may be reduced by the Government when the Contracting Officer requests the Purchaser to interrupt or delay operations for a period expected to last more than thirty (30) days during the operating season. Such interruption or delay must be beyond the Purchaser's control. Operating season shall be defined, for this purpose, as the time of year in which operations of the type required are normally conducted and not specifically restricted under the contract. The first installment may be reduced to five (5) percent of the installment amount listed in Section 3 (b), during the delay period. The Purchaser must request such a reduction in writing. When the Contracting Officer notifies the Purchaser that operations may proceed, the Purchaser shall have fifteen (15) days after such notification to return the first installment to the full value specified in Section 3 (b). Failure to return the first installment to the full value within the allotted time will be considered a material breach of contract. No timber shall be cut or removed from the contract area until the first installment is restored to the full amount.
- (2) Notwithstanding the provisions of Section 3 (b), adjustments in due dates for periodic payments may be made by the Government if the Contracting Officer interrupts or delays contract operations for a period expected to last at least thirty (30) days, and the interruption or delay is beyond the Purchaser's control. Any adjustment made shall provide the Purchaser with an equal amount of operating time as would have been available without the delay. The Purchaser shall request such adjustment in writing before the due date for a periodic payment contained in Section 3 (b).

**(B) Log Exports**

- (1) **LE-1** All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export under the United States in the form of unprocessed timber, and is prohibited from being used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as sawlogs, peeler logs and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8 ¾) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end-product uses; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timber, regardless of size, manufactured to standards and specifications suitable for end-product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for manufacturing of eight and three-quarters (8 ¾) inches in thickness or less; (6) shakes and shingles.

Substitution will be determined under the definition found in 43 CFR 5400.0-5(n).

The Purchaser is required to maintain and upon request to furnish the following information:

- (A) Date of last export sale.
- (B) Volume of timber contained in last export sale.
- (C) Volume of timber exported in the past twelve (12) months from the date of the last export sale.
- (D) Volume of Federal timber purchased in the past twelve (12) months from date of last export sale.
- (E) Volume of timber exported in succeeding twelve (12) months from date of last export sale.
- (F) Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a "Certificate as to Nonsubstitution and the Domestic Processing of Timber". The original of such certification shall be filed with the Authorized Officer. Additionally, when the other party is an affiliate of the Purchaser, the Purchaser shall update information under item (2) of Form 5450-17

(Export Determination) and file the form with the Authorized Officer.

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report) which shall be executed by the Purchaser. In addition, the Purchaser is required under the terms of this contract to retain for a three year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

Unless otherwise authorized in writing by the Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs with a scaling diameter (small end inside bark) of over 10 inches, prior to the removal of timber from the contract area. All loads of 11 logs or more will have a minimum of 10 logs clearly and legibly branded on one end regardless of the diameter of the logs. All logs will be branded on loads of 10 logs or less. One end of all branded logs to be processed domestically will be marked with a 3 square inch spot of highway yellow paint. The Purchaser will stop trucks for accountability monitoring at mutually agreed upon locations when notified by the Authorized Officer.

If multiple trailers (mule trains) are used, each bunked load shall be considered an individual load, and these guidelines will apply to each bunked load. If a flatbed stake trailer is used, each bundle will be treated as a separate load.

At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. Any increased costs for log branding and painting shall be the responsibility of the Purchaser.

In the event of the Purchaser's noncompliance with this subsection of the contract, the Authorized Officer may take appropriate action as set forth in Section 10 of this contract. In addition, the Purchaser may be declared ineligible to receive future awards of Government timber for a period of one year.

**(C) Logging**

- (1) **L-1** Before beginning operations on the contract area for the first time or after a shutdown of seven (7) or more days, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer in writing if they intend to cease operations for any period of seven (7) or more days.
- (2) **L-6** In all Cutting Areas, except the Cable Yarding Areas shown on Exhibit A, all trees designated for cutting, shall be felled and whole tree yarded except where excessive stand damage is occurring, as determined by the Authorized Officer. If damage is occurring, bucking and/or limbing will be required.

- (3) **L-6** In all Cable Yarding Areas as shown on Exhibit A, all trees greater than twenty (20) inches DBH designated for cutting shall be felled, bucked and limbed up to the last log. The top shall remain attached to the last log and yarded except where excessive damage is occurring as determined by the Authorized Officer. All other timber designated for cutting shall be felled and whole tree yarded. If damage is occurring, bucking and/or limbing will be required.
- (4) **L-7MC** Yarding on the areas designated herein and shown on Exhibit A shall be done in accordance with the yarding requirements or limitations for the designated area.

<u>Designated Area</u>	<u>Yarding Requirements or Limitations</u>
Entire Contract Area	Approval of landing locations and sizes shall be obtained from the Authorized Officer prior to landing construction.
Entire Contract Area	Landing size shall not exceed one-quarter (1/4) acre unless otherwise approved by the Authorized Officer.
Entire Contract Area	Winter yarding is allowed between October 15 and June 1, when one of the following conditions is present: <ul style="list-style-type: none"> <li>(a) Snow depth in the cutting unit averages twenty ( 20) inches or more.</li> <li>(b) The ground is frozen to a depth of six ( 6 ) inches or more</li> </ul>
Entire Contract Area	All log loading shall be done with boom type loaders.
Entire Contract Area	No tractor or wheel-type equipment shall be operated in or through streams shown on Exhibit A, except under special conditions approved in the logging plan.
All except Cable Yarding	The location of the skid roads shall be clearly designated on the ground, spaced at approximately 150 foot intervals, and approved by the Authorized Officer, prior to felling of timber to be yarded over that skid road. Existing skid roads will be utilized where possible.
All except Cable Yarding	All trees designated for cutting that cannot be felled with a mechanical harvester shall be felled to the lead of designated skid trails.
All except Cable Yarding	All trees twenty (20) inches DBH and smaller designated for cutting shall be felled and pre-bunched within forty (40) feet of and to the lead of designated skid trails with a mechanical harvester. The mechanical harvester must be capable of cutting up to a twenty (20) inch DBH tree and have an arm capable of reaching at least twenty (20) feet laterally. Mechanical harvester

operations shall be conducted only when soil moisture at a six (6) inch depth is twenty (20) percent or less, or winter logging conditions exist, as described below.

All except Cable Yarding	Yarding and Mechanical Harvesting shall be confined to periods when soil moisture is less than twenty (20) percent at a six ( 6 ) inch depth as measured by the Authorized Officer with a Speedy Moisture Meter, or when winter time yarding conditions are met. Yarding and Mechanical Harvesting will be suspended if soil damage is occurring, as determined by the Authorized Officer in accordance with Section 26.
All except Cable Yarding	Yarding equipment shall be operated only on skid roads approved by the Authorized Officer.
All except Cable Yarding	At least one yarding tractor or wheel- type equipment shall be equipped with an integral arch and winch system capable of lining logs at least one hundred (100) feet.
Cable Yarding Area	The location of skyline corridors shall be clearly designated on the ground, spaced approximately 150 foot intervals, and approved by the Authorized Officer, prior to felling of timber to be yarded over that corridor.
Cable Yarding Area	All trees designated for cutting shall be felled to the lead of the skyline corridors.
Cable Yarding Area	Yarding shall be done with a cable yarding system which will suspend one end of the log clear of the ground during inhaul on the yarding corridor.
Cable Yarding Area	A carriage is required which will maintain a fixed position on the skyline during lateral yarding and has a minimum lateral yarding capability of one hundred (100) feet.
Cable Yarding Area	The carriage shall be a minimum of fifteen (15) feet above the ground during lateral yarding.
Cable Yarding Area	Yarding corridors shall be perpendicular to the contours.
Cable Yarding Area	All logs/trees shall be cable yarded.
Cable Yarding Area	Prior to falling any timber in the cable yarding area, all tail/lift trees and/or intermediate support trees shall be identified by the Purchaser and approved by the Authorized Officer.

Special Cable Yarding Area In the Special Cable Yarding Area shown on Exhibit A, the Authorized Officer will locate approve the skyline corridors prior to felling and yarding.

- (5) **L-9** No tractor yarding landing shall be located on a surfaced (asphalt or graveled) road.
- (6) **L-18** No operations, except burning, shall be conducted on the contract area between October 15 of one calendar year and June 1 of the following calendar year, both days inclusive, except that winter logging is allowed as provided by Section 42 (C) (4). Dates may be adjusted or waived by the Authorized Officer according to weather conditions.
- (7) **L-18** Waterline valves adjacent to unit 15-1, as shown on exhibit A, shall be protected during harvest operations
- (8) **L-18** In cable yarding areas in units 15-1 and 23-1 proposed tail trees located on adjacent landowners (Oregon Department of Forestry or U.S. Fish and Wildlife Service) must be approved by the appropriate landowner prior to use.
- (9) **L-19** Prior to attaching any logging equipment to a reserve tree, the Purchaser shall obtain written approval from the Authorized Officer and shall take precautions to protect the tree from damage as directed in writing by the Authorized Officer.
- (10) **L-23** Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer written approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. A prework conference must be held between the Purchaser's Authorized Representative and the Authorized Officer before the logging plan will be approved. All logging shall be done in accordance with the plan developed by this provision.
- (11) **L-26** In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred fifty (150) feet of the unit boundaries and roads shall be felled away from the unit boundaries and roads. The Purchaser shall be responsible for immediately repairing any asphalt or other resources designated for protection.
- (12) **L-33** In accordance with the requirements of Sec. 8 of the contract it has been determined that it is in the best interest of the Government and within the provisions of 43 CFR 5402.0-6 to sell additional timber located in the contract area which is; obstructing needed skid roads and cable yarding roads, hazardous to workers, needed for guyline, tailhold, and/or tieback trees, and severely damaged from the normal conduct of felling or yarding operations to meet all applicable State safety laws, codes or regulations. This timber must be cut or removed so that the Purchaser can continue active falling and yarding operations. The Purchaser is, therefore, authorized to cut and remove such additional timber in accordance with the provisions of Section 8 of the contract: provided, however, that:

- (a) Trees reserved for the tree improvement program and trees reserved for the wildlife habitat objectives under Sec. 41 of the contract are not included in the authorization.
- (b) The Purchaser shall identify each tree sold and cut in accordance with this provision by marking the surface of the stump immediately after cutting with a large "X", cut with a chain saw, and by hanging yellow ribbon so that the stump can be visually located from a distance of not less than one hundred (100) feet.
- (c) The volume and price for such timber shall be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and paid for by the Purchaser in accordance with Sec. 3(b) or 3(f) of the contract as required by Sec. 8 of the contract.
- (d) No timber may be cut or removed under the terms of this provision if all contract payments required by Sec. 3(b) or 3(f) of the contract have been made.
- (e) The permission to cut and remove additional timber contained in this provision may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser:

- (1) failed to properly mark any stump with the "X" cut.
- (2) failed to identify the location of any stump.
- (3) cut any tree that was reserved for tree improvement and/or wildlife habitat.
- (4) cut any tree in or adjacent to cable yarding corridors that was not necessary to facilitate cable yarding.
- (5) cut any reserve tree in or adjacent to tractor skid roads that was not necessary to facilitate ground based yarding.
- (6) failed to properly segregate any pulled over tree that was yarded to the landing.
- (7) cut any reserve tree that was not severely (as defined during the prework conference and documented in the approved logging plan) damaged from felling and yarding operations.
- (8) cut more than the minimum number of trees necessary to properly serve as guyline anchor stumps.
- (9) cut or topped more than the minimum number of trees necessary to properly serve as tailhold trees.
- (10) cut more than the minimum number of trees necessary to properly serve as tie-backs for topped tailhold trees.
- (11) failed to maintain accurate and current (no more than 24 hours old) documentation of cut and removed timber.

If the permission to cut and remove additional timber provision is withdrawn, the Authorized Officer shall deliver to the Purchaser a written notice that additional sale of timber under this special provision is no longer approved.

If the permission to cut and remove additional timber provision is withdrawn, the Purchaser shall inform the Authorized Officer at least two working days prior to

the need for cutting and yarding any guyline tree, tailhold tree, tie-back tree, danger tree, corridor tree, pulled over tree, and severely damaged tree. All sales of additional timber shall comply with Section 8 of the contract. The Contracting Officer may order the Purchaser, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the Government to safely measure and mark additional timber.

All cable-yarding and/or ground based equipment skid roads upon which timber may be cut and removed in accordance with this special provision must be needed for the removal of timber sold under this contact and shall be limited to the narrowest width necessary for the yarding of logs with minimum damage to reserved trees.

The Purchaser shall be liable for damages in accordance with Sec. 13 of the contract for any reserved timber cut or removed in violation of the terms of this special provision.

**(D) Road Use and Maintenance**

- (1) **RC-1a** The Purchaser shall improve and/or renovate all roads and other structures in strict accordance with the plans and specifications shown on Exhibit C, which is attached hereto and made a part hereof.
- (2) **RC-1b** Prior to removal of any timber tributary to a road system, the Purchaser shall complete all construction, improvement, or renovation of structures and roads of that system as specified in Exhibit C.
- (3) **RC-2** The Purchaser is authorized to use the roads listed below and shown on Exhibit D which are under the jurisdiction of the Bureau of Land Management, for the removal of Government timber sold under the terms of this contract and/or the hauling of rock as required in Exhibit C, provided that the Purchaser pays the required maintenance obligations described in Section 42 (D)(5) (RC-2c). Any road listed below and requiring improvement or renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the improvement or renovation from the Authorized Officer. The Purchaser shall pay current Bureau of Land Management maintenance fees for the sale of additional timber under modification to this contract.

Road No. and Segment	Length Miles Used	Road Control / Maintenance Responsibility	Road Surface Type
40-7E-1.0	7.83	Bureau of Land Management	BST

- (4) **RC-2a** The Purchaser is authorized to use the roads listed below and shown on Exhibit D which are under the jurisdiction of the Bureau of Land Management for the removal of Government timber sold under the terms of this contract and/or hauling of rock as required in Exhibit C, provided that the Purchaser complies with the conditions set forth in Section 42 (D)(8)(RC-2h) and pays the required maintenance obligation described in Section 42 (D)( 5)(RC-2c). The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modifications to this contract.

<b>Road No. and Segment</b>	<b>Length Miles Used</b>	<b>Road Control / Maintenance Responsibility</b>	<b>Road Surface Type</b>
40-7E-15.0	0.61	BLM-State / Purchaser	NAT
40-7E-15.1	0.66	BLM-State / Purchaser	ASC
40-7E-15.2	0.79	BLM-State / Purchaser	ASC
40-7E-15.3	1.4	BLM / Purchaser	ASC
40-7E-15.4	1.59	BLM / Purchaser	ASC
40-7E-15.5	0.35	BLM/Purchaser	NAT
40-7E-15.6	0.3	BLM/Purchaser	NAT
40-7E-15.7	0.31	BLM-State / Purchaser	NAT
40-7E-17.0	0.5	BLM- JWTR/Purchaser	NAT
40-7E-22.1	1.77	BLM/Purchaser	NAT
40-7E-23.1	0.28	BLM/Purchaser	NAT
40-7E-23.2	0.2	BLM/Purchaser	NAT
40-7E-23.3	0.33	BLM/Purchaser	NAT
40-7E-23.4	0.19	BLM/Purchaser	NAT

- (5) **RC-2c** The Purchaser shall pay the Government a road maintenance obligation in the amount of ten thousand four hundred sixty dollars and thirty-two cents (\$7,323.01) for the transportation of timber included in the contract price required under the terms of the contract over road or roads listed in Section 42 (D)(3)(RC-2) and Section 42 (D)(4)(RC-2a).

The above road maintenance amount is for the use of ten (10) miles of road or less. Unless the total maintenance amount is paid prior to commencement of operations on the contract area, payments shall be made in installments payable in the same manner as and together with payments required in Section 3 of this contract.

- (6) **RC-2d** The Purchaser shall be authorized to use other roads not included in Section 42 (D)( 3)(RC-2) and/or Section 42 (D)( 4)(RC-2a); provided, that in the use of such roads, the Purchaser shall notify private timber company and execute a license agreement and pay the required fees before hauling timber.
- (7) **RC-2f** The Authorized Officer may at any time by written notice, terminate the Purchaser's operator road maintenance obligations and require instead payment of current Bureau of Land Management road maintenance fees for the particular surface type of the road(s) involved. These fees will be applied to the remaining contract volume on the sale area to be transported over road or roads listed in Section 42(D)(4) (RC-2a). The Purchaser shall pay the total maintenance amount for said road(s) within thirty (30) days following receipt of written notice; provided, however, that if the total amount exceeds five hundred and no/100 (\$500.00) dollars, the Purchaser may elect to make payments in installments in the same manner as and together with payments required in Section 3 of this contract, which is attached hereto and made a part hereof.
- (8) **RC-2h** The Purchaser shall perform any required road repair and maintenance work on roads used by him under the terms of Exhibit D, "Road Maintenance Specifications", of this contract, which is attached hereto and made a part hereof.
- (9) **RC-3** In the use of road number 40-7E-17.0, the Purchaser shall comply with conditions of Right-of-Way and Road Use Agreement No. L-690 between JWTR LLC and the Bureau of Land Management. This document is available for inspection at the Bureau of Land Management, Klamath Falls Office Resource Area Office, 2795 Anderson Ave., Bldg. 25, Klamath Falls, Oregon 97603.
- (10) **RC-3** In the use of roads number 40-7E-15.0, 40-7E15-1, 40-7E-15.2, and 40-7E-15-7, the purchaser shall execute and comply with conditions of the license agreement with the Oregon Department of Forestry. This document is available for inspection at the Bureau of Land Management, Klamath Falls Resource Area office, 2795 Anderson Ave., Bldg. 25 Klamath Falls, Oregon 97603
- (11) **Road Barricades** In addition to the requirements set forth in Section 26 of this contract, the Purchaser shall barricade roads as specified by the Authorized Officer. Barricade locations and specifications are shown on Exhibit D.
- (12) **RC-8** The Purchaser shall be required to secure written approval to use vehicles or haul equipment over Government owned or controlled roads and/or structures when that vehicle or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit.

Details of such equipment shall be furnished to the Authorized Officer for evaluation of load characteristics, at least fifteen (15) days prior to proposed move in.

Details shall include:

1. Axle weights when fully loaded
2. Axle spacing
3. Transverse wheel spacing
4. Tire size

5. Outside width of vehicle
6. Operating speed
7. Frequency of use
8. Special features (e.g. running tracks, overhang loads, etc...)

The Purchaser shall be responsible for repair of any damage to roads or structures caused by the use of overweight or over-dimension vehicles (1) without written approval, (2) in violation of the conditions of a written approval, or (3) in a negligent manner. The amount of actual damage shall be determined by the Authorized Officer following a technical inspection and evaluation.

**(E) Environmental Protection**

- (1) **E-1** In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall conduct all operations in a manner that minimizes damage to conifer reproduction and all other reserved trees regardless of size or merchantability.
  - (2) **E-1** In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall insure that all logging equipment is cleaned off prior to operating on BLM lands. Removal of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts is required and may be accomplished with a pressure hose.
  - (3) **E-1** In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall remove slash and debris from roadways and landings concurrently with yarding as directed by the Authorized Officer.
  - (4) **E-1** In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall treat with a fungicide, as prescribed in this section, the stumps of all trees cut in the contract area having a diameter of fourteen (14) inches or larger in the following manner:
    - (a) Each stump shall be treated immediately after cutting.
    - (b) Treatment shall consist of application of fungicide to the sawn face of the stump. Minimum amount of fungicide to be applied shall be one-eighth (1/8th) inch thick over the entire sawn face of the stump.
    - (c) The fungicide used shall be provided by the Purchaser and approved by the Authorized Officer. The fungicide presently approved for use is SPORAX made by the Wilbur-Ellis company. The fungicide will contain a cement dye to help monitor application compliance.
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- (d) Dumping or cleaning of containers in streams or other bodies of water will not be permitted. Containers must be removed from the area and disposed of in conformance with Federal and Oregon State statutes.
  - (e) Fungicide treatment shall be performed at the direction of the Authorized Officer and to his satisfaction.
  - (5) **E-2** The water bars to be constructed as required by Section 26 (c) shall be constructed in designs and locations as directed by the Authorized Officer. Water bars shall be constructed within twenty-four (24) hours when so directed by the Authorized Officer.
  - (6) **E-2** No refueling, fuel storage, vehicle maintenance, or other operations that could spill fuel, lubricants, or chemicals shall be conducted within streams as shown on Exhibit A.
  - (7) **E-4** The Purchaser shall immediately discontinue specified construction or timber harvesting operation upon written notice from the Contracting Officer that:
    - (a) threatened or endangered plants or animals protected under the Endangered Species Act of 1973, as amended, may be affected by the operation, and a determination is made that consultation or reinitiation of consultation is required concerning the species prior to continuing operation, or;
    - (b) when, in order to comply with the Endangered Species Act, the Authorized Officer determines it may be necessary to modify or terminate the contract, or;
    - (c) federal proposed, federal candidate, Bureau sensitive or State listed species protected under BLM Manual 6840 Special Status Species Management - have been identified, and a determination is made that continued operations would affect the species or its habitat, or;
    - (d) other active raptor nests have been discovered, and a determination is made that continued operations under this contract would adversely affect the present use of the discovered nesting area by the raptor, or;
    - (e) when, in order to comply with a court order which enjoins operations on the sale or otherwise requires the Bureau of Land Management to suspend operations, or;
    - (f) when, in order to comply with a court order, the Authorized Officer determines it may be necessary to modify or terminate the contract.
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Those operations necessary for a safe removal of personnel and equipment from the contract area and those directed by the Contracting Officer which are required in order to leave the contract area in an acceptable condition will be permitted. Discontinued operations may be resumed upon receipt of written instructions and authorization by the Contracting Officer.

During any period of suspension, the Purchaser may withdraw performance and payment bond coverage aside from that deemed necessary by the Authorized Officer to secure cut and/or removed timber for which the Bureau of Land Management has not received payment, and/or unfulfilled contract requirements associated with harvest operations that have already occurred and associated post-harvest requirements.

In the event that operating time is lost as result of the incorporation of additional contract requirements, or delays due to Endangered Species Act consultation with the U. S. Fish and Wildlife Service or U. S. National Marine Fisheries Service, or court injunctions, the Purchaser agrees that an extension of time, without reappraisal, will constitute a full and complete remedy for any claim that delays due to the suspension hindered performance of the contract or resulted in damages of any kind to the Purchaser.

The Contracting Officer may determine that it is necessary to terminate cutting and removal rights on this contract in order to comply with the Endangered Species Act or comply with a court order. Following the issuance of a written notice that cutting and removal rights will be terminated, the Purchaser will be permitted to remove timber cut under the contract, if allowed by the Endangered Species Act or court order requirements necessitating the termination.

In the event cutting and removal rights are terminated under this subsection, the Purchaser agrees that the liability of the United States shall be limited to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area. This calculation of liability shall utilize actual Purchaser costs and Government estimates of timber volumes. At the Authorized Officer's request, the Purchaser agrees to provide documentation of the actual costs incurred in the performance of the contract. In addition, the Purchaser shall be released from the obligation to pay the contract price for any timber which is not authorized to be removed from the contract area.

**(F) Fire Prevention and Control**

( 1 ) **F-1a** Fire Prevention and Control Primarily for purposes of fire prevention and control, the Purchaser shall comply with the following provisions.

( a ) Prior to the operation of power driven equipment in construction of logging

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operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the State of Oregon, Department of Forestry.

- ( b ) Provide and maintain in good repair, on the contract area, all equipment as specified in Exhibit F-1, which is attached hereto and made a part hereof, for use during closed fire season or periods of fire danger.
- ( c ) The Purchaser shall restrict operations, and provide the services of a fire watchman, during periods of fire danger as specified in Exhibit F-2 which is attached hereto and made a part hereof.

**(G) Slash Disposal and Site Preparation**

- (1) **SD-4 Logging Residue** In addition to the requirements of Sections 15 and 26 of this contract, and notwithstanding the Purchaser's satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the State's willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following hazard reduction measures required by this contract:
    - (a) **Definitions** - Slash, as defined for this section, shall mean all woody material (brush, limbs, tops, logs, chunks, and severed trees) not removed from the contract area during the primary removal operation. This includes old slash existing prior to timber sale entry. Landing, as defined for this section, shall mean any location where woody material was loaded on trucks and also any other location that became a destination for yarded woody material.
    - (b) **SD-1ix Landing Piling** Pile all slash located within one hundred (100) feet of landings and designated locations for placement of gross yarded material. Slash shall be piled with a grapple/shovel loader. Finished piles shall be tight and free of earth. No portion of any pile will be located under the crown of any live or other reserve trees. A four (4) foot wide, fuel free area shall be cleared around each pile. Unmerchantable logs at landings sixteen (16) inches in diameter and larger at the small end shall be used to block skid trails.
  - (2) **SD-2** Notwithstanding the provisions of Section 15 of this contract, the Government shall assume all obligations for disposal or reduction of fire hazards created by Purchaser's operations on Government lands, except for the provisions of Section 41 (G)(1) and except for burning and mop-up assistance as required herein. In
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accordance with written instruction to be issued by the Authorized Officer at least ten (10) days in advance of earliest date of required performance, the Purchaser shall, under supervision of the Authorized Officer or designated representative, assist in preparing units and landing slash for burning, ignition, mop-up, and patrol by furnishing, at the Purchaser's own expense the services of personnel and equipment on each unit as shown below:

### **Chipping In Lieu Of Burning Slash Piles**

- (a). The purchaser may remove and utilize non-sawlog forest products by submitting a written or verbal request to the Government.
- (b). The Government may execute a separate negotiated forest product/vegetative sale permit under 43 CFR 5400. Payment under the permit must be at a price equal to or greater than the appraised value of the forest product.
  - (1) The purchaser must make any appropriate payment specified in the vegetative sale contract before removal may be authorized.
  - (2) This contract will contain a separate expiration date and stipulations as determined by the Authorized Officer.
    - a. The contract must include stipulations that require the purchaser to report quantity of non-sawlog material removed (i.e. tons of biomass).
- (c). If the landing piles are chipped, all burning requirements will be waived.

### **(H) Equal Opportunity in Employment**

Certification of Nonsegregated Facilities attached hereto and made a part hereof.

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**Exhibit F-1**

Section 15 of this contract provides that the Authorized Officer may, under certain conditions, require fire prevention and control measures in addition to those required by applicable (State) laws and regulations. Accordingly:

- (A) The Authorized Officer may by written notice require the Purchaser to restrict operations in accordance with the industrial fire precaution levels below (however, purchaser may also be required to restrict operations in accordance with closures on lands protected by Oregon Department of Forestry (ODF) which include those within the Klamath Falls Resource Area located west of Langell Valley). During periods of fire danger the precaution level will be determined by the Lakeview District Office and will be available daily.

IFPL LEVEL

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|-----|-------------------|--|
| I   | Closed Season     | -Fire precaution requirements are in effect.<br>-Watch person is required for one (1) hour.  |
| II  | Partial hoot owl  | - the following may operate from only between the hours of 8:00 P.M. and 1:00 P.M. local time:<br><br>Power saws, except at loading sites;<br>Cable yarding;<br>Blasting;<br>Welding or cutting metal.   |
| III | Partial shutdown  | - the following are prohibited except as indicated:<br><br>Cable yarding - except that gravity operated logging systems employing non-motorized carriages may operate between the hours of 8:00 p.m. and 1:00 p.m. local time when all blocks and moving lines are ten (10) feet or more above the ground, except the line between the carriage and the choker.<br><br><u>Power saws</u> - except power saws may be used at loading sites and on tractor/skidder operations between the hours of 8:00 p.m. and 1:00 p.m. local time.<br><br>In addition, the following are permitted to operate between the hours of 8:00 p.m. and 1:00 p.m. local time: <ul style="list-style-type: none"> <li>▪ Tractor/skidder operations;</li> <li>▪ Mechanized loading and hauling of any product or material;</li> <li>▪ Blasting;</li> <li>▪ Welding or cutting metal;</li> <li>▪ Any other spark-emitting operation not specifically mentioned.</li> </ul> |
| IV  | General shutdown- | All operations are prohibited.   |
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- (B) The Purchaser will provide fire watchman services for three (3) hours after daily shutdowns of areas of operation, including truck haul routes through the sale area and other areas where Purchaser's employees or contractors have worked on or with power driven equipment, whenever any of the following conditions apply:
- (1) the BLM industrial fire precaution level is II or greater;
  - (2) directed in writing by the Authorized Officer;
  - (3) required by State law.

The fire watchman shall be physically capable, alert and have adequate experience to perform the following duties:

- (1) operate Purchaser's communications and fire fighting equipment specified in the contract;
  - (2) direct the Purchaser's personnel on forest fires;
  - (3) report any fire detected to the Bureau of Land Management or Oregon State Division of Forestry;
  - (4) move throughout the operation area constantly on the lookout for fires and take suppression action on any fire detected.
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**Exhibit F-2**Fire Prevention and Control Equipment Requirements

The Purchaser shall provide and maintain in good repair, in the contract area, the following equipment for use during closed fire season or periods of fire danger:

- (a) **F-2** Fire fighting tools shall be kept at each landing or at such other place as the Authorized Officer shall designate whenever people are working in the contract area. All fire fighting tools shall be kept in a sturdily constructed box which shall be painted red and lettered on the front or top in large letters, "FOR FIRE ONLY".

The box shall have a hinged lid and a hasp by which the lid can be sealed. One box may serve two landings not over six hundred (600) feet apart. When filled, the box shall not weight over two hundred (200) pounds. The fire tools shall be in good condition, be tight on strong handles, and have sharp cutting edges. There shall not be less than four (4) tools in each box not less than one (1) tool for each person working in the contract area. The fire tools shall be used only for fighting fire.

- (b) **F-2b** A round pointed shovel in good condition which has a face at least 8" wide with a handle at least 26" long, shall be within fifty (50) feet of any power saw when in operation.
- (c) **F-2c** At each landing during periods of operation one (1) tank truck. Each truck shall have three hundred (300) gallons minimum capacity with five hundred (500) feet minimum of hose and a nozzle acceptable to the Authorized Officer and a mounted or portable pump conforming to the standards set forth in Oregon Revised Statute (ORS) 476.410 through ORS 476.440 and any rule promulgated pursuant to those statutes. All hose couplings shall have the standard thread adopted by the State Fire Marshall pursuant to ORS 476.410 as amended or be provided with suitable adapters. At the close of each working day, all bulldozers and tank trucks shall be filled with fuel and made ready for immediate use. All tank trucks and portable tanks shall be filled with water and made available for immediate use.
- (d) **F-2d** Serviceable radio or radio-telephone equipment able to provide prompt and reliable communication between the contract area and Klamath Falls, Oregon. Such communication shall be available during periods of operation including the time watch-service is required.
- (e) **F-2e** During declared fire season and if and when harvested chip material is curing on the sale, one dozer complete with qualified operator, angle blade, lowboy, and transport shall be located within one (1) hour transport time, fifteen (15) minute dispatch time during daylight hours, two (2) hours dispatch time nighttime hours, for the suppression of wildfire in the contract area. The Dozer and Transport shall be fueled and equipped for immediate use.

In addition, a pair of headlights capable of being quickly attached to each dozer used in the

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contract area shall be required. The headlights shall be adequate to provide illumination sufficient to allow use of the dozers for fire fighting and construction of fire trails at night.

- (f) **F-2h** A chemical fire extinguisher of at least eight (8) ounces minimum capacity of a type approved by the Oregon State Forester shall be carried during the closed fire season or periods of fire danger by each saw operator using a power saw in the contract area. Such fire extinguisher shall be filled and in effective operating condition and shall at all times be immediately available to the operator when the saw is being fueled or the motor of the saw is running. A size shovel specified above or larger shall be available with each gas can when refueling. Any fueling of a power saw shall be done in an area which has first been cleared of all flammable material. Power saws shall be moved at least twenty (20) feet from the place of fueling before the engine is started. Each power saw shall be equipped with an exhaust system and a spark arresting device which are of types approved by the Oregon State Forester.
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## EXHIBIT C

GENERAL – 100**\*101 - Prework Conferences:**

A prework conference will be held prior to the start of new construction, improvement, renovation, quarry development, surfacing, mulching and any changes in the contractual operations. The Purchaser shall request the conference at least (48) hours prior to the time it is to be held. The conference will be attended by the Purchaser and/or his representative(s), subcontractor(s) and/or his or their representative(s) and the Authorized Officer and/or his representative(s).

The purpose of the prework conference will be to review the required work, exhibits and specifications and to establish a work schedule and a list of the Purchaser's representative(s) and subcontractors. A prework conference or Prework conferences shall be scheduled at the worksite for quarry development, bridge installation, large culvert installation, mulching and any changes in the contractual operations.

**\*102 - Definitions:**

AASHTO - American Association of State Highway and Transportation Officials. Current editions of tests and specifications.

Abrasion Resistance - The ability of a fabric surface to resist wear by friction.

ACI - American Concrete Institute

Apparent Opening Size (AOS) - Number of the U.S. Bureau of Standard sieve (or its opening size in millimeters or inches) having openings closest in size to the diameter of uniform particles which will allow 5 percent by weight to pass through the geotextile material when shaken in a prescribed manner. This is also referred to as Equivalent Opening Size (EOS).

ASTM - American Society for Testing and Materials.

Base Course - Surfacing structure consisting of crushed gravel or stone, crushed sandstone, pit run rock, bank or river-run gravels, etc., to provide support and, in the event no surface course is placed, the running surface for traffic load.

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BLM - Bureau of Land Management

Borrow - Excavated material required for embankments and other portions of the work.

Burst Strength - The resistance of a geotextile material to rupture from pressure applied at right angles to the plane of the geotextile material under specified conditions, usually expressed as the amount of pressure causing failure. Rupture or burst results from tensile failure of the geotextile material.

Culvert - A pipe, pipe-arch, arch, or box structure constructed of metal, concrete, plastic or wood which provides an opening under the roadway primarily for the conveyance of liquids, pedestrians or livestock.

Curve Widening - Widening required on inside of curves to accommodate long log and equipment hauling trucks.

Embankment - A structure of soil, aggregate, or rock material placed on a prepared ground surface and constructed to subgrade.

End Haul - Excavated material moved, other than by dozer, to an embankment or waste area to prevent side casting material outside of the road prism.

Excess Excavation - Material from the roadway in excess of that needed for construction of the designed roadway (waste).

Grab Tensile Strength - A modified tensile strength of a geotextile material. The strength of a specific width of geotextile material together with the additional strength contributed by adjacent areas. Typically, grab strength is determined on a 12-inch-wide strip of geotextile material, with the tensile load applied at the midpoint of the geotextile material width through 1-inch-wide jaw faces.

Grading - Leveling to grade, shaping and smoothing of a road subgrade; the shaping of roadside ditches as to grade and contour. In some instances includes smoothing of the cut bank.

Nonwoven Geotextile Material - A textile structure produced by bonding or interlocking of fibers, or both, accomplished by mechanical or chemical means.

Overhaul - Distance excavated material is transported in excess of the distance included in the cost for excavation.

Penetration Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a sharp pointed object. Initial penetration is by separating the fibers. Further penetration is essentially a tearing process.

Percent Open Area - The net area of a geotextile material that is not occupied by geotextile

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material filaments, normally determinable only for woven and nonwoven geotextile material having distinct, visible, and measurable openings that continue directly through the geotextile material.

Permeability - The geotextile material property which permits water to be transmitted in the longitudinal or transverse planes of the geotextile material.

Pioneer Road - Temporary construction access built along the route of the project.

Piping - The process by which soil particles are washed in or through pore spaces in drains and filters or poorly compacted fill/backfill material.

Plans - The approved drawings, or exact reproductions thereof which show the locations, character, dimensions, and details of the work to be done.

Pore Size - The size of an opening between geotextile material filaments; apparent opening size (AOS) is used to quantify this geotextile material property.

Puncture Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a blunt object. Failure results in a tearing of the geotextile material.

Purchaser - The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through their, or its agents, employees, or contractors.

Reasonably Close Conformity - Compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified.

Reinforcement - Strengthening of concrete with iron bars or mesh: geotextile with geotextile material inclusion: subgrade with aggregate: etc.

Roadbed - The graded portion of the road within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

Road Centerline - The longitudinal center of a roadbed.

Road Improvement - Work done to an existing road which improves it over its original design standard.

Road Renovation - Work done to an existing road which restores it to its original design.

Roadway - The portion of a road within limits of construction. Usually from the toe of the fill slope to a point where the cut slope intersects natural ground line. Synonym - road prism.

Scale - In quarrying, consists of the removal of loose or overhanging rock adhering to the solid

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face after a shot or a round of shots has been fired.

Scarification - The process of loosening or breaking up of the surface layer of soil or road, usually to a specified depth.

Separation - Function of geotextile material as a partition between adjacent materials to prevent mixing of those materials.

Shoulder - The portion of the roadbed contiguous with the traveled way designed for accommodation of stopped vehicles, safety, and lateral support of base and surface courses.

Spalls - Flakes or chips of stone.

Specifications - A general term applied to all directions, provisions, and requirements pertaining to performance of the work.

Specific Gravity - The ratio of the density of a material to the density of water obtained by weighing known volumes of both items in air. A specific gravity less than one implies that the material will float.

Structures - Bridges, culverts, catch basins, retaining walls, underdrains, flumes, splash pads, downspouts, and other project features which may be involved in the work and not otherwise classified in these specifications.

Sub base - Reinforcement of the subgrade with large particles of pit run rock or crushed stone. Usually confined to roads having wet subgrades or subgrades with weak support characteristics.

Surface Course - Top layer of a road structure consisting of finely crushed gravels or asphalt designed to provide a smooth running surface for traffic load.

Subgrade - The top surface of a roadbed upon which the traveled way and shoulders are constructed.

Tensile Strength - The strength shown by a geotextile material subjected to tension as distinct from torsion, compression, or shear.

Tensile Stress - Strain Modulus - A measure of the resistance to elongation under stress. The ratio of the change in tensile stress to the corresponding change in strain.

Tensile Test - A test which subjects geotextile material to tensile forces and measures resultant stresses and strains.

Timber - Standing trees, downed trees, or logs which can be measured in board feet.

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Traveled Way - The portion of the roadbed used for the movement of vehicles, exclusive of shoulders.

Typical Cross Sections - Cross-sectional plane of a typical roadway; showing natural ground line and designed roadway in relation to cut and fill, through cut, and through fill.

Turnout - Extra widening of the roadbed at appropriate intervals on single-lane roads for passing purposes.

Ultraviolet (UV) Radiation Stability - The ability of geotextile material to resist deterioration from exposure to sunlight.

Unaged Cloth - Cloth in condition received from the manufacturer or distributor.

Woven Geotextile Material - A textile structure comprising two or more sets of filaments of yarns interlaced in such a way that the elements pass each other at essentially right angles with one set of elements parallel to the geotextile material axis.

\*102a - Tests Used in These Specifications:

AASHTO T 11            Quantity of rock finer than No. 200 sieve.

AASHTO T 27            Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.

AASHTO T 89            Liquid limit of material passing the No. 40 sieve. Water content at which the soil passes from a plastic to a liquid state.

AASHTO T 90            Plastic limits and plasticity index of soil.

a. Plastic limit - lowest water content at which the soil remains plastic.

b. Plasticity index - range of water content, within which the material is in a plastic state.

Numerical difference between the liquid and plastic limits of the soil.

AASHTO T 96            Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.

AASHTO T 99            Relationship between soil moisture and density of soil.

Method A - 4" mold, soil passing a No. 4 sieve

25 blows/layer & 3 layers.

Method C - 4" mold, soil passing a 3/4 inch sieve

25 blows/layer & 3 layers.

Method D - 6" mold, soil passing a 3/4 inch sieve. 56 blows/layer & 3 layers.

AASHTO T 119            Slump of hydraulic cement concrete.

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- AASHTO T 152 Air content of freshly mixed concrete.
- AASHTO T 166 Specific Gravity of compacted Bituminous Mixtures.
- AASHTO T 176 Shows relative portions of fine dust or claylike materials in soil or graded aggregate.
- AASHTO T 180 (OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in. drop height.
- AASHTO T 191 Sand Cone. Density of soil in place: For subgrade use 6-inch or 12-inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.
- AASHTO T 205 Rubber balloon. Density of soil in place. Use for compacted or firmly bonded soil.
- AASHTO T 209 Maximum Specific Gravity of Bituminous Paving Mixtures.
- AASHTO T 210 Durability of aggregates based on resistance to produce fines.  
AASHTO T 224 Correction for coarse particles in the soil.
- AASHTO T 238 Density of Soil and Soil-Aggregate in place by nuclear methods.
- AASHTO T 248 Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
- ASTM D 4564 Determination of relative density of cohesionless soils.
- DMSO (dimethyl sulfide) Determines volume of expanding clays in aggregates. Usually associated with marine basalts.

\*103 - Compaction equipment shall meet the following requirements:

103a - Padded Drum (Tamping) Rollers. The unit shall consist of a drum with pads, be either self-propelled or towed by a tractor, and capable of operating at a speed of 6 mph. The drum shall be no less than 48 inches in diameter over the pads and not less than 60 inches in width. The pads shall have a minimum height of 3 inches, and a face area of not less than 14 square inches. The weight at drum shall be no less than 8000 lb.

103b - Tamping rollers. A tamping roller unit shall consist of two watertight metal drums mounted in frames in such manner as to be fully oscillating, together with a tractor having sufficient weight and power under actual working conditions to pull the roller drums at a minimum speed of 2.5 miles per hour. The drums shall be no less than 60 inches in diameter and

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no less than 54 inches in length, measured at the drum's surface, and shall be studded with tamping feet projecting not less than 7 inches from the face of the drums.

The distance between circumferential rows of tamper feet shall be such that the diagonal distance from any foot to the nearest foot in each adjacent row shall be not more than 12 inches. The cross-sectional area of the face of each tamper foot, measured perpendicular to the axis of the stud, shall be not less than 5-1/2 square inches nor more than 8 square inches.

The weight of the tamping-roller unit shall be such as to exert a minimum pressure of 250 pounds per square inch on the ground area in contact with the tamping feet, and the roller shall be so designed that the weight may be increased to exert a pressure up to 500 pounds per square inch on the ground area in contact with the tamping feet. The ground pressure shall be determined by dividing the total weight of the roller unit, not including the weight of the tractor, by the total cross-sectional area of the tamping feet in one row of tamping feet parallel to the axis of the roller.

103c - Smooth-wheel power rollers. Smooth-wheel power rollers shall either be of the 3-wheel type, weighing not less than 10 tons, or of the tandem type, 2-wheel or 3-wheel, weighing not less than 8 tons. Smooth-wheel roller shall provide compression of 325 pounds per linear inch of width of rear wheels or drum.

103d - Pneumatic-tired rollers. Pneumatic-tired rollers shall be of the double-axle type equipped with pneumatic tires each of equal size and type. The spacing between the sidewalls of adjacent tires shall not exceed 5 inches and the rear tires shall be staggered in relation to the front tires. The rolling width of the unit shall be not less than 60 inches, exclusive of the power unit. The roller shall be so constructed that the contact pressure is uniformly distributed on all of the tires, and the tires shall be inflated to maintain the air pressure in the several tires within a total tolerance of 5 pounds per square inch. The roller shall be so constructed that the total weight shall be between 1,000 and 2,000 pounds per tire. The actual operating weight of the rollers shall be as ordered by the Authorized Officer.

Each pneumatic-tired roller shall be drawn by equipment having sufficient power and weight under normal working condition to pull the roller at a minimum speed of 5 miles per hour, or it may be self-propelled to obtain a minimum speed of 5 miles per hour.

103e - Grid roller. A grid roller shall consist of two or more cylindrical drums independently mounted on a common shaft in a rigid frame. Each drum shall have a minimum outside diameter of 5 feet and a minimum width of 2 feet 6 inches. The overall width of the roller exclusive of frame shall be not less than 5 feet 6 inches of which not more than 6 inches shall be used for center spacing between two roller drums. The face of the drums shall have the appearance of woven open-mesh made by interlacing bars of not less than 1-1/4 inches nor more than 1-3/4 inches diameter spaced on 4-1/2 inches to 5-1/2 inches center. Net opening between the bars shall be not less than 3 inches or more than 4 inches. The roller shall be so constructed that counterweights can be used to adjust the gross weight of the roller to not less than 27,000 pounds. The grid roller shall be drawn by a power unit capable of propelling the

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fully loaded roller through 6 inches of loose embankment material at a speed of at least 4 miles per hour.

103f - Vibratory roller. The drum diameter shall be not less than 48 inches, the drum width not less than 58 inches, and have a turning radius of 15 feet or less. Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 vibrations per minute (VPM), corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 RPM. It shall be activated by a power unit of not less than 25 horsepower. The vibratory roller shall be self-propelled or drawn by a vehicle of sufficient horsepower to enable the unit to travel through a loose layer of material at a speed ranging from 0.9 mile to 1.8 miles per hour, as directed by the Authorized Officer.

The towing vehicle and roller or self-propelled unit meeting the above requirements shall be considered a vibratory roller unit.

103g - Vibratory compactor. Vibratory compactors shall consist of multiple or gang-type compacting units or pads with a minimum variable width of 2 feet. It shall be self-contained and capable of compacting material as required.

103h - Drum drive self-propelled vibratory grid roller. The unit shall consist of one cylindrical drum with a drum diameter of not less than 56 inches, nor more than 66 inches and the drum width shall be 84 inches. Vibration frequency shall be regulated in steps from 1200 to 1800 vibrations per minute (VPM), and the centrifugal force developed shall be at least 40,000 pounds at 1800 RPM. The vibratory grid roller shall be self-propelled and have a power unit of not less than 112 horsepower. The "grid" design shall be a herringbone or z-bar pattern around the circumference of the drum. The grid bars shall be 1 inch in height and spaced not more than 8-1/2 inches apart.

103i - Other. Compaction equipment approved by the Authorized Officer.

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CLEARING AND GRUBBING - 200

- \*201 - This work shall consist of clearing, grubbing, removing and disposing of vegetation, debris, surface objects, and protruding obstructions within the clearing limits in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans and as staked on the ground.
- \*202 - Where clearing limits have not been staked, established by these specifications or shown on the plans, the limits shall extend (10) feet back of the top of the cut slope and (5) feet out from the toe of the fill slope.
- \*203 - Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsection 202 and as shown on the plans and as staked on the ground.
- 203a - Brush under (2) feet in height need not be cut within the limits established for clearing.
- 203b - Standing trees and snags to be cleared shall be felled within the limits established for clearing unless otherwise authorize.
- 203c - Disposal of logs from private timber cleared within the limits established as staked on the ground shall consist of decking at a location designated by the Authorized Officer.
- \*204 - Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground and protruding obstacles remaining as a result of the clearing operation between the top of the cut slope and the toe of the fill slope.
- 205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections. Such debris will, however, be permitted to remain under waste material from full-bench construction on steep side slopes.
- 206 - Clearing and grubbing debris shall be disposed of by piling in accordance with Subsection 211 and as shown on the plans.
- 206a - Notwithstanding Subsections 204 and 205, clearing and grubbing debris resulting from landing construction shall be placed at disposal sites and shall not be covered with excavated material. Location of disposal sites will be determined by the Authorized Officer.
- 211 - Disposal of clearing and grubbing debris, stumps and cull logs shall be by piling on government lands outside of established clearing limits in an area and in a manner acceptable to the Authorized Officer.
- 213 - No clearing or grubbing debris shall be left lodged against standing trees
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EXCAVATION AND EMBANKMENT - 300

- \*301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, in sloping, out sloping, crowning and scarification of the subgrade, compaction, disposal of excess and unsuitable materials, and other earth-moving work in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.
- \*302 - Excavation shall also consist of the excavation of road and landing cut sections, borrow sites, backfilling, leveling, ditching, grading, compaction, and other earth moving work necessary for the construction of the roadway in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes or metal tags.
- 303 - Suitable material removed from the excavation shall be used in the formation of embankment subgrade, shoulders, slopes, bedding, backfill for structures, and for other purposes as shown on the plans.
- 304 - Borrow shall consist of suitable material required for the construction of embankments or for other portions of the work; such material shall be obtained from sources shown on the plans or selected by the Purchaser at his option and approved by the Authorized Officer.
- \*305 - Embankment construction shall consist of the placement of excavated and borrowed materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the roadway and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes or metal tags.
- 305a - Material used in the construction of embankment sections shall be free of stumps, cull logs, brush, muck, sod, roots, frozen material, and other deleterious materials and shall be placed and compacted as specified.
- 305b - Embankment materials shall be placed in successive parallel layers on areas cleared of stumps, cull logs, brush, sod, and other vegetative and deleterious materials, except as provided under Subsection 204. Roadway embankments of earth material shall be placed in horizontal layers not exceeding (8) inches in depth.
- 306e - The final subgrade shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103f, 103g , 103h, and 103i.
- 308 - In the case of rock fills, placement of material in layers is not required and such material may be placed by end-dumping or other methods approved by the Authorized Officer
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provided that the rock be reasonably prevented from escaping beyond the embankment toe.

309 - The top of cut slopes shall be rounded by blending into the adjacent terrain for a distance not less than (1) foot and not more than (3) feet beyond the top of the cut. Rounding shall be performed in soils that can be shaped without ripping or blasting.

313 - In cut areas where solid rock is encountered at, or near subgrade, the rock shall be excavated to a minimum depth of (6) inches below subgrade elevation and the excavated area backfilled with suitable material. The backfill material shall be processed to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.

314 - When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of (2) feet below the subgrade elevation and the excavated area backfilled with a selected borrow material approved by the Authorized Officer. The backfill material shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density in accordance with the requirements of Subsection 306. Unsuitable material shall be disposed of as directed by the Authorized Officer.

316 - Borrow material from sources selected at the Purchaser's option shall be inspected and approved in writing by the Authorized Officer prior to placement.

318 - Selected borrow or selected roadway excavation material shall be uniformly spread on the roadbed in lifts not to exceed (6) inches in depth until the required thickness shown on the plans is attained.

Each layer shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.

320 - Ditches shall conform to the slope, grade, dimensions, and shape of the required cross section shown on the plans. Roots, stumps, rocks, and other projections shall be removed to form smooth, even slopes.

321 - Excess excavated, unsuitable, or slide materials shall not be disposed of on areas where the material will encroach on a stream course or other body of water. Such materials shall be disposed of in accordance with Subsection 321c. Materials not disposed of in this manner shall be retrieved and disposed of at the Purchaser's expense and at the direction of the Authorized Officer.

321c - End-dumping will be permitted for the placement of excess materials under

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Subsection 321 in designated disposal areas or within areas approved by the Authorized Officer. Watering, rolling, and placement in layers are not required. Materials placed shall be sloped, shaped, and otherwise brought to a visible condition acceptable to the Authorized Officer.

324 - Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of (2) feet on the uphill side.

\*327 - The finished grading shall be approved in writing by the Authorized Officer. The Purchaser shall give the Authorized Officer (3) days notice prior to start of surfacing operations.

EXISTING ROADS – 500

\*501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, minor excavation and/or embankment, cleaning and shaping drainage ditches, trimming vegetation from cut and embankment slopes, and cleaning and repairing drainage structures of existing roads in accordance with these specifications and as marked on the ground with stakes.

502 - The existing road surface shall be scarified to its full width and to a depth of (6) inches to eliminate surface irregularities and bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes or metal tags at the following locations:

Road No.	From Sta./M.P.	To Sta./M.P.
40-7E-15.0 Spur	23+50	31+90
40-7E-15.7	0+00	21+65
40-7E-17.0	0+00	2+00

502a - Rocks larger than (4) inches in maximum dimension shall be removed from the scarified layers of the roadbed. Material so removed will not be permitted to remain on road shoulders or in ditches.

502b - Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.

504 - Existing road surface shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width with equipment conforming to requirements of Subsections 103f, 103g, 103h, and 103i and in accordance with the plans and work list.

- 506 - The inlet end of designated existing drainage structures as shown on the plans at the following location:

Road No.	Sta./M.P.	To Sta./M.P.
40-7E-15.2	0+00	14+50

shall be cleared of vegetative debris and boulders that are of sufficient size to obstruct normal stream flow. Pipe inverts shall be cleared of sediment and other debris lodged in the barrel of the pipe. The outflow area of (designated) pipe structures shall be cleared of rock and vegetative obstructions which will impede the structure's designed outflow configuration. Catch basins shall conform to the lines, grade, dimensions, and typical diagram shown on the plans.

- 508 - Vegetation encroaching on the roadbed and the drainage ditches of existing roads at the following locations:

Road No.	From Sta./M.P.	To Sta./M.P.
40-7E-15.7	0+00	21+65
40-7E-15.0 Spur	23+50	31+90

shall be removed by cutting and disposed of in accordance with Subsection 2100 of these specifications.

- 509 - The finished grading shall be approved in writing by the Authorized Officer (1) day prior to surfacing operations. The Purchaser shall give the Authorized Officer (3) days' notice prior to final inspection of the grading operations.

WATERING - 600

- \*601 - This work shall consist of furnishing and applying water required for the

compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds, laying dust, or for other uses in accordance with these specifications.

- 602 - Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications, and for laying dust during work periods.
- 603 - Water trucks used in this work shall be equipped with a distributing device of ample capacity and of such design as to ensure uniform application of water on the road bed.
- 604 - Water required under these specifications shall be obtained at the time(s) and at the location(s) indicated below:

The Government shall secure any necessary water permits and pay all required water fees for use of one water source. (Pacific Corp Recreation Site at Keno Dam). If additional water sources are needed any necessary water permits and water fees for use shall be paid by the purchaser and approved by the Authorized Officer.

Use of water sources are subject to applicable State water regulations. In the event that the required water is not available at the location specified, water shall be obtained from a source approved by the Authorized Officer. A reduction shall be made in the total purchase price to reflect additional hauling distance based on rental rates from current BLM Timber Appraisal Cost Schedules.

AGGREGATE BASE COURSE - 700  
PITRUN ROCK MATERIAL

- \*701 - This work shall consist of furnishing, hauling and placing one or more layers of pit run rock material on roadbeds approved for placing pit run materials in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.
  - 702a - Pit run rock materials used in this work may be obtained from sources selected by the Purchaser at his option, providing the materials furnished comply with these specifications and the source is approved in writing by the Authorized Officer
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prior to use.

- \*703 - Pit run rock materials shall consist of talus rock, bank run or river run gravels, partly decomposed granite or basalt, cinders, or other approved materials. The materials shall be reasonably free from vegetative matter or other deleterious material.
  - \*704 - Pit run rock material shall consist of native materials of such a size and grading that it can be taken directly from the source and placed on the road without crushing or screening. The material shall contain only occasional oversize particles to be removed. The term "oversize" shall be construed to mean material greater than (6) inches.
  - 705 - Pit run rock material shall be placed in layers of sufficient thickness to accommodate the material, except that the maximum thickness of any layer shall not exceed (6) inches. Where the total specified thickness is greater than (6) inches the material shall be placed in two or more layers of equal thickness.
  - 706 - Oversize material that cannot be accommodated in the layer shall be removed at the source or on the road, and shall be disposed of as directed by the Authorized Officer.
  - \*708 - The roadbed as shaped and compacted under section 500 of these specifications shall be approved in writing by the Authorized Officer prior to placement of pit run rock material.
  - \*709 - Pit run rock material shall be placed on roadbed, blade processed and spread to required dimensions.
  - 710 - Pit run rock material shall be compacted by routing construction and hauling equipment over the full width of each layer placed.
  - 711 - Layers of pit run rock material placed and shaped as specified shall be uniformly moistened or dried to the optimum moisture content for maximum density and compacted to full width by compacting equipment conforming to the requirements of Subsections 103a, 103b, 103d, 103e, 103g, 103h and 103i.
  - 712 - Pit run rock material shall be surface bladed during the compaction operation to remove irregularities and to produce a smooth running surface.
  - 713 - Pit run rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted subgrades shall not be construed as surfacing required under this
-

specification.

AGGREGATE SURFACE COURSE - 1200  
CRUSHED ROCK MATERIAL

- \*1201 - This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds approved for placing crushed rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected, and shall be removed from the road at the purchaser's expense.
  
- 1202a - Crushed rock materials used in this work may be obtained from commercial sources selected by the Purchaser at his option and expense, providing the rock materials furnished comply with the specifications.
  
- \*1204 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirements:

TABLE 1204

AGGREGATE SURFACE COURSE  
CRUSHED ROCK MATERIAL

Percentage by weight passing square mesh sieves  
AASHTO T 11 & T 27

GRADATION

Sieve Designation	C	C-1	D	D-1	E	E-1
1-1/2-inch	100	100	-	-	-	-
1-inch	-	-	100	100	-	-
3/4-inch	50-90	60-90	-	70-98	100	100
1/2-inch	-	-	-	-	-	70-98
No. 4	25-50	30-55	30-60	36-60	40-75	44-70
No. 8	-	22-43	-	25-47	-	30-54
No. 30	-	11-27	-	12-31	-	15-34
No. 40	5-25	-	5-30	-	5-35	-
No. 200	2-15	3-15	3-15	3-15	2-15	3-15

- 1205 - Crushed rock material retained on the No. 4 sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.

- 1206 - Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T210.
- 1206a - The crushed rock material shall show a loss of not more than (20) percent by weight, when submerged in DMSO, dimethyl sulfoxide, for five days, according to Federal Highway Administration Region 10 Accelerated Weathering Test Procedure.
- 1207 - That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have a liquid limit of not more than (35) and a plasticity index of not less than (4) and not more than (12) as determined by AASHTO T 89 and AASHTO T 90.
- 1207a - That portion of crushed rock material passing No. 4 sieve, including blending filler, shall have a sand equivalent of not less than 35, as determined by AASHTO T 176, except where that portion exhibits a sand equivalence of less than 35, the aggregate will be accepted if it complies with the additional requirement as follows:

TABLE 1207a

Sand Equivalent	Percent Passing #200 Sieve AASHTO T 27
34	9
33	8
32	7
31	6
30	5
29 or less	4

- \*1209 - Shaping and compacting of roadbed or base course shall be completed and approved, prior to placing crushed rock material, in accordance to the requirements of Subsection 500 for placing on the roadbed. Notification for final inspection prior to rocking shall be (3) days prior to the inspection and shall be (10) days prior to start of surfacing operations.
  - \*1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and staked on the ground. Compacted layers shall not exceed (4)
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inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved by the Authorized Officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and then adding or removing crushed rock material until the surface is smooth and uniform.

- 1210a - Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification.
- 1211 - Crushed rock material shall be compacted by routing construction and hauling equipment over the full width of each layer placed.
- 1212 - Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f, 103f, 103h, or 103i .
- 1216 - The Purchaser shall place in stockpile **80** cubic yards. This work is required for road acceptance under Section 18 of this contract.

Such material shall be used to reinforce and repair areas of deficient support which appear during the hauling operation.

- 1217 - Stockpiling shall be placed at the following stockpile sites :

Stockpile No.	Willamette Meridian			Approx. Cu. Yds.
	Sec.	T.	R.	
1	15	40S	7E	80

- 1218 - The equipment and methods used for stockpiling crushed rock material and for removing material from the stockpiles shall be such that minimum degradation or segregation of the material will result and that minimal amounts of foreign material will be incorporated into the crushed base material and that there will be no intermingling of stockpiled materials.



EROSION CONTROL - 1700

- \*1701 - This work shall consist of measures to control soil erosion or water pollution during the construction operation through the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans.
  
  - 1708a - Road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway using water bars, maintaining drainage, and performing additional measures necessary to minimize erosion and other damage to the roadway, as directed by the Authorized Officer. Portions of roads not having surface rock in place will be blocked or barricaded to prevent vehicular traffic.
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### SOIL STABILIZATION – 1800

- \*1801 - This work shall consist mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications and or shown on the plans. This work is not required for road acceptance under Section 18 of this contract.

### ROADSIDE BRUSHING - 2100

- \*2101 - This work shall consist of the removal of vegetation from the road prism - variable distance, and inside curves in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet of this exhibit, at designated locations as shown in the plans.
  - \*2102 - Roadside brushing may be performed mechanically with self-powered, self-propelled equipment or manually with hand tools, including chain saws.
  - \*2103 - Vegetation cut manually or mechanically less than **6** inches in diameter at D.B.H. shall be cut to a maximum height of **2** inches above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs below the **2** inch area will be severed from the trunk.
  - 2103a - Vegetation shall be cut and removed from the road bed between the outside shoulders and the ditch centerline and such vegetation shall be cut to a maximum height of **1** inch above the ground and running surface. Limbs below the **1** inch area will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.
  - 2104 - Trees in excess of **6** inches in diameter at D.B.H. shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of **14** feet above the running surface of the roadway on cut and fill slopes, within the road prism-variable distance. Limbs shall be cut to within **1** inch of the trunk to produce a smooth vertical face. Removal of trees larger than **6** inches in diameter for sight distance or safety may be directed by the Authorized Officer.
  - 2105 - Vegetation that is outside of the road prism-variable distance that protrudes into the road prism and within **14** feet in elevation above the running surface shall be cut, to within **1** inch of the trunk to produce a smooth vertical face.
  - 2106 - Vegetative growth capable of growing **1** foot in height or higher shall be cut, within the road prism-variable distance or as directed by the Authorized Officer.
  - 2107 - Inside curves shall be brushed out for a sight distance of **200** feet chord distance or a middle ordinate distance of **25** feet (whichever is achieved first). Overhanging limbs and vegetation in excess of **1** foot in height, shall be cut
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within these areas.

- 2108 - Self-propelled equipment shall not be permitted on cut and fill slopes or in ditches.
- 2109 - Debris resulting from this operation shall be scattered downslope from the roadway. Debris shall not be allowed to accumulate in concentrations. Debris in excess of **1** foot in length and **2** inches in diameter shall not be allowed to remain on cut slopes, ditches, roadways or water courses, or as directed by the Authorized Officer.
- 2114 - Sections of roadway to have vegetation removed will be marked at start and stop points with red-topped painted stakes.
- 2115 - Mechanical brush cutters shall not be operated when there are people and occupied vehicles within (400) feet of the immediate operating area.
- 2116 - Traffic warning signs shall be required at each end of the work area. Signs shall meet the requirements of the Manual on Uniform Traffic Devices.

## EXHIBIT D

### TABLE OF CONTENTS

General road maintenance specifications are designated by numeric symbols according to the type of work performed as follows:

SECTION	DESCRIPTION
3000	General
3100	Operational Maintenance
3200	Seasonal Maintenance
3300	Final Maintenance
3400	Other Maintenance
3500	Decommissioning



## **GENERAL - 3000**

- 3001 The Purchaser shall be required to maintain all roads listed and/or referenced in section 41, as shown on the Exhibit D - 1 of 10 of the Timber Sale Road Specification and in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.
- 3001a The Purchaser shall be required to provide maintenance on roads in accordance with Subsections 3403, 3403a, and 3404.
- 3002 The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. Any roads required to be constructed, improved, or renovated under terms of this contract shall be maintained to the geometric standards required in Exhibit C of this contract.
- 3003 The minimum required maintenance on any roads shall include the provisions specified in Subsections 3101, 3104, and 3105.
- 3004 The Purchaser shall be responsible for providing timely maintenance and cleanup on any roads with logging units substantially completed prior to moving operations to other roads. Release of maintenance requirements may be granted, upon written request, when the conditions specified in Sections 3300 and 3400 are met satisfactorily.

## **OPERATIONAL MAINTENANCE - 3100**

- 3101 The Purchaser shall blade and shape the road surface and shoulders with a motor grader. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.
- 3102 The Purchaser shall furnish and place aggregate conforming to the requirements in Section 1200 of Exhibit C of this contract on the roadways at locations and in the amounts designated by the Authorized Officer.
- This aggregate shall be used to repair surface failures and areas of depleted surface depth excluding damages covered by Section 12 of this contract. The aggregate shall be furnished, hauled, placed, spread, and compacted by use of dump trucks, water trucks, and motor grader or similar equipment.
- 3103 The purchaser shall maintain established berms and place additional berms using adjacent material where needed to protect fills as directed by the Authorized Officer.
- 3104 The purchaser shall perform other road cleanup including removal of debris, fallen timber, bank slough, and slides which can practicably be accomplished by a motor grader, rubber tired front end bucket loader, rubber tired backhoe or comparable equipment, and by the use of hand tools.
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- 3105 The Purchaser shall be responsible for maintaining normal flow in drainage structures. This includes cleaning out drainage ditches, catch basins, clearing pipe inverts of sediment and other debris lodged in the barrel of the pipe, and maintaining water dips and water-bars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.
- 3107 The Purchaser shall cut or trim trees and brush which obstructs vision or prevents the safe passage of traffic along the traveled way when directed by the Authorized Officer.
- The Purchaser shall also cut trees or brush encroaching on the road prism that are a result of his activities or winter damage during the contract period. Disposal of such vegetative material shall be by scattering below the road.
- 3108 The Purchaser shall avoid fouling gravel or bituminous surfaces through covering with earth and debris from side ditches, slides or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway. Skidding of logs on the roadway in or outside designated logging units is not authorized without prior written approval by the Authorized Officer. Repair required caused by such skidding activity is not considered maintenance and shall be repaired at the Purchaser's expense.
- 3108a The Purchaser shall perform logging operations on gravel and/or bituminous roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer. The Purchaser shall furnish oil, asphalt and gravel for necessary repairs at designated locations. Repair of the roads is not considered maintenance and shall be repaired at the Purchaser's expense.

### **SEASONAL MAINTENANCE - 3200**

- 3201 The Purchaser shall perform preventative maintenance at the end of Purchaser's hauling each season and during non-hauling periods which occur between other operations on the contract area. This includes requirements specified in Section 3100.
- 3202 The purchaser shall perform and complete maintenance specified in Sections 3000, 3100, and 3200 on all roads maintained by him, prior to October 15 each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the proceeding operating seasons.
- 3203 The Purchaser shall complete road cleanup and maintenance, as specified in Section 3100, at the completion of logging operations on any roads located in an area separate from the area where logging activities will resume.
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3204 The Purchaser shall be responsible for performing post storm inspections and maintenance during the winter season to minimize erosion and potential road or watershed damage.

### **FINAL MAINTENANCE - 3300**

3301 The Purchaser shall complete final maintenance and/or damage repairs on all roads used under terms of their contract within thirty (30) calendar days following the completion of hauling and in accordance with Sec. 16(b) of this contract. This work shall include any maintenance and/or damage repairs specified in Sections 3000, 3100, and 3200 necessary to meet the conditions specified in Subsection 3002 and shall be executed in accordance with Subsection 3302 of this section.

The Authorized Officer may grant acceptance of Purchaser's maintenance responsibility in part where certain individual roads or road segments are no longer of any use to the Purchaser's remaining removal operations, providing that all contract requirements as specified under Sec. 16(b), Special Provisions Sections 3000, 3100, 3200 and 3300 of the maintenance specifications have been completed and a relinquishment of cutting and removal rights on cutting units tributary to these roads is signed by the Purchaser. Request for partial acceptance must be submitted in writing by the Purchaser.

3302 The Purchaser shall perform final road maintenance only when weather or soil moisture conditions are suitable for normal maintenance equipment operations as determined by the Authorized Officer.

If final maintenance is delayed after the date required in Subsection 3301 of this contract by adverse soil moisture or unsuitable equipment operating conditions, the Purchaser will be notified by the Authorized Officer when soil moisture and equipment operating conditions are suitable. The Purchaser shall then be required to complete final maintenance within 30 days.

### **OTHER MAINTENANCE - 3400**

3401 The Purchaser shall repair any damage to road surfaces that was specified under Subsection 3108 and 3108a. This repair includes restoring the roadway to the designed standard and replacement of surfacing with approved surface material. This repair is not limited to use of equipment specified in Subsection 3104.

3402 The Purchaser shall be permitted to remove ice and snow from roads authorized for use under this contract only when prior written approval has been secured from the Authorized Officer. The Purchaser shall submit a written request for permission to remove ice and snow in advance of the date operations are to begin.

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Upon receiving written authorization for ice or snow removal, the Purchaser will perform the work according to the conditions and equipment requirements set forth in the authorization.

3403

The Purchaser shall be required to furnish and apply non-saline water during dry hauling periods, when directed by the Authorized Officer, for the purpose of laying dust and to prevent loss of surface material. The first application of water shall be made at the rate of one-half gallon per yd<sup>2</sup> of road surface traveled. Subsequent applications shall be made for each 40 MBF of timber or 120 yds<sup>3</sup> of rock hauled. Subsequent watering may be done at a rate less than one-half gallon per yd<sup>2</sup> when a specified lesser rate is approved by the Authorized Officer.

The following roads shall be watered:

Road No.	From Sta./M.P.	To Sta./M.P.
40-7E-1 as directed	0+00	41+34
40-7E-15.0 Spur	0+00	8+40
40-7E-15.0	0+00	23+50
40-7E-15.1	0+00	35+00
40-7E-15.2	0+00	41+60
40-7E-15.3	0+00	73+70
40-7E-15.4	0+00	83+00
40-7E-15.5	0+00	18+60
40-7E-15.6	0+00	15+60
40-7E-15.7	0+00	16+43

Road Number	From Sta./M.P.	to Sta./M.P.
40-7E-17.0	0+00	23+50
40-7E-22.1	0+00	93+40
40-7E-23.1	0+00	14+81
40-7E-23.2	0+00	10+60
40-7E-23.3	0+00	17+18
40-7E-23.4	0+00	9+82

The Government shall secure any necessary water permits and pay all required water fees for use of one water source. (Pacific Corp Recreation Site at Keno Dam). If additional water sources are needed any necessary water permits and water fees for use shall be paid by the purchaser and approved by the Authorized Officer.

During drought periods when the transportation of water from the source to the roads noted above exceeds (15) miles, a reduction shall be made in the total

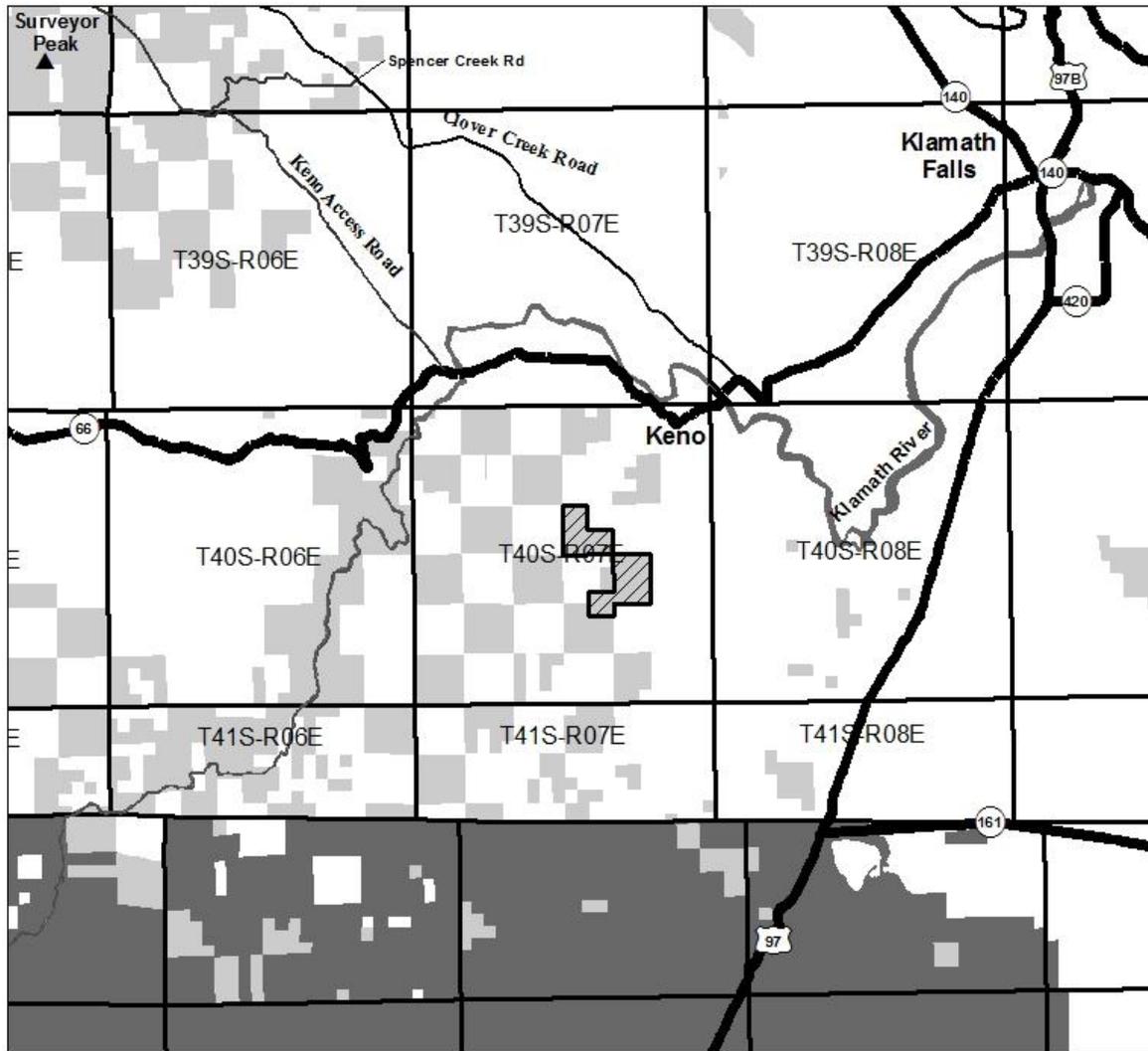
purchase price to reflect the additional haul or the substitution of other acceptable dust palliatives in lieu of watering based on equipment rental rates from the current BLM Road Cost Guide.

- 3404 The Purchaser may at his option and expense substitute lignin sulfonate and/or magnesium chloride and calcium chloride for water on any or all road segments listed in Subsection 3403 or 3403a provided that written approval is received from the Authorized Officer. Such authorization shall include the approval of product specifications for the application of the product to be used. Multiple applications may be required to maintain the conditions specified in Subsection 3403.
- 3408 Dust palliatives shall be applied with standard commercial distribution equipment operated in a manner that the material is uniformly applied on variable widths of surface at controlled rates.
- 3409 The Purchaser shall notify the Authorized Officer a minimum of (3) days in advance of application of required dust palliative.
- 3410 The Purchaser shall submit an application schedule for all dust palliative work to the Authorized Officer for approval. All work shall be in accordance with the approved plan.

#### **DECOMMISSIONING – 3500**

- 3506 Stockpiled slash shall be used to protect exposed areas created by the Purchaser's decommissioning and or obliteration operations described in these sections. Slash shall be uniformly spread and placed without bunching. The operation shall produce a dense, uniform mat. All slash stockpiles created by the purchaser shall be utilized for decommissioning and or obliteration operations. Where slash is not available the remaining exposed soil areas shall be stabilized in accordance with Section 1800.
- 3505 Where draw crossing fill material is to be excavated and removed, the finished bottom of draw profile shall be re-established to its original channel grade and the resulting adjacent banks shall be re-established to their original back slope ratios.
- 3509 Access shall be blocked with barricades as shown on the typical detail sheet Exhibit C page 2 of 39 and at locations as shown on Exhibit D map 1 of 10.
- 3510 All vegetation and slash shall be removed from the immediate area designated for excavation and partial contouring including draw fill slopes, waste areas and other special areas. Sections of roadway where ripping and sub soiling is required shall be cleared of all vegetation and slash. The resultant slash shall be scattered along the roadway fill slopes stockpiled in a manner that will allow retrieval and uniform spreading in accordance with Subsection 3506. No vegetation or slash shall be mixed with excavated material to be placed.
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- 3511 Ripping, Sub soiling and Water barring shall be done on designated roadways, traveled ways, turnouts, disturbed areas, landings and special areas. Ripping shall be done in accordance with Exhibit C. Sub soiling shall be performed with wing-toothed rippers or an excavator modified for tillage.
- 3512 Draw crossing fill material shall be excavated and placed in designated locations for use in accomplishing partial re-contouring. Placement of materials shall produce well-drained, uniform re-contoured terrain as shown on the plans. The finished draw excavation shall meet requirements of Subsection 3505.
- 3513 Water bars and Drain dips shall be installed across full width of roadway at existing locations and as shown in the specifications and drawings. Water bars and Drain dips shall be constructed as shown on Exhibit C. No water bar or drain dip will be installed closer than (50) feet to a draw crossing.
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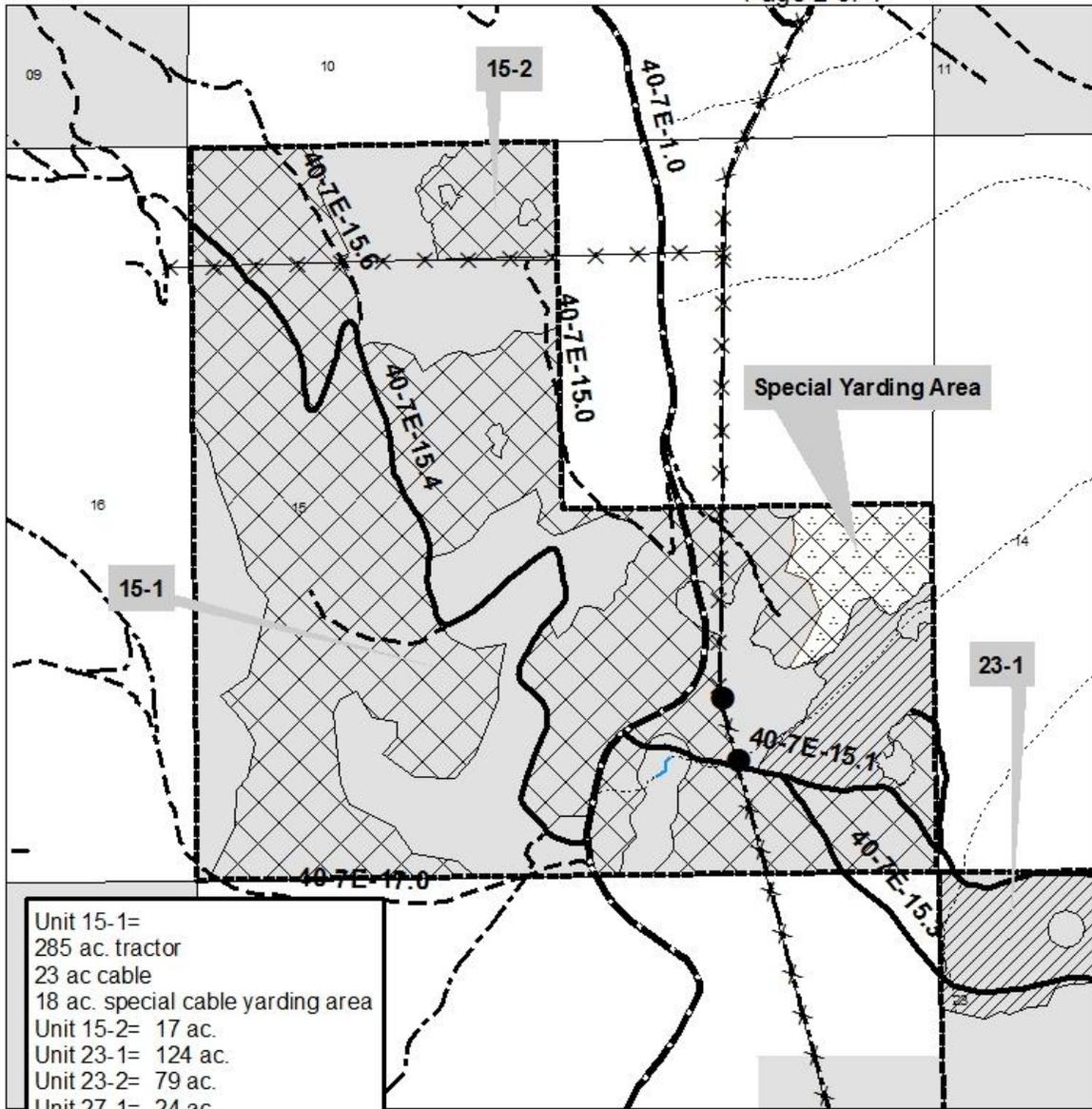


**Legend**

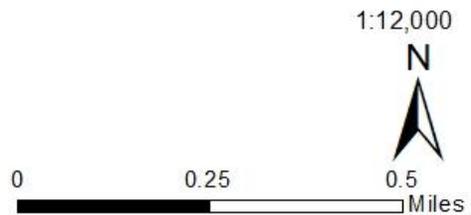
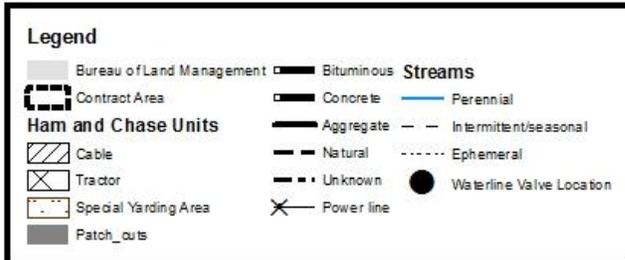
-  Highways
-  Bureau of Land Management Lands
-  Contract Area

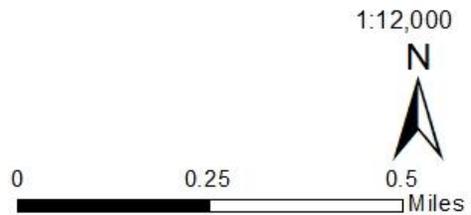
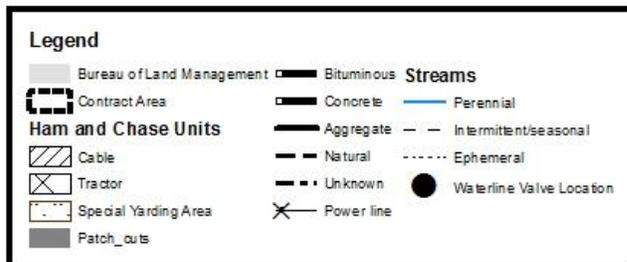
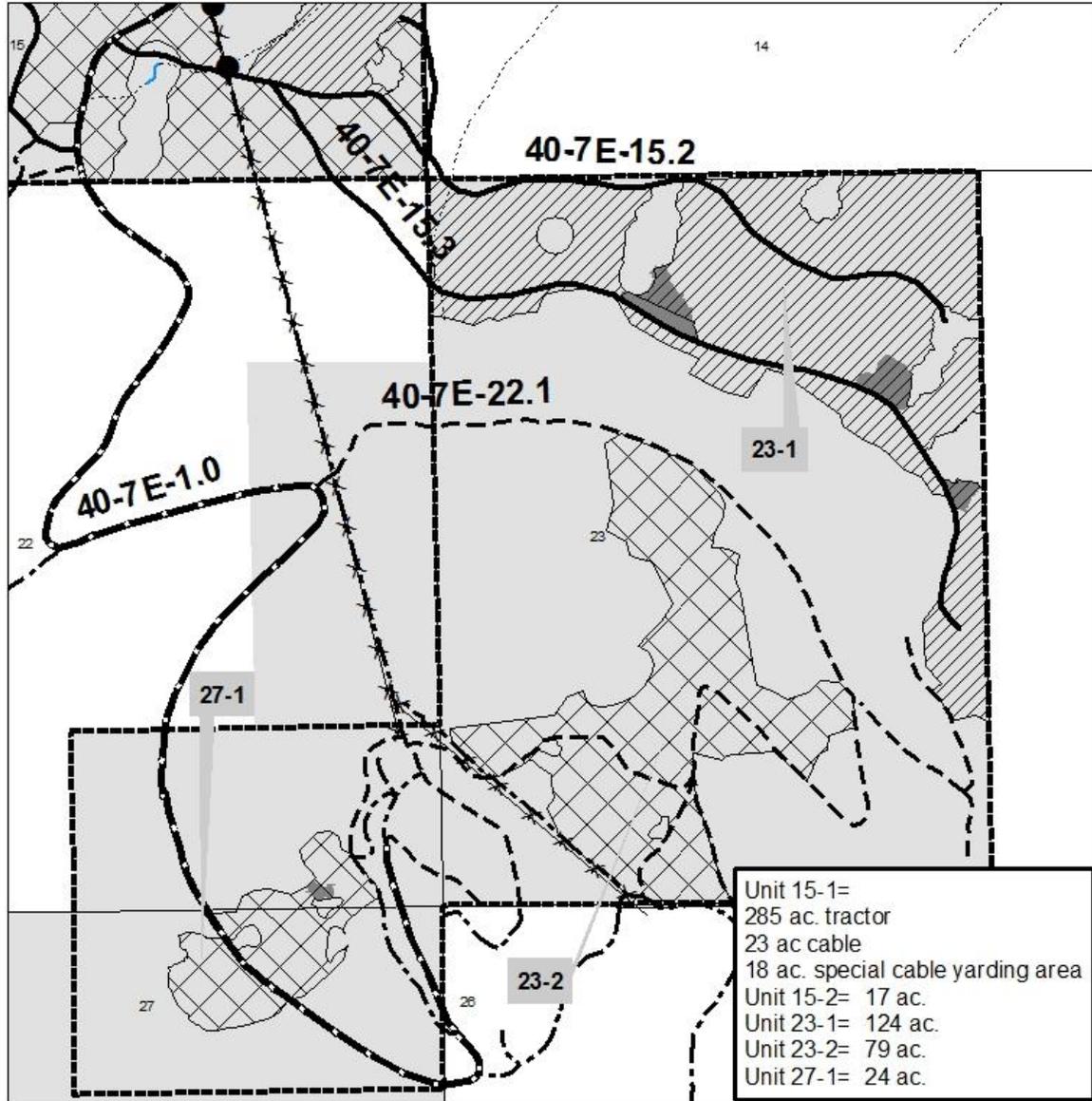


0 0.5 1 2 3 4 5 Miles 1:186,454



Unit 15-1= 285 ac. tractor  
 23 ac. cable  
 18 ac. special cable yarding area  
 Unit 15-2= 17 ac.  
 Unit 23-1= 124 ac.  
 Unit 23-2= 79 ac.  
 Unit 27-1= 24 ac.





**USDI-BLM Klamath Falls Resource Area**  
**Sale Name: Ham and Chase**

**Timber Sale Contract Map**  
**Contract No. ORL04-TS-14-1**  
**Exhibit A – Contract Acres**  
**Page 4 of 4**

Willamette Meridian: T.40S., R.7E., Sec.15 NW ¼, S ½  
 Sec. 22 Lots 1 and 2  
 Sec. 23 W ½ NE ¼, W ½, and W ½ SE ¼  
 Sec. 27 N ½ NE ¼

<u>Cutting Unit</u>	<u>Total Cutting Unit Acres</u>	<u>Harvest Method</u>
15-1	326	Density Management (DM)
15-2	17	DM
23-1	124	DM
23-2	79	DM
27-1	24	DM
<b>Total</b>	<b>570</b>	

Total Cutting Unit Area	570.00 acres
Total Reserve Area	549.23 acres
Total Contract Area	1119.23 acres

