COOS BAY DISTRICT OFFICE MYRTLEWOOD RESOURCE AREA SOUTH COAST

SALE DATE: January 18, 2013 SALE TIME: 10:00 a.m.

SALE NO. ORC00-TS-2013.0035, BOTTOM'S UP CT

SET-ASIDE SALE

COOS COUNTY: OREGON: O&C: ORAL AUCTION: Bid deposit required: \$2,100.00

All timber designated for cutting on: T. 29 S., R. 9 W., Sec. 31, SW¹/₄NE¹/₄, SE¹/₄NW¹/₄; T. 29 S., R. 10 W., Sec. 35, N¹/₂NE¹/₄, SW¹/₄NE¹/₄, NW¹/₄NW¹/₄, Will. Meridian.

Approx. No. Merch. Trees	Est. Vol. MBF 32' Log	Species	Est. Vol. MBF 16' Log	Appraised Price Per MBF	Estimated Vol. Times Appraised Price
2,354	326	Douglas-fir	372	\$47.50	\$17,670.00
55	7	western hemlock	9	\$34.70	\$312.30
136	6	red alder	8	\$36.10	\$288.80
328	11	Port-Orford-cedar	15	\$44.00	\$660.00
129	21	grand fir	25	\$37.50	\$937.50
12	1	western red cedar	1	\$140.70	\$140.70
3,014	372	Totals	430		\$20,009.30

THIS TIMBER SALE HAS BEEN CRUISED, APPRAISED, AND ADVERTISED BASED UPON SCRIBNER BOARD FOOT MEASURE (16 FOOT LOG). THE MINIMUM BID FIGURES SHOWN BY SPECIES ARE DOLLARS PER THOUSAND BOARD FEET (MBF). THE MINIMUM BID INCREMENT WILL BE \$0.10 PER MBF. SCRIBNER BOARD FOOT VOLUMES (32 FOOT LOG) BY SPECIES ARE DISPLAYED FOR INFORMATIONAL PURPOSES.

<u>LOG EXPORT AND SUBSTITUTION</u>: 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.

<u>LOG EXPORT AND SUBSTITUTION RESTRICTIONS</u>: 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.

<u>CRUISE INFORMATION</u>: With respect to merchantable trees of all species in all cruise strata: the average DBHOB is 12.2 inches: the average gross merchantable log contains 41 bd. ft.; the total gross volume is approximately 462 thousand bd. ft.; and 93% recovery is expected. The average DBHOB for Douglas-fir is 12.3 inches; and the average gross merchantable log contains 41 bd. ft. None of the total sale volume is salvage material. The following cruise methods were used for volume determination:

<u>3P CRUISE</u>: The Douglas-fir has been cruised using the 3P system to select sample trees. The sample trees have been cruised and their volumes computed using the Behres volume equation for estimating board foot volumes of trees in 16-foot logs. The volumes are then expanded to a total stratum volume.

<u>SAMPLE TREE CRUISE</u>: The grand fir, Port-Orford-cedar and western hemlock volumes have been cruised using the sample tree system to select 312 sample trees. The sample trees have been cruised and their volumes computed using the Behres volume equation for estimating board foot volumes of trees in 16-foot logs. The volumes are then expanded to a total stratum volume.

<u>100% CRUISE</u>: The western redcedar volumes were based on a 100% cruise using Behres volume equation for estimating board foot volume of trees in 16-foot logs.

<u>CUTTING AREA</u>: Three units totaling approximately thirty-four acres must be partial cut.

<u>ACCESS</u>: Access to the sale area is provided via: United States highways, Government controlled roads, and privately controlled roads.

<u>DIRECTIONS TO SALE AREA</u>: From Roseburg, Oregon travel west on Oregon State Highway 42 approximately 41 miles. Turn right and head north on North Rock Creek Road (30-10-3.0). Refer to Exhibits A and A-1 for unit locations.

<u>ROAD USE & MAINTENANCE</u>: Refer to Exhibit E Summary attached. Operator maintenance required on 5.22 miles of road.

ROAD MAINTENANCE:

Aggregate:

100 cu yds 11/2" minus hardrock (Truck Measure)

Roadside Brushing:

69.70 stations

Road Decommissioning:

Boulder Barrier: 2 (35 cu yds minimum)

DURATION OF CONTRACT: Will be 24 months for cutting and removal of timber. The contract will contain special stipulations regarding logging, road construction, road use and maintenance, fire prevention, hazard reduction and logging residue reduction, log export and substitution, optional scale check of lump sum sales, equal opportunity in employment, cultural resource protection, and sensitive, threatened, or endangered plants or animals.

SPECIAL PROVISIONS: This list is not comprehensive. Please review the entire contract.

- 1. A License Agreement is required with Plum Creek Inc., and PacWest LLC.
- 2. All equipment must be washed prior to entry into the contract area to control the spread of noxious weeds.
- 3. Dry season haul is required on BLM Road No. 29-10-35.5. All other roads are approved for all season haul.
- 4. A marbled murrelet daily timing restriction restricts falling and yarding from April 1 to Sept 15 to the period between two hours after sunrise and two hours prior to sunset, in Units 1 & 3. See the Exhibit A and seasonal restriction matrix.
- 5. No trees shall be felled into the Reserve Area, shown on Exhibit A. Line pulling, jacking, or other mechanical devices shall be used as necessary.
- 6. Damage shall affect less than 5% of reserve trees.
- 7. Lift trees and intermediate support trees may be necessary.
- 8. One-end suspension required in cable yarded units. Full suspension required over any stream channels. Any trees cut in the no-harvest buffers adjacent to stream channels shall be left on site.
- 9. Log lengths shall not exceed 41 feet.
- 10. Shape and restore all landings to a natural contour to prevent erosion.
- 11. Hauling during the wet season may be suspended when forecast rainfall is expected to exceed 1" in 24-hours.
- 12. Sediment trapping devices are required at stream crossings along gravel roads prior to winter haul.
- 13. Soil stabilization, water bar construction, and road barrier construction shall be conducted after the completion of harvest activities.
- 14. BLM will assume supervisory responsibility for disposal of logging slash.
- 15. This contract contains provisions (Sec 42.b(11)) for the sale and removal of additional timber necessary to facilitate safe and efficient Purchaser operations. These provisions include:

-The designation and sale of additional timber, such as corridor and guyline trees, at contract price, as necessary to facilitate safe and efficient logging. Such trees may be felled and removed when they are painted by the Authorized Officer;

-Sale of additional timber volume at current fair market value where the species and/or size of trees are not representative of the forest stand(s) being thinned;

-Government reservation of trees previously marked for cutting replacement when the Authorized Officer determines that it is necessary in order to maintain stand densities consistent with objectives set forth in management prescriptions;

-The use of unilateral modifications executed by BLM for such additional and replacement timber;

-Revocation of the Purchaser's right to cut additional timber if the Authorized Officer determines that trees have been cut and removed that were not previously marked and approved for cutting and removal by the Authorized Officer; and,

-It is estimated that approximately ten percent of the sale volume (estimated at 43 MBF) of such additional timber may be removed under the contract, but is not included in the advertised sale volume nor was it included in the timber sale appraisal. This estimate is a net figure reduced by the estimate of the volume of trees previously marked for cutting, which the Authorized Officer may elect to reserve.

Seasonal Restriction Matrix ORC00-TS-2013.0035 BOTTOMS UP CT Timber Sale Prospectus ***Restricted periods are Shaded; Conditional periods are Sate Prospective See Exhibit A for portions of units affected.**

			Jan		Feb	I	Mar		Apr	I	May	J	une	J	uly		Aug	5	Sept		Oct]	Nov		Dec
Sale Area	Activity	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15
	Falling and bucking ²							$\langle \prime \rangle$																	
All Units	Cable yarding ²																								
	Road Maintenance ¹																								
Unit 2	Hauling ¹																								
Units 1 & 2	Hauling	244																							
Units 1 & 3	Marbled Murrelet restricted (portion) ³					_																			
Units 2 & 3	Ground Based Yarding ^{4,1}											Ph/													

¹Wet season restrictions may be shortened or extended depending on weather conditions. ²Bark slip seasonal restrictions may be conditionally waived upon written request and Authorized Officer approval. Strict compliance with damage provision required for continued operations.

Daily timing restriction confines activities to the period two hours after sunrise to two hours before sunset April 1st through September 15th.

⁴ Ground based yarding restricted to periods when soil moisture levels are below 25% as determined by the Authorized Officer.

SCHEDULE I

Sec 41. 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:

a. All timber on the Reserve Area, shown on Exhibit A, which is attached hereto and made a part hereof, and all blazed, orange painted and/or posted trees which are on or mark the boundaries of the Reserve Area, as shown on Exhibit A;

b. All timber marked, by the Government, with orange paint above and below stump height within the Partial Cut Units, as shown on the Exhibit A.

c. All existing standing dead trees, except those snags that must be felled to permit safe working operation provided that all snags felled must be retained on site;

d. All existing downed wood in decay classes 3-5 and all existing downed wood 20 inches or larger in diameter measured on the large end regardless of decay class;

e. All Bearing Trees with metal tags that mark property corners, as shown on Exhibit A.

Sec 42. SPECIAL PROVISIONS. Purchaser shall comply with the special provisions which are attached hereto and made a part hereof unless otherwise authorized, in writing, by the Authorized Officer:

a. Periodic Payment and First Installment Adjustment

(1) Notwithstanding the provisions of Sec. 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 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 5% of the installment amount listed in Sec. 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 15 days after such notification to return the first installment to the full value specified in Sec. 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 Sec. 3(b), adjustments in the 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 30 days, and the interruption or delay is beyond the Purchasers 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 Sec. 3(b).

b. Logging

(1) Prior to 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 pre-work conference between the Purchaser's authorized representative and the Authorized Officer's representative must be held at a location designated by the Authorized Officer before the logging plan will be approved.

(2) Before beginning operations on the contract area for the first time, or after a shutdown of ten 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 ten or more days.

(3) In the Timing Restriction Area (MM), as shown on Exhibit A, falling, yarding, and new road construction operations are confined to the period from two hours after sunrise to two hours before sunset between April 1 and September 15 both days inclusive.

(4) Due to bark slippage, falling or yarding may be restricted by the Authorized Officer within the contract area between March 1 and June 30 of each calendar year, both days inclusive.

(5) No trees may be felled into the Reserve Area designated on the Exhibit A. Line pulling, jacking, or other mechanical devices shall be used as necessary to prevent trees from falling into these areas.

(6) Damage to residual trees shall affect less than 5% of reserve trees. Bark removed to cambium 3 inches wide or wider, top broken at 3 inches diameter or greater, root sprung trees, or any root collar damage shall constitute damage. Damage levels will be upon government sample of an affected area. Failure to resolve excess damage to reserve trees may result in suspension of operations and recovery of the value of the damaged timber in accordance with Sec. 13.

(7) Trees shall be felled, limbed, topped into lengths not to exceed 41 feet prior to yarding.

(8) In the Partial Cut Units, yarding (except for road rights-of-way and ground-based areas) shall be done with a skyline cable system according to the following:

(a) The skyline cable system shall be capable of being rigged in a multi-span configuration utilizing a carriage capable of yarding 75 feet laterally from the skyline. Skyline roads shall not be spaced closer than 150 feet apart, unless approved by the Authorized Officer.

(b) One-end log suspension is required during yarding operations. Intermediate supports and/or lift trees may be required to obtain the required suspension. Full suspension is required when yarding over Stream Channels shown on the Exhibit A.

(c) If the placement of a yarding corridor requires the cutting of a tree within the Reserve Area adjacent to a Stream Channel, as shown on Exhibit A, the tree shall remain on-site and felled toward the direction of the channel in a manner to protect the stream bank from disturbance during yarding. Yarding corridors shall cross stream channels perpendicular where possible to minimize cutting of trees within

the Reserve Area. Yarding corridor location within the Reserve Area shall be approved by the Authorized Officer prior to cutting.

(d) Where road locations allow, yarding will be done so that corridors run parallel to each other rather than radiate from a central landing.

(9) In the Ground-based Yarding Area, shown on Exhibit A and within road right-of-ways, cutting and yarding shall be done according to the following:

(a) In addition to the requirements set forth in Sec. 26 of this contract, no ground-based logging operations 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.

(b) Ground-based operations shall be conducted when soil moisture content is below 25%, as determined by the Authorized Officer; unseasonably dry or wet weather may shorten or extend the operating season. The Purchaser shall be notified in writing when weather conditions extend the operating season. The Purchaser shall cease operations during periods of rain and shall be notified, after a soil-moisture assessment by the Authorized Officer, when operations may resume.

(c) Trees shall be felled manually or by a mechanized harvester utilizing a "cut-to-length" system capable of directionally felling, cutting to length, and depositing slash along the harvesting path.

(d) The yarding machine must be approved by the Authorized Officer. It must be equipped with a grapple or an extendable and retractable arch and fairlead that is an integral part of the machine that is capable of lifting the leading end of the turn clear of the ground. All logs in the Ground-Based Yarding Area shall be yarded with their leading end clear of the ground. A forwarder or tracked log loader may also be used to yard logs.

(e) Primary skid trails shall use existing trails wherever possible, be spaced at least 95 feet apart, and be no wider than 12 feet as measured between reserve trees.

(f) Primary skid trails shall be blocked with cull material after completion of harvest where the Authorized Officer determines vehicle access is possible.

(g) All ground-based equipment shall be restricted to operating on slopes less than 35% and shall not operate within 50 feet of Stream Channels shown on Exhibit A.

(h) Primary skid trails with a slope greater than 15% and/or are left with more than 100 feet of continuous bare ground shall have water bars installed and/or be covered with slash for erosion control prior to October 15th.

(10) Sec 42.b(11) shall be the primary method for the identification, cutting, and removal of additional timber required for skyline corridors, yarding trails, and guy-line trees. Sec. 42.b(12) may be used at the discretion of the Authorized Officer. The purchaser shall be notified in writing when Sec. 42.b(12) is authorized for use.

(11) Before cutting and removing any trees necessary to facilitate logging in the Partial Cut Units the Purchaser shall identify the location of the cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the prework conference and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding the following conditions must be met:

(a) All cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees, however, unless otherwise approved in writing by the Authorized Officer, the width of each cable yarding road shall be limited to 12 feet.

(b) The Purchaser may immediately cut and remove additional timber to clear cable yarding roads; and provide tailhold, tieback, guyline, lift, and intermediate support trees; and clear danger trees when the trees have been marked with blue paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. The volume of the timber will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures. No timber may be cut or removed under terms of this provision unless sufficient installment payments have been made in accordance with Sec. 3.(b) of the contract or sufficient bonding has been provided in accordance with Sec. 3.(d) of the contract.

(c) The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9 of the contract; or, the Authorized Officer determines that any tree that exceeds 24 inches diameter at breast height shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Sec. 8 of the contract.

(d) This authorization for the Purchaser to cut and remove additional timber prior to the execution of a modification may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser has cut and removed any tree not previously marked and approved for cutting by the Authorized Officer, which under Sec. 10 of the contract constitutes a violation of the contract and under Sec. 13 of the contract may constitute a trespass rendering the Purchaser liable for damages under applicable law.

(e) If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this special provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least one working day prior to the need for cutting and removing any additional timber, and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Sec. 8 or 9 of the contract as determined by the Authorized Officer in accordance with this provision. The Contracting Officer may issue a written order to the Purchaser to suspend, delay, or interrupt any or all contract work for the period of time deemed necessary and

(f) The Government may reserve trees previously designated for cutting and removal by applying orange paint as replacements for additional trees cut and removed for skid roads and/or cable yarding roads when the Authorized Officer determines such reservation is necessary to maintain stand densities consistent with objectives set forth in the management prescription. This may include the replacement

of trees damaged by storm events, or insects or disease. The volume of this timber to be reserved will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and the value shall be based on the unit prices shown in Exhibit B of the contract. The Purchaser agrees that the Total Purchase shall be reduced accordingly through a unilateral modification to the contract executed by the Contracting Officer.

(12) 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 cable yarding roads, hazardous to workers, needed for guyline, tailhold, and/or tieback trees 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 Sec. 8 of the contract: provided, however, that:

(a) Seed trees, bearing trees, trees larger than 24 inches in diameter at breast height, and trees located within the Reserve Areas are not included in this 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 painting the stump with florescent red paint so that the stump can be visually located from a distance of not less than 100 feet;

(c) concurrently with falling, paint the end of the butt log of each tree with florescent red paint. When butt logs are yarded, deck separately for inspection by Authorized Officer;

(d) the Purchaser conforms to all requirements of Sec. 8 of this contract; provided that (1) the unit prices for additional timber within unit boundaries shall be the unit prices shown in Exhibit B of this contract, or the reappraised unit prices arrived at in accordance with Sec. 9 of this contract, and (2) timber outside of unit boundaries shall be sold at fair market value;

(e) no timber may be cut or removed under the terms of this provision if all contract payments required by Sec. 3.(b) or 3.(d) have been made; and,

(f) 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 and red paint.
- 2. failed to properly mark any butt log with red paint.
- 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.

Failure to perform any of the conditions listed above may be considered a trespass.

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 Sec. 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 yarding trails 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.

(13) Prior to attaching any logging equipment to any tree within the Reserve Area, or any reserve tree larger than 24 inches in diameter at breast height, the Purchaser shall obtain written approval from the Authorized Officer, and shall take precautions to protect the trees from damage, as directed in writing by the Authorized Officer.

(14) During logging operations, the Purchaser shall keep BLM Road Nos. 29-10-35.7 and 30-10-3.1, where they pass through the contract area, clear of trees, rock, dirt and other debris so far as is practicable. The roads shall not be blocked by such operations for more than 20 minutes.

(15) To control the spread of noxious weeds and Port-Orford-cedar root disease, the purchaser shall conduct all operations involving the transportation and use of equipment and vehicles in strict accordance with the requirements shown on Exhibit F, which is attached hereto and made a part hereof. All road building and logging equipment shall be washed prior to moving in the Contract Area to minimize the spread of noxious weeds.

(16) After completion of yarding activities, the Purchaser shall top 26 conifer trees and fell 27 conifer trees in Units 1 - 3, as shown on the Exhibit A and as directed by the Authorized Officer, according to the following:

(a) Unit 1: fell 17 conifer trees;

- (b) Unit 2: top 15 conifer trees, fell 10 conifer trees;
- (c) Unit 3: top 11 conifer trees.

The Purchaser shall top the trees above the third live whorl at a minimum height of 40 feet or at 60 feet if no live limbs occur below 60 feet. Girdling of hardwood trees shall consist of removing the cambium of selected trees in six-inch slabs around the entire circumference of the tree. Trees selected for treatment shall be from the co-dominant tree class as directed by the Authorized Officer. Topped and girdled trees shall have a number painted at breast height with fluorescent paint such that they are visible from at least 150 feet, felled trees shall have the butt ends painted. Existing snags or windfalls and reserve trees meeting the desired characteristics including recent broken tops or logging damage may be counted towards the requirements as directed by the Authorized Officer. Number and location of existing or treated trees shall be depicted on a map such that they may be easily verified.

- c. Road Construction
 - (1) There is no road construction associated with this timber sale contract.

(2) In addition to the requirements set forth in Sec. 26 of this contract, the Purchaser shall complete erosion control and soil stabilization measures on all sections of roadway disturbed during the year prior to October 15 of each year. The Authorized Officer may set time limits for the beginning and completion of erosion control and soil stabilization measures and modify seasonal dates to conform to existing weather conditions and changes in the construction schedule. Such work shall be accomplished in accordance with Erosion Control and Soil Stabilization, 1700 and 1800 Series, contained in Exhibit C, which is attached hereto and made a part hereof.

d. Road Use and Maintenance

(1) The Purchaser shall be required to secure written approval to use or haul equipment over Government owned or controlled structures when that equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit.

(2) Tracked type equipment shall not be allowed to cross over concrete bridge decks, other concrete surfaced structures or asphalt surfaced roads without the proper protection of that surface. Prior approval shall be obtained from the Authorized Officer when crossing with protective devices. Details of such equipment shall be furnished to the Authorized Officer for evaluation of load characteristics, at least 15 days prior to proposed move in. Details shall include:

- (a) Axle weights when fully loaded;
- (b) Axle spacing;
- (c) Transverse wheel spacing;
- (d) Tire size;
- (e) Outside width of vehicle;
- (f) Operating speed;
- (g) Frequency of use; and,
- (h) Special features (e.g. running tracks, overhang loads, etc.).

The Purchaser shall be responsible for repair of any damage to 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.

(3) The Purchaser is authorized to use the roads shown on Exhibit E, attached hereto and made a part hereof, for the removal of Government timber sold under the terms of this contract and for haul of mineral material required under the terms of this contract; provided, that the Purchaser shall pay the road maintenance fees and rockwear fees totaling \$1,368.17, as shown on Exhibit E. Unless the total maintenance and rockwear fees due BLM are 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 by Sec. 3 of this contract.

(4) The Purchaser shall perform maintenance and repair of such roads shown on Exhibit D in accordance with the maintenance specifications listed in Exhibit D, attached hereto and made a part hereof.

(5) At all times during the period of his operations on the contract area, and upon completion of said operations, the Purchaser shall be liable for maintenance and repair of such roads shown on Exhibit D resulting from wear or damage in accordance with the maintenance specifications as shown on Exhibit D.

(6) With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of any BLM controlled road included in Sec. 42.d.(3) of this contract; provided, that such cooperative arrangement shall not relieve the Purchaser of his liability for the maintenance and repair of such roads resulting from wear or damage, in accordance with this contract. The Purchaser shall furnish the Authorized Officer a copy of any cooperative maintenance agreements entered into with other users on these roads.

(7) 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, as determined by the Authorized Officer, to be transported over the roads listed in Sec. 41.d.(3). If the total road maintenance fee does not exceed \$500.00, the Purchaser shall pay such amount in full prior to use of such roads. If the total road maintenance fee exceeds \$500.00, the Authorized Officer shall establish an installment schedule of payments of the maintenance obligation.

(8) Hauling on BLM Road No. 29-10-35.5 shall be permitted between June 1 and October 15 unless dry conditions extend the hauling season, as directed by the Authorized Officer. All other roads are approved for wet season haul.

(9) The following management practices shall be used to prevent delivery of haul-related sediment to the stream network during wet season haul:

Apply additional lift of rock to the area of road that can influence the stream if rill erosion is evident or likely in the road near a stream crossing. Hard rock shall be in place at the start of winter haul and additional rock shall be applied as necessary to maintain the stream crossing for the duration of wet season haul.

Contain offsite movement of sediment from the road or ditch flow near stream by installing a silt fence or other sediment-trapping device. Such control measures must allow for the free flow of water without detention or plugging. The control measure must receive frequent maintenance with accumulated sediment disposed of in accordance with Authorized Officer instructions. Silt fences or sediment traps shall be in place prior to the start of winter haul.

Hauling during the wet season may be suspended if more than 1 inch of rain is expected in a 24-hour period and the Authorized Officer determines that the soils in the contract area are already saturated and the sediment prevention measures in described in Sec. 42.d(9) would be ineffective at preventing sediment delivery to the stream network. The Quantitative Precipitation Forecast information on the NOAA - National Weather Service - Hydrometeorological Prediction Center web site (*http://www.hpc.ncep.noaa.gov*) shall be used as the rainfall forecast tool unless otherwise directed by the Authorized Officer.

(10) In the use of required company roads shown on the Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreements between the United States and Plum Creek Inc. RWA C-344, C-048, and PacWest LLC, RWA C-344. The Agreements are available for inspection at the Bureau of Land Management, Coos Bay, Oregon.

Prior to commencement of operations, the Purchaser shall furnish to the Authorized Officer a copy of the executed License Agreements issued under the terms of the Right-of-Way Agreements.

Default by the Purchaser of said Right-of-Way and Road Use Agreements, of any License Agreements executed pursuant thereto, for failure to pay appropriate road use fees or road maintenance fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision. Road maintenance fees may change during the course of the contract as determined by the Licensor. It is the responsibility of the Purchaser to pay fees current at time of haul. The fees used for the appraisal include:

Road Use Fees Payable to Plum Creek Inc.:	\$585.00
Rockwear Fees Payable to Plum Creek Inc.:	\$277.47

If a Licensor is the purchaser, allowances have been made for amortization of capital investment of the roads covered by the Licensor's Agreement in accordance with 43 CFR 2812.6, 2(a)(5); it is understood that the purchase price stated in Section 2 of this contract is the net price and that no deduction will be made from the contract price because of such allowance.

e. Fire Prevention, Hazard Reduction and Logging Residue Reduction

(1) BLM will assume supervisory responsibility for disposal of logging slash. The assumption by the Government of all obligations for the disposal or reduction of fire hazard under State law does not relieve the Purchaser of the obligations to perform the fire prevention, hazard reduction and logging residue reduction measures required by this contract.

(2) Fire Prevention and Hazard Reduction. Primarily for purposes of fire prevention and fire hazard

reduction, the Purchaser shall comply with the following provisions:

(a) Prior to the operation of power driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, the Purchaser shall prepare a fire prevention and control plan to the satisfaction of the Authorized Officer.

(b) Slash shall be disposed of in accordance with the written instructions of the Authorized Officer.

(3) Logging Residue Reduction and Biomass Removal. Primarily for purposes of fire prevention the Purchaser shall comply with the following provisions:

(a) Notwithstanding the provisions of Sec. 15 of this contract, the Government shall be responsible for disposing of slash created by the Purchaser's operations at all landing sites in the sale area.

(b) All logging debris accumulated on the landing shall be piled. As much as possible, piling on landings shall be reduced to the least amount of piles necessary and shall be free of soil and rock. Alternatively, accumulations of logging debris can be scattered throughout the unit by logging equipment at the direction of the Authorized Officer.

(c) Unless directed by the Authorized Officer, no landing piles shall be within 15 feet of any reserve tree.

Specifications for Landing and Roadside Hazard Pile Covering

(a) The Purchaser shall place polyethylene plastic, maximum 4 MIL thick and black in color over the pile to provide a barrier from winter rains. Unless otherwise directed, the size of plastic shall not exceed 100 square feet (10 X 10).

(b) Larger piles may receive additional polyethylene plastic sheeting in excess of the 100 square feet to adequately cover the pile. Piles within this size limit will be identified by the Authorized Officer before the landing pile covering begins.

(c) In the piled area being covered, material that extends beyond the general contour of the pile shall be cut off and placed on the pile to prevent tearing of the plastic during seasonal winds.

(d) Plastic covering shall be placed on top of the pile to ensure the center of the piles remains dry and shall be weighted down with logging debris and shall be tied down with twine on all four corners.

(e) All piles shall be covered by September 30 of the same year of piling.

- (f) Biomass Utilization Option:
 - 1. If the Purchaser elects to remove biomass generated from harvest activities within the Partial Cut Unit, the Purchaser shall notify the Authorized Officer in order to arrange for on-site

inspections of the removal operations and shall provide information on the total tonnage of biomass material removed from the sale area.

2. Upon completion of the biomass removal, the Purchaser shall notify the Authorized Officer to arrange for a final inspection of the landing site.

Specifications Applicable to Landing Pile Burning

(a) The Purchaser shall begin landing pile burning within 14 hours of notification by the Authorized Officer.

(b) The Purchaser shall remove and dispose of all plastic exceeding the 100 square foot limit in accordance with Federal, State and municipal laws. Removed polyethylene sheeting shall be not be disposed of in burn piles.

- (c) Manpower and Equipment Requirements for burning of piles are:
- 1. One (1) English-speaking foreman for crew supervision
- 2. Three (3) person burn crew
- 3. Three (3) drip torches and a sufficient amount of fuel to complete all landing pile burning.
- (d) A minimum of 80 % consumption of each pile is required.
- (e) No mop-up is required of the Purchaser.

All listed personnel shall be physically fit, experienced and fully capable of functioning as required. All personnel shall arrive at the project area(s) with the following personal safety equipment: Long sleeve natural fabric shirt (or nomex), full length natural fabric trousers (or nomex), minimum eight-inch top leather boots, hardhat, and leather gloves. All listed equipment shall be in good usable condition.

In case of injury to personnel or damage to equipment furnished as required by this subsection, liability shall be borne by the Purchaser, unless such injury or damage is caused by Government negligence.

Time is of the essence in complying with this provision. In the event the Purchaser fails to provide the men and equipment required herein, the Purchaser shall be responsible for all additional costs incurred by the Government in disposing of slash including but not limited to the wages and other costs of providing federal employees and others as substitute labor force, the cost of providing substitute equipment and appropriate additional overhead expenses.

f. Log Export and Substitution

(1) All timber sold to the Purchaser under the terms of this contract 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. 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 8-3/4 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 timbers, 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 remanufacturing of 8-3/4 inches in thickness or less; (6) shakes and shingles.

- (2) Substitution will be determined under the definition found in 43 CFR 5400.0-5(n).
- (3) 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 12 months from the date of last export sale;
 - (d) volume of Federal timber purchased in the past 12months from the date of last export sale;
 - (e) volume of timber exported in succeeding 12 months from date of last export sale; and,
 - (f) volume of Federal timber purchased in succeeding 12 months from date of last export sale.

(4) 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" (Form 5460-16). 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 will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

(5) In the event an affiliate of the Purchaser has exported private timber within 12 months prior to purchasing or otherwise acquiring Federal timber sold under this contract, the Purchaser shall, upon request, obtain from the affiliate information in a form specified by the Authorized Officer and furnish the information

(6) Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer a "Log Scale and Disposition of Timber Removed Report" (Form 5460-15) 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.

(7) 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 ten 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 three 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.

(8) 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 Sec. 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.

g. Optional Scale Check of Lump Sum Sales

(1) The Government, at its option, may administratively check scale any portion of the timber removed from the contract area, and if necessary, conduct check scaling of independent scalers contracted to BLM for administrative check scaling purposes. The Purchaser hereby agrees to make such contract timber available for such scaling at a location or locations to be approved in writing by the Authorized Officer. At the approved location or locations, the Purchaser shall provide an area for logs to be safely rolled out for scaling, to unload logs from trucks, place logs in a manner so that both ends and three faces of each log are visible for scaling, and to reload or remove logs after scaling has been completed.

(2) In the event that BLM elects to administratively check scale and if such check scaling causes a delay in log transportation time, an adjustment will be made to the purchase price as follows. If the entire sale is check scaled by yard scale, the purchase price of this contract shall be reduced by \$322.50. In the event only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of \$322.50 which is equal to the percentage of timber sold which was actually scaled by the Government. For purposes of computing this price reduction, the percentage of timber sold which has been scaled shall be determined by the Government. Any reduction in purchase price under the terms of this provision shall be full compensation to the Purchaser for any expense or loss incurred as a result of such scaling. Scaling shall be conducted in accordance with the Eastside Scribner Scaling Rules by BLM scalers, and/or independent scalers contracted to BLM. A copy of the scale report will be made available to the Purchaser upon request.

- h. Equal Opportunity in Employment
 - (1) Certification of Nonsegregated Facilities, Form 1140-3, is attached hereto and made a part hereof.
- i. Cultural Resource Protection

(1) If in connection with operations under this contract, the Purchaser, his contractors, sub-contractors, or the employees of any of them, discovers, encounters or becomes aware of any objects or sites of cultural value on the contract area such as historical or prehistorical ruins, fossils, or artifacts, the Purchaser shall immediately suspend all operations in the vicinity of the cultural value and notify the Authorized Officer of the findings. Operations may resume at the discovery site upon receipt of written instructions and authorization by the Authorized Officer.

(2) Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the Authorized Officer, by

telephone, with written confirmation, immediately upon discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the Authorized Officer.

j. Sensitive, Threatened, or Endangered Plants or Animals

The Purchaser shall immediately discontinue specified construction or timber harvesting operations 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 or to protect occupied marbled murrelet sites in accordance with the Standards and Guidelines of the Coos Bay District Record of Decision (ROD) and Resource Management Plan (RMP), the Contracting 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 Contracting Officer determines it may be necessary to modify or terminate the contract, or;

(g) species have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;

(h) when, in order to protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and

(i) RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

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 of a suspension period or a combination of suspension periods that exceed a total of 30 days, the First Installment held on deposit may be temporarily reduced upon the written request of the Purchaser. For the

period of suspension extending beyond 30 days, the First Installment on deposit may be reduced to five (5) percent of the First Installment amount listed in Sec. 3.b. of the contract. Any First Installment amount temporarily reduced may be refunded or transferred to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, *et seq.*). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Sec. 3.b. of the contract within 15 days after the bill for collection is issued, subject to Sec. 3.h. of the contract. The Purchaser shall not resume contract operations until the First Installment amount is fully restored.

In the event of a suspension period or a combination of suspension periods that exceed a total of 30 days, the unamortized Out-of-Pocket Expenses for road or other construction required pursuant to Exhibit C of the contract shall be refunded or transferred to another BLM contract at the request of the Purchaser. Upon written notice from the Contracting Officer lifting the suspension, the Purchaser shall reimburse the Government the

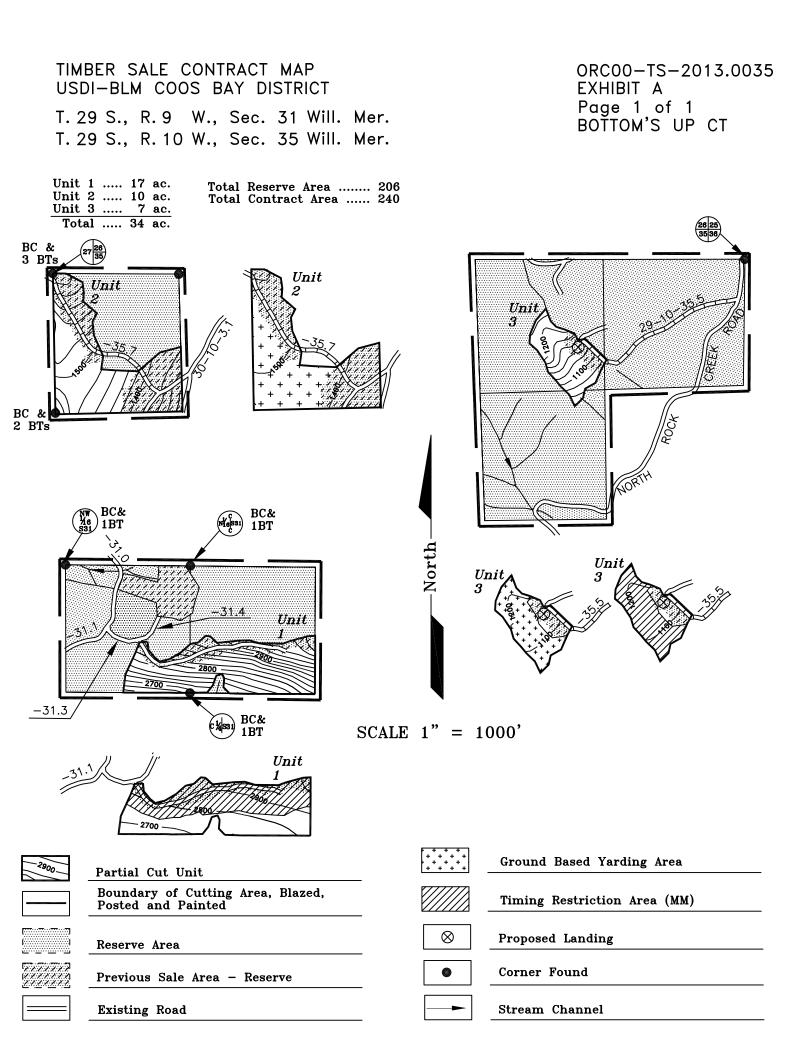
amounts refunded or transferred. The Purchaser may choose to pay this reimbursement at once or in installments payable at the same time as payments are due for the timber under the contract and in amounts approximately equal to the expenses associated with the timber for which payment is due.

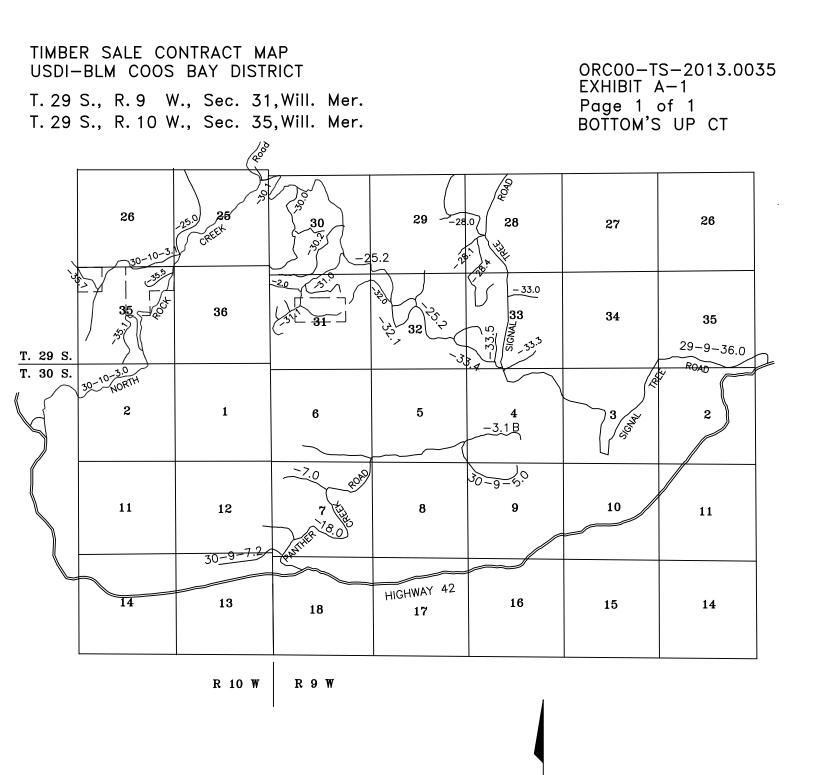
In the event that operating time is lost as a result of the incorporation of additional contract requirements, or delays due to Endangered Species Act consultation with the U.S. Fish and Wildlife Service or U.S. National Marine Fisheries Service, or court-ordered injunctions, the Purchaser agrees that 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 the cutting and removal rights under the contract in order to comply with the Endangered Species Act, protect occupied marbled murrelet sites in accordance with the ROD and RMP, protect species that have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, 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, marbled murrelet occupied site protection in accordance with the ROD and RMP, or court order requirements necessitating the modification or 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.

The Purchaser specifically and expressly waives any right to claim damages, other than those described in the preceding paragraphs, based on an alleged breach of any duty to the Purchaser, whether express or implied, in regard to the manner in which the Government defended the litigation which resulted in the court order affecting the operation of the contract. This waiver also extends to any claims based on effects on the operation of the contract that arise from litigation against another agency. Furthermore, the Purchaser specifically acknowledges and agrees that a court ruling that the Government violated the Administrative Procedures Act cannot be interpreted, in itself, to mean that the Government had not acted reasonably in regard to its duties to the Purchaser under this contract.





 Existing Road

 Boundary of Contract Area

 29

 Section Number

SCALE 1" = 1 Mile

North

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Exhibit B

The following estimates and calculations of timber sold are made solely as an administrative aid for determining: (1) Adjustments made or credits given in accordance with Sections 6, 9, or 11; (2) When payments are due; and (3) Value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the authorized officer, which has been cut or removed or designated for taking.

Except provided in Section 2, Purchaser shall be liable for the total purchase price even though the quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on the Exhibit A.

Species	Net Volume	Bid Price	Sale SubTotal
Douglas-fir	372		
Grand Fir	25		
Port-Orford-cedar	15		
Western Hemlock	9		
Red Alder	8		
Western red-cedar	1		
Sale Totals	430		

Sale Totals (16' MBF)

Unit Details (16' MB)

Unit 1	17 Acres	Value pe	r Acre : \$0.00
Species	Net Volume	Bid Price	Species Value
Douglas-fir	184		
Port-Orford-cedar	4		
Red Alder	3		
Western Hemlock	3		
Western red-cedar	1		
Unit Totals	195		

Unit 2	10 Acres	Value per Acre : \$0.00				
Species	Net Volume	Bid Price	Species Value			
Douglas-fir	125					
Grand Fir	19					
Port-Orford-cedar	11					
Red Alder	4					
Western Hemlock	4					
Unit Totals	163					

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Coos Bay Bottom's Up CT ORC00-TS-2013.0035

Unit 3	7 Acres	Value per Acre : \$0.00				
Species	Net Volume	Bid Price	Species Value			
Douglas-fir	63					
Grand Fir	6					
Red Alder	1					
Western Hemlock	2					
Unit Totals	72					

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT C Sheet 1 of 13 sheets

EXHIBIT "C" SPECIFICATIONS

ROAD CONSTRUCTION SPECIFICATIONS

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

Section	
100	GENERAL
500	RENOVATION AND IMPROVEMENT OF EXISTING ROADS
600	WATERING
1200	AGGREGATE SURFACE COURSE (CRUSHED ROCK)
1800	SOIL STABILIZATION
2100	ROADSIDE BRUSHING

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GENERAL - 100

101 - Pre-work Conference(s):

A pre-work conference will be held prior to the start of 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 will be to review the required work, exhibits and specifications, and to establish a work schedule and a list of the Purchaser's representatives and subcontractor(s).

102 - Definitions:

<u>AASHTO</u> - 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

<u>Apparent Opening Size (AOS)</u> - 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. Also referred to as Equivalent Opening Size (EOS).

ASTM - American Society for Testing and Materials.

<u>Base Course</u> - Surfacing structure consisting of crushed gravel or stone, crushed sandstone, pitrun 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.

BLM - Bureau of Land Management

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

<u>Burst Strength</u> - 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.

<u>Culvert</u> - 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.

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

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

<u>End Haul</u> - Excavated material moved, other than by dozer, to an embankment or waste area to prevent sidecasting material outside of the road prism.

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT C Sheet 3 of 13 sheets

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

<u>Grab Tensile Strength</u> - 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.

<u>Grading</u> - 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.

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

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

<u>Pioneer Road</u> - Temporary construction access built along the route of the project.

<u>Penetration Resistance</u> - 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.

<u>Percent Open Area</u> - The net area of a geotextile material that is not occupied by geotextile material filaments, normally determinable only for woven and nonwoven geotextile material having distinct, visible, and measurable openings that continue directly through the geotextile material.

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

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

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

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

<u>Puncture Resistance</u> - 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.

<u>Purchaser</u> - 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.

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

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

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

Road Centerline - Longitudinal center of roadbed.

<u>Road Improvement</u> - 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.

<u>Roadway</u> - 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.

<u>Scale</u> - In quarrying, consists of the removal of loose or overhanging rock adhering to the solid face after a shot or a round of shots has been fired.

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

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

<u>Shoulder</u> - 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.

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

<u>Specific Gravity</u> - 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.

<u>Structures</u> - 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.

<u>Subbase</u> - Reinforcement of the subgrade with large particles of pitrun or crushed stone. Usually confined to roads having wet subgrades or subgrades with weak support characteristics.

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

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

<u>Tackifier</u> - A compound which penetrates into the earth and assists in creating a crust through the cohesive bonding of the surface materials to a depth sufficient to stabilize the soil surface and/or a compound used to mat together mulching material.

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT C Sheet 5 of 13 sheets

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

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

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

<u>Timber</u> - Standing trees, downed trees, or logs, or portions thereof, which are capable of being measured in board feet.

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

<u>Typical Cross Sections</u> - 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.

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

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

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

<u>Woven Geotextile Material</u> - 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:

<u>AASHTO T 11</u>	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.
<u>AASHTO T 90</u>	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.
<u>AASHTO T 96</u>	Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.
<u>AASHTO T 99</u>	Relationship between soil moisture and maximum density of soil. Method A - 4" mold, soil passing a No. 4 Sieve. 25 blows/layer & 3 layers. Method D - 6" mold, soil passing a 19.00 mm (3/4 inches) sieve. 56 blows/layer & 5 layers.

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- <u>AASHTO T 176</u> Shows relative portions of fine dust or clay-like materials in soil or graded aggregate.
- <u>AASHTO T 180</u> (OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop.
- 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.
- <u>AASHTO T 205</u> <u>Rubber balloon.</u> Density of soil in place. Use for compacted or firmly bonded soil.
- AASHTO T 210 Durability of aggregates based on resistance to produce fines.
- AASHTO T 224 Correction for coarse particles in the soil.
- <u>AASHTO T 238</u> Determination of density of soil and soil-aggregates in place by nuclear methods.
- <u>AASHTO T 248</u> Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
- DES. E-12 Determination of relative density of cohesionless soils.

<u>DMSO (dimethyl sulfide</u>) - Determines volume of expanding clays in aggregates. Usually associated with marine basalts.

- 103 Compaction equipment shall meet the following requirements:
- <u>Grid roller.</u> 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 space spaced on 4-1/2 inches to 5-1/2 inches center. Net opening between the bars shall be not less than 3-inches nor 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 fully loaded roller at a speed of at least 4 miles per hour.
- <u>Vibratory roller.</u> 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.
- 103i Other. Compaction equipment approved by the Authorized Officer.

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RENOVATION AND IMPROVEMENT OF EXISTING ROADS - 500

- 501 This work shall consist of reconditioning and preparing the roadbed and shoulders, 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 shown on the plans.
- 501a This work shall include the removal and disposal of slides in accordance with these specifications.
- 502 The existing road surface shall be scarified to its full width and to a sufficient depth to eliminate surface irregularities and bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans at the following location(s):
- 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.
- 503 Debris from slides shall be disposed of as directed by the Authorized Officer.
- Scarified material and 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 Subsection 103f and in accordance with the following table:
- 504a Minimum compaction required shall be 1 hour of continuous rolling for each 4 stations of road, or fraction thereof, as measured along the centerline per layer of material.
- The inlet end of existing drainage structures 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.
- 507 The finished grading shall be approved in writing by the Authorized Officer. The Purchaser shall give the Authorized Officer 3 days notice prior to final inspection of the grading operations.

WATERING - 600

 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.

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- 602 Water, when needed for compaction 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.
- 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.

AGGREGATE SURFACE COURSE, SPOT, AND MAINTENANCE ROCK - 1200 CRUSHED ROCK MATERIAL

- This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds and base courses 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.
- 1202a Crushed rock materials used in this work may be obtained from commercial source(s) selected by the Purchaser at his option and expense, providing rock materials furnished comply with the specifications in this section.
- 1203 When crushed rock material is produced from gravel, not less than 75 percent by weight of the particles retained on the No. 4 sieve will have 3 manufactured fractured face(s).
- 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	С				
1-1/2-inch	100				
1-inch	-				
3/4-inch	50-90				
½-inch	-				
No. 4	25-50				
No. 8	-				
No. 30	-				
No. 40	5-25				
No. 200	2-15				

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.

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- 1206 Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T 210.
- 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.
- That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have liquid limits 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:

Sand Equivalent AASHTO T 176 Maximum	Liquid Limit AASHTO T 89 Maximum	Plasticity Index AASHTO T 90 Maximum	Percentage Passing No. 200 Sieve AASHTO T 27 Maximum
34	25	9	9
33	25	8	8
32	25	7	7
31	25	6	6
30	25	5	5
29 or less	25	4	4

- If additional binder or filler material is necessary to meet the grading or plasticity requirements or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.
- 1208a Each layer of crushed rock material shall be thoroughly mixed on the roadbed by alternately blading, to full depth, until a uniform mixture has been obtained. The mixture shall then be spread to full width. When completed, the spreading shall produce a surface which is smooth, presents uniform shoulder lines, and conforms to the specified cross section.
- Shaping and compacting of roadbed shall be completed and approved in writing, prior to placing crushed rock material, in accordance to the requirements of Subsection 500 for placing on the roadbeds. Notification for roadbed inspection, prior to rocking, shall be 3 days prior to that inspection and shall be 6 days prior to start of rocking 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. Compacted layers shall not exceed 4 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

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT C Sheet 10 of 13 sheets

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.
- 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 Subsection 103. Minimum compaction shall be 1 hour of continuous compacting for each 150 cubic yards or fraction thereof, of crushed rock material placed per layer.

SOIL STABILIZATION - 1800

- This work consists of seed, fertilizer, and mulch application on designated cut, fill, borrow, disposal, and all other contract-disturbed areas in accordance with these specifications and as shown on the plans. This work is not required for road acceptance under Section 18 of this contract.
- 1802a Soil stabilization work consisting of seeding, fertilizing, and mulching shall be performed on new road and landing construction, culvert replacement sites, and areas where vegetative cover has been disturbed, in accordance with these specifications and as shown on the plans.
- 1803 Soil stabilization work as specified under Subsection 1802a shall be performed during the following seasonal periods:

From:	March 15	to:	April 30
From:	September 1	to:	October 15

The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

- 1806a Additional soil stabilization work consisting of seeding, fertilizing and mulching may be required at the option of the Authorized Officer. Providing the additional stabilization is not due to Purchaser negligence as specified in Section 12 of the contract, a reduction in the total purchased price shall be made to offset the cost of furnishing and applying such additional stabilization material. Cost shall be based upon the unit price set forth in the current BLM Timber Appraisal Production Cost Schedule.
- Fertilizer shall be a standard, water soluble, commercial grade of fertilizer conforming to all State and Federal regulations and to the standards of the Association of Official Agricultural Chemists. Fertilizer furnished shall provide the minimum percentage of available nutrients as specified below:

Available nitrogen	16%
Available phosphoric acid	20%
Potassium	0%

The Authorized Officer will take samples as necessary for the determination of compliance with the above requirements. Fertilizer shall be furnished in new, sealed, and properly labeled containers with name, weight, and guaranteed analysis of contents clearly marked. Material failing to meet these requirements, or that which has become wet or otherwise damaged in transit or storage, will be subject to rejection by the Authorized Officer.

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- 1809 Mulch materials conforming to the requirements of Subsections 1809d, 1809e, 1809f, and 1809g shall be furnished by the Purchaser in the amounts specified under Subsection 1812.
- 1809d Straw mulch shall be from oats, wheat, rye, or other approved grain crops which are free from noxious weeds, mold, or other objectionable materials
- 1809e Grass straw mulch shall be from perennial grass or, if specified, an annual rye grass, from which the seed has been removed. The straw shall be free from noxious weed seed, mold, or other objectionable materials.
- Peat mulch shall be furnished in bales not less than 7-1/2 cubic feet per bale compressed and 12 to 14 bushels loose. Peat moss shall be a granulated sphagnum peat moss free from woody substances consisting of at least 75 percent of partially decomposed stems and leaves of sphagnum and essentially brown in color. The texture may vary from porous fibrous to spongy fibrous and shall be free of sticks, stones, and mineral matter. Peat moss shall be in air-dry condition, shall show an acid reaction of 3.5 pH to 5.5 pH, and shall other wise conform to State and Federal regulations.
- Peat humus mulch shall be a natural peat or peat humus from fresh water saturated areas, consisting of sedge, sphagnum, or reed peat and be of such physical condition that it will pass through a 1/2-inch mesh screen. The humus shall be free from sticks, stones, roots, and other objectionable materials. Samples taken at the source of supply shall have the following analysis: Acidity range 4.0 to 7.5 pH; minimum water absorbing ability 200 percent by weight on oven-dry basis. Minimum organic content shall be 60 percent when dried at 105° C. Freshly excavated peat, if saturated with water, shall be stored for a sufficient length of time to condition it for workability.
- 1810 Mulch material shall be delivered to the work area in a dry state. Wet material will not be accepted. Material to be used in the mulching operation may be stockpiled along the road designated for treatment provided that it is maintained in a dry state, and has the approval of the Authorized Officer.
- Bulk mulching material required under these specifications shall be delivered to the work area bound either by twine, string, or hemp rope. Wire binding and plastic twine will not be permitted.
- 1812 The Purchaser shall furnish and apply to approximately <u>0.5 acres</u> designated for treatment as shown on the plans and as specified under Subsection 1806, a mixture of water, grass seed, fertilizer and mulch material, or a mixture of grass seed and fertilizer material at the following rate of application:

b.	Dry Application:	
	BLM Grass Seed Mix	30 lbs. /acre
	Commercial Grass Seed Mix	60 lbs. /acre
	Fertilizer	200 lbs. /acre
	Mulch/Straw	3,000 lbs. /acre

The above proportion and application rate are subject to adjustment by the Authorized Officer during the application operation.

1815 - The Purchaser may reduce the application rate on partially covered slopes and no application on areas already well stocked with grass or on rock surfaces.

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- 1816 The seed, fertilizer, and mulch materials shall be placed by the dry method in accordance with the requirements set forth in Subsection 1816b.
- 1816b Dry Method Blowers, mechanical seeders, seed drills, landscape seeders, cultipaker seeders, fertilizer spreaders, or other approved mechanical seeding equipment may be used when seed and fertilizer are to be applied in dry form.
- 1819 The maximum distance to be seeded, fertilized and mulched from the road centerline shall be 100 feet for the cut slopes and 150 feet for the fill slopes.
- 1820 The Purchaser shall notify the Authorized Officer at least 3 days in advance of date he intends to commence the specified soil stabilization work.
- 1822 Mulch that collects at the end of culverts or accumulates to excessive depths on the slopes shall be evenly spread by hand methods, as directed by the Authorized Officer.
- 1823 No materials shall be applied when wind velocities would prevent a uniform application of the mix or slurry or when winds would drift the mix or slurry spray outside of the designated treatment area.
- 1826 Twine, rope, sacks, and other debris resulting from the soil-stabilization operation shall be picked up and disposed of to the satisfaction of the Authorized Officer.

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ROADSIDE BRUSHING - 2100

- This work shall consist of cutting and the removal of vegetation from the road prism variable distance and inside curves in accordance with these specifications. This work shall conform to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet, at designated locations as shown in the plans.
- 2102 Roadside brushing may be performed mechanically with self-powered, self-propelled equipment and/or manually with hand tools, including chainsaws.
- Vegetation cut manually or mechanically less than 6 inches in diameter at D.B.H. shall be cut to a maximum height of 6 inches above the ground surface or above obstructions such as rocks or stumps on cut and fill sloped and all limbs 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. All limbs will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.
- 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 12 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 12 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.
- 2108 Self propelled equipment shall not be permitted on cut and fill slopes or in ditches.
- Debris resulting from roadside brushing 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.
- 2113 Roadside brushing shall be accomplished as specified on the roads listed on Sheet No. 6.
- 2116 Mechanical brush cutters shall not be operated when there are people and occupied vehicles within 400 feet of the immediate operating area.
- 2117 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.

SALE NO. 13-35

SALE NAME: BOTTOMS UP CT

ROAD NUMBERS 29-10-25.2	M LES 1, 82
29-9-31.0	0.97
29-9-31.1	0. 25
29-9-31.3	0.40
29- 10- 35. 5	0.38
29- 10- 35. 7	0.30
30- 10- 3. 1	1.10
– Tot al	5.22

- SUMMARY-

1	MOVE IN:	\$4, 438. 00
2	CULVERTS, SLOUGH, SLUMPS, & M SC	\$2, 349.00
3	GRADING FOR TIMBER HAUL	\$5, 353. 84
4	GRADING FOR AGGREGATE HAUL	\$0.00
5	MAINTENANCE ROCK	\$2, 839. 50
6	PRE-MAINTENANCE	\$1, 157. 32
7	OTHER MAINTENANCE	\$4, 762.00

TOTAL MAINTENANCE:

\$20,899.66

ROAD MAINTENANCE APPRAISAL

SALE NO. 13-35

SALE NAME: BOTTOMS UP CT

- APPRAISAL WORKSHEET-

1.	MOVE- I N: EQUI PMENT	MOVE- I NS COST/ MOVE	
	DUMP TRUCK Brush cutter GRADER Excavator Roller / Compactor BACKHOE W FE LOADER Mulching Equipment TRACTOR>D7 Water truck / Fire truck	1 \$185.00 1 \$356.00 2 \$356.00 1 \$680.00 2 \$356.00 2 \$356.00 2 \$356.00 2 \$356.00 1 \$131.00 1 \$518.00 2 \$216.00	\$356.00 \$712.00 \$680.00 \$712.00 \$712.00 \$131.00 \$518.00
		TOTAL =	\$4,438.00
2.	CULVERT MAINT., SLOUGH REM	/OVAL, SLUMP REPAIRS, ETC	
	MAINT. OBLIGATION 5.22 MILES (AVE. COST \$450.00 / M LE =	\$2,349.00
3.	GRADI NG FOR TI MBER HAUL UNI T # GRADI NG 10.4 M LES @		
4.	GRADING FOR AGGREGATE HAUL M LES @	.: / MLE =	
5.	MAI NTENANCE ROCK: SI ZE 1.5" minus	APPR FROM Hoover Rock M LES	
ROYALTY PROCESSI NG SLOW HAUL MED. HAUL FAST HAUL	100 CU. YDS. 0 0 CU. YDS. 0 100 CU. YDS. 0	_	\$1,250.00 \$96.00 \$0.00 \$440.00 \$1,053.50 \$2,839.50
	MAI NTENANCE ROCK: SI ZE 3" Minus	APPR FROM	
ROYALTY PROCESSI NG SLOW HAUL MED. HAUL FAST HAUL	0 CU. YDS. 0 0 CU. YDS. 0 0 CU. YDS. 0 0 CU. YDS. 0 0 CU. YDS. 0	M LES M	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
	SI ZE	APPR FROM	
ROYALTY PROCESSING SLOW HAUL MED. HAUL FAST HAUL	0 CU. YDS. 0 0 CU. YDS. 0 0 CU. YDS. 0	M LES M LES M LES M LES M LES M LES M LES M LES N . 49 M LES M LES M LES N . 49 M LES M LES M LES M LES M . 96 M . 96	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00

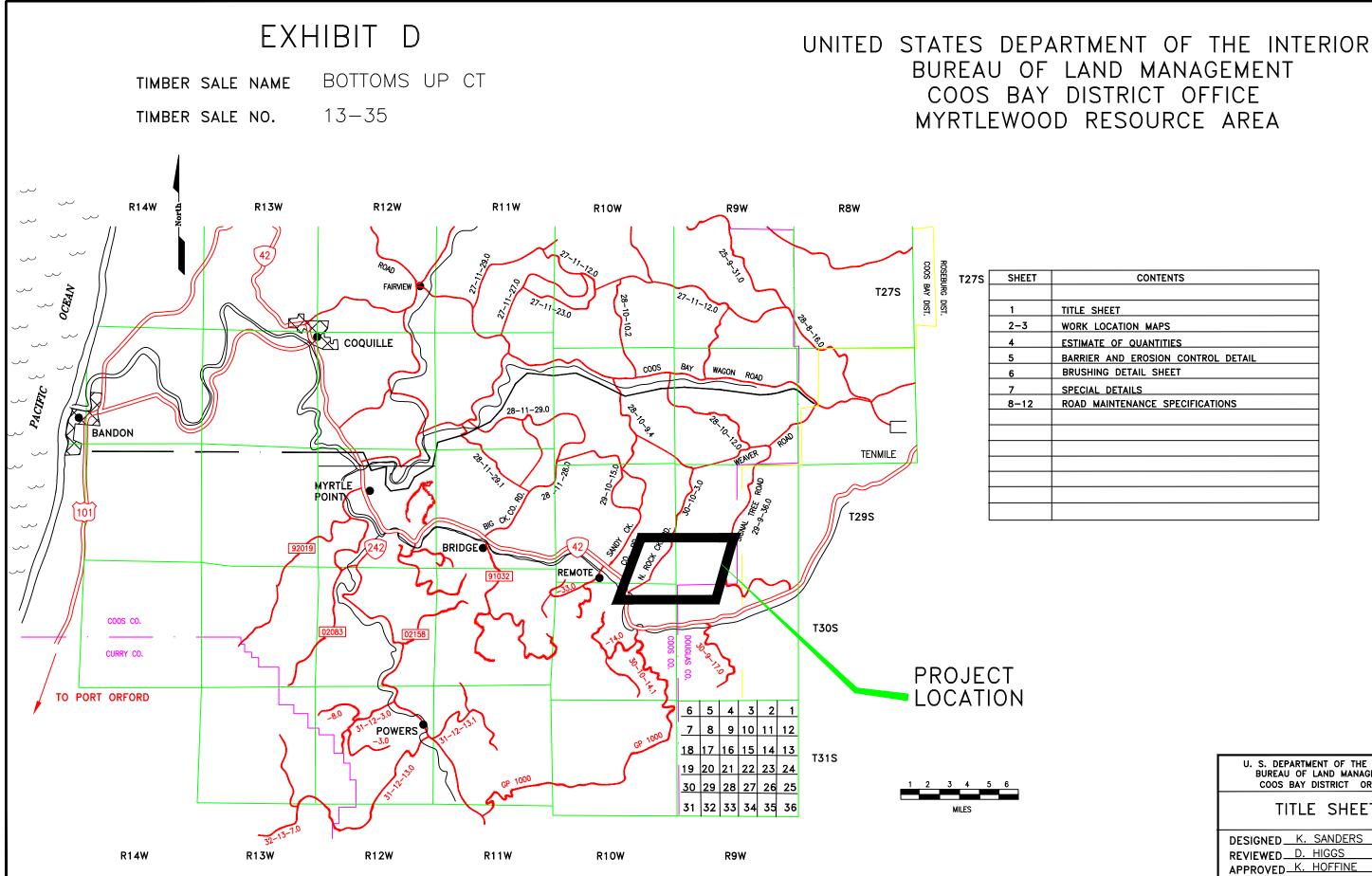
ROAD MAINTENANCE APPRAISAL

SALE NO. 13-35

SALE NAME: BOTTOMS UP CT

6. **PRE-MAINTENANCE**

<u>29-9-31.1 (13.20 sta.)</u> Brushing	0.6	acres	\$187.28	\$187.28
<u>29-9-31.3 (21.30 sta.)</u> Remove Earthen Barrier (remove water dips)		hour hours	\$65.00 \$195.00	\$260.00
<u>29-10-35.5 (20.00 sta.)</u> Remove Boulder barrier Move Rip Rap aside for Exh Brushing (remove water dips)	nibit "D" post ha 0.9	hour ul boulder barr acres hours	\$32.50 rier. \$280.93 \$195.00	\$475.93
<u>29-10-35.7 (15.84 sta.)</u> Brushing	0.7	acres	\$163.88	
<u>29-10-3.1 (58.08 sta.)</u> Brushing	1.0	acres	\$234.11	\$234.11
		Pre-Maintenan	ce Total =	\$1,157.32
7 OTHER MAIN	TENANCE:			
		EQUIPMENT WASH	ING	\$2,925.00
<mark>29-9-31.3</mark> Water Bar 18" CPE re Soil Stab i	NOXIOUS WEED (Entrance Or moval & disposal lization	ר y) \$200. 00 \$200. 00 \$72. 00	I NG	\$2,925.00
<u>29-9-31.3</u> Water Bar 18" CPE re Soil Stabi Riprap Bar 29-10-35.5 Water Bar	NOXIOUS WEED (Entrance Or moval & disposal lization rier	\$200. 00 \$200. 00 \$72. 00 <u>\$460. 00</u> \$184. 00	I NG	\$2,925.00 \$932.00
<u>29-9-31.3</u> Water Bar 18" CPE re Soil Stabi Riprap Bar 29-10-35.5	NOXIOUS WEED (Entrance Or moval & disposal lization rier	\$200. 00 \$200. 00 \$72. 00 \$460. 00	ING	
<u>29-9-31.3</u> Water Bar 18" CPE re Soil Stabi Riprap Bar <u>29-10-35.5</u> Water Bar Soil Stabi	NOXIOUS WEED (Entrance Or moval & disposal lization rier	\$200. 00 \$200. 00 \$72. 00 <u>\$460. 00</u> \$184. 00 \$72. 00	ING	\$932.00
<u>29-9-31.3</u> Water Bar 18" CPE re Soil Stabi Riprap Bar <u>29-10-35.5</u> Water Bar Soil Stabi Riprap Bar 29-10-35.7	NOXIOUS WEED (Entrance Or moval & disposal lization rier	\$200.00 \$200.00 \$72.00 \$460.00 \$184.00 \$72.00 \$613.00	ING	\$932.00



BUREAU OF LAND MANAGEMENT COOS BAY DISTRICT OFFICE MYRTLEWOOD RESOURCE AREA

С	0	Ν	T	EI	NT	rs	

TITLE SHEET

WORK LOCATION MAPS

ESTIMATE OF QUANTITIES

BARRIER AND EROSION CONTROL DETAIL BRUSHING DETAIL SHEET

SPECIAL DETAILS

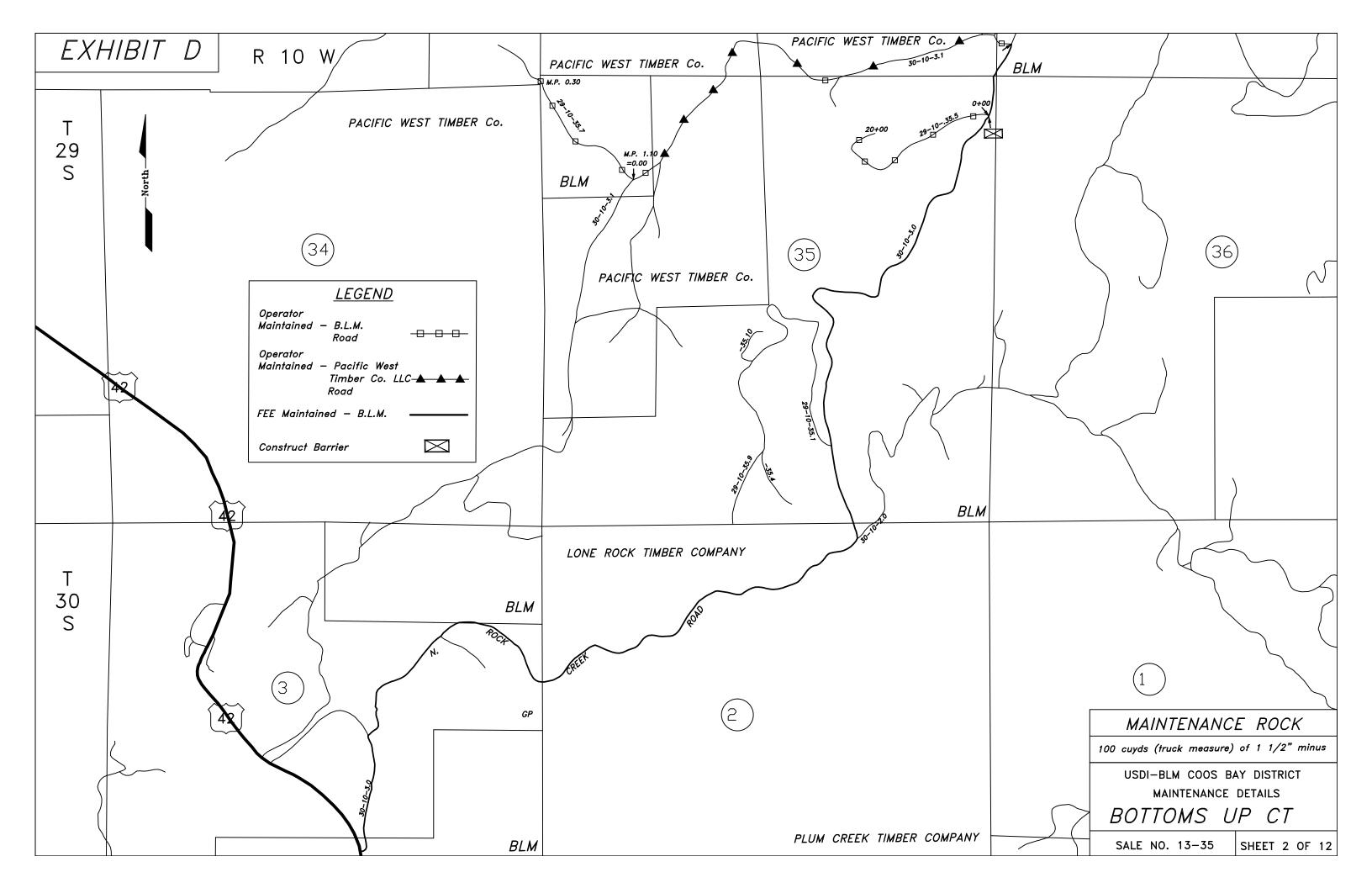
ROAD MAINTENANCE SPECIFICATIONS

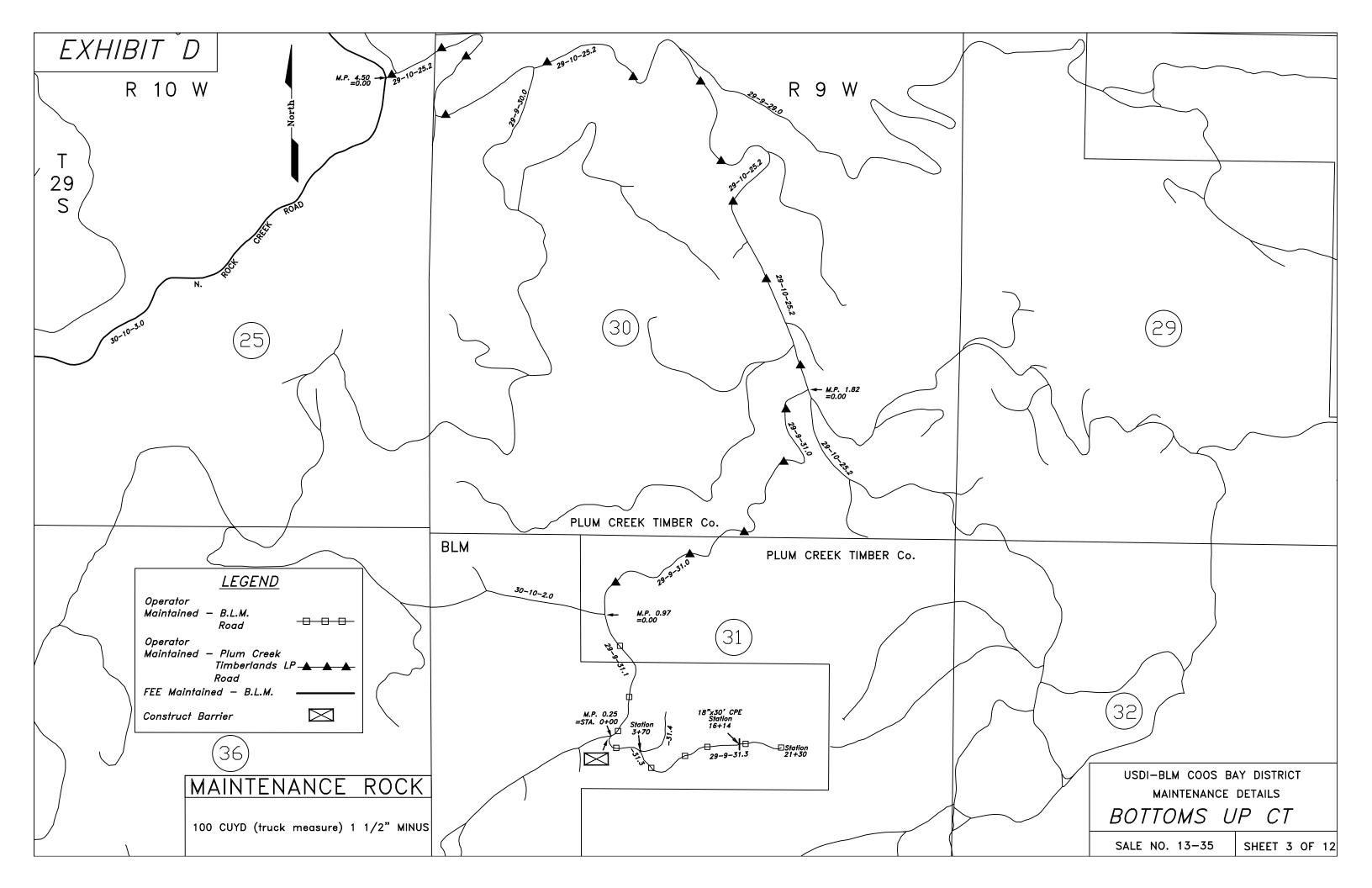
U. S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT COOS BAY DISTRICT OREGON

TITLE SHEET

DESIGNED K. SANDERS REVIEWED D. HIGGS

APPROVED K. HOFFINE





"EXHIBIT D" ESTIMATE OF QUANTITIES*

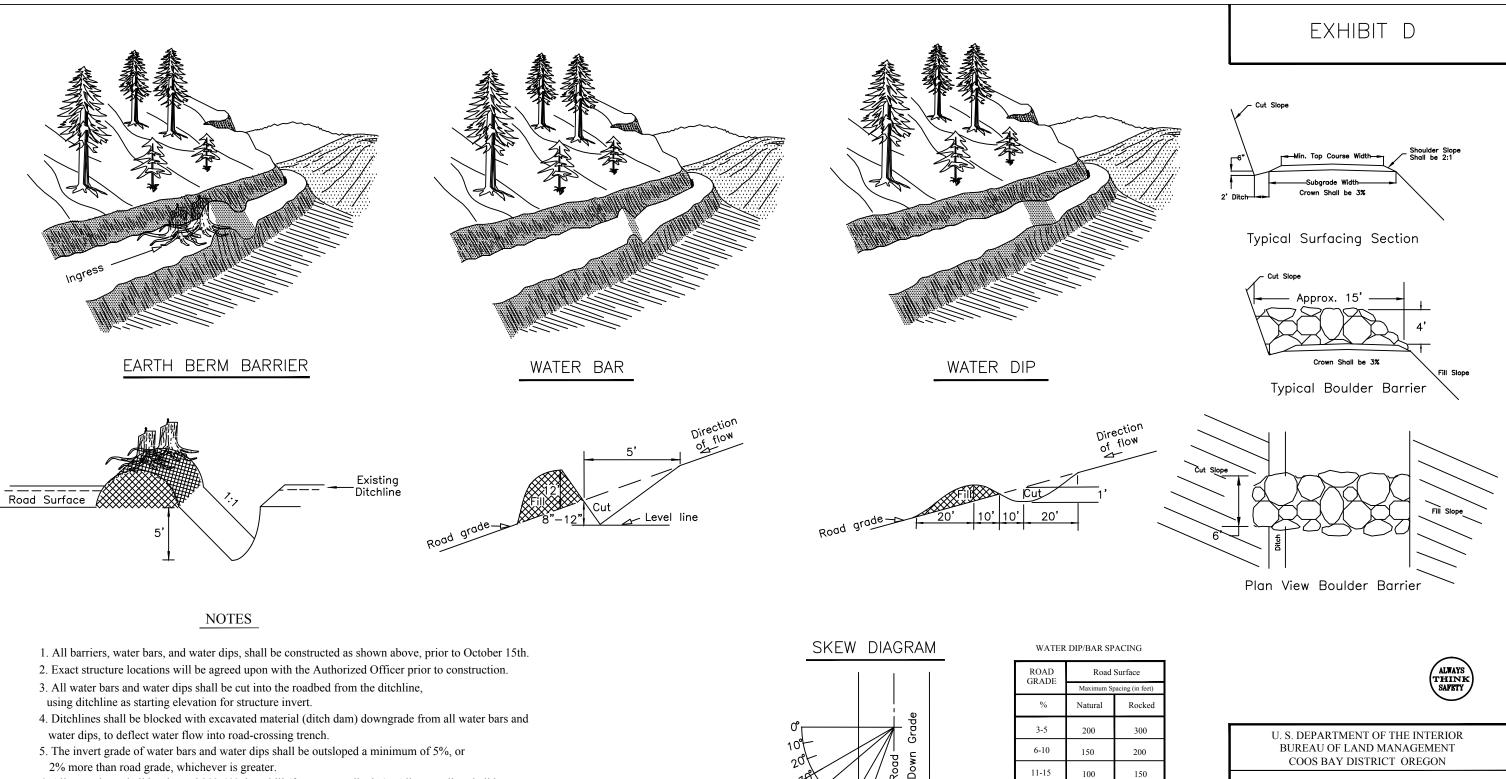
		SURFACING				OTHER		SOIL STA	BILIZATION	OTHER	
ROAD NUMBER	TOP **	AGG. MAINT. ROCK **	AGG. MAINT. ROCK **	BASE	RIPRAP BARRIER **	RIPRAP ARMOR **	JAWRUN ROCK **	DRY	HYDRO- MULCH		
SPEC. NO.	1200	1200	1000	1000	1400			1800	1800		
UNITS	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	ACRES	ACRES		
29-9-31.1	Ô	©	B	B	A	B	A	0.0			
29-9-31.3	C	C	B	B	20 A	B	A	0.2			PITE
29-10-35.5	Ô	Ć.	B	B	15 A	B	A	0.2			100
29-10-35.7	C	C	B	B	A	B	A	0.1			
29-10-25.2	Ô	Ć.	B	B	A	B	A	0.0			
29-10-31.0	Ô	C)	B	B	A	B	A	0.0			
	C	\bigcirc	B	B	A	B	A				
	Ô	Ô	B	B	A	B	A				110
	C	Ô	B	B	A	B	A				
	Ô	Ô	B	B	A	B	A				120
	Ô	\bigcirc	B	B	A	B	A				140
	C	\bigcirc	B	B	A	B	A				
	Ô	\bigcirc	B	B	A	B	A				
	Ô	Ô	B	B	A	B	A				СНІ
	Ô	\bigcirc	B	B	A	B	A				
	C	\bigcirc	B	B	A	B	A				G
	Ô	Ô	B	B	A	B	A				
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	Ô	Ô	B	B	A	B	A				
	Ô	Ō	B	B	Á	B	Á				
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	Ô	Ô	B	B	A	B	A				
	Ô	Ô	B	B	A	B	A				
	Ô	Õ	B	B	Ă	B	Á				
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	Õ	Õ	B	B	Ă	B	Ă				
	Õ	Õ	B	B	Ă	B	Ă				
TOTALS	Õ	100 Ĉ	B	B	35 Å	B	Ă	0.5			

* FOR INFORMATIONAL USE ONLY. QUANTITIES SHOWN ARE NOT PAY ITEMS.

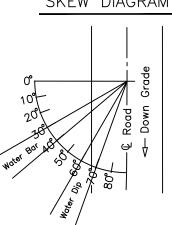
****** ROCK QUANTITES ARE TRUCK MEASUREMENT.

רו	ГЕМ	SIZE	GRADE	
ITRUN				
000 (Base)	3"	В	
				-
100		4"	В	
200 (Top)	1 ¹ / ₂ "	С	
400 (RIPRAP)	34"	А	-
		28"	В	
HIP SE	AL ROCK	³ /4 "	S	J
GRAD			ALWAY THIN SAFET	Y
	BUR		OF THE INTE D MANAGEMEN RICT OREGO	١T
	ESTIN	"EXHIB	IT D" CUANTI	TIES
	DESIGNE REVIEWE APPROV		GS	
	DRAWN J DATE 1	RM 0-12	SCALE NON	<u>1E</u> 0f 12

DRAWING NO.



- 6. All water bars shall be skewed $30^{\circ}-40^{\circ}$ downhill (from perpendicular). All water dips shall be skewed 60°-70° downhill (from perpendicular). See skew diagram.
- 7. All water bar and water dip berms (fills) shall be compacted to 85% of maximum density. Water dips shall be built for vehicle passage without degradation.
- 8. Additional rip rap barrier width is required on flat areas (adjacent to road surface) to achieve road blockage. Barrier height shall be a minimum of 4'.
- 9. Minimum of 20 cubic yards of boulders shall be used per boulder barrier.
- 10. Boulders shall be hard rock (Durability of 35 as determined by AASHTO T210), open graded from to 28" to 36" equivalent diameter.



ROAD GRADE	Road
UKADE	Maximum Sp
%	Natural
3-5	200
6-10	150
11-15	100
16-20	75
21-35	50

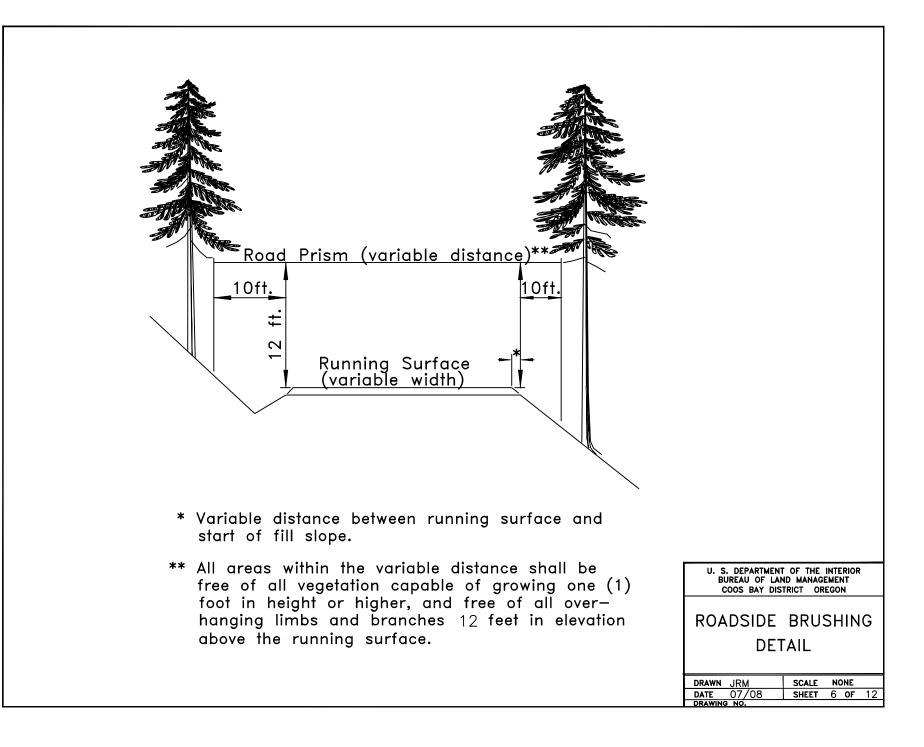
100

50

* ON GRADES IN EXCESS OF 14% CONSTRUCT WATER BARS.

BARRIER AND EROSION CONTROL DETAIL

K. SANDERS DESIGNED. REVIEWED. D. HIGGS K. HOFFINE APPROVED-DRAWN JB/RCS SCALE NONE DATE 11/24/2011 SHEET 5 OF 12



SALE NO. 13-35 BOTTOMS UP CT EXHIBIT D Sheet 7 of 12 sheets

SPECIAL DETAILS

Timing Restraints

Specified roads, spurs, and landings shall be decommissioned after hauling is complete, and prior to the first rains of the wet season, but no later than October 15.

Spill Containment

Spill containment kit is required on-site during work. Kit contents shall include absorbent booms (two bales, four 8" x 10" booms/bale), absorbent pads (two bales, one hundred 17" x 19" x ¹/₄" pads/bale), heavy duty garbage bags, gloves (PVC and latex), and goggles.

Equipment Washing

The Purchaser is responsible for vehicle/equipment entrance cleaning in accordance with the Exhibit F. A copy of the washing certification is to be provided prior to mobilization of the equipment into the work site.

Soil Stabilization

All disturbed or exposed soil, within the spur/landing right-of-way, or connected with the road renovation, maintenance or decommissioning of this sale, shall have seed, fertilizer, and mulch applied in accordance with the 1800 of the Exhibit C.

Waterbars & Waterdips

Waterbars and waterdips shall be constructed in accordance with the Barrier and Erosion Control Detail, sheet 5.

Road Barriers

Boulder Barriers shall be constructed at specified locations, and in accordance with the Barrier and Erosion Control Details, Sheet 5. Additional barrier lengths are required when adjacent flat areas exist at barrier locations, to achieve effective road blockage.

Single components of the boulder barrier shall be of sufficient size to prevent pickup-assisted movement. Boulders shall have a *minimum durability of 35*, as determined by AASHTO T210. Seed, fertilizer, and mulch shall be applied to all exposed soil after construction.

Native Seed

The Government will furnish native seed mix, when available, to be used by the Purchaser. *Seed*: Government furnished grass seed will be made available for pick-up at the Coos Bay District Office located at 1300 Airport Lane, North Bend, Oregon 97459. Personnel to contact are Jeanne Standley at (541) 751-4283 or Jennifer Sperling at (541) 751-4336. Call 3 business days in advance before pick-up.

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT D Sheet 8 of 12 sheets

ROAD MAINTENANCE SPECIFICATIONS

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

Section	
3000	GENERAL
3100	OPERATIONAL MAINTENANCE
3200	SEASONAL MAINTENANCE
3300	FINAL MAINTENANCE
3400	OTHER MAINTENANCE

GENERAL - 3000

- 3001 The Purchaser shall be required to maintain all roads as shown on the Exhibit D map of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.
- 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 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.
- The Purchaser shall be responsible for providing timely maintenance and cleanup on any road(s) 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.

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT D Sheet 9 of 12 sheets

OPERATIONAL MAINTENANCE - 3100

- 3101 The Purchaser shall blade and shape the road surface and shoulders with a motor patrol 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 place 100 yds³ (Truck measure) of 1-1/2" (-) crushed aggregate conforming to the requirements of section 1200 of the Exhibit C of this contract on the roadway at locations and in the amounts designated by the Authorized Officer.

This crushed aggregate shall be used to repair surface failures, and areas of depleted surface depth, excluding damage. The aggregate shall be furnished, hauled, placed, spread, and compacted by use of dump trucks, water trucks, motor patrol grader, and compactors.

- 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 patrol grader, rubber-tired front-end bucket loader, rubber-tired backhoe or comparable equipment, and by the use of hand tools.
- 3104a Removal of bank slough and slide material includes placement of material at the nearest suitable turnout or disposal site where material cannot erode into streams, lakes, or reservoirs or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion.
- 3104b The Purchaser shall be responsible for removal of all slides or slough, up to fifteen (15) station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the Purchaser.

Prior to removal of any slough or slide material exceeding fifteen (15) station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, method of disposal, and the disposal site. Work may commence immediately after agreement. Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of work, based on current BLM Timber Appraisal Production Cost Schedules. Adjustments in purchase price for completed work shall be made as necessary as and no less than once per year when actual work is ongoing.

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 waterbars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT D Sheet 10 of 12 sheets

3106 - The Purchaser shall be responsible for repair and replacement of all materials eroded from road shoulders and fill slopes, up to fifteen (15) station yards in quantity, at any one site. The work includes unlimited multiple sites on all roads required to be maintained by the Purchaser. Prior to repair and replacement of eroded material exceeding fifteen (15) station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, borrow source, and method of repair. Work may commence immediately after agreement.

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work, based upon current BLM Timber Sale Appraisal Production Cost Schedules. Adjustments in purchase price for completed work shall be made as necessary, and no less than once per year when actual work is ongoing.

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 by such skidding activity is not considered maintenance and shall be performed 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.

SEASONAL MAINTENANCE - 3200

- 3201 The Purchaser shall perform preventive maintenance at the end of Purchaser's hauling each season and during nonhauling periods which occur between other operations on the contract area. This includes cross ditching, blockage, removing ruts or other surface irregularities, and all other requirements specified in Section 3100.
- The Purchaser shall perform and complete maintenance, specified in Sections 3000, 3100, and 3200, on all roads maintained by him, prior to October 1 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 preceding operating seasons.
- The Purchaser shall complete road cleanup and maintenance, as specified in Section 3100, at the completion of logging operations on any road(s) located in an area separate from the area where logging activities will resume.
- 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.

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT D Sheet 11 of 12 sheets

FINAL MAINTENANCE - 3300

The Purchaser shall complete final maintenance and/or damage repairs on all roads used under terms of their contract within 30 calendar days following the expiration of Purchaser's right to cut and remove timber (Sec. 4) 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 Section 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

- The Purchaser shall repair any damage to road surfaces that was specified under Subsections 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.

Road Decommissioning Narratives

The following roads and landings shall be decommissioned in strict accordance with this Exhibit D, and the narratives below. Spurs and landings shall be decommissioned after hauling is complete, and before the first rains of the wet season, but **no later than October 15.**

Road No.	From Station	To Station
29-09-31.3	0+00	21+30
29-10-35.5	0+00	20+00

SALE NO. 13-35 BOTTOMS UP CT EXHIBIT D Sheet 12 of 12 sheets

Road No.

29-09-31.1 Utilize 1 ¹/₂" (-) maintenance rock allotted for damaged road surfaces, conforming to Section 1200 of the Exhibit C.

29-09-31.3 Water bars shall be placed in accordance with Sheet no. 5 of the Exhibit D and As directed by the Authorized Officer. Remove 18" x 30 CPE Poly cross-drain culvert at station 16+14, utilize trench as water drainage channel. Dispose of the CPE in a legal manner off of U.S. Government land. Seed, fertilize, and mulch all disturbed areas in accordance with Section 1800 of the Exhibit C. Utilize 1 ½" (-) maintenance rock allotted for damaged road surfaces, conforming To Section 1200 of the Exhibit C as needed.

Construct Riprap barrier at Sta. 0+20 with 20 cubic yards of Class IV Rip Rap in accordance with Sheet No. 5 of the Exhibit D and as directed by the Authorized Officer.

Restore the ditch line at the junction of the 29-9-31.1 road as directed by the Authorized Officer.

29-10-25.2 Utilize 1 ¹/₂" (-) maintenance rock allotted for damaged road surfaces, conforming to Section 1200 of the Exhibit C.

29-10-35.5 Water bars shall be placed in accordance with Sheet no. 5 of the Exhibit D and As directed by the Authorized Officer.
Utilize 1 ¹/₂" (-) maintenance rock allotted for damaged road surfaces, conforming To Section 1200 of the Reference: Exhibit C as needed.
Seed, fertilize, and mulch all disturbed areas in accordance with Section 1800 of the Exhibit C.

Construct Riprap barrier at Sta. 0+00 with existing 5 cubic yards of rip rap with an additional 15 cubic yards Class IV Rip Rap in accordance with Sheet No. 5 of the Exhibit D and as directed by the Authorized Officer. Restore 30-10-3.0 ditch-line at the junction of the -35.5 road road as directed by The Authorized Officer.

- 29-10-35.7 Utilize 1 ¹/₂" (-) maintenance rock allotted for damaged road surfaces, conforming To Section 1200 of the Reference: Exhibit C as needed. Seed, fertilize, and mulch all disturbed areas in accordance with Section 1800 of the Reference: Exhibit C.
- 30-10-03.1 Utilize 1 ¹/₂" (-) maintenance rock allotted for damaged road surfaces, conforming to Section 1200 of the Exhibit C.

SALE NAME: Bottoms Up CT

EXHIBIT E ROAD USE AND MAINTENANCE FEES

SALE VOLUME: 430 NET MBF

A. ROAD USE FEES - Payable to Private Company:

COMPANY/NAME	AGREEMENT	ROAD	NET	USE FEE	TOTAL
COMPANY NAME	NUMBER	NUMBER	MBF	per MBF	FEES
Di .	0.044/0.400		105		* ==== ==
Plum cr.	C-344/C-408	29-10-25.2	195	3.00	\$585.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
			TOTA	L USE FEE:	\$585.00

B. MAINTENANCE FEES:

1. Maintenance and Rockwear Fees Payable to the U.S. (BLM Maintained Roads):

a. Timber Haul:

Surface Type	ROAD NUMBER	NET MBF	ROAD MILES	SURFACE REPLACEMENT /MBF/Mile	Subtotal	REGULAR MAINT. /MBF/Mile	Subtotal	TOTAL FEE
DOT		105	1.00	, ,	* •••••		* ***	A070 70
BST	30-10-3.0	195	1.30		\$0.00		\$273.78	\$273.78
BST	30-10-3.0	358	0.20		\$0.00	\$1.08	\$77.33	\$77.33
BST	30-10-3.0	430	3.00		\$0.00	\$0.65	\$838.50	\$838.50
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
					\$0.00		\$0.00	\$0.00
			4.50)	\$0.00		\$1,189.61	\$1,189.61

2. ROCKWEAR Fees Payable to the U.S. (OPERATOR Maintained Roads):

a. Timber Haul:

Surface		NET	ROAD	SURFACE REPLACEMENT	ROCKWEAR
	ROAD NUMBER	MBF	MILES	/MBF/Mile	
Туре	RUAD NUMBER	IVIDE	IVIILE5	/WBF/WIIE	Subtotal
Rock	29-9-31.3	115	0.20	\$0.51	\$11.73
Rock	29-9-31.3	195	0.20	\$0.51	\$19.89
Rock	29-9-31.1	195	0.25	\$0.51	\$24.86
Rock	29-10-35.7	82	0.20	\$0.51	\$8.36
Rock	29-10-35.7	163	0.10	\$0.51	\$8.31
Rock	30-10-3.1	163	1.10	\$0.51	\$91.44
Rock	29-10-35.5	72	0.38	\$0.51	\$13.95
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
			2.43		\$178.56

EXHIBIT E ROAD USE AND MAINTENANCE FEES

3. ROAD MAINTENANCE AND/OR ROCKWEAR FEES - Payable to Private Company:

					MAINTENANCE and/o	r
	AGREEMENT	ROAD	NET	ROAD	ROCKWEAR FEE	
COMPANY NAME	NUMBER	NUMBER	MBF	MILES	/MBF/MILE	TOTALS
Plum Cr.	C-344 & C-408	29-9-31.0	195	0.97	\$0.51	\$96.47
Plum Cr.	C-344 & C-408	29-10-25.2	195	1.82	\$0.51	\$181.00
						\$0.00
						\$0.00
						\$0.00
				2.79		\$277.47
	Plum Cr.	COMPANY NAME NUMBER	COMPANY NAME NUMBER NUMBER Plum Cr. C-344 & C-408 29-9-31.0	COMPANY NAME NUMBER NUMBER MBF Plum Cr. C-344 & C-408 29-9-31.0 195	COMPANY NAME NUMBER NUMBER MBF MILES Plum Cr. C-344 & C-408 29-9-31.0 195 0.97 Plum Cr. C-344 & C-408 29-10-25.2 195 1.82 Image: Note of the second se	AGREEMENT NUMBER ROAD NUMBER NET MBF ROAD MILES ROCKWEAR FEE /MBF/MILE Plum Cr. C-344 & C-408 29-9-31.0 195 0.97 \$0.51 Plum Cr. C-344 & C-408 29-10-25.2 195 1.82 \$0.51 Image: Comparison of the system Image: Comparison of the system

4. OPERATOR MAINTENANCE WILL BE REQUIRED ON APPROX. 5.22 MILES OF ROAD. (SEE EXHIBIT D)

SUMMARY OF ROAD USE &	ROAD L	JSE FEES	ROCKWEAR FEES		MAINTEI FEI	
ROAD MAINTENANCE FEES	TOTAL	\$/MBF	TOTAL	\$/MBF	TOTAL	\$/MBF
1. COMPANY-OWNED ROADS:	\$585.00	\$1.36	\$277.47	\$0.65		\$0.00
2. BLM-MAINTAINED ROADS:			\$0.00	\$0.00	\$1,189.61	\$2.77
3. OPERATOR-MAINTAINED ROADS:			\$178.56	\$0.42		\$0.00
	\$585.00	\$1.36	\$456.02	\$1.06	\$1,189.61	\$2.77
	TOTAL	\$/MBF				
MAINTENANCE OBLIGATION PAYAE	\$1,368.17	\$3.18				

COOS BAY SALE NO. ORC00-TS-2013.0035 BOTTOMS UP CT

Exhibit F Sheet 1 of 1

SPECIAL PROVISIONS TO CONTROL THE SPREAD OF NOXIOUS WEEDS

Vehicle and Equipment Cleaning

1. Cleaning shall consist of the removal of soil and debris by washing with a high pressure hose or steam cleaning. Cleaning and inspection sites will be agreed to by Purchaser and BLM. All petroleum product residues shall be contained at wash sites and dealt with in accordance to DEQ standards. Contractor shall provide an approved plan for the cleaning station that demonstrates that the station meets all DEQ and water quality regulations. All necessary permits shall be obtained by the contractor.

2. All equipment parts shall be cleaned as designated by the Authorized Officer, including removal of tractor belly plates, in accordance with Section 1 above.

All construction, logging and slash disposal equipment shall be cleaned prior to entering the contract area. The Authorized Officer will determine if log trucks and vehicles used for transportation of personnel shall be cleaned, based upon the location of use immediately prior to current timber sale. If the vehicles have been in a weed-infested area, they shall be washed before entering Contract Area, as shown on Exhibit A.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Forest Type	Township	Range	Section	Subdivision	
O&C	29	9	31	SW1/4NE1/4,SE1/4NW1/4	
0&C	29	10	35	N1/2NE1/4,SW1/4NE1/4,NW1/4NW1/4	

	Cutting Volume (16' MBF)											
Unit	DF	GF	POC	WH	RA	WRC			Total	Regen	Partial	ROW
1	184		4	3	3	1			195	0	17	0
2	125	19	11	4	4				163	0	10	0
3	63	6		2	1				72	0	7	0
Totals	372	25	15	9	8	1			430	0	34	0

Logging Costs per 16' MBF

Stump to Truck	\$ 205.05
Transportation	\$ 73.99
Road Construction	\$ 0.00
Road Amortization	\$ 1.36
Road Maintenance	\$ 52.43
Other Allowances :	

Total Other Allowances :	\$ 10.21
Vehicle Washing	\$ 3.02
Slash Disposal	\$ 1.79
Landing pullback	\$ 1.64
Habitat Creation	\$ 3.76

Total Logging Costs per 16' MBF	\$ 343.05
Utilization Centers	
Center #1 : Winchester OR.	37 Miles
Center #2	0 Miles
Weighted distance to Utilization Centers	37
Length of Contract	
Cutting and Removal Time	24 Months
Personal Property Removal Time	1 Months

Profit & Risk

Total Profit & R	isk	13 %	
Basic Profit & F	Risk 10 % + Additional Risk	3 %	
Back Off		0 %	
	Tract Features		
Avg Log	Douglas-fir : 41 bf	All: 41 bf	
Recovery	Douglas-fir : 94 %	All : 93 %	
Salvage	Douglas-fir : 0 %	All : 0 %	
Avg Volume (16' MBF per Acre)	13	
Avg Yarding Slo	ope	34	%
Avg Yarding Dis	stance (feet)	272	
Avg Age		50	
Volume Cable		45	%
Volume Ground		55	%
Volume Aerial		0	%
Road Constructi	ion Stations	0.00	
Road Improvem	ent Stations	0.00	
Road Renovatio	n Stations	0.00	
Road Decomissi	ion Stations	41.30	
	Cruise		
Cruised By		Morgan, Wooley	
Date		09/13/2012	
Type of Cruise		3P, BLM 100	
County, State		Coos, OR	
	Net Volume		
Green (16' MBF))	430	
Salvage (16' ME	BF)	0	
Douglas-fir Peel	ler	0	
Export Volume		0	
Scaling Allowar	nce (\$0.75 per 16' MBF)	\$322.50	

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Coos Bay Bottom's Up CT ORC00-TS-2013.0035

Stumpage Summary

Stumpage Computation (16' MBF)									
Species	Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Cost	(+) Marginal Log Value	(-) Back Off	Appraised Price	Appraised Value
DF	2,354	372	\$ 448.93	\$ 58.36	\$ 343.05			\$ 47.50	\$ 17,670.00
GF	129	25	\$ 374.51	\$ 48.69	\$ 343.05			\$ 37.50	\$ 937.50
POC	328	15	\$ 439.98	\$ 57.20	\$ 343.05			\$ 44.00	\$ 660.00
WH	55	9	\$ 346.79	\$ 45.08	\$ 343.05			\$ 34.70	\$ 312.30
RA	136	8	\$ 360.59	\$ 46.88	\$ 343.05			\$ 36.10	\$ 288.80
WRC	12	1	\$ 556.00	\$ 72.28	\$ 343.05			\$ 140.70	\$ 140.70
Totals	3,014	430							\$ 20,009.30

Log Code by Percent

Species	Code #1	Code #2	Code #3	Code #4	Code #5	Code #6
Port-Orford-cedar				18.0	40.0	42.0
Douglas-fir				30.0	60.0	10.0
Western red-cedar			65.0	35.0		
Western Hemlock				38.0	51.0	11.0
Red Alder		6.0	27.0	67.0		
Grand Fir				32.0	61.0	7.0

Marginal Log Volume

Species	Grade #7	Grade #8
Port-Orford-cedar		
Douglas-fir		
Western red-cedar		
Western Hemlock		
Red Alder		
Grand Fir		

Appraised By :	Wooley, Michael	Date :	10/03/2012
Area Approval By :	Sill, Tom	Date :	11/20/2012
District Approval By :	Morgan, Estella	Date :	12/03/2012

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Prospectus

Appraisal Method : (16' MBF)					
Species	Trees	Net Volume 16' MBF	Net Volume 32' MBF	Net Volume CCF	
Douglas-fir	2,354	372	326	676	
Grand Fir	129	25	21	44	
Port-Orford-cedar	328	15	11	29	
Western Hemlock	55	9	7	17	
Red Alder	136	8	6	16	
Western red-cedar	12	1	1	2	
Total	3,014	430	372	784	

All Species

	Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
Γ	462	3,014	153	12.2	457	11,237	41

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
11,237	227	11,464	3.8	430	462	93 %

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
395	2,354	167	12.3	392	9,636	41

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
9,636	166	9,802	4.2	372	395	94 %

Cutting Areas

Unit	Regen Acres	Partial Cut Acres	Right Of Way Acres	Total Acres
1		17		17
2		10		10
3		7		7
Totals :		34		34

Douglas-fir

	Save		Print		Clear		
Form 5440-9 (November 2011) DEPARTMENT OF THE INTERIO BUREAU OF LAND MANAGEMEN I DEPOSIT AND BID FOR DEPOSIT AND BID FOR VEGETATIVE RESON (Other Than Timber				VOOD P	RODUCTS	Name of Bidder Tract Number 2013.0035 Sale Name BOTTOMS UP C Sale Notice (dated) 12/20/2012 BLM District COOS BAY DIST	
Sealed Bid for Sealed H	Bid Sale			🗹 Wr	itten Bid for Ora	l Auction Sale	
Time for opening sealed bi	ds	🗖 a.m.	D p.m.	Sale co	mmences 10:00	☑ a.m.	D p.m.
On (date)	Place			On (dat	e) 01/18/2013	Place COC	DS BAY DISTRICT
In response to the above timber/vegetative resource				t and bid	are hereby sub	mitted for the pu	rchase of designated
Required bid deposit is \$2,100.00 and is enclosed in the form of: Cash I money order Cashier's check Certified check bank draft bid bond of corporate surety on approved list of the United States Treasury I guaranteed remittance approved by the authorized officer. IT IS AGREED That the bid deposit shall be retained by the United States as liquidated damages if the bid is accepted and the undersigned fails to execute and return the contract, together with any required performance bond and any required payment within 30 days after the contract is received by the successful bidder. It is understood that no bid for less than the appraised price on a unit basis per species will be considered. If the bid is rejected the deposit will be returned.					l is accepted and the uired payment within		
		BID S	CHEDULE -	LUMP S	UM SALE	the Bid Schedule	
		ID SUBMITT	-	pulation	sincompleting		- BID MADE
PRODUCT SPECIES	UNIT	ESTIMATI VOLUMI OR QUANI	E UNIT PF	ICE	TOTAL VALUE	UNIT PRICE	TOTAL VALUE
DOUGLAS-FIR	MBF	372	X	=		x	=
WESTERN HEMLOCK	MBF	9	х	=		x	=
RED ALDER	MBF	8	x	=		x	=
PORT-ORFORD-CEDAR	MBF	15	х	:=:		х	=
GRAND FIR	MBF	25	x			х	=
WESTERN RED CEDAR	MBF	1	х	:=:		Х	=
			х	=		х	=
			х	=		х	=
			х	(=)		Х	=
			х	=		х	=
С 			Х	(=)		Х	=
			х	1		Х	=
			х			х	
¥.		-	х	=		х	=
			x			х	=
			х	(=)		х	=
		TOTAL F	PURCHASE PRI	CE			

If sale contract is executed, undersigned is liable for total purchase price even though the quantity cut, removed, or designated for taking is more or less than the total estimated volume or quantity shown above. Undersigned certifies bid was arrived at by bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. In submitting or confirming this bid, undersigned agrees to the foregoing provisions, applicable regulations, and certifies that he is authorized to act as, or on behalf of, the bidder.

Bid submitted on (date)	
(Check appropriate box, sign in	ink, and complete the following)
☐ Signature, if firm is individually owned	Name of firm <i>(type or print)</i>
☐ Signatures, if firm is a partnership or L.L.C.	Business address, include zip code (type or print)
Corporation organized under the state laws of	(To be completed following oral bidding) I HEREBY confirm the above oral bid
Signature of Authorized Corporate Signing Officer	By (signature)
Title	Date
Submit bid, in <i>duplicate</i> , to qualify for either an oral auction or sealed bid sale together with the required bid deposit made payable to the Department of the Interior – BLM. Oral Auction – Submit to Sales Supervisor prior to closing of qualifying period for tract.	Sealed Bid – Send to District Manager, who issued the sale notice, in a sealed envelope marked on the outside: (1) "Bid for Timber" or (1a) "Vegetative Resources Other Than Timber" (2) Time bids are to be opened (3) Legal description

NOTICES

The Privacy Act and 43 CFR 2.48(d) require that you be furnished with the following information in connection with the information required by this form.

AUTHORITY: 38 FR 6280 and 43 CFR 5442.1

PRINCIPAL PURPOSE: To qualify an oral auction bidder, and then if successful, to bind bidder to certain contract conditions.

ROUTINE USES: To determine that an individual is qualified to participate in oral auction bidding, and, as surety that bidder will fulfill contract requirements.

EFFECT OF NOT PROVIDING INFORMATION: Filing this deposit and bid information is necessary only when an individual wishes to participate in a sealed or auction bid sale for timber or vegetative resources.

(Continued on page 3)

(Form 5440-9, page 2)