

P R O S P E C T U S

LUMP SUM SALE

BUTTE FALLS FIELD OFFICE
JACKSON MASTER UNIT

Medford Sale # ORM05-TS-2020.0006
August 27, 2020 (KD)

1 Ranchero (6310) Jackson County, O&C

BID DEPOSIT REQUIRED: \$304,000.00

All timber designated for cutting in; NE1/4NE1/4, W1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, S1/2SE1/4, sec. 25; NE1/4SE1/4, W1/2SE1/4, sec. 33; N1/2SW1/4 sec. 34; SW1/4NE1/4, NW1/4, E1/2SW1/4, SE1/4, sec. 35; T34S R3E; S1/2NE1/4, Unnumbered Gov Lot NE1/4NE1/2, Unnumbered Gov Lot NW1/4NW1/4, SW1/4NW1/4, N1/2SW1/4, SW1/4SW1/4, SE1/4SE1/4, sec. 1; Unnumbered Gov Lot NE1/4NE1/4, Unnumbered Gov Lot NW1/4NE1/4, Unnumbered Gov Lot NE1/4NW1/4, sec 3; NE1/4NE1/4, S1/2NW1/4, N1/2SW1/4, SW1/4SW1/4, sec. 5; N1/2NE1/4, SW1/4NE1/4, N1/2NW1/4, NW1/4SE1/4, sec. 11; NE1/4, sec 12; T35S R3E, Willamette Meridian.

Approx. Number Merch. Trees	Est. Volume MBF 32' Log	Species	Est. Volume MBF 16' Log	Appr. Price Per MBF*	Est. Volume Times Appraised Price
24,089	8,117	Douglas Fir	9,795	\$257.00	\$2,517,315.00
9,563	3,011	White Fir	3,701	\$116.20	\$430,056.20
2,218	1,125	Ponderosa Pine	1,374	\$46.00	\$63,204.00
40	19	Sugar Pine	26	\$29.30	\$761.80
690	120	Incense Cedar	147	\$192.00	\$28,224.00
36,600	12,392	TOTALS	15,043		\$3,039,561.00

*Stumpage values have been determined by market value estimates and analytical appraisal methods were used to compute the appraised price. Additional information concerning the appraised price is available at the Medford District Office.

CRUISE INFORMATION - Douglas-fir, White fir, Ponderosa Pine, and Incense cedar have been cruised using the 3-P sampling methods to select sample trees. Sugar Pine and was 100% cruised. Maps showing the location and description of these sample trees are available at the Medford District Office. The sample trees have been measured using the volt system of measurement, and the volume expanded to a total sale volume. With respect to merchantable trees of all conifer species: the average tree is 17.4 inches DBHOB; the average gross merchantable log contains 88 bd. ft.; the total gross volume is approximately 17,499 MBF; and 86% recovery is expected (Average DF is 17.8 inches DBHOB; average gross merchantable log DF contains 87 bd. ft.). Bidders will be restricted to bidding on a unit (MBF) rate of the Douglas-fir volume. All other species will be sold at appraised price per unit (MBF). The minimum bid increment will be \$0.10 per MBF.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export from the United States in the form of unprocessed timber and is prohibited from use as a substitute for exported private timber.

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

CUTTING AREA Sixteen (16) units containing five hundred seventy-seven (577) acres must be logged. Approximately two (2) right of way acres must be clear-cut for temporary road construction, and approximately ten (10) right of way acres must be clear-cut for permanent road construction.

CUTTING TIME Contract duration will be thirty-six (36) months for cutting and removal of timber.

ACCESS - Access to the sale area is available via public roads and through the contract area using BLM Roads and via Right-of-way and Road Use Agreement M-2000D with Juniper Properties, LLC, via Right-of-Way and Road Use Agreement M-2000F with Siskiyou Timberlands, LLC, and via a license agreement with the Forest Service. Among other conditions, agreement M-2000D with Juniper Properties, LLC requires completion of a license agreement between the Purchaser and Juniper Properties, LLC, road maintenance to be performed by the Purchaser or BLM and an estimated payment of a road surface replacement fee of \$11.23. Among other conditions, agreement M-2000F with Siskiyou Timberlands, LLC requires completion of a license agreement between the Purchaser and Siskiyou Timberlands, LLC, road maintenance to be performed by the Purchaser or BLM and an estimated payment of a road amortization fee of \$1,823.52 and an estimated payment of a road surface replacement fee of \$5,895.99. Among other conditions, agreement with the Forest Service requires completion of a license agreement between the Purchaser and the Forest Service and a payment of a resurfacing fee of \$28,796.64 for the use of Forest Service road numbers 35-3E-10.01A, 35-3E-10.01C, FS 32, FS 3240, and FS 3240-100.

ROAD MAINTENANCE – The Purchaser will be required to maintain all of the permanent roads (109.36 stations) and temporary routes (21.32 stations) the constructs plus 14.08 miles of existing BLM and private roads. The BLM will maintain the approximately 12.67 miles of existing BLM and private roads.

ROAD CONSTRUCTION – The contract will require the Purchaser to construct and surface 109.36 stations of permanent roads and construct 21.32 stations of temporary roads.

SOIL DAMAGE PREVENTION: Pursuant to Section 26 of Form 5450-3, Timber Sale Contract, the Purchaser shall not operate or cause to have operated on the contract area any tractor-type logging equipment when soil moisture content at six (6) inch depth exceeds twenty five (25) percent by weight as determined by the oven dry method.

EQUIPMENT REQUIREMENTS

1. A yarding tractor not greater than 9 feet in track width equipped with an integral arch and winch system capable of lining logs at least 75 feet.
2. A subsoiler, wing-toothed subsoiler, excavator with ripping attachment, or equivalent is required.

SLASH DISPOSAL Perform logging residue reduction and site preparation work on approximately five hundred (500) acres of harvest area as directed by the Authorized Officer.

CONTRACT TERMINATION A revised Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and/or to modify or terminate the contract when necessary to:

1. Comply with the Endangered Species Act, or;
2. Comply with a court order, or;
3. Protect species which were identified for protection in accordance with management direction established in the ROD and RMP. This contract provision limits the liability of the Government to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area.

PERFORMANCE BOND A performance bond in the amount of 20% of the total purchase price will be required.

OTHER

1. Within all unit as shown on exhibit A, except units 1-5, 3-2, 11-6, 34-1, 35-1B, 35-2, and 35-4B harvest prescriptions are a combination of thinning and group selections. The number and size of group selection areas vary by individual unit.
2. Unit 3-2 and 34-1 are regeneration harvest units.
3. Unit 1-5, 11-6, 35-1B, 35-2 and 35-4B are thinning units.
4. There are roadside vegetation maintenance units.
5. No extension of time beyond the normal 30 days will be granted for completing bonding and contract signing requirements.
6. This contract includes an additional special provision to ensure the Purchaser understands he/she is required to conduct all operations in compliance with Contract Section 12 (Purchaser's Contractual Responsibilities for Liability) and Contract Section 29 (Safety and Health) and the Special Provisions included in Section 42 of this Contract.

7. Purchaser shall be responsible for complying with all county, state, and federal laws and regulations that relate to the execution of this contract (See Sec. 29 of contract).
8. Directional falling is required.
9. There are predesignated skid trails outside of unit 1-2 to facilitate logging to the new temp spur landings.
10. Warning signs and a flagger(s) must be placed in advance of active operations or other equivalent protection must be used on roads to control traffic where hazardous conditions are created from forest activities as per OR-OSHA division 7 rules.
11. There are daily and seasonal restrictions in place on this sale.
12. Cleaning of equipment to eliminate noxious weed seeds is required prior to move-in of equipment onto federal lands.
13. There are lockable gates within the contract area.
14. Dust abatement may be required.
15. There are slash treatment and pile placement requirements in place for this sale (see SD-1 in the contract)
16. Purchaser should be aware there are logging residue reduction costs assessed under SD-5. Refer to the appraisal for total assessed costs of logging residue reduction.
17. The Purchaser may wet season haul, with the Authorized Officer's approval on the following roads: 34-3E-25.00, 34-3E-25.02, 35-3E-03.00 A1-B2, 35-3E-07.00 A1-B, 35-3E-10.00 A-C, 35-3E-10.01 A-F, 35-3E-11.00 A, 35-3E-11.01, 35-3E-14.01 A1-C, FS32, FS3240, and the FS3240-100. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.
 - The Purchaser may wet season haul on these roads that will be rocked under Exhibit C work, with the Authorized Officer's approval on the following roads: 34-3E-35.00 (East), 34-3E-35.02 A-B, 34-3E-35.05, 34-3E-35.06, 35-3E-01.00, 35-3E-02.00 B, 35-3E-11.04 A-B, 35-3E-11.05, 35-3E-12.03, and the 35-3E-12.04. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.
 - The Purchaser shall have the option to rock road numbers 34-3E-25.04, 34-3E-25.05, 34-3E-33.00 A-D2, 34-3E-33.01, 34-3E-35.00 (West), 34-3E-35.03, 35-3E-02.00 A, 35-3E-03.00 C, 35-3E-03.05, 35-3E-07.00 C-D, 35-3E-10.04, and the 35-3E-11.02, for wet weather haul. Purchaser option rocking depths will be determined and approved by the Authorized Officer. Any costs for rocking and installation of additional drainage features will be at the Purchaser's expense and shall be completed in accordance with the plans and specifications show in Exhibit C of this contract.
18. Purchaser should be aware that there are currently no wildlife related restrictions on the Ranchero Sale (see E-3 in special provisions for more information). The following restrictions could be applied if the species of concern is found within the distances listed to the contract area.
 - No confirmed den sites are located within 50 feet of proposed treatment areas, however, if a confirmed fisher den site is found: Maintain \geq 80 percent canopy cover within at least 50 feet of documented fisher natal and maternal dens. No activities may occur within stands. Maintain sufficient (at least 60%) canopy cover on a within-stand average basis. Containing known fisher den sites from March 1 to July 30. Protect fisher denning structures by retaining \geq 24" diameter snags, down woody material, and live trees with cavities in the stand and if, for safety concerns, it is necessary to fall such snags or live trees with cavities, retain those cut trees or snags in the stand as additional down woody material. Do not apply vegetation treatments to all portions of the stand.
 - Seasonally restrict timber harvest activities from March 1 to June 30 but may be extended up to September 30 if late nesting or nesting re-attempts are confirmed, within 0.25-mile of known active NSO sites or within 0.5-mile for helicopter operations and blasting. The seasonal restriction could be waived if non-nesting status is determined. If any new owls are discovered in harvest units following the sale date, activities would be halted until mitigation options are determined. Follow USFWS recommended noise disturbance distances for activities other than timber harvest to avoid disturbance to NSOs.
 - Seasonally restrict prescribed burning and site preparation with chainsaws from March 1 to July 15 within 0.25-mile of known active NSO nests. The seasonal restriction could be waived if non-nesting status is determined.
 - If a gray wolf den or rendezvous site is identified prior to or during project activities, implement a seasonal restriction from April 1 to July 15 and suspend project activities located within one mile of a known den or rendezvous site. Because these sites are difficult to locate and can change from year to year, this would be assessed on an ongoing basis throughout the life of this project through annual updates and communication with the USFWS and Oregon Department of Fish and Wildlife.

NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA –

From the city of Medford take the Rogue Valley Express Way for 4.4 miles, turn left onto OR-62 and stay on it for 9.1 miles. Turn right on the Butte Falls Hwy and continue for 16 miles till you arrive in the Town of Butte Falls. Take a slight left onto fish lake road and continue for 0.6 miles. Turn left onto the Butte Falls -Prospect Road and continue for 1.7 miles. Turn right onto Rancheria road and continues for 4 miles. Take a slight left onto NF-32 road (Twincheria road) and continue for 1.4 miles

ENVIRONMENTAL ASSESSMENT - Environmental assessment (DOI-BLM-ORWA M050-2020-0001-EA) was prepared for this sale, and a Finding of No Significant Impact has been documented for each environmental assessment. These documents are available for inspection as background for this sale at the Medford District Office.

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THIS IS A SALE PROSPECTUS ONLY. THESE ARE THE SPECIAL PROVISIONS AS THEY WILL BE WRITTEN IN THE CONTRACT. ATTACHMENTS MAY NOT INCLUDE ALL EXHIBITS REFERRED TO IN THE CONTRACT PROVISIONS. THE COMPLETE CONTRACT, INCLUDING ALL EXHIBITS, IS AVAILABLE FOR INSPECTION AT THE MEDFORD INTERAGENCY OFFICE.

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 Government.

- (A) AR-1 All timber on the Reserve Area(s) as shown on Exhibit A and all orange painted and posted trees which are on or mark the boundaries of the Reserve Area(s).
- (B) IR-1 Approximately three thousand seven hundred and eighty three (3,783) trees marked with orange paint above and below stump height in units 35-1A, 35-2, 35-3 and 35-4B as shown on Exhibit A.
- (C) IR-1 Approximately seven thousand five hundred and twenty eight (7,528) trees marked with pink paint above and below stump height in units, 1-2, 1-5, 3-2, 11-4, 11-5, 11-6, 12-5, 25-5, 25-6, 34-1, 35-1B and 35-4A as shown on Exhibit A.
- (D) IR-2 All timber except approximately eight hundred and eighty three (883) trees marked for cutting heretofore by the Government with blue paint above and below stump height in units RVM1, RVM3, RVM5, RVM11, RVM25, RVM33 and RVM35 (where RVM units overlap logging units tree are included in the cruise with the adjacent harvest unit and there will be no blue paint or reserve paint color in those RVM areas) as shown on Exhibit A.
- (E) IR-5 All young growth conifers less than eight (8) inches in diameter D.B.H.O.B. not damaged in the normal course of logging in all units as shown on Exhibit A.
- (F) IR-13 All dominant madrone, bigleaf maple and oak trees > 24 inches DBH in all units as shown on Exhibit A (which do not present a safety hazard as determined by the authorized officer). Trees felled for safety reasons shall be retained on site.
- (G) IR-13 All snags in all units as shown on Exhibit A (which do not present a safety hazard as determined by the authorized officer). Snags felled for safety reasons shall be retained on site.
- (H) IR-14 Within all commercial harvest units as shown on Exhibit A retain existing large down woody material >20 inches in diameter at the large end and >20 feet in length; and

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down woody material 6-20 inches in diameter at the large end and >20 feet in length in decay classes III, IV, and V (USDI 2016c, pp. 62-63).

Section 42

(A) Log Exports

(1) LE-1 All timber sold to the Purchaser under the terms of the contract, except exempted species, 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 eight and three-quarters (8¾) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end-product uses; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timber, regardless of size, manufactured to standards and specifications suitable for end-product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8¾) inches in thickness or less; (6) shakes and shingles. Substitution will be determined under the definition found in 43 CFR 5400.0-5. The Purchaser is required to maintain and upon request to furnish the following information:

- (a) Date of last export sale.
- (b) Volume of timber contained in last export sale.
- (c) Volume of timber exported in the past twelve (12) months from the date of last export sale.
- (d) Volume of Federal timber purchased in the past twelve (12) months from the date of last export sale.
- (e) Volume of timber exported in succeeding twelve (12) months from date of last export sale.
- (f) Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

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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 Form 5460-16 (Certificate as to Nonsubstitution and the Domestic Processing of Timber). The original of such certification shall be filed with the Authorized Officer. Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

In the event an affiliate of the Purchaser has exported private timber within twelve (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 to the Authorized Officer.

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report) which shall be executed by the Purchaser.

The purchaser shall also provide a current, interim Log Scale and Disposition of Timber Removed Report (Form 5460-15) upon request by the Authorized Officer at any time during the contract period for cutting and removal specified in Section 4 of this contract as amended.

In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

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

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

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

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

(B) Logging

- (1) L-1 Before beginning operations on the contract area for the first time or after a shutdown of seven (7) days or more, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer in writing if they intend to cease operations for any period of seven (7) or more days.
- (2) L-2 Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer written approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. (A 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.) All logging shall be done in accordance with the plan.
- (3) L-4 All trees designated for cutting shall be cut so that the resulting stumps shall not be lower than six (6) inches nor higher than twelve (12) inches measured from the ground on the uphill side of the tree. This height requirement may be reduced if approved by the Authorized Officer.
- (4) L-7 In all units shown on Exhibit A, all trees over twenty-one (21) inches DBH designated for cutting shall be felled and cut into log lengths not to exceed forty-four (44) feet before being yarded.
- (5) L-8 In all units, as shown on Exhibit A, all trees twenty one (21) inches D.B.H.O.B. and smaller designated for cutting shall be felled and whole tree yarded or yarded with tops attached except when excessive stand damage occurs as determined by the Authorized Officer. If excessive stand damage occurs all logs shall be completely limbed and bucked into a max log length of forty-four (44) feet prior to being yarded.

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- (6) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy-five (175) feet of the unit boundary shall be felled way from the unit boundary. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (7) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy-five (175) feet of a private property line shall be felled away from the private property line. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (8) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy-five (175) feet of the corner monument shall be felled away from the corner monument. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (9) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy five (175) feet of any plant site, or reserve area boundary as shown on Exhibit A shall be felled away from the painted and posted boundary. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (10) L-12 Yarding on the areas designated herein and shown on Exhibit A shall be done in accordance with the yarding requirements or limitations for the designated area.

Designated Area	Yarding Requirements or Limitations
Ground Based Units (All Units)	<p>Mechanized felling equipment must have an arm capable of reaching at least twenty (20) feet.</p> <p>No front-end loaders are permitted.</p> <p>Yarding tractor width will not be greater than twelve (12) feet as measured from the outer edges of the standard width dozer blade in the straight position, or nine (9) feet as measured from the outer edges of standard width track shoes.</p> <p>Yarding tractors will be equipped with integral arches capable of suspending one end of the log clear of the ground and winch systems capable of lining logs at least seventy-five (75) feet.</p>

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	<p>One end suspension is required in all ground based units</p> <p>No yarding up or down draw bottoms is permitted.</p> <p>Incorporate existing skid trails and landings as a priority over creating new trails and landings where feasible, into a designated trail network for ground-based harvesting equipment.</p> <p>Locate skid trails to minimize disturbance to down woody material. Where skid trails encounter large down woody material, a section would be bucked out for equipment access. The remainder would be left in place and would not be disturbed unless they pose a safety hazard.</p> <p>Limit non-specialized skidders or tracked equipment to slopes generally less than 35%. In areas where it is necessary to exceed these gradients over short distances to access adjacent tractor area, use ridge tops where possible.</p> <p>Limit the use of specialized ground-based mechanized equipment (those machines specifically designed to operate on slopes greater than 35%) to slopes less than 50%, except when using previously constructed skid trails or accessing isolated short skid trails over steeper pitches. Also, limit the use of this equipment when surface displacement creates trenches, depressions, excessive removal of organic horizons, or when disturbance would channel water and sediment as overland flow. Unit design would be determined based on specific equipment and operator capabilities and would be monitored during implementation by the Authorized Officer with input from the soil scientist and/or hydrologist.</p> <p>The location of the tractor skid roads must be clearly designated on the ground, at locations approved by the Authorized Officer</p> <p>Block skid trails to prevent public motorized vehicle use and other unauthorized use by October 15 of the year of harvest unless a waiver is in place for ground-based yarding to extend the dry season. Place woody debris or other appropriate barriers (e.g., rocks, logs, and slash) on the first 100 feet of skid trails leading off system roads or landing areas in all ground-based yarding units upon completion of yarding to block and discourage unauthorized</p>
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	<p>vehicle use. If there is not enough available slash to cover the first 100 feet of skid trails, apply seed and mulch to the area.</p> <p>If operators are using feller-bunchers or cut-to-length harvesters off designated skid trails: Allow mechanized equipment capable of creating and walking on slash (such as a cut-to-length system) to work off designated skid trails for one or two passes on at least eight inches of slash and under dry soil conditions (less than 25% soil moisture content). The Authorized Officer, with input from the soil scientist, can provide waiver for soil moisture if minimal soil disturbance is expected to occur due to site conditions. Allow mechanized equipment (feller-buncher systems) to work off designated skid trails during the dry season (soil moisture content less than 20%) for one or two passes only (one round-trip). The BLM may issue a waiver of the soil moisture if minimal soil disturbance would occur based on site conditions. Use low, ground-pressure equipment off designated skid trails. Restrict all other use of ground-based equipment to designated skid trails. Stop equipment use off designated skid trails if logging equipment is causing soil disturbance above a Class 1 (Page-Dumroese, Abbott, Rice 2009, p. 6, 14, 15, and 27-33), or as determined by the Authorized Officer.</p> <p>Landing location must be approved by the authorized officer.</p> <p>Limit landings to 0.5-acre or less for tractor.</p> <p>Avoid creating piles greater than 16 feet in height or diameter. Pile smaller materials and leave pieces < 12” diameter within the unit. Reduce burn time and smoldering of piles by extinguishment with water and tool use.</p> <p>Do not machine pile slash within riparian areas and do not hand pile slash within 35 feet from intermittent stream channels and 60 feet from perennial streams.</p> <p>In upland units, allow harvesting operations (cutting and transporting logs) when ground is frozen or adequate snow cover exists to prevent soil compaction and displacement. The Authorized Officer would consult with a watershed specialist (hydrologist, soils scientist, or fisheries biologist) to determine appropriate conditions. If conditions change during operations where</p>
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	<p>detrimental soil compaction and displacement is occurring, operations would be stopped immediately.</p> <p>During logging or forest management operations, use techniques, such as directional falling, to prevent damage to fences, cattle guards, livestock watering troughs and other improvements. If damage to range improvements does occur, the BLM shall be notified immediately, and proper repair or replacement would occur within two weeks. Proper repair of fences and gates includes keeping wire properly attached to posts, splicing or replacing broken wire in kind, repairing structures such as corners, stress panels or gates, and any other work necessary to keep improvements functional. Repair of structures such as stress or corner panels and gates requires pre-approval by BLM staff. Repair or cleaning of cattle guards damaged or filled with sediment by logging activities would require approval of BLM road engineering staff for structural integrity and public safety compliance.</p> <p>During logging and forest management activities, operators shall keep all gates closed and all livestock containment systems functional to keep livestock in authorized areas.</p> <p>Minimize the area where more than half of the depth of the organically enriched upper horizon (topsoil) is removed when conducting forest management operations.</p> <p>Any infrastructure impacted by logging or road operations (trails, service roads, kiosks, fences etc.) would be restored to their conditions as it was prior to logging operations.</p> <p>All Douglas-fir and all Pine Species over 36 inches DBH with a birthdate prior to 1850 felled for skid trails or safety reasons (in all units except 3-2 34-1) must be felled, bucked, and removed to an area adjacent to and outside of the skid trail ROW. Where trees are bucked at the large ends, the purchaser shall put a "X" of paint with a color approved by the authorized officer. These trees/logs shall not be yarded to the landing.</p>
Unit 1-2	<p>Predesignated skid trails flagged by the BLM (yellow/white candy stripe and red) shall be used to skid logs/trees to the new temp road outside of the unit.</p>

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Unit 3-2 and Unit 34-1	All trees over 40 inches DBH with a birthdate prior to 1850 felled for skid trails or safety reasons must be felled, bucked, and removed to an area adjacent to and outside of the skid trail ROW. Where trees are bucked at the large ends, the purchaser shall put an “X” of paint with a color approved by the authorized officer These trees/logs shall not be yarded to the landing. Decompact landings and heavily compacted skid trails in regeneration units. Depth needed to be ripped would be dependent on how deep the compaction layer is and would be site-specific.
Roadside Vegetation Maintenance Units	Mechanized logging equipment shall be restricted to the existing roads where clearing is to occur.

- (11) L-14 No falling, yarding or loading is permitted in or through the timber reserve area as shown in Exhibit A and as posted (unless otherwise approved by the Authorized officer).
- (12) L-17 Landings shown on new road construction shall be placed at the approximate location(s) as shown on Exhibit A. Any alternative landing sites must be approved by the Contracting Officer in the written operations and logging plan.
- (13) L-19 No road construction, landing construction, skid trail construction, skid trail blocking, road renovation, road reconstruction, road decommissioning, road blocking/barricade construction, rocking, water bar construction, soil ripping, shall be conducted within contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive, or when soil moisture exceeds 25% as directed by the contracting officer.
- (14) L-19 No ground-based yarding and soil decompaction operations shall be conducted within contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive, or when soil moisture exceeds 25% as directed by the contracting officer.
- (15) L-19 No seeding and mulching shall be conducted within contract area between April 1 thru August 31 of the same calendar year and November 1 of one calendar year and January 31 of the following calendar year, both days inclusive.
- (16) L-19 No landing operations, rock haul and log haul between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive. The Purchaser may wet season haul, with the Authorized Officer’s approval on the following roads: 34-3E-25.00, 34-3E-25.02, 35-3E-03.00 A1-B2, 35-3E-07.00

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A1-B, 35-3E-10.00 A-C, 35-3E-10.01 A-F, 35-3E-11.00 A, 35-3E-11.01, 35-3E-14.01 A1-C, FS32, FS3240, and the FS3240-100. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul. The Purchaser may wet season haul on these roads that will be rocked under Exhibit C work, with the Authorized Officer's approval on the following roads: 34-3E-35.00 (East), 34-3E-35.02 A-B, 34-3E-35.05, 34-3E-35.06, 35-3E-01.00, 35-3E-02.00 B, 35-3E-11.04 A-B, 35-3E-11.05, 35-3E-12.03, and the 35-3E-12.04. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul. The Purchaser shall have the option to rock road numbers 34-3E-25.04, 34-3E-25.05, 34-3E-33.00 A-D2, 34-3E-33.01, 34-3E-35.00 (West), 34-3E-35.03, 35-3E-02.00 A, 35-3E-03.00 C, 35-3E-03.05, 35-3E-07.00 C-D, 35-3E-10.04, and the 35-3E-11.02, for wet weather haul. Purchaser option rocking depths will be determined and approved by the Authorized Officer. Any costs for rocking and installation of additional drainage features will be at the Purchaser's expense and shall be completed in accordance with the plans and specifications show in Exhibit C of this contract.) are determined to have adequate surfacing or adequate rock is added as determined by the Contracting Officer landing operations, rock haul and log haul will be allowed.

- (17) L-24 Before cutting and removing any trees necessary to facilitate logging in units 1-2, 1-5, 11-4, 11-5, 11-6, 12-5, 25-5, 25-6, 35-1A, 35-1B, 35-2, 35-3, 35-4A, 35-4B as shown on Exhibit A, the Purchaser shall identify the location of skid roads, 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 pre-work 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 skid roads, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contact and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees; however,

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unless otherwise approved in writing by the Authorized Officer, the width of each skid road shall be limited to twelve (12) feet, and cable yarding roads shall be limited to fifteen (15) feet.

- (b) The Purchaser may immediately cut and remove additional timber to clear skid roads, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees when the trees have been marked with green 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 to be sold 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(e) 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 all trees otherwise reserved in section 41 of the contract or any tree that exceeds 28 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 Section 10 of the contract constitutes a violation of the contract and under Section 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 (1) 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 Sec. 9 of the

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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 appropriate for the Government to safely measure and mark additional timber.

- (f) The Government may reserve trees previously designated for cutting and removal by applying orange paint or blacking out blue 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(s). 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 Price shall be reduced accordingly through a unilateral modification to the contract executed by the Contracting Officer.
- (18) L-29 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 unit 3-2 and 34-1 as shown on Exhibit A, which is obstructing needed cable yarding roads, ground based yarding skid roads, hazardous to workers, needed for guyline, tailhold, and/or tieback trees, or severely damaged from the normal conduct of felling or yarding operations to meet all applicable State safety laws, codes or regulations. This timber must be cut or removed so that the Purchaser can continue active falling and yarding operations. The Purchaser is, therefore, authorized to cut and remove such additional timber in accordance with the provisions of Section 8 of the contract: provided, however, that:
- (a) Trees reserved for the tree improvement program and trees reserved for the wildlife habitat objectives under Sec. 41 of the contract are not included in the authorization.
 - (b) The Purchaser shall identify each tree sold and cut in accordance with the provision by marking the cut surface of the stump immediately after falling with a large "X". The "X" shall be cut with a chain saw. The stump shall be marked by hanging red fluorescent flagging near the stump so that the stump can be visually located from a distance of not less than one hundred (100) feet.

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- (c) The volume and price for such timber shall be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and paid for by the Purchaser in accordance with Sec. 3(b) of the contract as required by Sec. 8 of the contract.
- (d) No timber may be cut or removed under the terms of this provision if all contract payments required by Sec. 3(a) or 3(c) of the contract have been made.
- (e) The permission to cut and remove additional timber contained in this provision may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser:
 - 1. Failed to properly mark any stump with the "X" cut.
 - 2. Failed to identify the location of any stump.
 - 3. Cut any tree that was reserved for tree improvement and/or wildlife habitat.
 - 4. Cut any tree in or adjacent to cable yarding corridors that was not necessary to facilitate cable yarding.
 - 5. Cut any reserve tree in or adjacent to tractor skid roads that was not necessary to facilitate ground based yarding.
 - 6. Failed to properly segregate any pulled over tree that was yarded to the landing.
 - 7. Cut any reserve tree that was not severely (as defined during the prework conference and documented in the approved logging plan) damaged from felling and yarding operations.
 - 8. Cut more than the minimum number of trees necessary to properly serve as guyline anchor stumps.
 - 9. Cut or topped more than the minimum number of trees necessary to properly serve as tailhold trees.
 - 10. Cut more than the minimum number of trees necessary to properly serve as tie-backs for topped tailhold trees.
 - 11. Failed to maintain accurate and current (no more than 24 hours old) documentation of cut and removed timber.

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

If the permission to cut and remove additional timber provision is withdrawn, the Purchaser shall inform the Authorized Officer at least two working days prior to the need for cutting and yarding any guyline tree, tailhold tree, tie-back tree, danger tree, corridor tree, pulled over tree, and severely damaged tree. All sales of additional timber shall comply with Section 8 of the contract.

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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 ground based equipment skid roads upon which timber may be cut and removed in accordance with this special provision must be needed for the removal of timber sold under this contract 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.

- (19) L-32 In ROW 35, where new road construction is required for logging access as shown on exhibit A, Purchaser shall during road constructing fell, buck, and remove to an area adjacent to and outside of the road right-of-way five (5) trees marked with blue "C/L" which are greater than or equal to thirty six (36) inch diameter at breast height and a birthdate prior to 1850. Where trees are bucked at the large ends, the purchaser shall put an "X" of paint with a color approved by the authorized officer to ensure that the logs are not yarded and shipped. No adjustments of volume or value shall be made to meet these requirements. The Purchaser shall tally all trees by diameter class and species on a daily basis. The tally may be requested by the Authorized Officer at any time during falling operations. At the end of falling operations a completed tree tally shall be submitted to the Authorized Officer.
- (20) L-32 In ROW 11-4, where new road construction is required for logging access as shown on exhibit A, Purchaser shall during road constructing fell, buck, and remove to an area adjacent to and outside of the road right-of-way five (5) trees marked with blue "C/L" which are greater than or equal to thirty six (36) inch diameter at breast height and a birthdate prior to 1850. Where trees are bucked at the large ends, the purchaser shall put a "X" of paint with a color approved by the authorized officer to ensure that the logs are not yarded and shipped. No adjustments of volume or value shall be made to meet these requirements. The Purchaser shall tally all trees by diameter class and species on a daily basis. The tally may be requested by the Authorized Officer at any time during falling operations. At the end of falling operations a completed tree tally shall be submitted to the Authorized Officer.
- (21) L-32 In ROW 11-5, where new road construction is required for logging access as shown on exhibit A, Purchaser shall during road constructing fell, buck, and remove to an area adjacent to and outside of the road right-of-way one (1) trees marked with blue "C/L" which are greater than or equal to thirty six (36) inch diameter at breast height and a birthdate prior to 1850. Where trees are bucked at the large ends, the purchaser shall put a "X" of paint with a color approved by the authorized

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officer to ensure that the logs are not yarded and shipped. No adjustments of volume or value shall be made to meet these requirements. The Purchaser shall tally all trees by diameter class and species on a daily basis. The tally may be requested by the Authorized Officer at any time during falling operations. At the end of falling operations a completed tree tally shall be submitted to the Authorized Officer.

- (22) L-32 In ROW 1-2, where new road construction is required for logging access as shown on exhibit A, Purchaser shall during road constructing fell, buck, and remove to an area adjacent to and outside of the road right-of-way one (1) trees marked with blue "C/L" which are greater than or equal to thirty six (36) inch diameter at breast height and a birthdate prior to 1850. Where trees are bucked at the large ends, the purchaser shall put a "X" of paint with a color approved by the authorized officer to ensure that the logs are not yarded and shipped. No adjustments of volume or value shall be made to meet these requirements. The Purchaser shall tally all trees by diameter class and species on a daily basis. The tally may be requested by the Authorized Officer at any time during falling operations. At the end of falling operations a completed tree tally shall be submitted to the Authorized Officer.
- (23) L-32 In ROW 12, where new road construction is required for logging access as shown on exhibit A, Purchaser shall during road constructing fell, buck, and remove to an area adjacent to and outside of the road right-of-way four (4) trees marked with blue "C/L" which are greater than or equal to thirty six (36) inch diameter at breast height and a birthdate prior to 1850. Where trees are bucked at the large ends, the purchaser shall put a "X" of paint with a color approved by the authorized officer to ensure that the logs are not yarded and shipped. No adjustments of volume or value shall be made to meet these requirements. The Purchaser shall tally all trees by diameter class and species on a daily basis. The tally may be requested by the Authorized Officer at any time during falling operations. At the end of falling operations a completed tree tally shall be submitted to the Authorized Officer.
- (24) L-33 Purchaser's operations shall facilitate BLM's safe and practical inspection of Purchaser's operations and BLM's conduct of other official duties on Contract Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser's employees, contractors and subcontractors. In the event that the Authorized Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract may be modified. If the cost of such contract modification is of a substantial nature (\$2,000.00 or more), the Purchaser may request, in writing, an adjustment in the Total Purchase Price specified in Section 2 of the timber sale contract, as amended, to compensate for the changed conditions. Unless otherwise specified in writing, when operations are in progress adjacent to or on roads and/or trails in the harvest unit area, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the road or trail

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user with adequate warning of and protection from hazardous or potentially hazardous conditions associated with its operations. Purchaser shall prepare a Traffic Control Plan, which the Purchaser has determined is compliant with state and local OSHA and Transportation standards no later than the pre-work meeting and prior to commencing operations. Traffic control devices shall be appropriate to current operating and/or weather conditions and shall be covered or removed when not needed. Flagmen and devices shall be as specified in state OSHA and Transportation standards for logging roads or the “Manual on Uniform Traffic Control Devices for Streets and Highways” (MUTCD) published by the U.S. Department of Transportation - Federal Highway Administration. Included in the Traffic Control Plan, Purchaser shall note traffic control device locations on a Purchaser produced copy of the contract Exhibit “A” Map.

(C) ROAD CONSTRUCTION, MAINTENANCE, AND USE (R)

- (1) R-1: The Purchaser shall construct, improve, renovate, and/or decommission all roads and structures in strict accordance with the plans and specifications shown on Exhibit C and Exhibit D, which is attached hereto and made a part hereof.
- (2) R-1a: Any required construction, improvement, or renovation of structures and roads shall be completed and accepted, in accordance with Section 18, prior to the removal of any timber, except right-of-way timber, over that road.
- (3) R-1b: The Purchaser shall construct, use and decommission temporary routes 1-3, 11-3, and 34-1 by October 15th of the same respective operating season.
- (4) R-2: The Purchaser is authorized to use the road listed and shown on Exhibit D-2 for the removal of Government timber sold under the terms of this contract and/or the hauling of rock as required in Exhibit C, provided that the Purchaser pay the required maintenance and rockwear obligations described in Section 42 (C)(6). Any road listed on Exhibit D-2 and requiring construction, improvement, or renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the construction, improvement, or renovation from the Contracting Officer. The Purchaser shall pay current Bureau of Land Management maintenance and rockwear fees for the sale of additional timber under modification to the contract.

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Road No. and Segment	Length Miles Used	Road Control	Road Surface Type	Maintenance Responsibility
34-3E-25.00	0.30	BLM	AGG	Purchaser
34-3E-25.02	0.40	BLM	AGG	BLM
34-3E-25.04	0.36	BLM	AGG	Purchaser
34-3E-25.05	0.08	BLM	AGG	Purchaser
34-3E-33.00 A	0.10	Siskiyou	AGG	BLM
34-3E-33.00 B	0.08	BLM	AGG	BLM
34-3E-33.00 C	0.27	Siskiyou	AGG	BLM
34-3E-33.00 D1	0.48	BLM	AGG	BLM
34-3E-33.00 D2	0.40	BLM	NAT	Purchaser
34-3E-33.01	0.35	BLM	NAT	Purchaser
34-3E-35.00 (East)	0.32	BLM	AGG	Purchaser
34-3E-35.00 (West)	0.09	BLM	NAT	Purchaser
34-3E-35.02 A	0.68	BLM	AGG	Purchaser
34-3E-35.02 B	0.13	BLM	AGG	Purchaser
34-3E-35.03	0.10	BLM	NAT	Purchaser
34-3E-35.05	0.47	BLM	AGG	Purchaser
34-3E-35.06	0.28	BLM	AGG	Purchaser
35-3E-01.00	1.40	BLM	AGG	Purchaser
35-3E-02.00 A	0.31	Siskiyou	AGG	Purchaser
35-3E-02.00 B	0.52	BLM	AGG	Purchaser
35-3E-03.00 A1-B2	3.37	BLM	AGG	BLM

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35-3E-03.00 C	0.60	BLM	NAT	Purchaser
35-3E-03.05	0.19	BLM	NAT	Purchaser
35-3E-07.00 A1	0.42	Siskiyou	AGG	BLM
35-3E-07.00 A2	0.09	Juniper	AGG	BLM
35-3E-07.00 A3-C	1.55	BLM	AGG	BLM
35-3E-07.00 D	0.26	Siskiyou	AGG	BLM
35-3E-10.00 A-B	1.64	Siskiyou	AGG	BLM
35-3E-10.00 C	0.13	BLM	AGG	BLM
35-3E-10.01 A	0.24	Forest Service	AGG	BLM
35-3E-10.01 B	0.25	BLM	AGG	BLM
35-3E-10.01 C	0.42	Forest Service	AGG	BLM
35-3E-10.01 D	0.30	Siskiyou	AGG	BLM
35-3E-10.01 E	0.27	BLM	AGG	BLM
35-3E-10.01 F	0.27	Siskiyou	AGG	BLM
35-3E-10.04	0.78	Siskiyou	AGG	Purchaser
35-3E-11.00 A	0.13	Siskiyou	AGG	Purchaser
35-3E-11.01 A	0.32	BLM	AGG	Purchaser
35-3E-11.02 A1	0.33	Siskiyou	AGG	Purchaser
35-3E-11.02 A2	0.13	Siskiyou	NAT	Purchaser
35-3E-11.02 B	0.03	BLM	NAT	Purchaser
35-3E-11.04 A	0.19	Siskiyou	AGG	Purchaser
35-3E-11.04 B	0.23	BLM	AGG	Purchaser
35-3E-11.05	0.17	BLM	AGG	Purchaser

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35-3E-12.03	0.78	BLM	AGG	Purchaser
35-3E-12.04	0.55	BLM	AGG	Purchaser
35-3E-14.01 A-C	1.95	Siskiyou	AGG	BLM
FS 32	4.00	Forest Service	AGG	Purchaser
FS 3240	1.30	Forest Service	AGG	Purchaser
FS3240-100	0.21	Forest Service	AGG	Purchaser

- (5) R-2a: With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of road(s) included in Section 42(C)(8) 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.
- (6) R-2b: The Purchaser shall pay the Government a road maintenance and rockwear fee of **Thirty one thousand eight hundred fifty six and 80/100 dollars (\$31,856.80)** for the transportation of timber included in this contract price over said roads. The above maintenance amount is for the use of 20.84 miles of road or less. If the total road maintenance and rockwear fee does not exceed five hundred and no/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to use of such roads. If the total road maintenance and rockwear fee exceeds five hundred and no/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments of the maintenance and rockwear obligations.
- (7) R-2e: The Contracting 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 and rockwear 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

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determined by the Authorized Officer, to be transported over the road(s) listed in Section 42(C)(4). If the total road maintenance and rockwear fee does not exceed five hundred and no/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to use of such roads. If the total road maintenance and rockwear fee exceeds five hundred and no/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments of the maintenance and rockwear obligation(s).

- (8) R-2f: The Purchaser shall perform any required road repair and maintenance work on roads identified as Purchaser maintenance, under the terms of Exhibit D, Road Maintenance Specifications, of this contract, which is attached hereto and made a part hereof. The Purchaser shall perform any required road repair and maintenance work on roads used by them, under the terms of Exhibit D, Road Maintenance Specifications, of this contract, which is attached hereto and made a part hereof.
- (9) R-3: In the use of Road No. 35-3E-07.00 A2, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-2000D, between the United States of America and Juniper Properties LLC. This document is available for inspection at the Medford District Office.

These conditions include:

- (a) Payment of a road rockwear obligation of **eleven and 23/100 dollars (\$11.23)** to Juniper Properties LLC, payable at the time indicated in the License Agreement.
- (b) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
- (c) Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use 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.

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- (10) R-3: In the use of Road Nos. 34-3E-33.00 A, 34-3E-33.00 C, 35-3E-02.00 A, 35-3E-07.00 A1, 35-3E-07.00 D, 35-3E-10.00 A-B, 35-3E-10.01 D, 35-3E-10.01 F, 35-3E-10.04, 35-3E-11.00 A, 35-3E-11.02 A1-A2, 35-3E-11.04 A, and 35-3E-14.01 A-C, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-2000F, between the United States of America and Siskiyou Timberlands, LLC. This document is available for inspection at the Medford District Office.

These conditions include:

- (a) Payment of a road rockwear obligation of **Five thousand eight hundred ninety-five and 99/100 dollars (\$5,895.99)** to Siskiyou Timberlands, LLC., payable at the time indicated in the License Agreement.
 - (b) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (c) Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use 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.
- (11) R-3a: In the use of Road Nos. 35-3E-10.01 A, 35-3E-10.01 C, FS 32, FS 3240, and FS 3240-100, the Purchaser shall comply with the conditions of the Bureau of Land Management and Forest Service Interagency Right-of-Way and Road Use Agreement No. dated May 20, 1980, and Exhibit A.

These conditions include:

- (a) Payment of a road surface replacement obligation of **Twenty eight thousand seven hundred ninety-six and 64/100 dollars (\$28,796.64)** to the Forest Service, payable at the time indicated in the License Agreement.

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- (b) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (c) Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use 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.
 - (d) Road maintenance and haul by the Purchaser in accordance with specifications set forth in the USFS Standard Road Maintenance Specifications for the Pacific Northwest Region and Commercial Road Use Rules and Road Use Permit Requirements (Rogue River – Siskiyou National Forest – August 2012).
 - (e) Purchaser shall have a pre-maintenance/pre-haul meeting with the Forest Service prior to beginning operations on Forest Service roads.
- (12) R-3c: The Purchaser agrees that if they elect to use any other private road, which is the subject of a right-of-way agreement with the Government for the removal of Government timber sold under the terms of this contract, Purchaser shall request and agree to the modification of this contract to provide for such use and for allowances for amortization of the Government's share of the capital investment of any such road.
- (13) R-4: The Purchaser shall be required to secure written approval to use vehicles or haul forest products and equipment over Government owned or controlled roads when such vehicles or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit or if vehicles meet allowable non-permitted State vehicle weights, but the haul route crosses a structure or segment of road that is posted for reduced weights. The Purchaser agrees to abide by any special requirements included in said written approval.

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

Details shall include:

- 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.
- H. Special features (e.g., running tracks, overhang loads, etc.).

The Purchaser shall be responsible for repair of any damage to roads or structures caused by the use of overweight or over-dimension vehicles or equipment: (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.

- (14) R-5: 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.

The Purchaser shall be responsible for repair of any damage to roads or structures caused by the use tracked vehicles or equipment: (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.

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(D) Environmental Protection

(1) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall prepare a Spill Prevention, Control, and Countermeasure Plan for all hazardous substances to be used in the contract area. Such plan shall include identification of Purchaser's representatives responsible for supervising initial containment action for releases and subsequent cleanup. In addition, such plan shall follow all applicable State of Oregon Department of Environmental Quality guidelines for spill prevention and containment of petroleum products (Oregon Administrative Rules, Chapter 340, Department of Environmental Quality, Division 142, Oil and Hazardous Materials Emergency Response Requirements). During operations the operator would be required to have a BLM-approved spill plan or other applicable contingency plan. In the event of any release of oil or hazardous substance, as defined in Oregon Administrative Rules (OAR) 340-142-0005 (9)(d) and (15), into the soil, water, or air, the operator would immediately implement the site's plan. As part of the plan, the operator would be required to have spill containment kits present on the site during operations. The operator would be required to be in compliance with OAR 629-605-0130 of the Forest Practices Act, Compliance with the Rules and Regulations of the Department of Environmental Quality. Notification, removal, transport, and disposal of oil, hazardous substances, and hazardous wastes would be accomplished in accordance with OAR 340-142, Oil and Hazardous Materials Emergency Response Requirements, contained in Oregon Department of Environmental Quality regulations (SP-05, SP-06, and SP-07).

(2) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall store all hazardous materials and petroleum products in durable containers placed outside of Riparian Reserves. Locate so an accidental spill would be contained nor drain into any stream system (SP-03).

Refuel equipment a minimum of 175 feet from streams, ponds, or other wet areas. Store equipment containing reportable quantities of toxic fluids outside of the Riparian Reserve. Hydraulic fluid and fuel lines would be in proper working condition in order to minimize leakage into streams (SP-03).

(3) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall restrict ground-based yarding and soil decompaction operations from October 15 to May 15 generally, or when soil moisture exceeds 25%. The Authorized Officer may issue a waiver, with support from the BLM soil scientist and based on site conditions.

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- (4) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall comply with the following. Road renovation and improvement would occur during the dry season (May 15 to October 15). Variations in these dates would be permitted dependent upon weather and soil moisture conditions and with a specific erosion control plan (e.g., rocking, waterbarring, seeding, mulching, barricading) as determined by the Authorized Officer in consultation with aquatic and/or soils scientists. All road and landing construction activities would be stopped when a storm event resulted in degrading conditions as evidenced by turbid runoff, turbid ditch flow, ponding, or rutting or other displacement in excess of two inches. Watershed specialists would closely monitor storms that result in precipitation and would convey pertinent information to the Authorized Officer. Similarly, the Authorized Officer would convey road, landing, and ditch conditions to the aquatic and/or soil specialists.
- (5) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall construct road barricades as specified on Exhibit C, at locations where an existing barricade has been removed to provide for harvest access. Barricades shall be in place by October 15 of each calendar year.
- (6) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall block skid trails to prevent public motorized vehicle use and other unauthorized use by October 15 of the year of harvest unless a waiver is in place for ground-based yarding to extend the dry season. Place woody debris or other appropriate barriers (e.g., rocks, logs, and slash) on the first 100 feet of skid trails leading off system roads or landing areas in all ground-based yarding units upon completion of yarding to block and discourage unauthorized vehicle use. If there is not enough available slash to cover the first 100 feet of skid trails, apply seed and mulch to the area.
- (7) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall revegetate disturbed soils with locally adapted native seeds and plant materials as prescribed by the field office botanist, and mulch. Need would be determined by the authorized officer in consultation with the field office botanist, based on the level of disturbance and the presence of priority non-native invasive plants. Planting and/or seeding would occur between September 1 to October 31, or February 1 to March 31 or as otherwise approved by authorized officer in consultation with the field office botanist.

The Purchaser shall furnish the specific seed mixture prescribed by the Authorized Officer, which will include up to 3 grasses and 2 forbs from the following list, but may include substitutions approved by the Authorized Officer:

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Grasses: *Achnatherum lemmonii*, *Bromus carinatus*, *Brumus vulgaris*, *Elymus glaucus*, *Festuca californica*, *Festuca roemerii*, *Koeleria macrantha*, *Poa secunda*, *Vulpia microstachys*

Forbs: *Achillea millefolium*, *Clarkia purpurea*, *Clarkia rhomboidea*, *Collinsia grandiflora*, *Eriophyllum lanatum*, *Lupinus bicolor*, *Madia elegans*, *Madia gracilis*

The proportion of each species in the mixture shall be prescribed by the Authorized Officer.

The Purchaser shall apply prescribed seed and straw mulch to acres designated for treatment, as directed by the Authorized Officer, at the following rates of application:

Grass seed	20 to 25 lbs/acre (cumulative, all species)
Forb seed	0.5 to 2 lbs/acre (cumulative, all species)
Straw mulch	1000 lbs/acre

The Purchaser shall apply seed and straw mulch between September 1 and October 31, and/or between February 1 and March 31 of the year of harvest. Deviations from that timing must be approved by the Authorized Officer. The Purchaser shall notify the Authorized Officer at least 5 days in advance of the date that he/she intends to commence revegetation and soil stabilization work.

If the Purchaser furnishes seed from any source other than the BLM, that seed shall meet the following minimum test standards:

<u>Test</u>	<u>Grasses (%)</u>	<u>Forbs (%)</u>
Purity:	95	80
Germination:	85	70
Other species/weed content (max):	0.2	0.2
Noxious weed content:	Prohibited	Prohibited

Furnished seed shall meet the minimum requirements for either Yellow Tag Source Identified Seed or Blue Tag Certified Class Seed, as defined by the Association of Official Seed Certifying Agencies. Seed source shall be approved by the Authorized Officer and shall be from the EPA Level III Ecoregion in which the project occurs. For each lot of seed, the Purchaser shall furnish the Authorized Officer a Seed Test result from a certified seed testing lab (e.g., Oregon State University), which shall include: test date; lot number; seed source; and results of test for purity, germination, and weed content. All seed lots must have been tested within the previous 12 months to be accepted. Seed that has become wet, moldy, or otherwise damaged shall not be accepted. Seed must be available to the Authorized Officer for inspection at least 5 days in advance of commencing revegetation work.

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- (8) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall ensure hay, straw, and mulch are certified as free of prohibited noxious vegetative parts or seeds. Hay must be from native grasses only. Straw or hay must be obtained from the BLM or purchased from growers certified by the Oregon Department of Agriculture's Weed Free Forage and Mulch Program or approved by the project botanist.
- (9) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall apply erosion-control techniques (e.g. water bar, seed, mulch, scatter chipped material, or scatter limbs and other fine material) on skid trails, forwarder trails, yarding corridors, landings, and other disturbed areas where potential for soil erosion or delivery to waterbodies, floodplains, and wetlands exist, or as identified by the Authorized Officer.
- (10) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall de-compact landings and heavily compacted skid trails in regeneration units. Depth needed to be ripped would be dependent on how deep the compaction layer is and would be site-specific.
- (11) E-1 Decompact (using equipment approved by Authorized Officer) and water bar all temporary routes and associated landings, and roads identified for full decommissioning to a depth of 18 inches or bedrock (whichever is shallower). Avoid subsoiling areas near tree roots and where there are rocks larger than 2 feet across. Apply seed and mulch and block upon completion of use. Seeding and mulching would occur in the same operational season that construction activities.
- (12) E-2 The water bars to be constructed as required by Sec. 26(c) shall be constructed in accordance with the specifications shown on Exhibit C Package (special provisions), which is attached hereto and made a part hereof.
- (a) Water-bar all pre-designated skid trails, designated skid trails, and forwarder trails used for logging activities in all ground based units shown on Exhibit A, at locations approved by the authorized officer, by October 15 of the year of harvest.
- (b) Install water-bars at the same time as subsoiling (if both are required) unless skid trails are needed to complete harvest the following season. In that case, water bars would be constructed and straw would be applied to exposed soil prior to fall rains to reduce sedimentation during winter months. Water-bar spacing on tractor skid trails would be based on the RMP erosion-control measures for timber harvest, which considers slope and soil series.

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- (13) E-3: The Purchaser shall immediately discontinue specified construction or timber harvesting operations upon written notice from the Contracting Officer that:
- (1) 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;
 - (2) when, in order to comply with the Endangered Species Act, or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
 - (3) 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;
 - (4) 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;
 - (5) when, in order to comply with a court order, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
 - (6) when, in order to comply with a stay or other remedy issued by the Interior Board of Land Appeals (IBLA) the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
 - (7) species have been discovered which were identified for protection in accordance with management direction established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;
 - (8) when, in order to protect species which were identified for protection in accordance with management direction established in the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

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Those operations necessary for a safe removal of personnel and equipment from the contract area and those directed by the Contracting Officer, which are required in order to leave the contract area in an acceptable condition will be permitted. Discontinued operations may be resumed upon receipt of written instructions and authorization by the Contracting Officer.

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

In the event 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 Section 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 Section 3(b) of the contract within 15 days after the bill for collection is issued, subject to Section 3(j) 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

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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, court-ordered injunctions, or an IBLA issued stay or remedy, 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 modify the contract or terminate the cutting and removal rights under the contract in order to comply with the Endangered Species Act, prevent incidental take of northern spotted owls in accordance with the ROD and RMP, protect species that have been discovered which were identified for protection in accordance with management direction established in the ROD and RMP, or comply with a court order or an IBLA issued stay or remedy. 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, if able to proceed without causing incidental take of northern spotted owls in accordance with the ROD and RMP, if consistent with species protection in accordance with management direction established in the ROD and RMP, or if consistent with a court order or an IBLA issued stay or remedy.

In the event the contract is modified or 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

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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.

- (14) E-5 The Purchaser shall notify the Authorized Officer in writing by February 1 of each calendar year in which operations are expected to take place on the contract area between March 1 and September 30, both days inclusive. If notification is not received by the Authorized Officer by February 1, felling, bucking, yarding, road construction, or any other activity with the potential to disturb nesting owls may not be allowed during this time period.
- (15) E-7 In order to prevent the spread of noxious weeds (and *Phytophthora lateralis*), the Purchaser shall (steam clean or pressure wash) all equipment traveling off system roads or temporary routes prior to entry onto BLM lands (and between sale locations if operating in areas infested with weeds.) as directed by the Authorized Officer. Cleaning shall be defined as removal of all dirt, grease, plant parts and material that may carry noxious weed seeds.

(E) Miscellaneous

- (1) M-2 The Government at its option may check scale any portion of the timber removed from the contract area. The Purchaser hereby agrees to make such contract timber available for scaling at a location designated by the Authorized Officer. In the event that BLM elects to 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, the purchase price of this contract shall be reduced by fourteen hundred thirty two dollars and fifty cents (\$1,432.50). In the event that only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of \$0.75 per net thousand board foot of timber scaled 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.

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(F) Fire Prevention and Control

1. F-1a Fire Prevention and Control. Primarily for purposes of fire prevention and control, the Purchaser shall comply with the following provisions:
 1. 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 ensure that planned operations will be in full compliance with the current Fire Season Requirements issued by the State of Oregon, Department of Forestry and the Medford District Bureau of Land Management.

Current State of Oregon, Department of Forestry requirements can be found online at:
<https://www.oregon.gov/ODF/Fire/Pages/Restrictions.aspx>

(G) Slash Disposal and Site Preparation

1. SD-4 Logging Residue Reduction. In addition to the requirements of Sect.15 of this contract, and notwithstanding the Purchaser's satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the State's willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following logging residue reduction and site preparation measure(s) required by this contract:

Prior to commencement of any operation under this section of the contract, a slash disposal and site preparation pre-work conference between the purchaser's representative and the Authorized Officer must be held at a location designated by the Authorized Officer. All slash disposal and site preparation shall be done in accordance with the plans developed at this pre-work conference.

Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of purchasers operations under the terms of this contract, including material cut during slashing activities for the purposes of fuels reduction.

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Refueling of chainsaws and other equipment will be done no closer than one hundred fifty (150) feet of any stream or wet area. Spilled fuel and oil would be cleaned-up and would be disposed of at an approved disposal site.

1. For Igniting, Burning, Mop-up of Piles on Units:
 - a. One work leader(s) Firefighter Type 1 (FFT1) qualified according to National Wildfire Coordinating Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1) to supervise crew and equipment operations, and to serve as Purchaser's representative.
 - b. Two-person crew Firefighter Type 2 (FFT2) qualified according to National Wildfire Coordination Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1, with sufficient fuel for burning, four (3) drip torches, one (1) power saw, and one (1) backpack pump, one (1) tool for each crew member.
 - c. The crew shall arrive on the project area with radios capable of inter-crew communications and communication with a BLM representative at a ratio of one (1) radio per every five (5) crew members.
 - d. All ignition and mop-up personnel will be directly supervised by a BLM representative.

Aircraft and pilots used for Logging Residue Reduction or the suppression of escaped fires from Logging Residue Reduction operations, shall be acquired from a list of aircraft and pilots approved (i.e., carded for these specific activities) by the Office of Aircraft Services or the U.S. Forest Service. This list is available from BLM District Offices upon request.

All listed personnel shall be physically fit, experienced and fully capable of functioning as required. In addition, all listed personnel shall be qualified according to the National Wildfire Coordinating Group (NWCG) Wildland Fire Qualification System Guide, PMS-310-1 and provide documentation of these qualifications. On the day of ignition all listed personnel shall be fluent in speaking and understanding English, clothing shall consist of long pants and long sleeved shirts, and be of approved aramid fabric (Nomex™ or equivalent), as well as being free of diesel fuel oil. All personnel shall wear lug sole boots with minimum eight (8) inch tall uppers that provide ankle support, approved hardhats

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and leather gloves. Personnel who do not meet these requirements or do not have proper clothing and personal protective equipment (PPE) will not be allowed to participate. All listed tools and equipment shall be in good usable condition. All power-driven equipment shall be fully fueled and available for immediate use. During periods of use under this subsection, the Purchaser shall provide fuel and maintenance for all such power-driven equipment.

Except as provided hereafter for fire escapement, the Purchaser shall continue the required assistance in mop up on each cutting unit shown on Exhibit A for seventy-two (72) hours, as directed by the Authorized Officer within a five (5) day period commencing at 8:00 a.m. the day following the completion of ignition in that unit, or until released from such service by the Government, whichever occurs first.

In event of a fire escapement, the Purchaser's personnel and equipment shall, under supervision of the Authorized Officer, take action to control and mop up the escaped fire until released from such service by the Government. If it becomes necessary to use furnished personnel and equipment for the suppression of a fire which escapes from the prescribed fire area for a period beyond the remainder of the day in which the fire escapes, then the Government shall, at its option: (1) reimburse the Purchaser for such additional use of personnel and equipment at wage rates shown in the current Administratively Determined Pay Rates for the Western Area and at equipment rates shown in the current Oregon-Washington Interagency Fire Fighting Equipment Rental Rates schedule until the Purchaser is released from such service by the Government; or (2) release the Purchaser from additional suppression work and assume responsibility for suppressing the escaped fire.

In situations where an escaped fire is controlled and contained by an adequate fire break (i.e., trail, road, stream, rock formation, etc.), the Government may permit the Purchaser to remove personnel for that day; provided that all mop up work on the escaped fire is included with mop up work on the prescribed fire area. In such an event, the Purchaser must sign a statement of agreement to complete mop up work on all escaped fire areas concurrently with mop up work on the prescribed fire area.

SD-1a LOP AND SCATTER Lop and scatter all slash as directed by the Authorized Officer, concurrently with normal felling operations. All tops and side branches must be free of the central stem so that such slash is reduced to the point that it is within eighteen (18) inches of the ground at all points.

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SD-1b HANDPILE AND BURN Handpile all slash as directed by the Authorized Officer in accordance with the following specifications:

1. Piling shall be accomplished by hand. Finished piles shall be tight and free of earth.
2. Pile all slash which is between one (1) and six (6) inches in diameter on the large end and exceeds three (3) feet in length.
3. A six (6) foot by six (6) foot sheet of four (4) mil polyethylene black plastic shall be placed in each pile in a manner such that approximately one-third ($\frac{1}{3}$) of the pile lies above it to hold it in place and so that a two (2) foot by two (2) foot dry ignition point is maintained for one (1) year or until burned. The ignition point will consist of fine fuel material such as needles, small limbs, and branches less than one-half ($\frac{1}{2}$) inch in diameter and free of dirt. Piles shall be constructed by aligning individual pieces in the same direction and placing the heavier slash on top. Piles shall have a stable base to prevent toppling. The long axis of individual pieces shall be oriented up and down the slope. Protruding pieces shall be trimmed to allow covering in a manner that permits the pile to shed water. Height shall be no less than four (4) feet and no greater than six (6) feet; width shall not exceed six (6) feet; piles shall be circular and not windrowed. No pile shall be located within sixty (60) feet of fish-bearing, perennial streams or within thirty five (35) feet from non-fish-bearing, intermittent streams. Piles shall not be located on down logs, stumps, talus slopes, roadways, or drainage ditches. No pile shall be located within ten (10) feet of reserve trees, any other pile, or unit boundary. No pile shall be located within twenty five (25) feet of designated wildlife trees. No portion of the pile will be under the crown of any living conifer tree.
4. Operations required by this provision shall be kept current with yarding as directed by the Authorized Officer and shall be conducted as follows:
 - a. Units shall be piled and covered during the same season that they are logged. Piling shall be completed in each unit or portion thereof, within eight (8) weeks after being notified of BLM site treatment determination.

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SD-1c EXCAVATOR PILE AND BURN. Pile all slash in units or portions of units as designated by the Authorized officer in accordance with the following specifications:

1. Piling shall be accomplished with a track-mounted excavator with track shoes producing less than ten (10) pounds per square inch ground pressure. The excavator shall be equipped with a hydraulic thumb or rotating, controllable grapple head. The machine shall have a minimum reach of twenty-five (25) feet. Finished piles shall be tight and free of earth. No portion of the excavator pile will be within 25 feet of the dripline of any living conifer tree.
2. Pile all slash, brush and downed hardwoods which are greater than two (2) inch and less than sixteen (16) inches in diameter on the large end and exceed two (2) feet in length. Existing reproduction of commercial coniferous species shall be protected where feasible.
3. Unmerchantable logs greater than sixteen (16) inches on the small end shall be left in place, or positioned so that they will not be burned.
4. Prior to the commencement of piling work, all equipment shall meet the approval of the Authorized Officer.
5. Excavators are limited to designated skid roads approved by the Authorized Officer.
6. Additional trails needed shall be approved by the Authorized Officer, and the excavator shall be limited to one pass on these trails. The excavator shall pile by walking over the slash and working back to the designated trails. Existing reproduction of commercial coniferous species shall be protected where feasible.
7. A ten (10) foot by ten (10) foot cover of four (4) mil black plastic or equivalent material shall cap each excavator pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Covering shall be done at time of piling.
8. Operations required by this provision shall be kept current with yarding as directed by the Authorized Officer and shall be conducted as follows: Units shall be piled and covered during the same season that they are logged. Piling shall be completed in each unit or portion thereof, within eight (8) weeks after being notified of BLM site treatment determination

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SD-1f LANDING PILES In all units as shown in the Exhibit A, pile all slash located within fifty (50) feet on each side of each landing. Slash shall be piled by a grapple loader. Finished piles shall be tight and free of earth.

1. A ten (10) foot by ten (10) foot cover of four (4) mil black plastic shall cap each pile to maintain a dry ignition point that contains fine fuels (i.e. kindling). The cover shall be firmly fixed to each pile to hold it in place. Landings shall be piled and covered during the same season that they are logged. No portion of the landing pile will be within 50 feet of the dripline of any living conifer tree.
2. SD-5 Perform logging residue reduction and site preparation work on approximately 500 hundred (500) acres of harvest area as directed by the Authorized Officer.
 - (a) The required work shall consist of any treatment or combination of treatments listed in the table below, as determined by the Authorized Officer and specified in writing by the Contracting Officer. The number of acres of each treatment shall be determined by the Authorized Officer.

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(b) The following treatments were assumed for appraisal purposes on this contract:

Treatment/Level	Cost Per Acre	Number of Acres	Total Cost Per Treatment Type
Hand Pile/Cover Slash	\$545.00	200	\$109,000
Hand Pile Burn	\$75.00	200	\$15,000
Excavator Pile/Cover	\$490.00	200	\$98,000
Excavator Pile Burn	\$65.00	200	13,000
Lop and Scatter	\$48.00	100	\$4,800
Total Appraised Cost			\$239,800

(c) The total Purchase Price set forth in Section 2 shall be adjusted by the amount that the total cost of the site preparation treatments designated pursuant to Section 41(G)(2)(a) differs from: two hundred thirty nine thousand eight hundred dollars (\$239,800.00) as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 41(G)(2)(a).

In case of injury to personnel or damage to equipment furnished by the Purchaser 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 personnel 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. If the Purchaser's failure results in deferral of burning and new conditions necessitate additional site preparation work and/or use of additional personnel and equipment to accomplish planned burning, the Purchaser also shall be responsible for such additional costs.

Seasonal Restriction Matrix

1 of 1

Ranchero Timber Sale

ORM05-TS-2020-0006



Restricted Times are Shaded



Possible Waived Times are Hatched

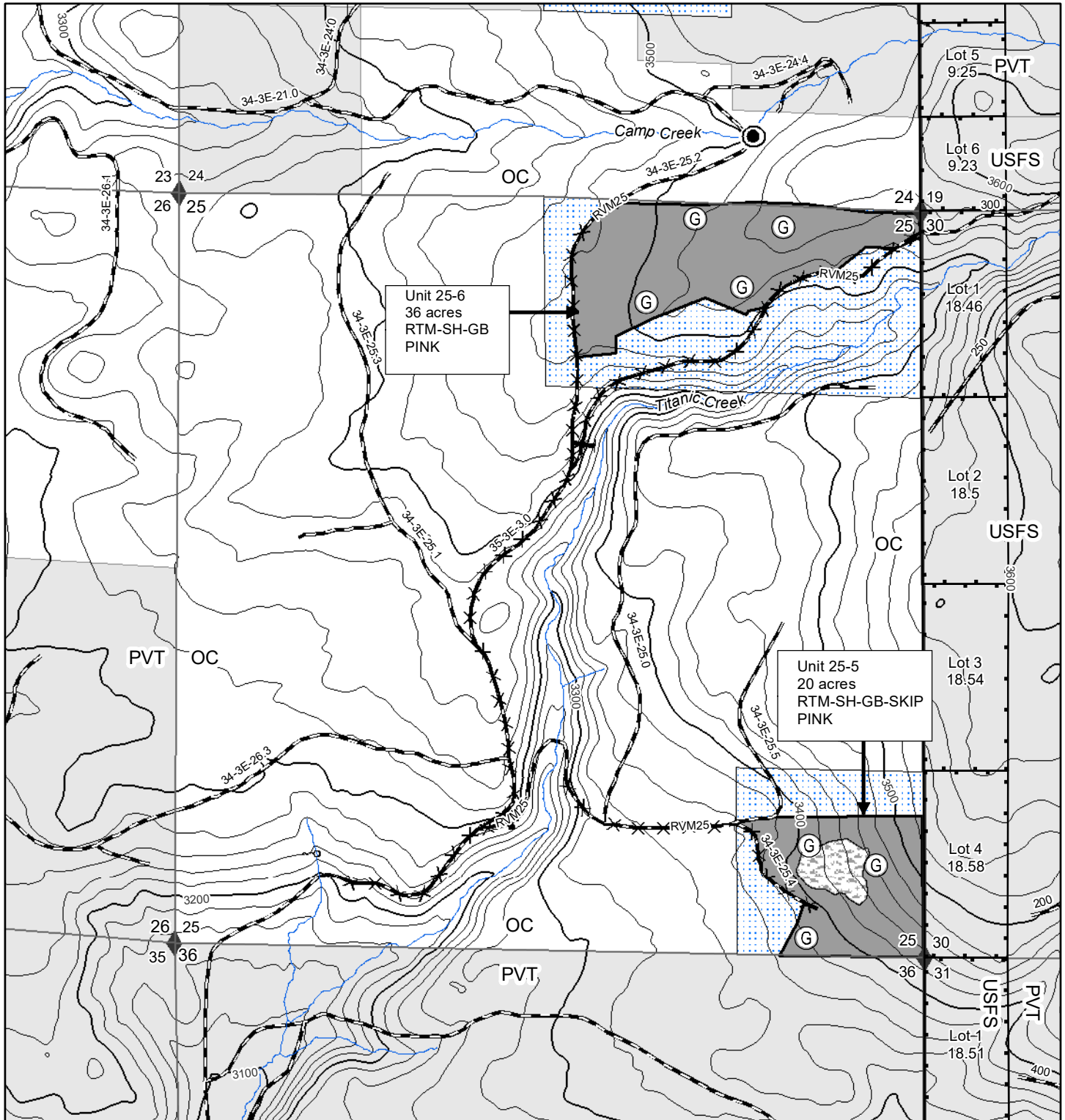
Sale Area	Activity	Restriction for	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
			1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15
All Units	Ground Based yarding and landing operations*	Wet Season ¹												
	Rock/Log Hauling*	Wet Season ^{1,2}												
	Road and/or landing construction, Road Reconstruction, Road Renovation, Road/skid trail barricading, waterbar construction and soil ripping*	Wet Season ¹												
	Seeding, mulching	Seeding Season												

Sale Area	Activity	Restriction for	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
			1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15	1 15
Haul Routes	Road Rocking*	Wet Season ^{1,2}												
	Road Grading*	Wet Season ^{1,2}												
	Timber Haul*	Wet Season ^{1,2}												
	Rock Haul*	Wet Season ^{1,2}												

¹ Wet season restrictions may be shortened or extended depending on weather conditions (see L-19 in special provisions)

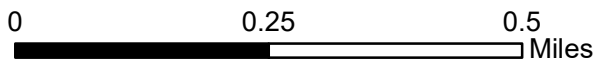
² Hauling restriction may be shortened or extended (see L-19 in special provisions)

*Additional restrictions will apply if a spotted owl nest site is found within 0.25 miles for most harvest related activities or 0.5 miles for blasting, if a gray wolf den is found within one mile of a unit, or if a fisher den site is found within 50 feet of proposed treatment areas(see E-3 in special provisions). State fire restrictions may apply.

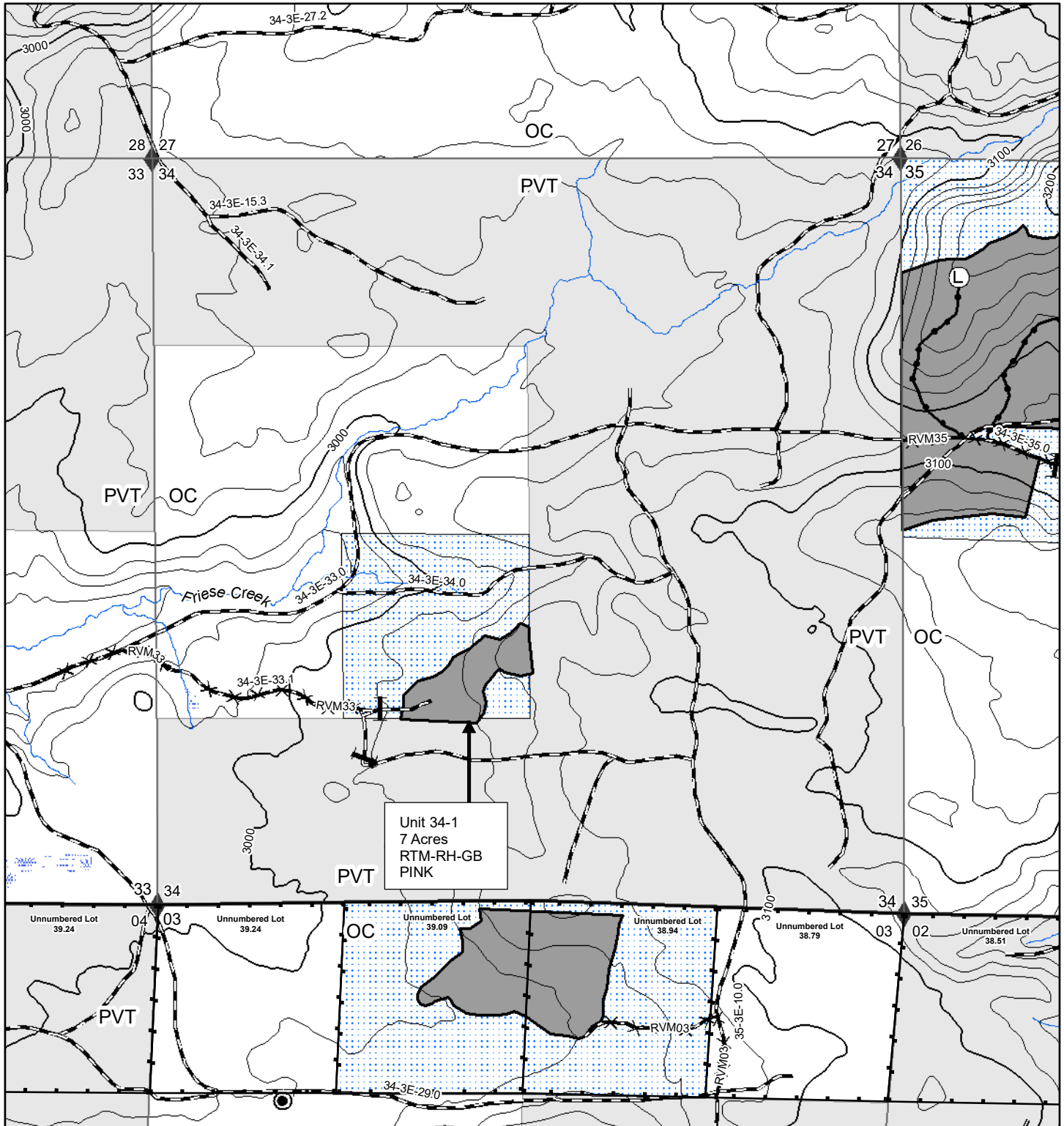


Medford District BLM
August 2020

1 inch = 1,000 feet
Contours = 20 feet

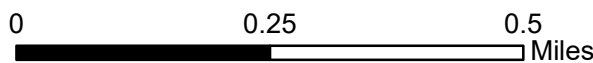


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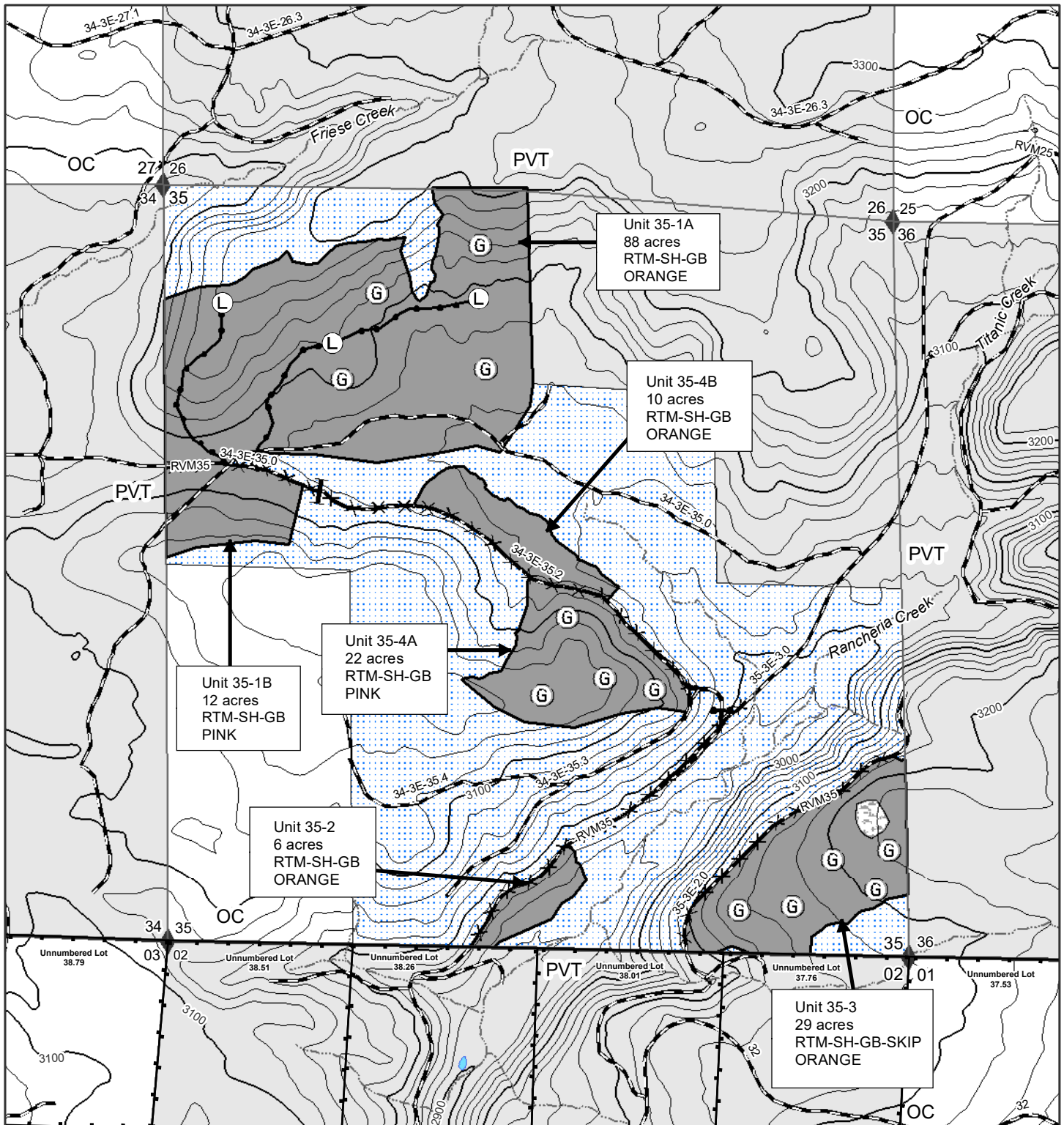


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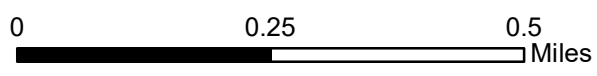


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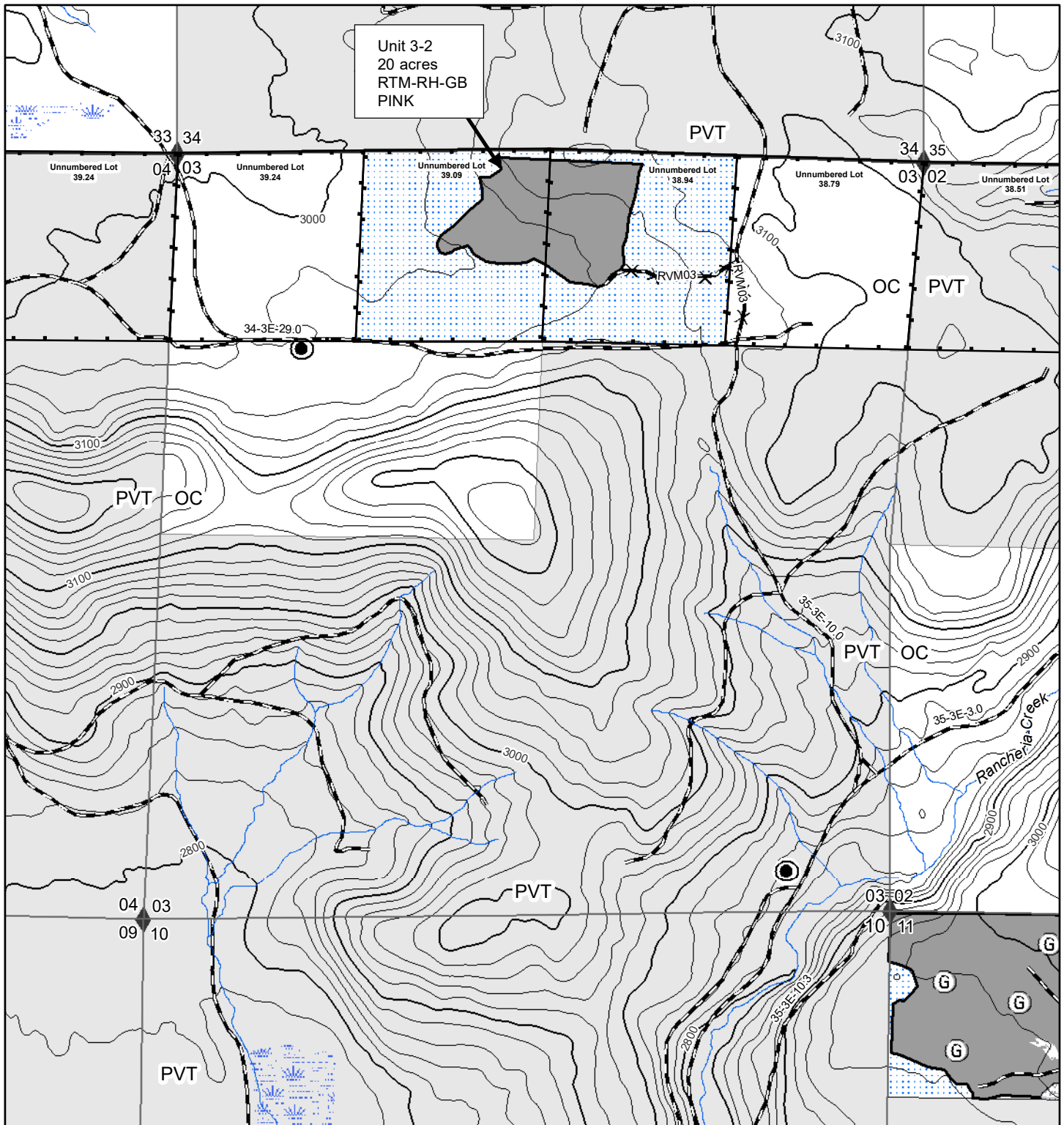


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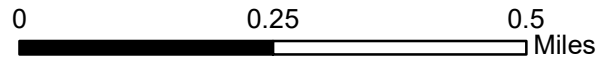


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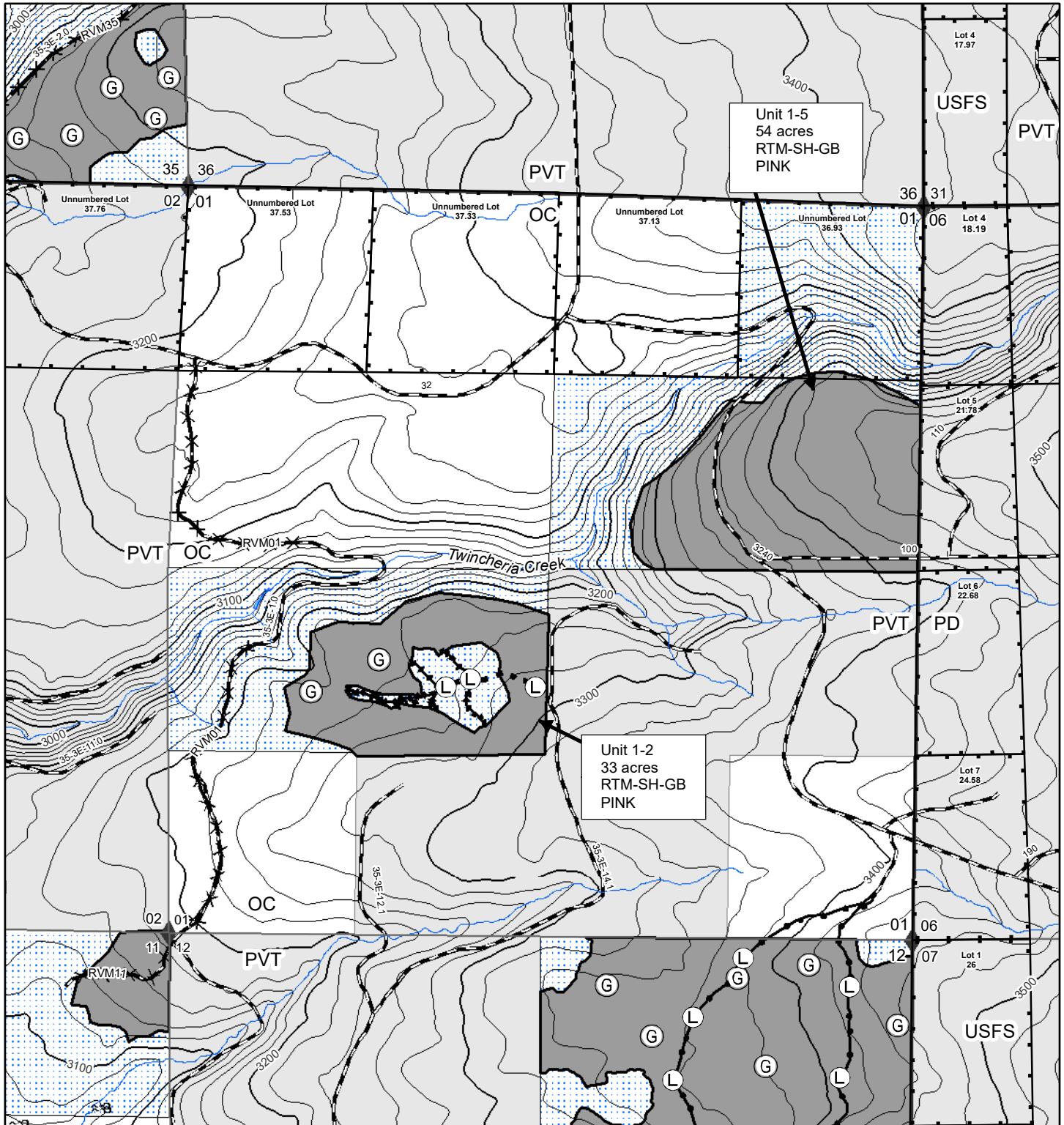


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August 2020

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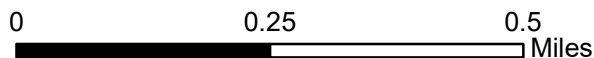


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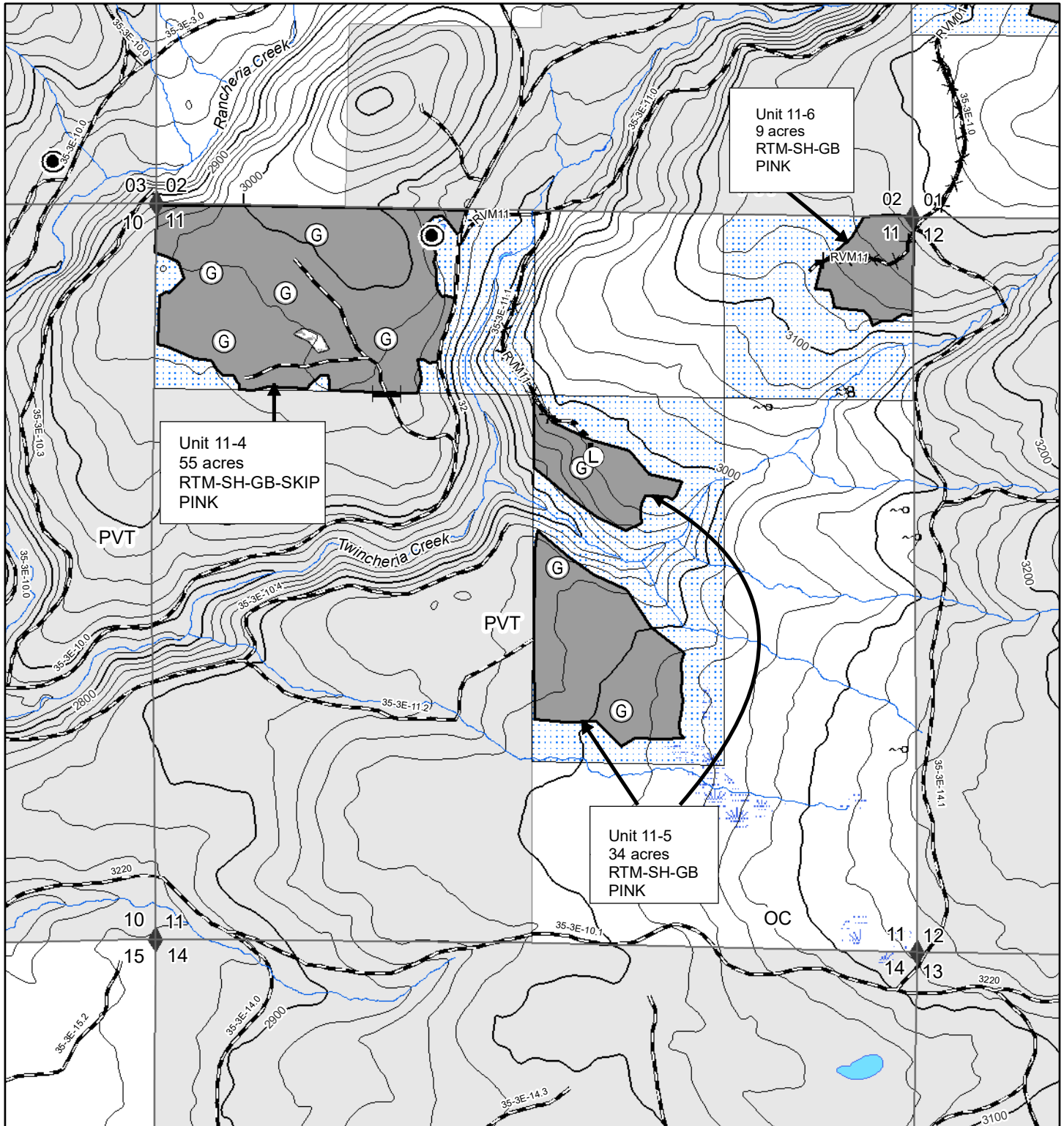


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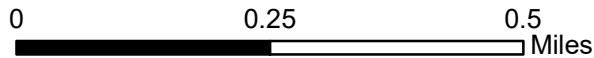


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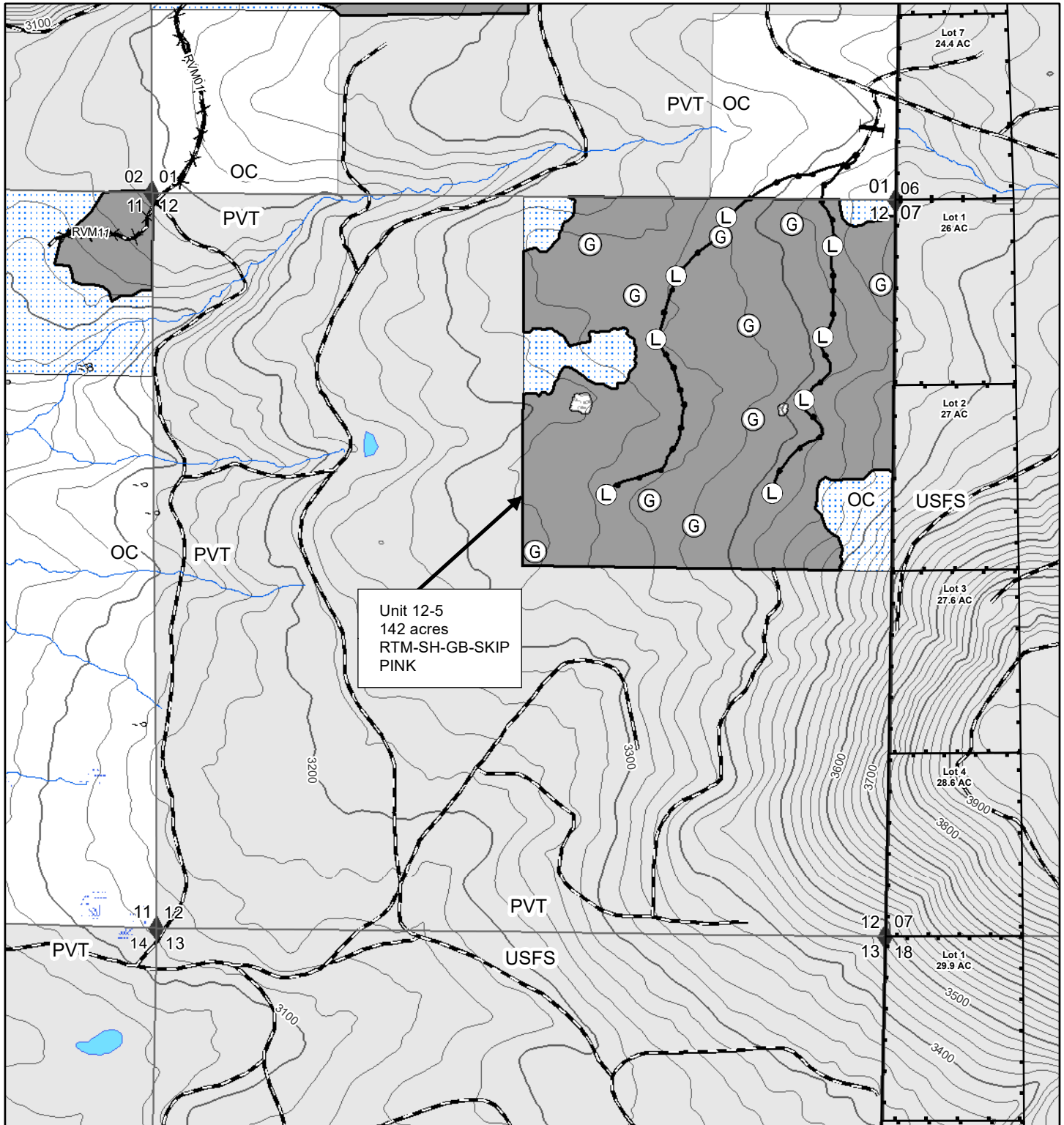


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August 2020

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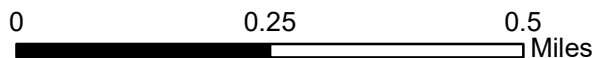


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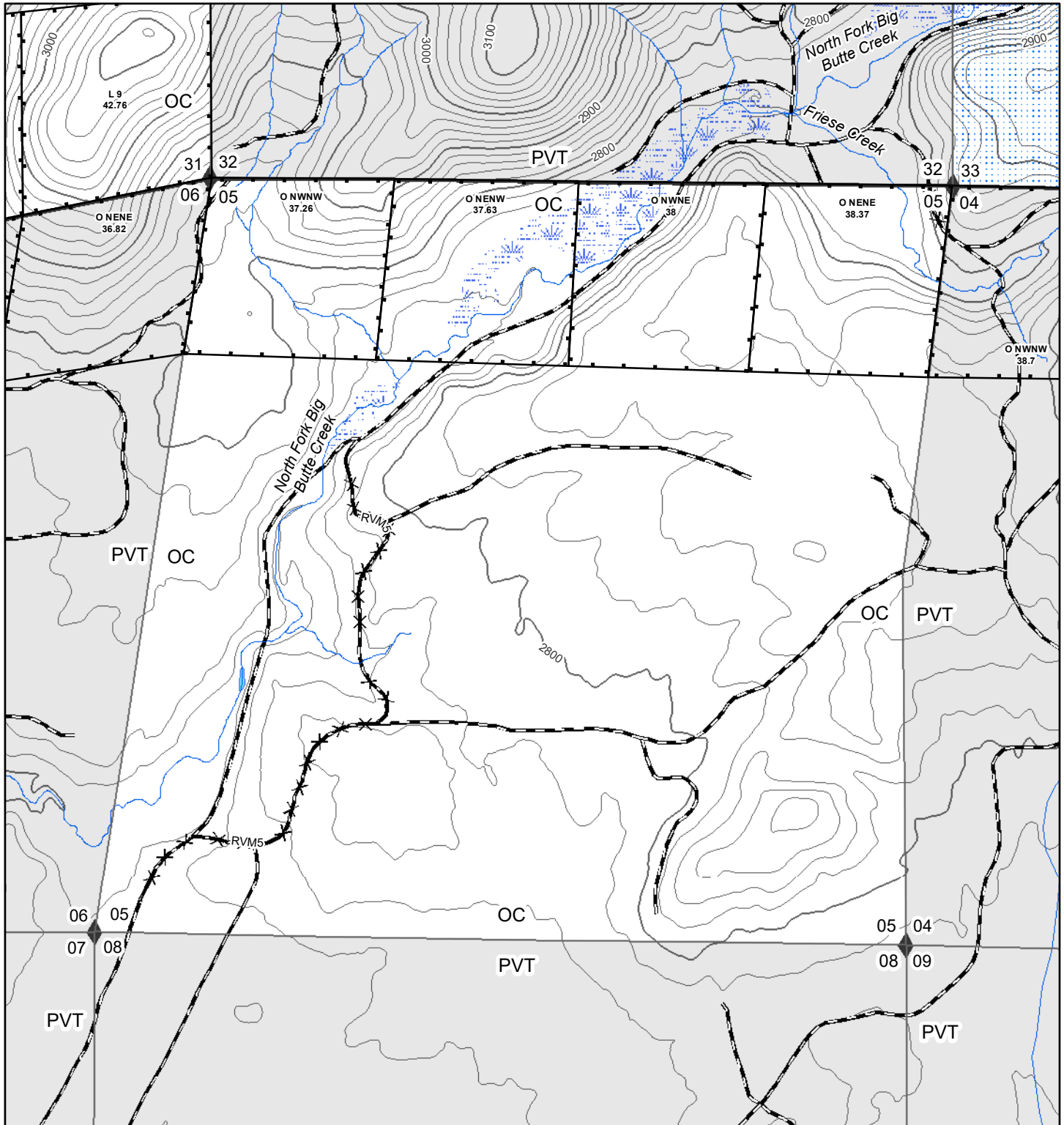


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August 2020

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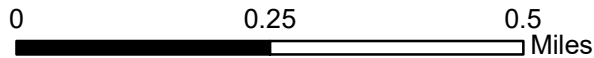


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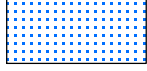













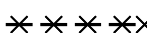
Medford District BLM
August 2020

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Contours = 20 feet



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Legend

	Landings		Existing Road		Boundary of Cutting Area		Contract Area (Timber Reserve)
	Gaps		Permanent Road Construction		Internal Skips		BLM
	SpringSeep		Temporary Road Construction		Gate		Non-BLM
	Water Source		Pre-Designated Skid Trail		Barrier		Government Lot (see map labels)
	Found Corner		Roadside Vegetation Maintenance (See Map Labels)				

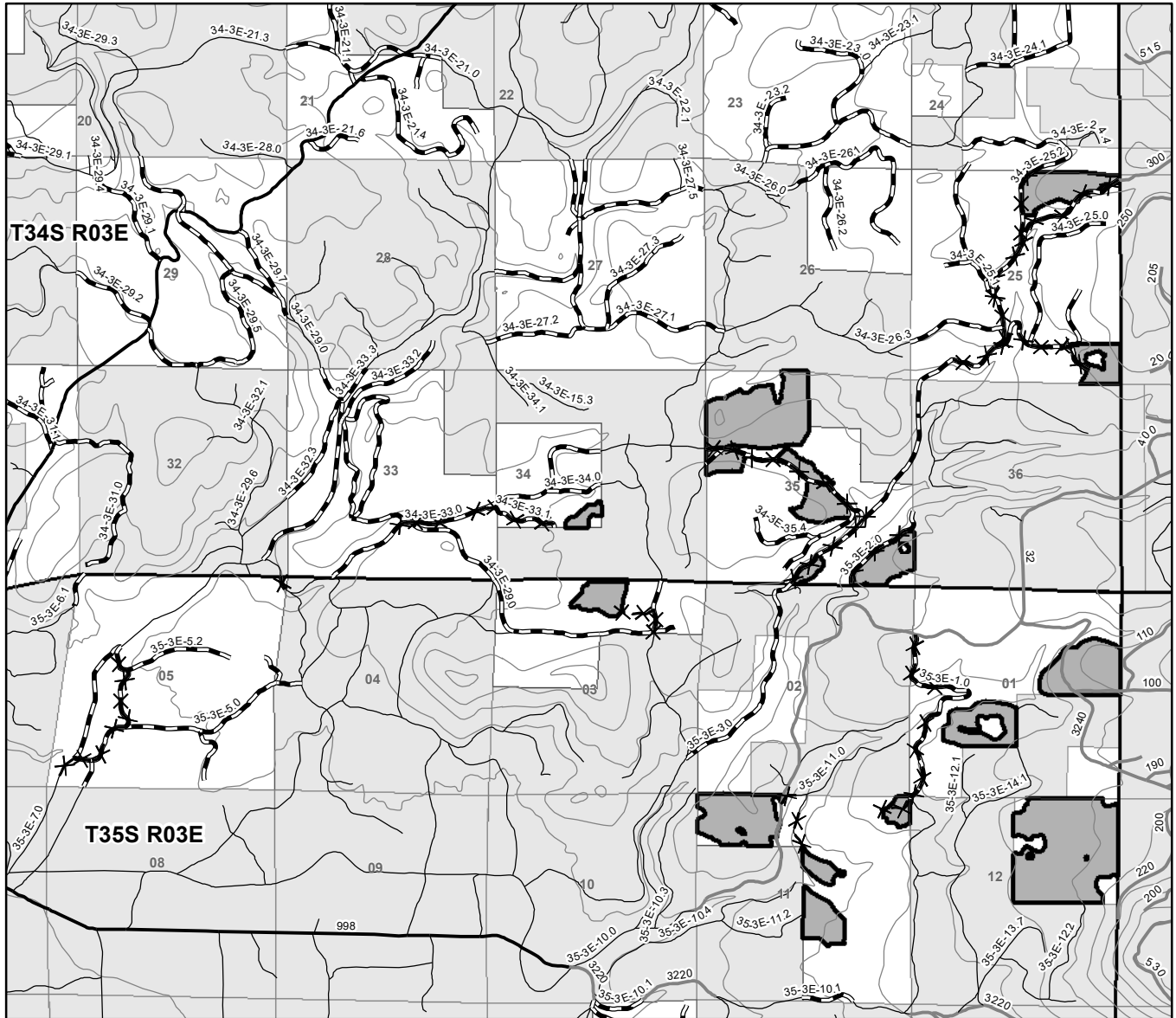
RTM-RH-GB
PAINT COLOR: PINK
 RESERVE TREATMENT MARK
 REGENERATION HARVEST
 GROUND BASED UNIT
 PAINT COLOR: PINK
 3-2; 34-1

RTM-SH-GB-SKIP
PAINT COLOR: PINK
 RESERVE TREATMENT MARK
 SELECTION HARVEST
 GROUND BASED UNIT - SKIPS
 PINK
 11-4; 12-5; 25-5

RTM-SH-GB
PAINT COLOR: PINK
 RESERVE TREATMENT MARK
 SELECTION HARVEST
 GROUND BASED UNIT
 PAINT COLOR: PINK
 1-2; 1-5; 11-5; 11-6;
 25-6; 35-1B; 35-4A

RTM-SH-GB
PAINT COLOR: ORANGE
 RESERVE TREATMENT MARK
 SELECTION HARVEST
 GROUND BASED UNIT
 PAINT COLOR: ORANGE
 35-1A; 35-2; 35-4B

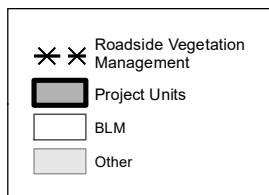
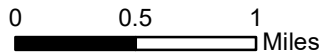
RTM-SH-GB-SKIP
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 RESERVE TREATMENT MARK
 SELECTION HARVEST
 GROUND BASED UNIT -SKIPS
 PAINT COLOR: ORANGE
 35-3



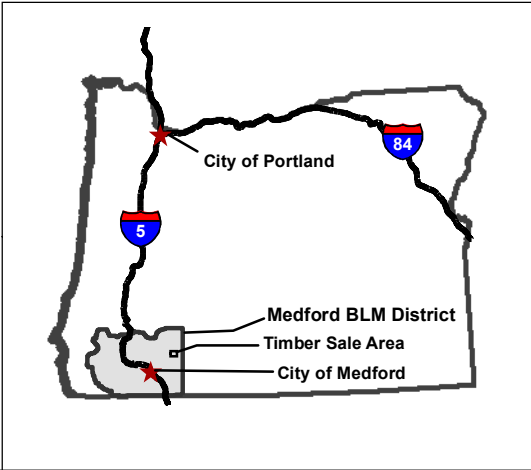
**Medford District BLM
 August 2020**

1 in = 1 miles

Contours = 100 feet



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U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 2020-0006
 T. 34S. R. 03E., SEC 25, 34, 35
 T. 35S. R. 03E, SEC 01, 03, 11, 12 WILL. MER.
 RANCHERO TIMBERSALE

TIMBER SALE CONTRACT MAP
 CONTRACT NO. ORM05-TS-2020.0006
 EXHIBIT A
 PAGE 11 OF 11

Township Range	Section	Unit Number	Project Unit Acres	Reserve Acres	Contract Acres
35-3E	1	1-2; 1-5	87	113	200
35-3E	3	3-2	20	63	83
35-3E	11	11-4; 11-5; 11-6	98	105	203
35-3E	12	12-5	142	17	159
34-3E	25	25-5; 25-6	56	67	123
34-3E	34	34-1	7	33	40
34-3E	35	35-1A; 35-1B; 35-2; 35-3; 35-4A; 35-4B	167	274	441
			577	672	1249



**United States
Department of the Interior
Bureau of Land Management**

Timber Appraisal

Sale Name: Rancho TS	Sale Date: Thursday, August 27, 2020
BLM District: Medford DO	Unit of Measure: 16' MBF
Contract #: ORM05-TS-2020.0006	Contract Term: 36 months
Sale Type: Advertised	Contract Mechanism: 5450-3 Sale of Timber - Lump Sum

Content

**Timber Appraisal Summary
Stumpage Summary
Unit Summary
Stump to Truck
Transportation
Engineering Allowances
Other Allowances**

Prepared By: Parks, Corey J - 8/24/2020

Approved By: Parks, Corey J - 8/24/2020

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Jackson	34S	3E	25	NE1/4NE1/4, W1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, S1/2SE1/4.	Willamette
O&C	Jackson	34S	3E	34	N1/2SW1/4.	Willamette
O&C	Jackson	34S	3E	35	SW1/4NE1/4, NW1/4, E1/2SW1/4, SE1/4.	Willamette
O&C	Jackson	35S	3E	1	S1/2NE1/4, Unnumbered Gov Lot NE1/4NE1/2, Unnumbered Gov Lot NW1/4NW1/4, SW1/4NW1/4, N1/2SW1/4, SW1/4SW1/4, SE1/4SE1/4.	Willamette
O&C	Jackson	35S	3E	3	Unnumbered Gov Lot NE1/4NE1/4, Unnumbered Gov Lot NW1/4NE1/4, Unnumbered Gov Lot NE1/4NW1/4.	Willamette
O&C	Jackson	35S	3E	11	N1/2NE1/4, SW1/4NE1/4, N1/2NW1/4, NW1/4SE1/4.	Willamette
O&C	Jackson	35S	3E	12	NE1/4.	Willamette
O&C	Jackson	34S	3E	33	NE1/4SE1/4, W1/2SE1/4.	Willamette
O&C	Jackson	35S	3E	5	NE1/4NE1/4, S1/2NW1/4, N1/2SW1/4, SW1/4SW1/4.	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	9,795.0	10,832.0	11,674.0	123,046	7,152	24,089
White Fir	3,701.0	3,871.0	4,072.0	46,795	1,263	9,563
Ponderosa Pine	1,374.0	1,478.0	1,536.0	13,222	280	2,218
Incense-cedar	147.0	160.0	189.0	2,230	197	690
Sugar Pine	26.0	28.0	28.0	199	12	40
Totals	15,043.0	16,369.0	17,499.0	185,492	8,904	36,600

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
27.0	550.0	13.0	590.0	25.5

Logging Costs

Stump to Truck	\$1,609,461.98
Transportation	\$777,527.50
Road Construction	\$842,903.22
Maintenance/Rockwear	\$202,779.39
Road Use	\$1,823.52
Other Allowances	\$307,982.40
Total:	\$3,742,478.01
Total Logging Cost per MBF:	\$248.79

Utilization Centers

<u>Location</u>	<u>Distance</u>	<u>% of Net Volume</u>
White City, OR	35.0 miles	100 %

Profit & Risk

Profit	10 %
Risk	0 %
Total Profit & Risk	10 %

Tract Features

Quadratic Mean DBH	17.4 in
Average GM Log	88 bf
Average Volume per Acre	25.5 mbf
Recovery	86 %
<u>Net MBF volume:</u>	
Green	15,043.0 mbf
Salvage	0 mbf
Export	0 mbf
<u>Ground Base Logging:</u>	
Percent of Sale Volume	100 %
Average Yarding Slope	10 %
Average Yarding Distance	450 ft
<u>Cable Logging:</u>	
Percent of Sale Volume	0 %
Average Yarding Slope	0 %
Average Yarding Distance	0 ft
<u>Aerial Logging:</u>	
Percent of Sale Volume	0 %
Average Yarding Slope	0 %
Average Yarding Distance	0 ft

Cruise

Cruise Completed June 2020
Cruised By Parks, Darner, Worman, Siemer
Cruise Method
 3P cruise DF, WF, PP, IC. 100% cruise SP. Form class: DF=80, WF=84, PP=79, SP=80, IC=66.

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	24,089	9,795.0	\$555.35	\$55.54	\$248.79	\$5.94	\$257.00	\$2,517,315.00
White Fir	9,563	3,701.0	\$405.50	\$40.55	\$248.79	\$0.00	\$116.20	\$430,056.20
Ponderosa Pine	2,218	1,374.0	\$327.52	\$32.75	\$248.79	\$0.00	\$46.00	\$63,204.00
Incense-cedar	690	147.0	\$489.78	\$48.98	\$248.79	\$0.00	\$192.00	\$28,224.00
Sugar Pine	40	26.0	\$292.32	\$29.23	\$248.79	\$0.00	\$29.30 *	\$761.80
Totals	36,600	15,043.0						\$3,039,561.00

* Minimum Stumpage values were used to compute the Appraised Price/MBF (10% of Pond Value)

Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir			10.0 %	61.0 %	26.0 %	3.0 %	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
White Fir				66.0 %	30.0 %	4.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Ponderosa Pine							100.0 %

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Incense-cedar							100.0 %

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Sugar Pine							100.0 %

Marginal Log Volume By Grade

Species	Utility Cull	Peeler Cull
Douglas Fir	157	196

Ranchero TS**Unit Summary****ORM05-TS-2020.0006****Unit: 1-2**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	349.0	386.0	416.0	1,131
White Fir	233.0	245.0	257.0	652
Ponderosa Pine	104.0	112.0	116.0	162
Sugar Pine	1.0	1.0	1.0	7
Incense-cedar	0.5	0.5	0.7	4
Totals:	687.5	744.5	790.7	1,956

Net Volume/Acre: 20.8 MBF

Regeneration Harvest	0.0
Partial Cut	33.0
Right of Way	0.0
Total Acres:	33.0

Unit: 1-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	772.0	854.0	920.0	1,465
White Fir	766.0	801.0	842.0	1,375
Ponderosa Pine	112.0	120.0	125.0	151
Sugar Pine	0.2	0.2	0.3	1
Totals:	1,650.2	1,775.2	1,887.3	2,992

Net Volume/Acre: 30.6 MBF

Regeneration Harvest	0.0
Partial Cut	54.0
Right of Way	0.0
Total Acres:	54.0

Unit: 3-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	327.0	362.0	390.0	842
White Fir	70.0	73.0	77.0	203
Ponderosa Pine	36.0	38.0	40.0	76
Incense-cedar	8.0	9.0	11.0	63
Sugar Pine	0.7	0.7	0.7	4
Totals:	441.7	482.7	518.7	1,188

Net Volume/Acre: 22.1 MBF

Regeneration Harvest	20.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	20.0

Unit: 11-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	1,193.0	1,319.0	1,422.0	2,082
White Fir	155.0	162.0	171.0	599
Ponderosa Pine	36.0	39.0	40.0	53
Incense-cedar	8.0	9.0	10.0	46
Sugar Pine	0.1	0.1	0.1	1
Totals:	1,392.1	1,529.1	1,643.1	2,781

Net Volume/Acre: 24.9 MBF

Regeneration Harvest	0.0
Partial Cut	56.0
Right of Way	0.0
Total Acres:	56.0

Unit: 11-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	483.0	534.0	576.0	980
White Fir	154.0	161.0	169.0	319
Incense-cedar	10.0	11.0	12.0	56
Ponderosa Pine	8.0	8.0	9.0	12
Totals:	655.0	714.0	766.0	1,367

Net Volume/Acre: 19.3 MBF

Regeneration Harvest	0.0
Partial Cut	34.0
Right of Way	0.0
Total Acres:	34.0

Unit: 11-6

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	151.0	167.0	180.0	310
White Fir	90.0	94.0	99.0	237
Ponderosa Pine	10.0	10.0	11.0	12
Incense-cedar	2.0	2.0	2.0	5
Totals:	253.0	273.0	292.0	564

Net Volume/Acre: 28.1 MBF

Regeneration Harvest	0.0
Partial Cut	9.0
Right of Way	0.0
Total Acres:	9.0

Unit: 12-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	2,588.0	2,862.0	3,085.0	7,174
White Fir	543.0	568.0	598.0	1,348
Ponderosa Pine	499.0	537.0	558.0	780
Incense-cedar	8.0	8.0	10.0	20
Sugar Pine	5.0	5.0	5.0	8
Totals:	3,643.0	3,980.0	4,256.0	9,330

Net Volume/Acre: 25.7 MBF

Regeneration Harvest	0.0
Partial Cut	142.0
Right of Way	0.0
Total Acres:	142.0

Unit: 25-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	229.0	253.0	273.0	381
White Fir	217.0	227.0	239.0	933
Incense-cedar	16.0	17.0	20.0	78
Ponderosa Pine	0.6	0.6	0.7	2
Totals:	462.6	497.6	532.7	1,394

Net Volume/Acre: 23.1 MBF

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0
Total Acres:	20.0

Unit: 25-6

Species	Net	Gross Merch	Gross	# of Trees
White Fir	254.0	265.0	279.0	778
Douglas Fir	248.0	274.0	296.0	415
Incense-cedar	49.5	53.5	66.3	120
Ponderosa Pine	4.0	5.0	5.0	4
Totals:	555.5	597.5	646.3	1,317

Net Volume/Acre: 15.4 MBF

Regeneration Harvest	0.0
Partial Cut	36.0
Right of Way	0.0
Total Acres:	36.0

Unit: 34-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	101.0	112.0	121.0	239
White Fir	15.0	15.0	16.0	38
Ponderosa Pine	9.0	10.0	11.0	16
Incense-cedar	2.0	2.0	2.0	17
Totals:	127.0	139.0	150.0	310

Net Volume/Acre: 18.1 MBF

Regeneration Harvest	7.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	7.0

Unit: 35-1A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	1,624.0	1,798.0	1,935.0	5,177
White Fir	427.0	448.0	470.0	999
Ponderosa Pine	256.4	276.3	285.3	431
Incense-cedar	11.0	12.0	14.0	79
Sugar Pine	2.0	2.0	2.0	5
Totals:	2,320.4	2,536.3	2,706.3	6,691

Net Volume/Acre: 26.4 MBF

Regeneration Harvest	0.0
Partial Cut	88.0
Right of Way	0.0
Total Acres:	88.0

Unit: 35-1B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	206.0	228.0	246.0	411
White Fir	86.0	90.0	95.0	203
Ponderosa Pine	7.0	8.0	8.0	9
Incense-cedar	3.0	4.0	4.0	10
Sugar Pine	0.2	0.3	0.3	1
Totals:	302.2	330.3	353.3	634

Net Volume/Acre: 25.2 MBF

Regeneration Harvest	0.0
Partial Cut	12.0
Right of Way	0.0
Total Acres:	12.0

Unit: 35-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	35.0	38.0	41.0	80
White Fir	14.0	15.0	16.0	42
Totals:	49.0	53.0	57.0	122

Net Volume/Acre: 9.8 MBF

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0
Total Acres:	5.0

Unit: 35-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	481.0	531.0	573.0	1,002
White Fir	300.0	314.0	330.0	712
Ponderosa Pine	50.0	54.0	56.0	60
Sugar Pine	4.0	5.0	5.0	3
Incense-cedar	1.0	1.0	1.0	3
Totals:	836.0	905.0	965.0	1,780

Net Volume/Acre: 28.8 MBF

Regeneration Harvest	0.0
Partial Cut	29.0
Right of Way	0.0
Total Acres:	29.0

Unit: 35-4A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	415.0	459.0	494.0	926
White Fir	203.0	212.0	223.0	666
Ponderosa Pine	12.0	13.0	14.0	25
Incense-cedar	10.0	11.0	13.0	28
Totals:	640.0	695.0	744.0	1,645

Net Volume/Acre: 29.1 MBF

Regeneration Harvest	0.0
Partial Cut	22.0
Right of Way	0.0
Total Acres:	22.0

Unit: 35-4B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	193.0	213.0	230.0	364
White Fir	82.0	85.0	90.0	186
Incense-cedar	6.0	7.0	8.0	16
Ponderosa Pine	3.0	3.0	3.0	7
Sugar Pine	0.6	0.6	0.6	1
Totals:	284.6	308.6	331.6	574

Net Volume/Acre: 28.5 MBF

Regeneration Harvest	0.0
Partial Cut	10.0
Right of Way	0.0
Total Acres:	10.0

Unit: ROW 12

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	160.0	177.0	190.0	332
Ponderosa Pine	111.0	119.0	124.0	94
White Fir	39.0	41.0	43.0	85
Sugar Pine	4.0	4.0	4.0	4
Incense-cedar	2.0	2.0	2.0	3
Totals:	316.0	343.0	363.0	518

Net Volume/Acre: 105.3 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	3.0
Total Acres:	3.0

Unit: ROW 35

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	158.0	175.0	189.0	412
Ponderosa Pine	47.0	51.0	53.0	55
White Fir	27.0	28.0	30.0	66
Sugar Pine	8.2	9.1	9.0	5
Incense-cedar	3.0	3.0	4.0	11
Totals:	243.2	266.1	285.0	549

Net Volume/Acre: 81.1 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	3.0
Total Acres:	3.0

Unit: RVM 1

Species	Net	Gross Merch	Gross	# of Trees
Ponderosa Pine	23.0	25.0	26.0	90
Douglas Fir	9.0	10.0	11.0	32
White Fir	3.5	3.7	4.0	6
Incense-cedar	0.2	0.2	0.2	2
Totals:	35.7	38.9	41.2	130

Net Volume/Acre: 35.7 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RVM 3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	38.0	41.0	44.0	141
White Fir	10.5	10.7	11.0	37
Ponderosa Pine	9.0	9.3	10.0	34
Incense-cedar	4.8	5.0	5.5	82
Totals:	62.3	66.0	70.5	294

Net Volume/Acre: 62.3 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RVM 5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	2.0	2.0	3.0	69
White Fir	0.8	0.8	1.0	32
Ponderosa Pine	0.8	1.0	1.0	23
Incense-cedar	0.3	0.3	0.4	26
Totals:	3.9	4.1	5.4	150

Net Volume/Acre: 3.9 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RVM 11

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	6.0	7.0	7.0	16
White Fir	3.0	3.0	3.0	16
Ponderosa Pine	0.4	0.8	1.0	3
Incense-cedar	0.4	0.4	0.5	2
Totals:	9.8	11.2	11.5	37

Net Volume/Acre: 9.8 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RVM 25

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	8.0	9.0	9.0	31
White Fir	2.0	2.0	2.0	6
Ponderosa Pine	1.0	1.0	1.0	5
Incense-cedar	1.0	1.7	2.0	15
Totals:	12.0	13.7	14.0	57

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RVM 33

Species	Net	Gross Merch	Gross	# of Trees
Ponderosa Pine	33.0	35.0	36.0	100
Douglas Fir	4.0	5.0	5.0	13
White Fir	3.0	3.0	3.0	14
Incense-cedar	0.3	0.4	0.4	4
Totals:	40.3	43.4	44.4	131

Net Volume/Acre: 40.3 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RVM 35

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	15.0	16.0	18.0	64
White Fir	3.2	3.8	4.0	11
Ponderosa Pine	1.8	2.0	2.0	14
Totals:	20.0	21.8	24.0	89

Net Volume/Acre: 20.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Total Stump To Truck	Net Volume	\$/MBF
\$1,609,461.98	15,043.0	\$106.99

Stump to Truck: Falling, Bucking, Yarding, & Loading

Yarding System	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Wheel Skidder	GM MBF	5,400.0	\$125.42	\$677,268.00	Hand falling oversize 24"+
Feller Buncher	GM MBF	10,969.0	\$83.42	\$915,033.98	Mechanical Harvest
Subtotal				\$1,592,301.98	

Additional Costs

Item	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Subtotal				\$0.00	

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Loader	Hour	40.0	\$134.00	\$5,360.00	9 additional moves @ 4 hrs / move
Stroke Delimber	Hour	40.0	\$134.00	\$5,360.00	9 additional moves @ 4 hrs / move
Harvester/Skidder	Hour	40.0	\$134.00	\$5,360.00	9 additional moves @ 4 hrs / move.
Track Skidder	Hour	12.0	\$90.00	\$1,080.00	Track skidder = ripping cat (unit 3-2 and 34-1)
Subtotal				\$17,160.00	

Total	Net Volume	\$/MBF
\$777,527.50	15,043.0	\$51.69

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost	% of Sale Volume
White City, OR	35.0	All species	GM MBF	16,369.0	\$47.50	\$777,527.50	100 %

Engineering Allowances

Total	Net Volume	\$/MBF
\$1,047,506.13	15,043.0	\$69.63

Cost Item	Total Cost
Road Construction:	\$842,903.22
Road Maintenance/Rockwear:	\$202,779.39
Road Use Fees:	\$1,823.52

Total	Net Volume	\$/MBF
\$307,982.40	15,043.0	\$20.47

Environmental Protection

Cost item	Total Cost
Water Bar Skids	\$22,500.00
Log Barricade	\$3,750.00
Rip Skids	\$2,280.00
Woody Debris Placement	\$7,840.00
Landing Clean up	\$5,400.00
Equipment Washing - Rip cat	\$250.00
Equipment Washing - Skidder	\$1,500.00
Equipment Washing - Processor	\$3,700.00
Equipment Washing - Loader	\$3,330.00
Seed & Mulch	\$4,030.00
Subtotal	\$54,580.00

Logging

Cost item	Total Cost
Skid Location	\$2,202.40
Skid Construction	\$6,000.00
Landing Construction	\$5,400.00
Subtotal	\$13,602.40

Slash Disposal & Site Prep

Cost item	Total Cost
Lop and Scatter	\$4,800.00
Excavator Pile Burn	\$13,000.00
Hand Pile Burn	\$15,000.00
Excavator Pile / Cover	\$98,000.00
Hand Pile / Cover	\$109,000.00
Subtotal	\$239,800.00

Comments:

Equipment Washing = 3 seasons to log, 3 washes per piece (E7 stip) \$370/piece

Equipment Washing Loader = 2 log loaders, 1 machine pile (3 seasons to log, 3 washes per piece) \$370 /piece

Equipment Washing skidder = \$250 / piece

Rip skids = Units 3-2 and 34-1 (E-1 (10)) 30 hrs @ \$76 / hr

Skid location = 80 hrs @ \$27.53 / hr

Skid construction = 80 hrs @ \$75 / hr

Water bar = 300 hrs @ \$75 / hr

Log barricade = 50 @ \$75 each

Woody Debris Placement = First 100' where main skids meet system roads (L-12 stip) 80 hrs @ \$98 / hr.

Seed & Mulch ((E-1 (7&9) 5 ac @ \$806 /ac

Landing construction = 40 hrs @ \$135 / hr

Landing cleanu-up = 40 hrs @ \$135 / hr

Landing construction = 1 hr / landing @ \$135 / hr excavator

Sale: Rancho T.S.
 Sale Date: 8/2020
 Prep. By : Brown
 Tract No: ORM050-TS20-06

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1.1) Road Use - Amortization: \$1,823.52/15043 MBF = \$0.12/MBF

Road Maintenance Obligation:

(2.1) BLM Maintenance	\$18,029.90
(2.2) BLM Rockwear	\$7,544.40
(5.1) Purchaser Maintenance Rockwear	<u>\$6,282.50</u>
Total Rockwear Payable to BLM	\$13,826.90
(3.1) 3rd Party Maintenance	\$0.00
(3.2) 3rd Party Rockwear	\$5,907.20
(4.1) Other Maintenance Payments	\$28,796.64
Total Maintenance Fee Obligation (2.1-5.1)	<u>\$66,560.64</u>

Purchaser Maintenance Allowances:

(5.2A) Move In	\$14,545.44
(5.2B) Culverts, Catch Basins, Downspouts	\$4,404.58
(5.2C) Grading, Ditching	\$30,506.38
(5.2D) Slide Removal and Slump Repair	\$0.00
(5.2E) Dust Palliative (Water)	\$67,048.80
(5.2F) Surface Repair (Aggregate)	\$14,960.00
(5.2G) Other	\$0.00
Total Purchaser Maintenance Allowances (5.2A-5.2G)	<u>131,465.19</u>

(2.1-5.2G) Cost (\$37,764.00 + 131,465.19) = \$169,229.20
 Cost/MBF \$169,229.20 / 15043 MBF = \$11.25/MBF \$11.25/MBF

(5.2H) Decommissioning \$4,753.55

(5.2H) Cost/MBF \$4,753.55/15043 MBF = \$0.32/MBF

(2.1-5.2H) Cost (\$37,764.00 + \$131,465.19 + \$4,753.55) = \$173,982.75

Total Cost/MBF (Excluding Road Use) 202,779.39/15043 MBF = \$13.48/MBF

1) Road Use Fees - Amortization

Details

R/W	Rd Use	Vol	Road Use
Number	Road Number	Fee x MBF =	Obligation
M-2000F	35-3E-11.04 A	1.31 1392	\$1,823.52

Subtotal by agreement number
M-2000F \$1,823.52

(1.1) Subtotal \$1,823.52

2) BLM Maintenance - Timber Haul

MAINTENANCE (2.1)					ROCKWEAR (2.2)				
Road Number and Segment	A Surf N Type	Mi	x Fee x	Vol MBF =	Maint	Fee x	MBF =	Rkwear	
34-3E-25.02	N AGG	0.40	0.99	281	\$111.28	0.73	281	\$82.05	
34-3E-33.00A	N AGG	0.10	0.99	167	\$16.53	0.00	167	\$0.00	
34-3E-33.00B	N AGG	0.08	0.99	167	\$13.23	0.73	167	\$9.75	
34-3E-33.00C	N AGG	0.27	0.99	167	\$44.64	0.00	167	\$0.00	
34-3E-33.00D1	N AGG	0.48	0.99	167	\$79.36	0.73	167	\$58.52	
35-3E-03.00 A1N	AGG	1.13	0.99	4944	\$5,530.85	0.73	4944	\$4,078.31	
35-3E-03.00A2AN	AGG	0.45	0.99	4944	\$2,202.55	0.73	4944	\$1,624.10	
35-3E-03.00A2BN	AGG	0.26	0.99	1067	\$274.65	0.73	1067	\$202.52	
35-3E-03.00B1	N AGG	0.53	0.99	1065	\$558.81	0.73	1065	\$412.05	
35-3E-03.00B2AN	AGG	0.44	0.99	1065	\$463.91	0.73	1065	\$342.08	
35-3E-03.00B2BN	AGG	0.56	0.99	584	\$323.77	0.73	584	\$238.74	
35-3E-07.00A1	N AGG	0.42	0.99	171	\$71.10	0.00	171	\$0.00	
35-3E-07.00A2	N AGG	0.09	0.99	171	\$15.24	0.00	171	\$0.00	
35-3E-07.00A3-BN	AGG	0.99	0.99	171	\$167.60	0.73	171	\$123.58	
35-3E-07.00C	N AGG	0.56	0.99	167	\$92.58	0.73	167	\$68.27	
35-3E-07.00D	N AGG	0.26	0.99	167	\$42.99	0.00	167	\$0.00	
35-3E-10.00A	N AGG	0.94	0.99	5396	\$5,021.52	0.00	5396	\$0.00	
35-3E-10.00B	N AGG	0.70	0.99	452	\$313.24	0.00	452	\$0.00	
35-3E-10.00C	N AGG	0.13	0.99	452	\$58.17	0.73	452	\$42.89	
35-3E-10.01A	N AGG	0.24	0.99	1127	\$267.78	0.00	1127	\$0.00	
35-3E-10.01B	N AGG	0.25	0.99	689	\$170.53	0.73	689	\$125.74	
35-3E-10.01C	N AGG	0.42	0.99	689	\$286.49	0.00	689	\$0.00	
35-3E-10.01D	N AGG	0.30	0.99	689	\$204.63	0.00	689	\$0.00	
35-3E-10.01E	N AGG	0.27	0.99	689	\$184.17	0.73	689	\$135.80	
35-3E-10.01F	N AGG	0.27	0.99	689	\$184.17	0.00	689	\$0.00	
35-3E-14.01A1-CN	AGG	1.95	0.99	689	\$1,330.11	0.00	689	\$0.00	

(2.1) Subtotal \$18,029.90 (2.2) Subtotal \$7,544.40

3) Third Party Maintenance and Rockwear

MAINTENANCE (3.1)					ROCKWEAR (3.2)			
Agrmnt Number	Surface Type	Road Number	Mi x Fee x	MBF =	Maint	Fee x	MBF =	Rkwear
M-2000D	AGG	35-3E-07.00 A2	0.09			0.73	171	\$11.23
M-2000F	AGG	35-3E-10.01 D	0.30			0.73	689	\$150.89
M-2000F	AGG	34-3E-33.00 C	0.27			0.73	167	\$32.92
M-2000F	AGG	35-3E-02.00 A	0.31			0.73	836	\$189.19
M-2000F	AGG	35-3E-07.00 A1	0.42			0.73	171	\$52.43
M-2000F	AGG	35-3E-07.00 D	0.26			0.73	167	\$31.70

M-2000F	AGG	34-3E-33.00	A	0.10	0.73	167	\$12.19
M-2000F	AGG	35-3E-10.00	B	0.70	0.73	452	\$230.97
M-2000F	AGG	35-3E-14.01A1-C		1.95	0.73	689	\$980.79
M-2000F	AGG	35-3E-10.01	F	0.27	0.73	689	\$135.80
M-2000F	AGG	35-3E-10.04A		0.78	0.73	438	\$249.40
M-2000F	AGG	35-3E-11.00A		0.13	0.73	226	\$21.45
M-2000F	AGG	35-3E-11.02A1		0.33	0.73	438	\$105.51
M-2000F	NAT	35-3E-11.02A2		0.13	0.00	438	\$0.00
M-2000F	NAT	35-3E-11.04A		0.19	0.00	1392	\$0.00
M-2000F	AGG	35-3E-10.00	A	0.94	0.73	5396	\$3,702.74

Subtotal of maintenance fees by agreement number:

Subtotal of rockwear fees by agreement number:

M-2000D \$11.23

M-2000F \$5,895.98

(3.1) Subtotal \$0.00

(3.2) Subtotal \$5,907.21

4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Miles (Log)	Vol (mbf)	Fee (MBF/MI)	= Cost
FS	35-3E-10.01A	0.24	1127	0.63	\$170.40
FS	35-3E-10.01C	0.42	689	0.63	\$182.31
FS	FS 32A1	0.44	14872	0.63	\$4,122.52
FS	FS 32A2	0.77	13745	0.63	\$6,667.70
FS	FS 32A3	0.85	8348	0.63	\$4,470.35
FS	FS 32A4	0.27	6956	0.63	\$1,183.22
FS	FS 32A5	0.99	6731	0.63	\$4,198.12
FS	FS 32A6	0.50	5895	0.63	\$1,856.93
FS	FS 32A7	0.57	5607	0.63	\$2,013.47
FS	FS 3240A	0.75	5607	0.63	\$2,649.31
FS	FS 3240B	0.49	3958	0.63	\$1,221.83
FS	FS 3240-100	0.24	400	0.63	\$60.48

(4.1) Subtotal \$28,796.64

5) Purchaser Maintenance - Rock Wear

TIMBER HAUL (5.1)

Road No and Segment	A	N	Mi	RkWear x Fee	Vol x MBF	Total RkWear
34-3E-25.00	N	0.30	0.73	471	\$103.15	
34-3E-25.04A	N	0.18	0.73	428	\$56.24	
34-3E-25.04B	N	0.18	0.73	388	\$50.98	
34-3E-25.05	N	0.08	0.73	40	\$2.34	
34-3E-33.00D2	N	0.40	0.00	162	\$0.00	
34-3E-33.01	N	0.35	0.00	147	\$0.00	
34-3E-35.00East	N	0.32	0.73	500	\$116.80	
34-3E-35.00West	N	0.09	0.00	15	\$0.00	
34-3E-35.02B	N	0.13	0.73	2874	\$272.74	
34-3E-35.02A2	N	0.61	0.73	3803	\$1,693.48	
34-3E-35.02A1	N	0.07	0.73	3813	\$194.84	
34-3E-35.03	N	0.10	0.00	10	\$0.00	
34-3E-35.05	N	0.47	0.73	1403	\$481.37	
34-3E-35.06	N	0.28	0.73	662	\$135.31	
35-3E-01.00	N	1.40	0.73	288	\$294.34	
35-3E-02.00A	N	0.31	0.00	836	\$0.00	
35-3E-02.00B	N	0.52	0.73	836	\$317.35	
35-3E-03.00C	N	0.60	0.00	293	\$0.00	
35-3E-03.05	N	0.19	0.00	447	\$0.00	
35-3E-10.04	N	0.78	0.00	438	\$0.00	

35-3E-11.00 A N	0.13	0.00	226	\$0.00
35-3E-11.01 N	0.32	0.73	221	\$51.63
35-3E-11.02A1 N	0.33	0.00	438	\$0.00
35-3E-11.02A2 N	0.13	0.00	438	\$0.00
35-3E-11.02B N	0.03	0.00	438	\$0.00
35-3E-11.04A N	0.19	0.73	1392	\$193.07
35-3E-11.04B1 N	0.05	0.73	1392	\$50.81
35-3E-11.04B2 N	0.18	0.73	932	\$122.46
35-3E-11.05 N	0.17	0.73	460	\$57.09
35-3E-12.03A N	0.09	0.73	3958	\$260.04
35-3E-12.03B N	0.69	0.73	2385	\$1,201.32
35-3E-12.04 N	0.55	0.73	1562	\$627.14
FS 32A1 N	0.44	0.00	14872	\$0.00
FS 32A2 N	0.77	0.00	13745	\$0.00
FS 32A3 N	0.85	0.00	8348	\$0.00
FS 32A4 N	0.27	0.00	6956	\$0.00
FS 32A5 N	0.99	0.00	6731	\$0.00
FS 32A6 N	0.50	0.00	5895	\$0.00
FS 32A7 N	0.57	0.00	5607	\$0.00
FS 3240-100 N	0.24	0.00	400	\$0.00
FS 3240A N	0.75	0.00	5607	\$0.00
FS 3240B N	0.49	0.00	3958	\$0.00

(5.1) Subtotal \$6,282.50

Purchaser Operational Maintenance

Move In

Equipment	No Move	Cost/ Units x in x	Dist 50 Mi x	Sub- Factor =	total
Motor Grader:	1	12	\$414.00	0.63	\$3,129.84
Back Hoe:	1	12	\$308.00	0.63	\$2,328.48
Loader:			\$414.00	0.63	\$0.00
Water Truck:	2	12	\$96.00	0.63	\$1,451.52
Dump Truck:	2	12	\$91.00	0.63	\$1,375.92
Excavator:	1	12	\$414.00	0.63	\$3,129.84
Roller:	1	12	\$414.00	0.63	\$3,129.84

(5.2A) Total \$14,545.44

Culvert Maintenance - Including Catch basins and Downpipes

	Miles x	Cost/Mi	=	Subtotal
11.49	\$383.34	\$4,404.58		

(5.2B) Total \$4,404.58

Grading (Includes Ditches and Shoulders)

Miles x	Cost/Mi	x Freq	=	Subtotal
Blade w/ Ditch:	11.49	\$708.54	3	\$24,423.37
Blade w/o Ditch:	4.67	\$434.19	3	\$6,083.00

(5.2C) Total \$30,506.38

Slide and Slough removal, Slump Repair (15 sta-yds. ea.)

Type Equipment	No Slides /Slumps	Hours x Each x	Equip Cost	=	Subtotal
Grader:	0	0	\$142.72		\$0.00
Loader:	0	0	\$102.93		\$0.00
Backhoe:	0	0	\$87.60		\$0.00

(5.2D) Total \$0.00

Dust Palliative (Water)

Spreading Hours

No Miles	/	Freq MPH	=	Truck Hours	x	Days	x	/Day	=	Hours
6.36		5		1.3		300		1		390

Load & Haul =				1.0		300		1		300
Return trip =				0.5		300		1		150
Total Hours =				840						

Truck Cost: \$79.82/Hr. x 840.0 Hours = \$67,048.80

(5.2E) Total \$67,048.80

Surface Repair (Aggregate)

Quarry / Source Name: 1.5" minus Cobleigh

Production Cost:	500.0 CY x \$15.00/CY	=	\$7,500.00
Haul to Stockpile:			
Grades > 15%	500.0 CY x ((\$1.78/CY x 0.00 Mi) + \$0.59)	=	\$0.00
Grades <= 15%	500.0 CY x ((\$0.89/CY x 11.00 Mi) + \$0.59)	=	\$5,190.00
State / Co Roads	500.0 CY x ((\$0.39/CY x 5.00 Mi) + \$0.59)	=	\$1,270.00
Process with Grader:	500.0 CY x \$0.90/CY	=	\$450.00
Compaction:	500.0 CY x \$1.10/CY	=	\$550.00
	SubTotal		<u>\$14,960.00</u>

(5.2F) Total \$14,960.00

Other

Fallen Timber Cutting:	0.0 Hours x \$0.00/Hour	=	\$0.00
Brush Cutting/Tree Trimming:	0.0 Hours x \$0.00/Hour	=	\$0.00
Oil/Asphalt Materials:	Lump Sum	=	\$0.00
Signing for Dust Palliatives:	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00

(5.2G) Total \$0.00

Decommissioning

Ripping

Road Number	Ripping Cost	x	(NumSta or CuYds)	=	Total
Temp Road 1-3	\$30.70	x	11.73	=	\$360.11
Temp Road 11-3	\$30.70	x	4.25	=	\$130.48
Temp Road 34-1	\$30.70	x	5.34	=	\$163.94

(Ripping) Total \$654.52

Other Costs

Road Number	Cubic Yds Pullback Material	+	Qty Waterbars	+	Qty Earthen Barriers	=	Total
Temp Road 1-3	(0x\$1.80)	+	(7x\$55.93)	+	(1x\$167.80)	=	\$559.31
Temp Road 11-3	(0x\$1.80)	+	(3x\$55.93)	+	(1x\$167.80)	=	\$335.59
Temp Road 34-1	(0x\$1.80)	+	(3x\$55.93)	+	(1x\$167.80)	=	\$335.59

35-3E-03.00 (0x\$1.80) + (20x\$55.93) + (1x\$167.80) = \$1,286.40

(Other Cost) Total \$2,516.89

Time & Equipment

Temp Road 1-3 Seed and Mulch: 0.5 AC @ \$950.00/AC	= \$475.00
Temp Road 1-3 Excavator -Small (1.5 CY): 1 hr @ \$99.88/hr	= \$99.88
Temp Road 11-3 Seed and Mulch: 0.15 AC @ \$950.00/AC	= \$142.50
Temp Road 11-3 Excavator -Small (1.5 CY): 1 hr @ \$99.88/hr	= \$99.88
Temp Road 34-1 Seed and Mulch: 0.2 AC @ \$950.00/AC	= \$190.00
Temp Road 34-1 Excavator -Small (1.5 CY): 1 hr @ \$99.88/hr	= \$99.88
35-3E-03.00 Seed and Mulch WB + EB: 0.5 AC @ \$950.00/AC	= \$475.00

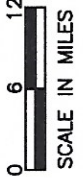
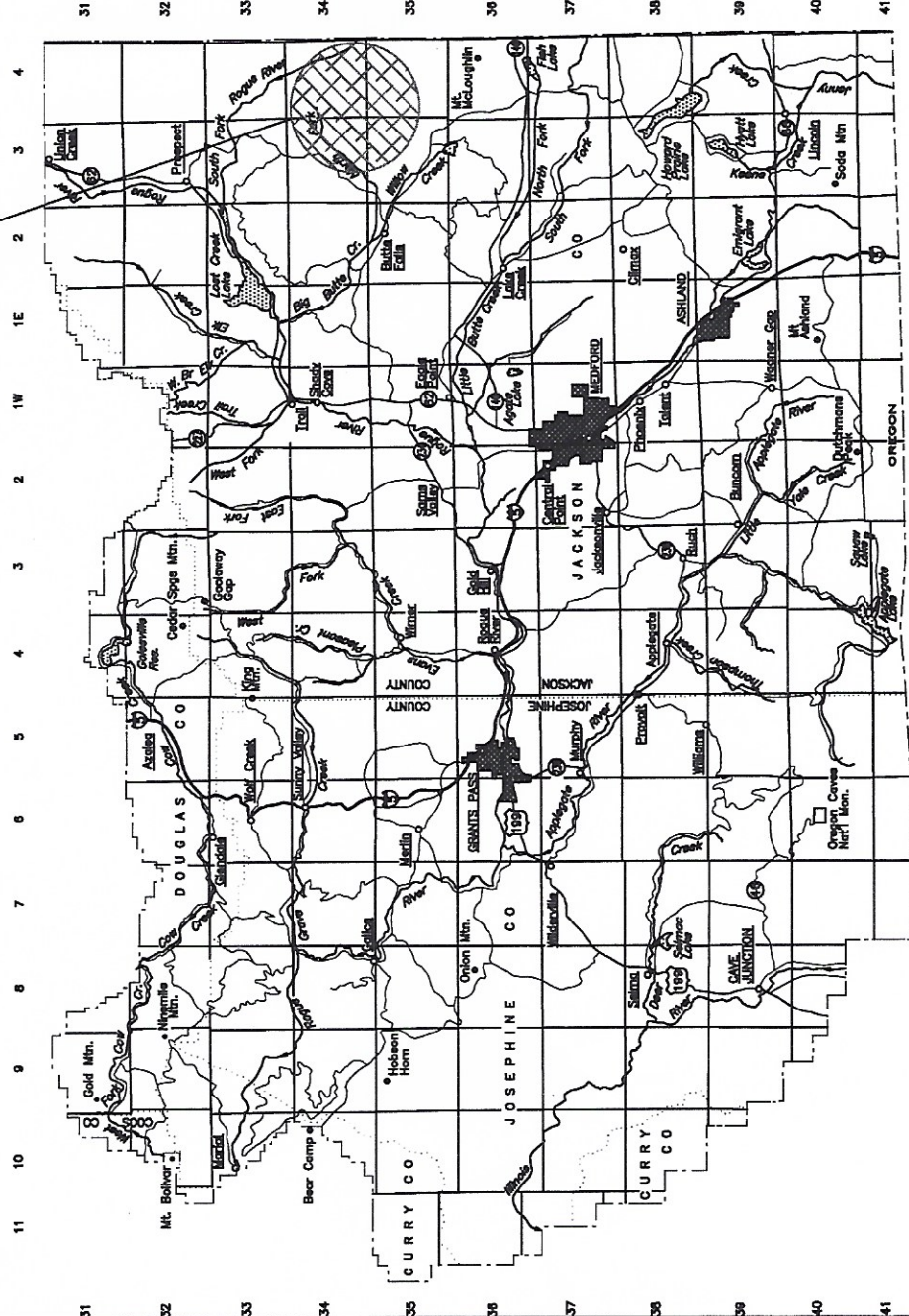
(5.2H) Decommissioning Total \$4,753.55

**EXHIBIT C-1
SHEET 1 OF 1**

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006**

Exhibit No.	Description
C-1	TITLE SHEET
C-2	ROAD LOCATION MAPS
C-3	ROADSIDE VEGETATION MAINTENANCE MAPS
C-4	ESTIMATE OF QUANTITIES
C-5	SPECIFICATION SHEET
C-6	TYPICAL ROAD DATA
C-7	ROAD SURFACING & CURVE WIDENING SECTIONS
C-8	TYPICAL TURNOUT SECTION
C-9	ROAD JUNCTION SURFACING APRON SECTION
C-10	CULVERT LIST
C-11	CULVERT INSTALLATION DETAILS
C-12	CULVERT BAND DETAILS
C-13	ARMORED WATER DIP CONSTRUCTION DETAILS
C-14	DRAINAGE & EROSION CONTROL DETAILS
C-15	ROADSIDE BRUSHING DETAILS
C-16	ROADSIDE VEGETATION MAINTENANCE DETAILS
C-17	34-3E-35.05 PLAN & PROFILE
C-18	34-3E-35.06 PLAN & PROFILE
C-19	35-3E-12.03 PLAN & PROFILE
C-20	35-3E-12.04 PLAN & PROFILE
C-21	RENOVATION & CONSTRUCTION WORK LIST
C-22	ROAD SPECIFICATIONS
C-23	SPECIAL PROVISIONS

PROJECT LOCATION



**ALWAYS
THINK
SAFETY**

REV. NO. DESCRIPTION DATE APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

**RANCHERO T.S.
TITLE SHEET**



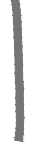


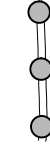

DESIGNED *[Signature]*
REVIEWED *[Signature]*
APPROVED *[Signature]*
DRAWN JOB / SCALE AS SHOWN
DATE JUNE 2020 SHEET 1 OF 1
DRAWING NO. ORM05-TS-2020-0006-C1

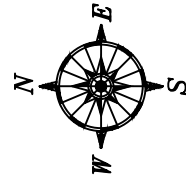
EXHIBIT C-2

SHEET 1 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

SALE AREA MAP

-  BLM OWNERSHIP
-  T.S. UNITS
-  BST ROAD
-  ROCKED ROAD
-  NATURAL SURFACE ROAD
-  PRIMITIVE ROUTE
-  RANCHERO HAUL ROUTES



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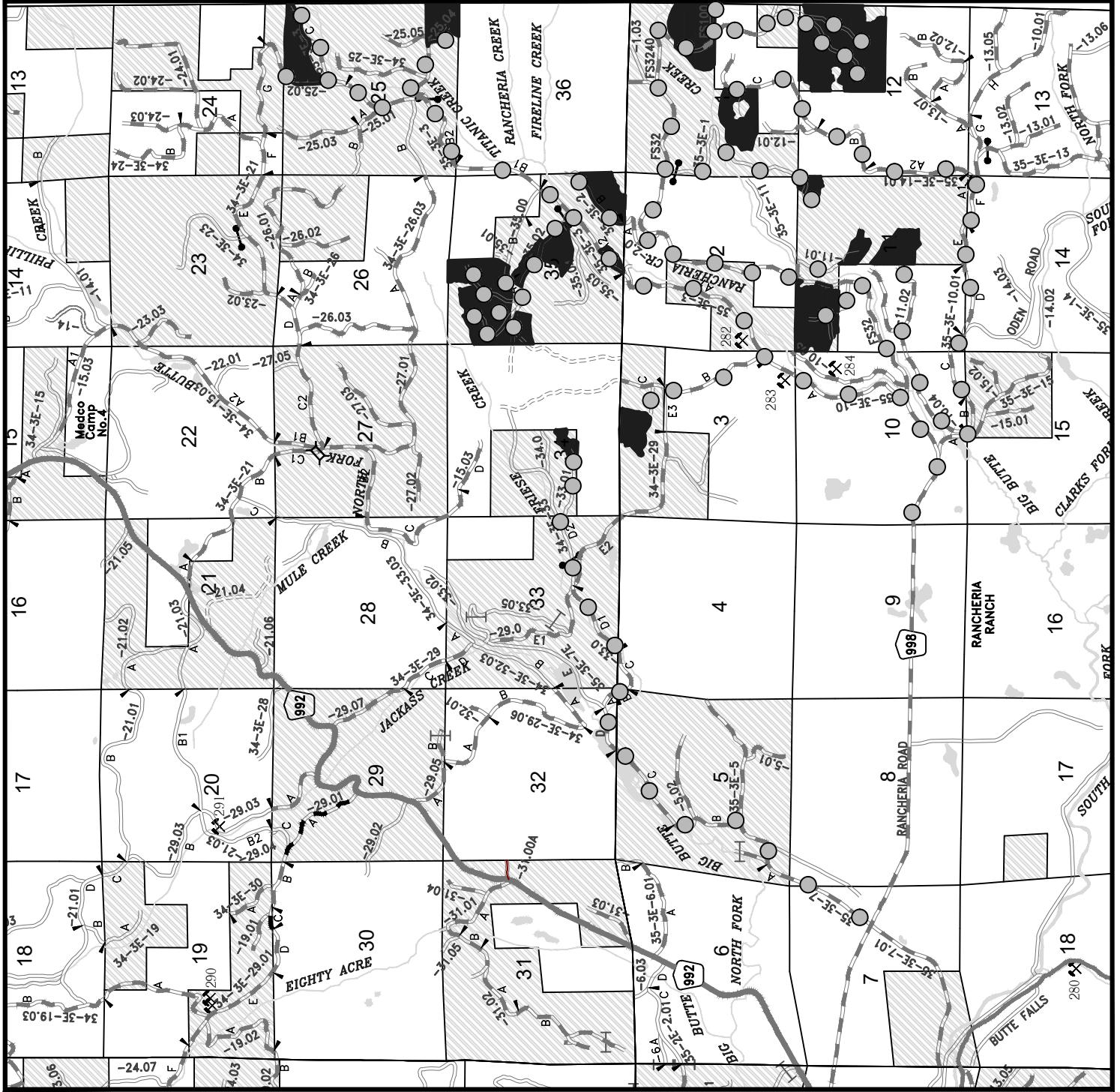
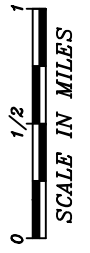














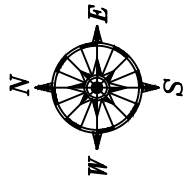
EXHIBIT C-2

SHEET 2 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROAD RENOVATION MAP

-  BLM OWNERSHIP
-  T.S. UNITS
-  BST ROAD
-  ROCKED ROAD
-  NATURAL SURFACE ROAD
-  PRIMITIVE ROUTE
-  ROAD TO BE RENOVATED
-  ROAD TO BE RENOVATED and SURFACED
-  ROAD TO BE IMPROVED and SURFACED
-  TEMPORARY ROAD CONSTRUCTION
-  PERMANENT ROAD CONSTRUCTION
-  CONSTRUCT LANDING



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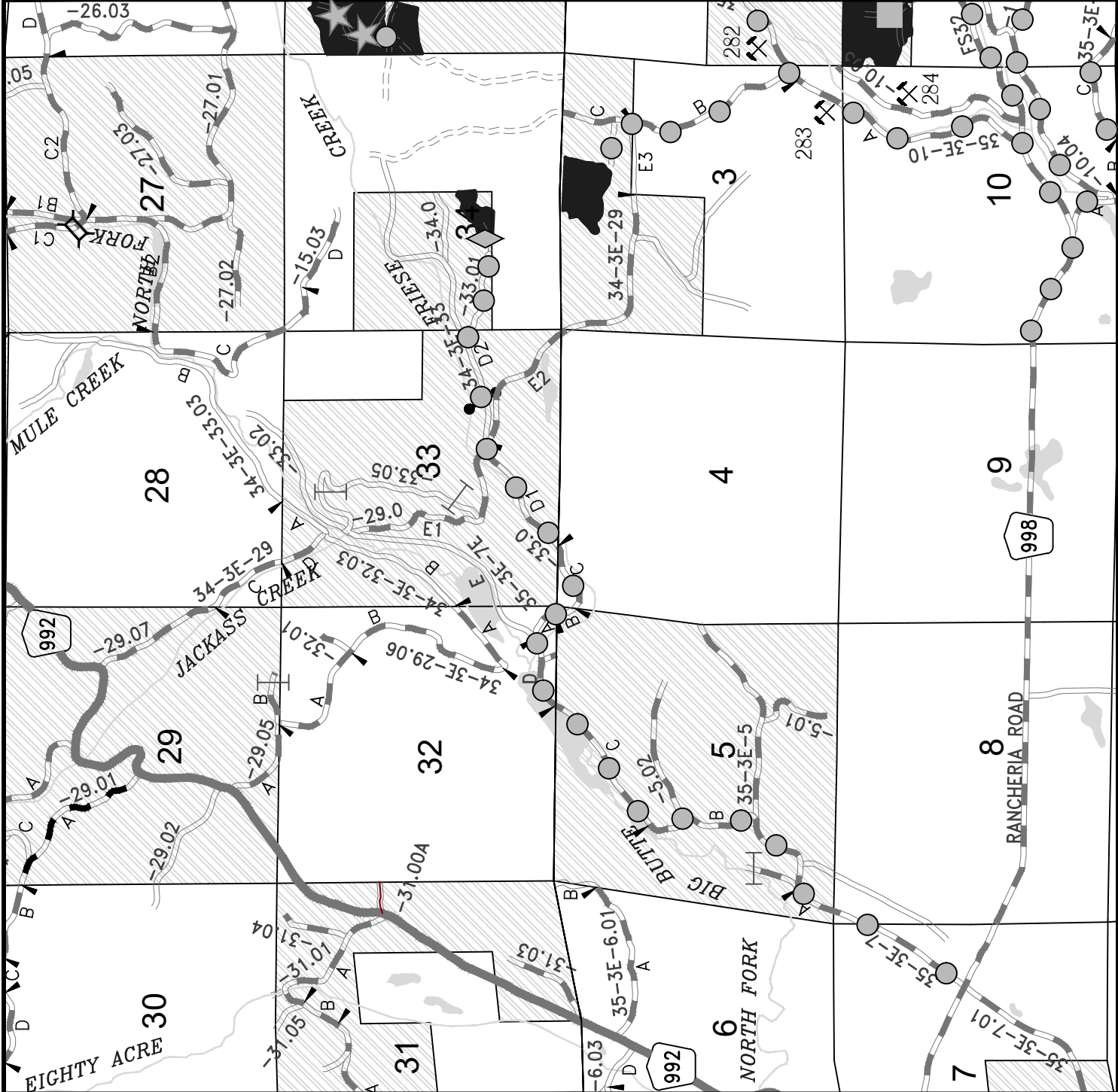
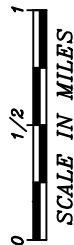














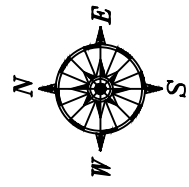
EXHIBIT C-2

SHEET 3 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROAD RENOVATION MAP

-  BLM OWNERSHIP
-  T.S. UNITS
-  BST ROAD
-  ROCKED ROAD
-  NATURAL SURFACE ROAD
-  PRIMITIVE ROUTE
-  ROAD TO BE RENOVATED
-  ROAD TO BE RENOVATED and SURFACED
-  ROAD TO BE IMPROVED and SURFACED
-  TEMPORARY ROAD CONSTRUCTION
-  PERMANENT ROAD CONSTRUCTION
-  CONSTRUCT LANDING



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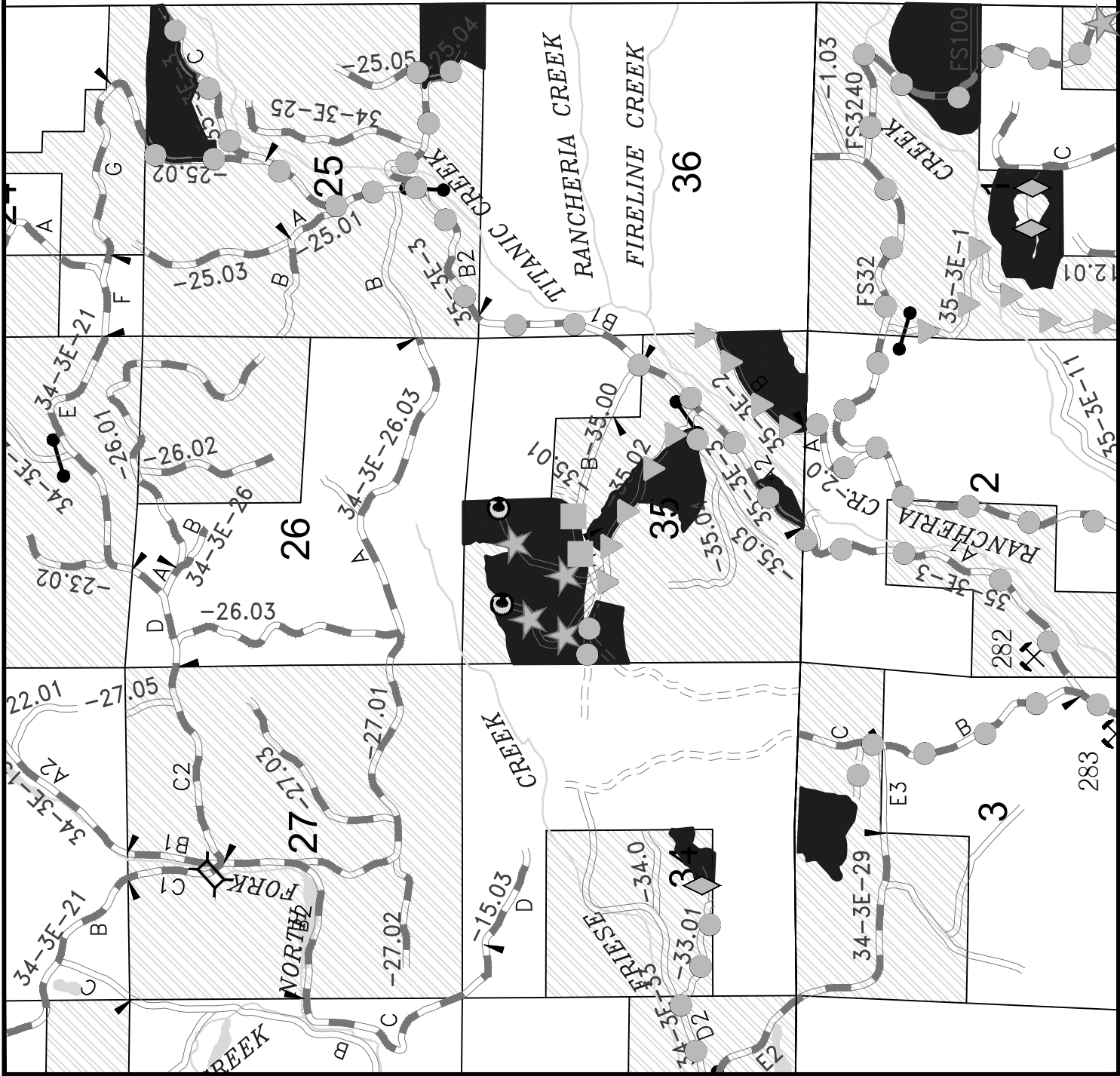
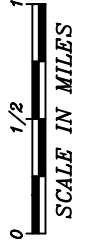


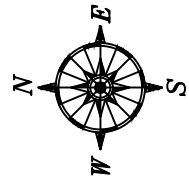
EXHIBIT C-2

SHEET 4 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-00006

ROAD RENOVATION MAP

- BLM OWNERSHIP
- T.S. UNITS
- BST ROAD
- ROCKED ROAD
- NATURAL SURFACE ROAD
- PRIMITIVE ROUTE
- ROAD TO BE RENOVATED
- ROAD TO BE RENOVATED and SURFACED
- ROAD TO BE IMPROVED and SURFACED
- TEMPORARY ROAD CONSTRUCTION
- PERMANENT ROAD CONSTRUCTION
- CONSTRUCT LANDING



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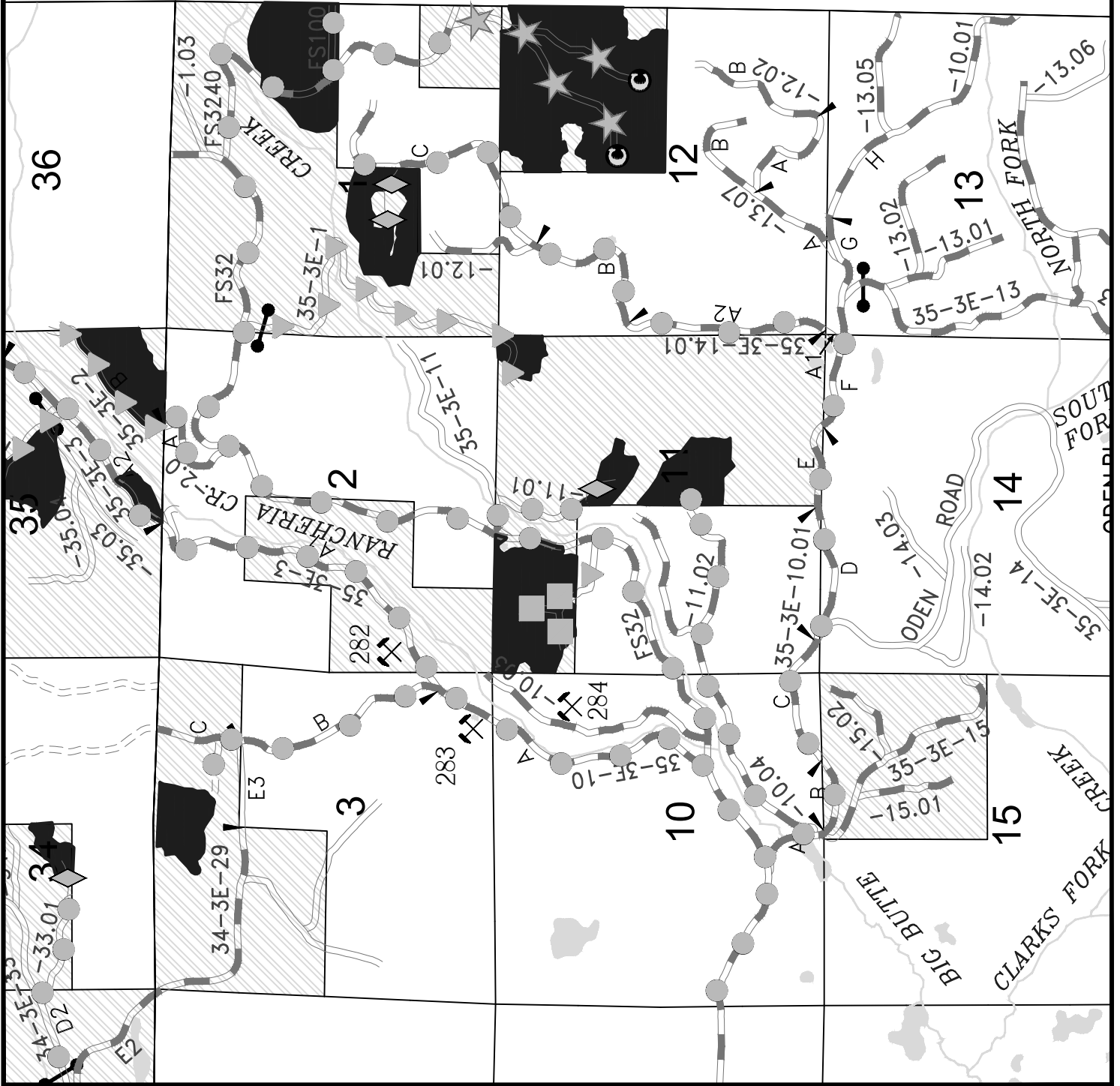









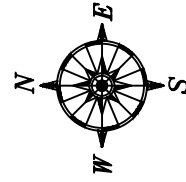
EXHIBIT C-3

SHEET 1 OF 3

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROADSIDE VEGETATION MAINTENANCE MAP

-  BLM OWNERSHIP
-  T.S. UNITS
-  BST ROAD
-  ROCKED ROAD
-  NATURAL SURFACE ROAD
-  PRIMITIVE ROUTE
-  ROADSIDE VEGETATION MAINTENANCE (See Road Renovation Worklist Exhibit C-21 for beginning and ending mileposts).



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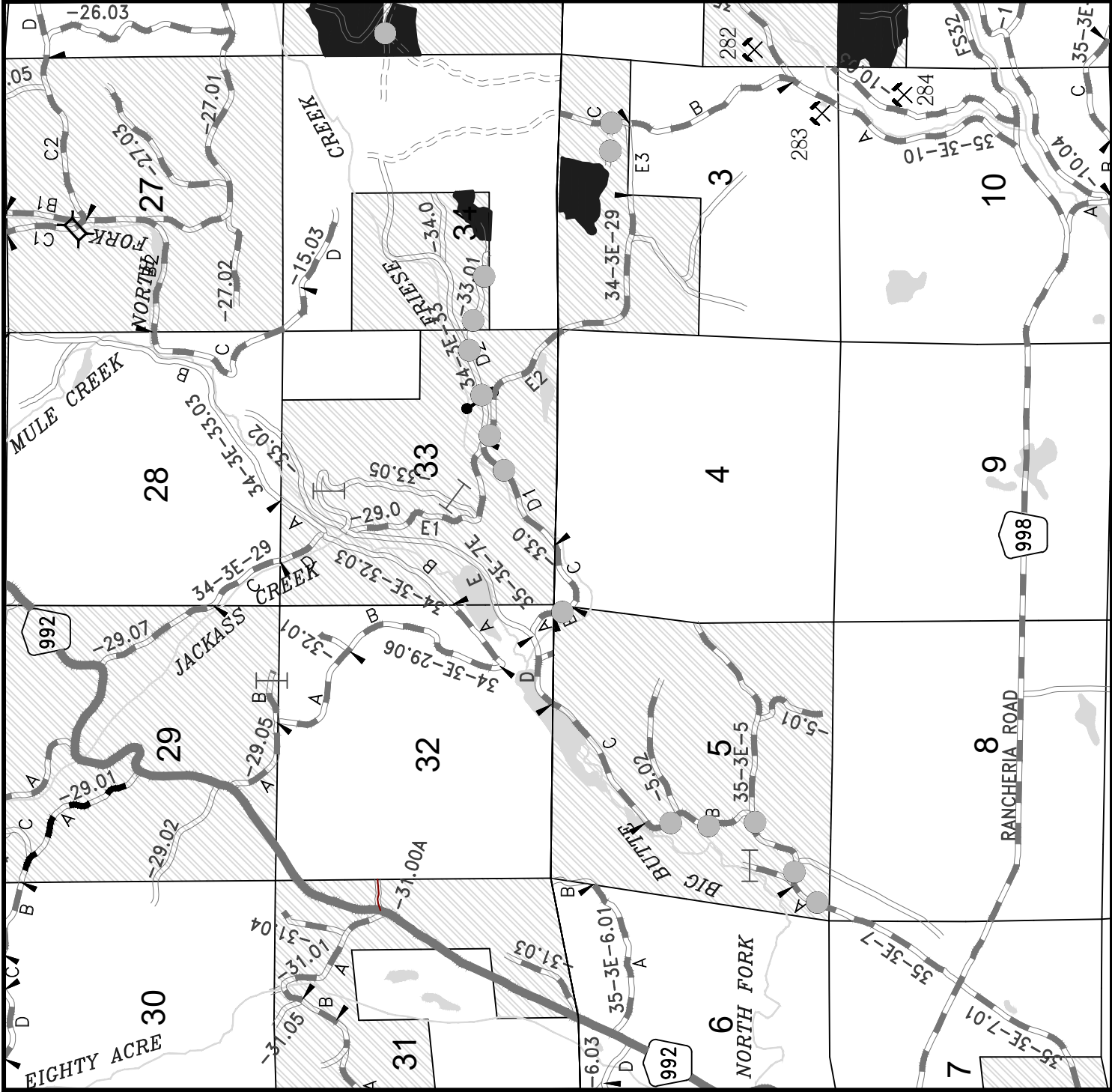









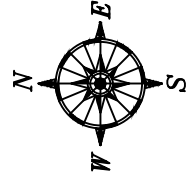
EXHIBIT C-3

SHEET 3 OF 3

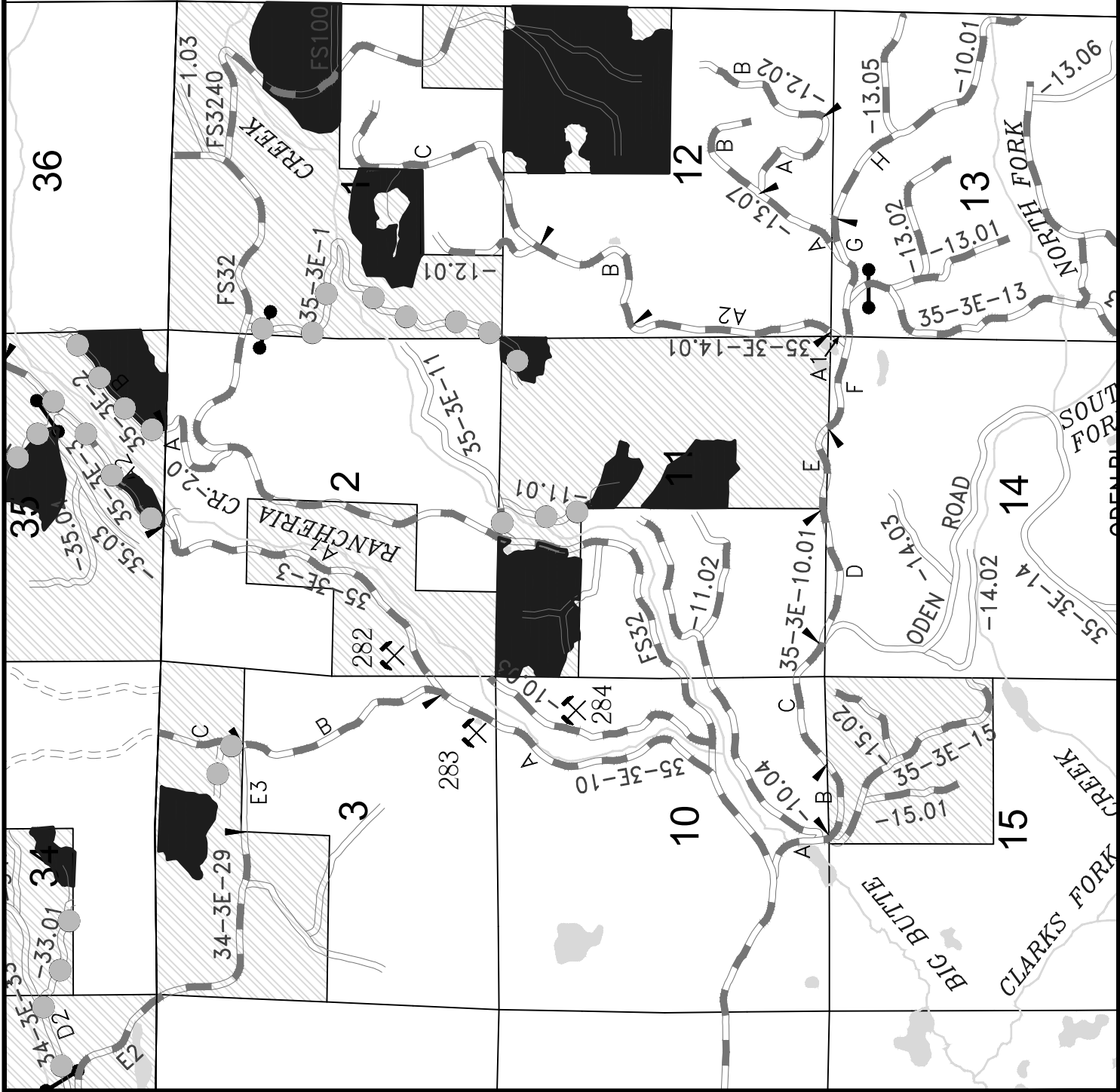
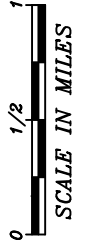
RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-00006

ROADSIDE VEGETATION MAINTENANCE MAP

-  BLM OWNERSHIP
-  T.S. UNITS
-  BST ROAD
-  ROCKED ROAD
-  NATURAL SURFACE ROAD
-  PRIMITIVE ROUTE
-  ROADSIDE VEGETATION MAINTENANCE (See Road Renovation Worklist Exhibit C-21 for beginning and ending mileposts).



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ROAD NUMBER	FROM	TO	LENGTH***	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE						ROAD RENOVATION	ROAD IMPROVEMENT	NEW CONSTRUCTION - PERMANENT	NEW CONSTRUCTION - TEMPORARY	CONSTRUCT ARMORED WATER DIPS****	AGGREGATE**			SOIL STABILIZATION	ROADSIDE VEGETATION MAINTENANCE	ROADSIDE BRUSHING - SCATTER	ROADSIDE BRUSHING - CHIP	CONSTRUCT BARRICADE	REMOVE BARRICADE			
					MP/STA	MP/STA	ROCK	COMMON	18"	24"	30"	36"						42"	48"	18"							24"	30"	4"
34-3E-25.00	0.00	0.30	0.30	200	300	300	400	400	400	400	400	400	400	400	400	400	500	500	500	1800	1400	1400	1800	500	2100	2100	2100	500	500
34-3E-25.02	0.00	0.40	0.40	0.60																									
34-3E-25.04	0.00	0.36	0.36	0.55																									
34-3E-25.05	0.00	0.08	0.08																										
34-3E-33.00 A-D1	0.00	0.95	0.95	0.30																									
34-3E-33.00 D2	0.95	1.35	0.40	0.50																									
34-3E-33.01	0.00	0.35	0.35	0.50																									
34-3E-35.00 (East)	0.00	0.32	0.32	1.75	750																								
34-3E-35.00 (West)	0.00	0.09	0.09	0.15																									
34-3E-35.02 A-B	0.00	0.81	0.81	1.10																									
34-3E-35.03	0.00	0.10	0.10																										
34-3E-35.05	0+00	24+57	24+57	2.25	566	60																							
34-3E-35.06	0+00	14+56	14+56	1.30	410	30																							
35-3E-01.00	0.00	1.40	1.40	1.50			72	32																					
35-3E-02.00 A	0.00	0.34	0.34																										
35-3E-02.00 B	0.34	0.86	0.52	0.65																									
35-3E-03.00 A-C	0.00	3.97	3.97	2.75			274	140	132	60																			
35-3E-03.05	0.00	0.19	0.19	0.30																									
35-3E-07.00 A1-D	0.00	2.37	2.37	1.25																									
35-3E-10.00 A-C	0.00	1.77	1.77	0.20																									
35-3E-10.01 A-F	0.00	1.86	1.86																										
35-3E-10.04	0.00	0.78	0.78																										
35-3E-11.00 A	0.00	0.13	0.13	0.15																									
PAGE 1 TOTALS			18.23	16.05	1726	436	172	132	60					17.17	0.32	39+13	6	10678	1734	22	9.80	7.17	14.78	2.39	1	1			

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



** Indicate gradation.

ITEM 900	ITEM 1200
SIZE	SIZE
4 inch (A)	1 1/2 inch
3 inch (B)	1 inch
2 inch (C)	3/4 inch
1 1/2 inch (D)	
GRADE	GRADE
	C-C-1
	D-F
	E-E-1

*** Total length includes permanent and temporary roads to be constructed.

**** Armored water dip aggregate quantities are accounted for in the aggregate column under 4" minus grade A as the entire road is being surfaced with this gradation.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT MEDFORD, OREGON

ESTIMATE OF QUANTITIES*

DRAWN:	JAB	SCALE: NONE
DATE:	JUNE 2020	SHEET: 1 OF 2
DRAWING NO.	ORM05-TS-2020-0006-C4	

ROAD NUMBER	FROM	TO	LENGTH**	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE						ROAD RENOVATION	ROAD IMPROVEMENT	NEW CONSTRUCTION - PERMANENT	NEW CONSTRUCTION - TEMPORARY	CONSTRUCT ARMORED WATER DIPS****	AGGREGATE**				ROADSIDE VEGETATION MAINTENANCE	ROADSIDE BRUSHING - SCATTER	ROADSIDE BRUSHING - CHIP	CONSTRUCT BARRICADE	REMOVE BARRICADE	
					ROCK	COMMON	18"	24"	30"	36"	42"	48"						18"	24"	30"	CRUSHED SURFACE GRADE C-1						SCREENED BASE GRADE A
SPECIFICATION NO.	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	MILE	MILE	STA	EA	C.Y.	C.Y.	C.Y.	EA	EA	MILE	MILE	MILE	EA	EA
35-3E-11.01 A	0.00	0.32	0.32	0.35	300		400	400	400	400	400	400	400	500	500		500	500	1800	1400	1400	500	2100	2100	500	500	500
35-3E-11.02 A1-B	0.00	0.49	0.49											0.32	0.49												
35-3E-11.04 A-B	0.00	0.42	0.42	0.35										0.19	0.23			1100					0.42	0.17		1	
35-3E-11.05	0.00	0.17	0.17	0.30										0.17				495					0.17				
35-3E-12.03	0+00	41+03	41+03	3.75	704		28									41+03	2	3743	1	1.85	1						
35-3E-12.04	0+00	29+20	29+20	2.70	760										29+20	1	2622		1.00	1.00							
35-3E-14.01 A1-C	0.00	1.95	1.95											1.95								1.95					1
FS 32	0.00	4.00	4.00											4.00								4.00					
FS 3240	0.00	1.30	1.30											1.30								1.30					
FS 3240-100	0.00	0.21	0.21											0.21								0.21					
Temp Road 34-1	0+00	5+34	5+34	0.40												5+34		0.20	0.20								
Temp Road 1-3	0+00	11+73	11+73	0.80												11+73		0.30	0.30								
Temp Road 11-3	0+00	4+25	4+25	0.30												4+25		0.15	0.15								1
PAGE 1 TOTALS			18.23	16.05	1726	436	172	132	60				17.17	0.32	39+13	6	10678	1734	22	9.80	7.17	14.78	2.39	1	1	1	
PAGE 2 TOTALS			10.59	8.95	1464	28						8.46	0.40	70+23	3	7960		1	4.05	0.23	8.37	0.49			2		
PROJECT TOTALS			28.82	25.00	3190	436	200	132	60			25.63	0.72	10+936	9	18638	1734	23	13.85	7.40	23.15	2.88	1	3			

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



**Indicate gradation.

ITEM 900 ITEM 1200

SIZE	GRADE	SIZE	GRADE
4 inch	(A)	1 1/2inch	C,C-1
3 inch	(B)	1 inch	D,F
2 inch	(C)	3/4inch	E,E-1
1 1/2 inch	(D)		

*** Total length includes permanent and temporary roads to be constructed.

****Armored water dip aggregate quantities are accounted for in the aggregate column under 4" minus grade A as the entire road is being surfaced with this gradation.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT MEDFORD, OREGON

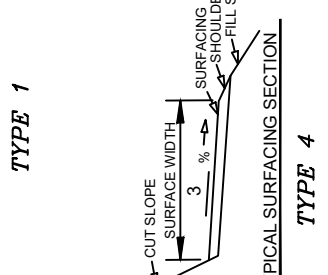
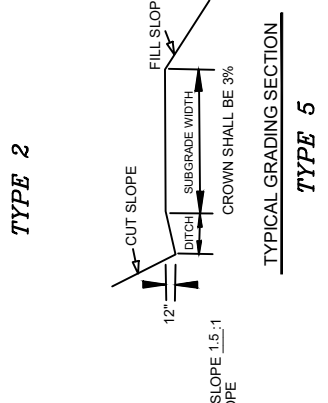
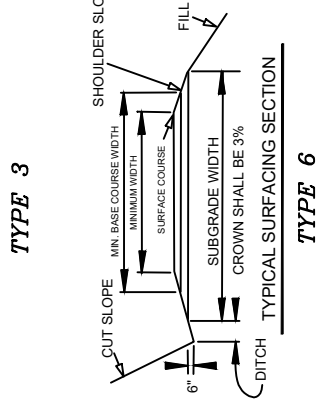
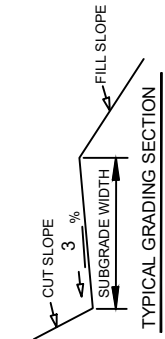
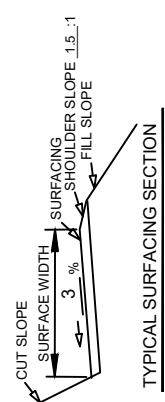
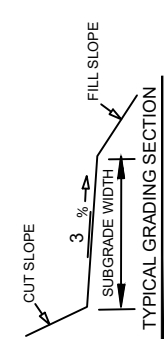
ESTIMATE OF QUANTITIES*

DRAWN:	JAB	SCALE: NONE
DATE:	JUNE 2020	SHEET: 2 OF 2
DRAWING NO.	ORM05-TS-2020-0006-C4	

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH OR MILE OR STATION	TYPICAL SECTION TYPE	ALIGNMENT ROAD WIDTH (1-3)		GRADIENT		CLEARING WIDTH		SURFACING (4)				REMARKS	
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND EXISTING ROAD(S)		BASE COURSE		SURFACE COURSE		
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH		COMP. DEPTH
34-3E-25.00 A1	0.00	0.30	0.30	6		15	3			6	6					Roadside Vegetation Maintenance
34-3E-25.02	0.00	0.40	0.40	6		15	3			6	6					Roadside Vegetation Maintenance
34-3E-25.04	0.00	0.36	0.36	4		15	0			6	6					Roadside Vegetation Maintenance
34-3E-25.05	0.00	0.08	0.08	4		15	0									Roadside Vegetation Maintenance
34-3E-33.00 A-D1	0.00	0.95	0.95	6		15	3			6	6					Roadside Vegetation Maintenance
34-3E-33.00 D2	0.95	1.35	0.40	3		15	0			6	6					Roadside Vegetation Maintenance
34-3E-33.01	0.00	0.35	0.35	3		14	0			6	6					Roadside Vegetation Maintenance
34-3E-35.00 (EAST)	0.00	0.32	0.32	6		16	3		10	10	12"	C				Road Improvement - Crown, Ditch both sides, Surface
34-3E-35.00 (WEST)	0.00	0.09	0.09	3		15	0		6	6						
34-3E-35.02	0.00	0.68	0.68	4		15	0		6	6			14'	4"	D	Maintenance Lift and Roadside Vegetation Maintenance
34-3E-35.03	0.68	0.81	0.13	3		15	0		6	6						Surfacing and Roadside Vegetation Maintenance
34-3E-35.05	0.00	0.10	0.10	3		15	0									
34-3E-35.06	0+00	24+57	24+57	4		16	0		10	10	12"	C				New Construction and Surfacing - Outside Right
	0+00	3+74	3+74	4		16	0		10	10	8"	C				New Construction and Surfacing - Outside Left
	3+74	11+30	7+56	6		16	3		10	10	8"	C				New Construction and Surfacing - Crowned
	11+30	14+56	3+26	4		16	0		10	10	8"	C				New Construction and Surfacing - Outside Left
35-3E-01.00	0.00	1.40	1.40	3		15	0		6	6	8"	C				Surfacing and Roadside Vegetation Maintenance
35-3E-02.00 A	0.00	0.34	0.34	6		15	3						14'	8"	C	Surfacing from M.P. 0.29 to M.P. 0.34

NOTES

- EXTRA SUBGRADE WIDTHS TO BE ADDED TO EACH FILL SHOULDER FOR FILLS OF 1-4 FT. & 2 FT. FOR FILLS OVER 6 FT. WIDEN THE INSIDE SHOULDER OF ALL CURVES AS FOLLOWS:
 WHEN THE DEGREE OF CURVE EQUALS
 2-21 ADD 1 FT.
 22-44 ADD 2 FT.
 45-64 ADD 3 FT.
 65-94 ADD 4 FT.
 95-99 ADD 5 FT.
- SURFACING TYPE
 A. PLY ROCK MATERIAL
 B. CRUSHED ROCK MATERIAL
 C. CRUSHED ROCK MATERIAL
 D. CRUSHED ROCK MATERIAL
 E. BITUMINOUS SURFACE TREATMENT (BST)
 F. NATURAL
- TURNOUTS
 A. SHOWN IN ADDITION TO SUBGRADE WIDTH OR AS SHOWN ON THE PLANS
 B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS
 C. INTERVISIBLE AND NOT MORE THAN _____ FT. APART.
- SURFACING TURNOUTS, CURVE WIDENING AND ROAD APPROACH APRONS SHALL BE SURFACED.
- CLEARING WIDTH SEE SUBSECTION 200



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT
MEDFORD, OREGON

SPECIFICATION SHEET

DRAWN: JAB	SCALE NONE
DATE: JUNE 2020	SHEET 1 OF 3
DRAWING NO.	ORM05-TS-2020-0006-C5

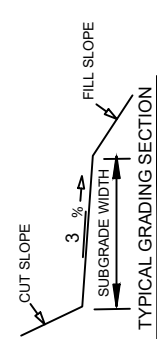
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					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		BASE COURSE		SURFACE COURSE				
										TOP OUT	TOE FILL	L	R	EXISTING ROAD(S)	MINIMUM WIDTH	COMP. DEPTH		TYPE (2)
35-3E-02.00 B	0.34	0.86	0.52	3		15	0			6	6	6	14'	8"	C			Surfacing and Roadside Vegetation Maintenance
35-3E-03.00 A1-B2	0.00	3.37	3.37	6		15	3			6	6	6				D		Roadside Vegetation Maintenance
35-3E-03.00 C	3.37	3.97	0.601	5		15	3			6	6	6				F		Roadside Vegetation Maintenance
35-3E-03.05	0.00	0.19	0.19	3		15	0			6	6	6				F		Roadside Vegetation Maintenance
35-3E-07.00 A1-D	0.00	2.37	2.37	6		15	3			6	6	6				D		Roadside Vegetation Maintenance
35-3E-10.00 A-C	0.00	1.77	1.77	6		15	3			6	6	6				D		Roadside Vegetation Maintenance
35-3E-10.01 A-F	0.00	1.86	1.86	6		15	3											
35-3E-10.04	0.00	0.78	0.78	6		15	3											
35-3E-11.00 A	0.00	0.13	0.13	6		15	3			6	6	6				D		Roadside Vegetation Maintenance
35-3E-11.01	0.00	0.32	0.32	4		15	0			6	6	6				D		Roadside Vegetation Maintenance
35-3E-11.02 A1	0.00	0.31	0.31	4		15	0											
35-3E-11.02 A2-B	0.31	0.49	0.18	3		15	0									F		
35-3E-11.04 A	0.00	0.04	0.04	4		14	0									D		
35-3E-11.04 A	0.04	0.19	0.15	3		14	0						14'	8"	C			Surfacing
35-3E-11.04 B	0.19	0.42	0.23	3		16	0			10	10	10				C		Road Improvement - Widen, Outslope Left, Surface
35-3E-11.05	0.00	0.17	0.17	3		16	0			10	10	10				C		Road Improvement - Widen, Outslope Left, Surface
35-3E-12.03	0+00	0+40	0+40	4		16	0			10	10	10				C		New Construction and Surfacing - Outslope Right

NOTES

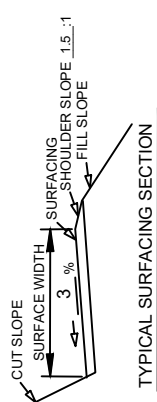
- EXTRA SUBGRADE WIDTHS ADD TO EACH FILL SHOULDER 1 FT. FOR FILLS OF 1-4 FT. & 2 FT. FOR FILLS OVER 6 FT. WIDEN THE INSIDE SHOULDER OF ALL CURVES AS FOLLOWS:
 1-4 FT. ADD 1 FT.
 4-6 FT. ADD 2 FT.
 6-8 FT. ADD 3 FT.
 8-10 FT. ADD 4 FT.
 10-12 FT. ADD 5 FT.
- SUBGRADING TYPE:
 A. BITUMIN ROCK MATERIAL
 B. GRID ROLLED ROCK MATERIAL
 C. SCREENED ROCK MATERIAL
 D. CRUSHED ROCK MATERIAL
 E. BITUMIN
 F. BITUMIN SURFACE TREATMENT (BST).
- TURNOUTS:
 A. WIDTH 10 FT. IN ADDITION TO SUBGRADE WIDTH OR AS SHOWN ON THE PLANS.
 B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
 C. INTERVISIBLE AND NOT MORE THAN _____ FT. APART.
- SURFACING TURNOUTS: CURVE WIDENING AND ROAD APPROACH APPROX. SHALL BE SURFACED. SEE SUBSECTION 200
- CLEARING WIDTH APPROX. SHALL BE SURFACED. SEE SUBSECTION 200

CUT SLOPES 1:1
 FILL SLOPES 1 1/2:1

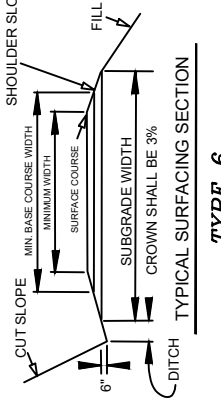
MATERIALS COMMON
 SOFT ROCK & SHALE 1/2:1
 SOLID ROCK 1/2:1
 FILL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%
 ANGLE OF REPOSE



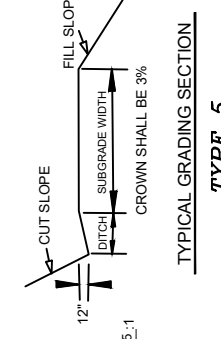
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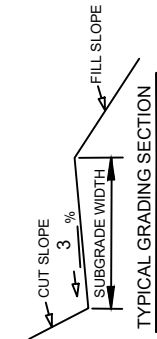
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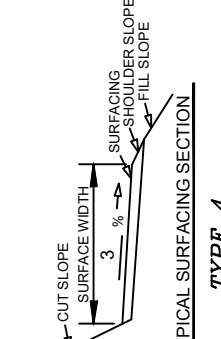
TYPE 6



TYPE 5



TYPE 1



TYPE 4



UNITED STATES DEPARTMENT OF THE INTERIOR
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 MEDFORD, OREGON

SPECIFICATION SHEET

DRAWN: JAB	SCALE NONE
DATE: JUNE 2020	SHEET 2 OF 3
DRAWING NO.	ORM05-TS-2020-0006-C5

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH OR MILE STATION	TYPICAL SECTION TYPE	ALIGNMENT ROAD WIDTH (1-3)			GRADIENT		CLEARING WIDTH			SURFACING (4)				REMARKS		
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND CUT	TOE FILL	L	R	BASE COURSE		SURFACE COURSE			
														MINIMUM WIDTH	COMP. DEPTH	TYPE (2)		GRADING	MINIMUM WIDTH
35-3E-12.03	0+40	4+90	4+50	6		16	3				10	10		15'	12"	C			New Construction and Surfacing - Crowned
	4+90	31+07	26+17	4		16	0				10	10		15'	12"	C			New Construction and Surfacing - Outside Right
	31+07	32+24	1+17	6		16	3				10	10		15'	12"	C			New Construction and Surfacing - Crowned
35-3E-12.04	32+24	41+03	8+79	4		16	0				10	10		15'	12"	C			New Construction and Surfacing - Outside Right
	0+00	5+23	5+23	6		16	3				10	10		15'	12"	C			New Construction and Surfacing - Crowned
	5+23	29+20	23+97	4		16	0				10	10		15'	12"	C			New Construction and Surfacing - Outside Right
35-3E-14.01 A1-C	0.00	1.95	1.95	6		15	3												
	0.00	4.00	4.00	6		20	3												
	0.00	1.30	1.30	6		16	3												
FS 3240	0.00	0.21	0.21	6		15	3												
FS 3240-100	0.00	5+34	5+34	3		14	0				8	8							New Construction - Outside Right
Temp Road 34-1	0+00	11+73	11+73	3		14	0				8	8							New Construction - Outside Right
Temp Road 11-3	0+00	4+25	4+25	3		14	0				8	8							New Construction - Outside Right



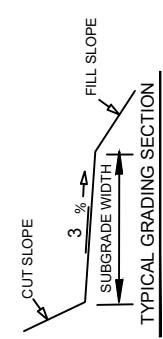
NOTES

- EXTRA SUBGRADE WIDTHS SHALL BE ADDED TO EACH FILL SHOULDER FOR FILLS OF 1.8 FT. & 2 FT. FOR FILLS OVER 6 FT. WIDEN THE INSIDE SHOULDER OF ALL CURVES AS FOLLOWS:
WHEN THE DEGREE OF CURVE EQUALS:
7-21 ADD 1 FT.
22-41 ADD 2 FT.
42-64 ADD 3 FT.
65-84 ADD 4 FT.
85-96 ADD 5 FT.

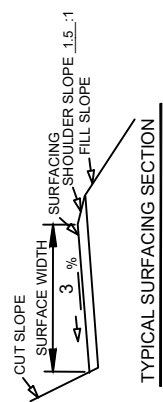
MATERIALS	CUT SLOPES	FILL SLOPES
COMMON	1:1	1 1/2:1
SOFT ROCK & SHALE	12:1	1 1/2:1
SOLID ROCK	12:1	ANGLE OF REPOSE

FULL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%.

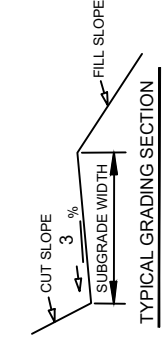
- SURFACING TYPE
A. BITUMINOUS SURFACE TREATMENT (BST)
B. CRUSHED ROCK MATERIAL
C. SCREENED ROCK MATERIAL
D. CRUSHED ROCK MATERIAL
E. BITUMINOUS SURFACE TREATMENT (BST)
F. NATURAL
- TURNOUTS
A. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
C. INTERVISIBLE AND NOT MORE THAN _____ FT. APART.
- SURFACING TURNOUTS, CURVE WIDENING AND ROAD APPROACH APPROXNS SHALL BE SURFACED.
SEE SUBSECTION 200



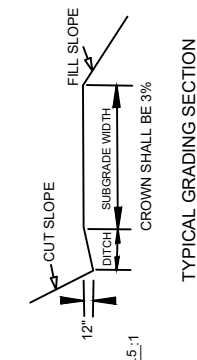
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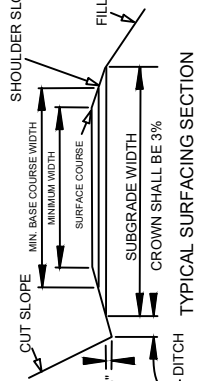
TYPE 2



TYPE 1



TYPE 5



TYPE 6

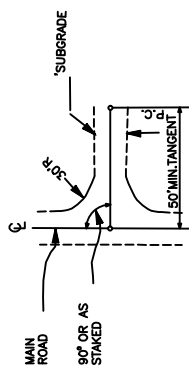
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT
MEDFORD, OREGON

SPECIFICATION SHEET

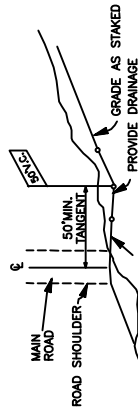
DRAWN: JAB
DATE: JUNE 2020
SCALE: NONE
SHEET 3 OF 3
DRAWING NO. ORM05-TS-2020-0006-C5

EXHIBIT C-6 SHEET 1 OF 1 RANCHERO T.S.

TYPICAL ROAD APPROACHES



PLAN

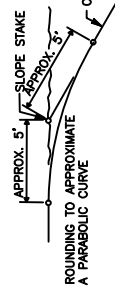


PROFILE

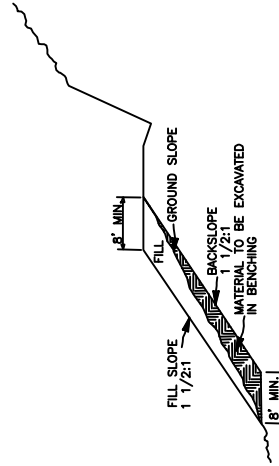
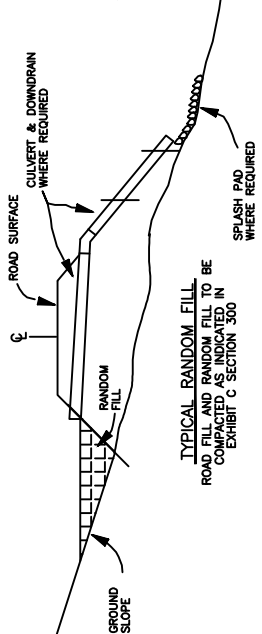


TYPICAL SURFACING SECTION

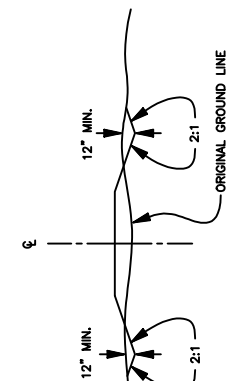
- NOTES:
- THE PROFILE OF EXISTING APPROACH ROADS SHALL BE TAPERED AT THE SHOULDER LINE OF THE MAIN ROADWAY AND SHALL RECEIVE THE SAME WEARING SURFACE.
 - THE CRUSHED AGGREGATE BASE SHALL BE OF THE SAME GRADATION AS USED IN THE ADJACENT ROADWAY.
 - APPROACHES SHALL BE FINISHED WITH THE SAME TREATMENT AS SHOWN FOR THE ADJACENT ROADWAY.



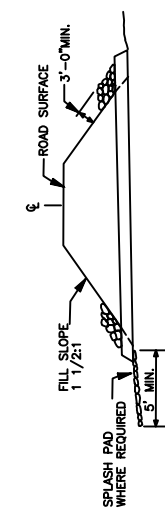
CUT SLOPE ROUNDING



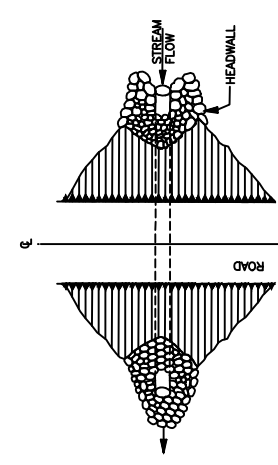
SPECIAL COMPACTION TYPICAL BENCHING SECTION



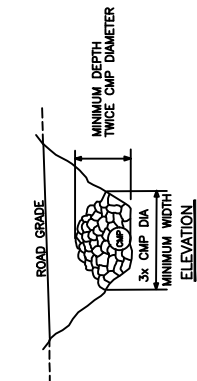
TYPICAL ROAD SECTION FOR TURNPIKE CONSTRUCTION



CROSS SECTION



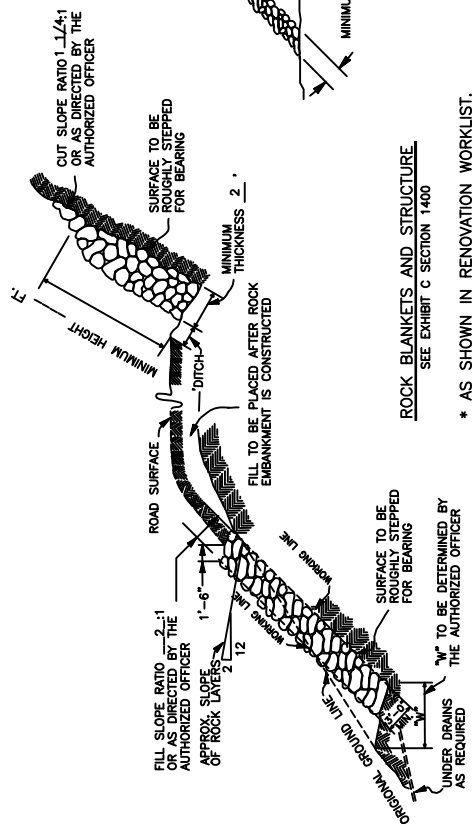
PLAN



NOTES:

RIPRAP AT CULVERTS

- RIPRAP SHALL BE PLACED IN SUCH A MANNER THAT IT WILL NOT DAMAGE THE CULVERT.
- TRENCHING WILL BE DONE AS REQUIRED BY THE AUTHORIZED OFFICER.
- MINIMUM DEPTH OF SPLASH PADS SHALL BE 1' - 1" FT.
- SPLASH PAD MINIMUM QUANTITY DESIGNATED IN WORK LIST.
- RIPRAP SHALL BE PLACED BEFORE OCTOBER 15TH OF THE YEAR THE CMP IS INSTALLED.



ROCK BLANKETS AND STRUCTURE

SEE EXHIBIT C SECTION 1400

SLOPE PROTECTION ROCK

SEE EXHIBIT C SECTION 1400

ALWAYS THINK SAFETY

* AS SHOWN IN RENOVATION WORKLIST.

REV. NO.	DESCRIPTION	DATE	APPROVED

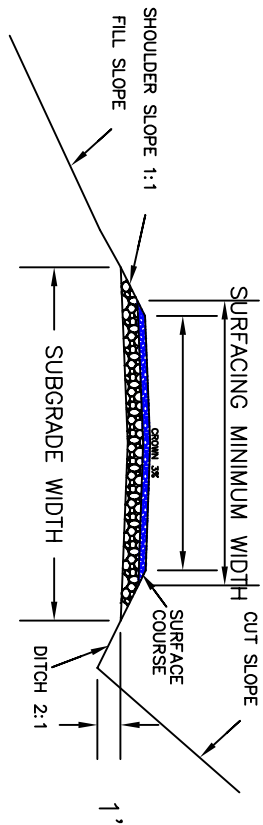
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT MEDFORD, OREGON

TYPICAL ROAD DATA

DRAWN	BLM	SCALE	NONE
DATE	JUNE 2020	SHEET 1 OF 1	

DRAWING NO. ORMO5-15-2020-0006-C6

TYPICAL CROWNED SURFACE
EXISTING MIN. BASE COURSE WIDTH



TYPICAL INSLOPED SURFACE
EXISTING MIN. BASE COURSE WIDTH

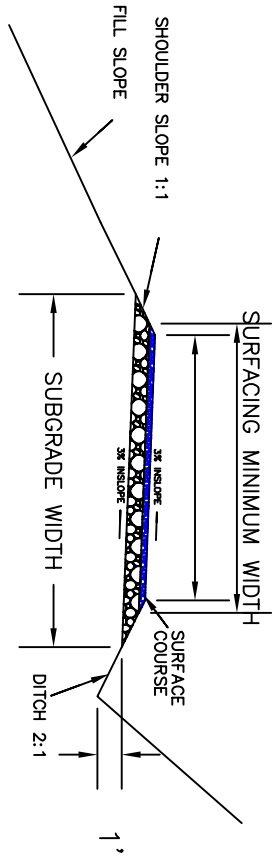
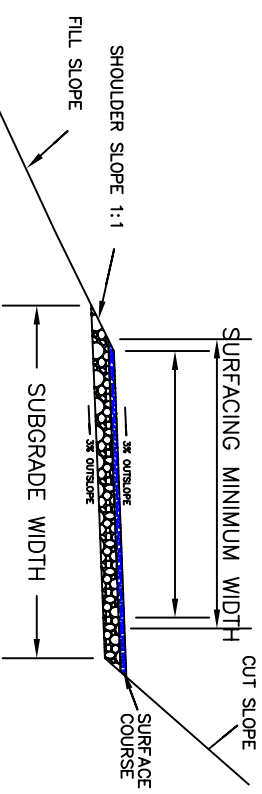
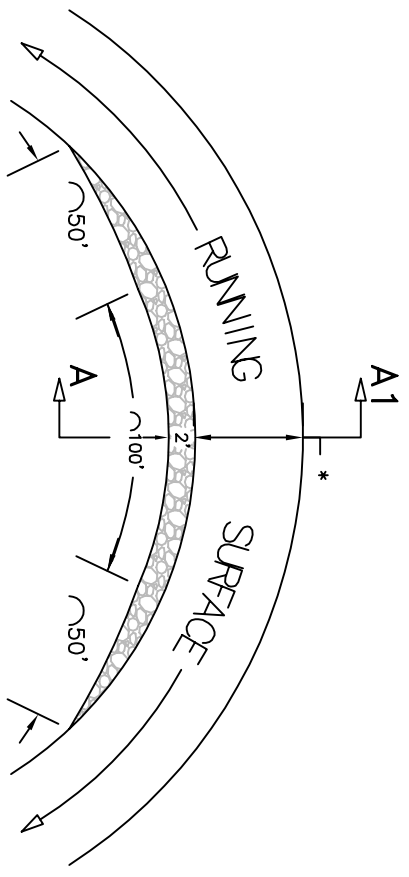


EXHIBIT C-7
SHEET 1 OF 1

TYPICAL OUTSLOPED SURFACE
EXISTING MIN. BASE COURSE WIDTH



TYPICAL CURVE WIDENING DETAIL



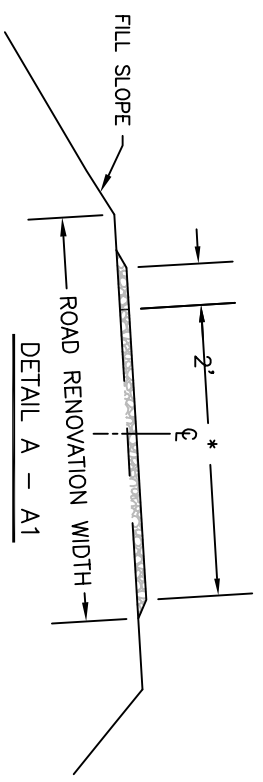
NOTES:

SURFACING SHALL BE THE COMPACTED DEPTH AS SPECIFIED IN THE WORKLIST.

CURVE WIDENING SHALL BE SURFACED TO A LENGTH OF 100' WITH 50' TAPERS.

APPLY THE WIDENING ON THE INSIDE OF THE CURVES THROUGHOUT THE RADIUS OF THE CORNER TO MATCH THE EXISTING ROAD TEMPLATE.

MAINTAIN EXISTING CROSS SLOPE AT CURVES



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MEDFORD DISTRICT - MEDFORD, OREGON

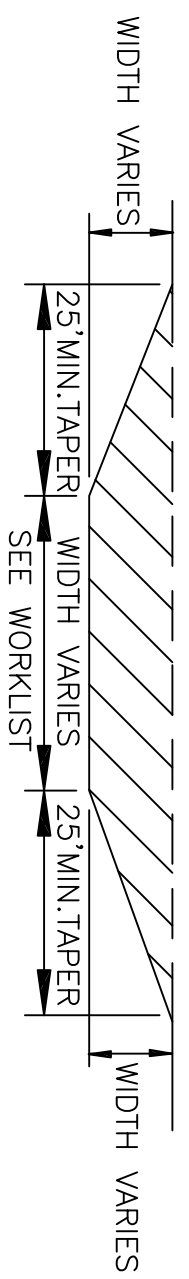
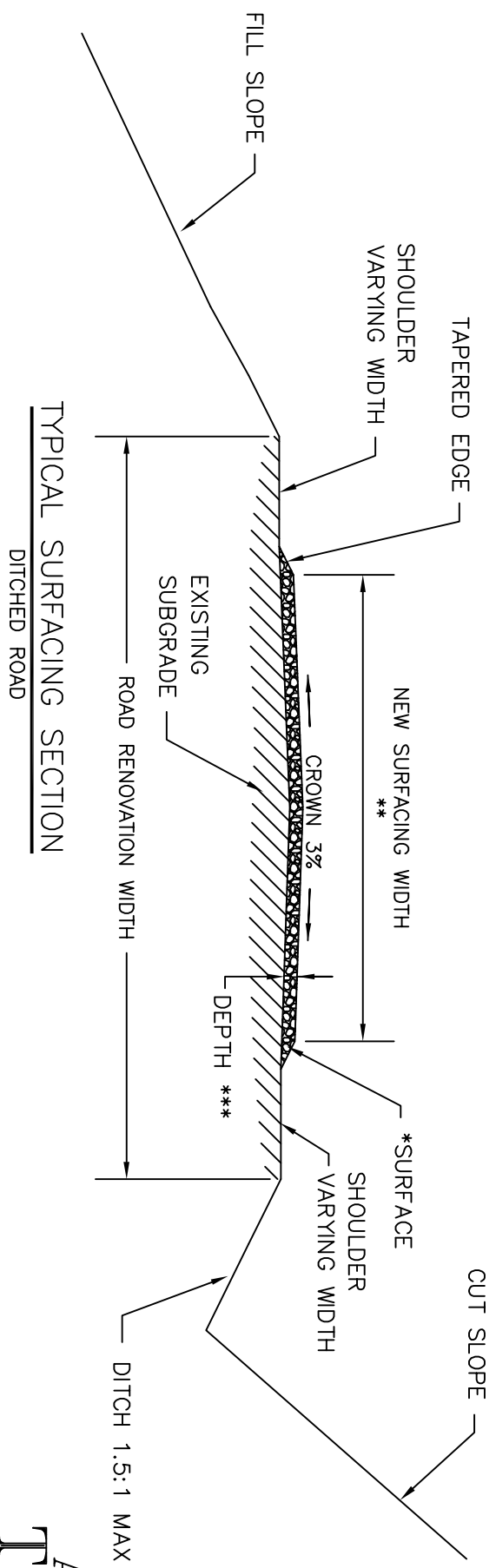
ROAD SURFACING and
CURVE WIDENING SECTIONS

DRAWN: JAB SCALE: AS SHOWN

DATE: JUNE 2020 SHEET 1 OF 1

DRAWING NO. ORM05-TS-2020-0006-C7

NOTES:
SURFACING WIDTH EDGES SHALL BE TAPERED TO SUBGRADE. TAPERS SHALL BE SMOOTH AND TRANSITION TO SUBGRADE AS TO NOT CAUSE A SUDDEN DROP OR STEEP EDGE.

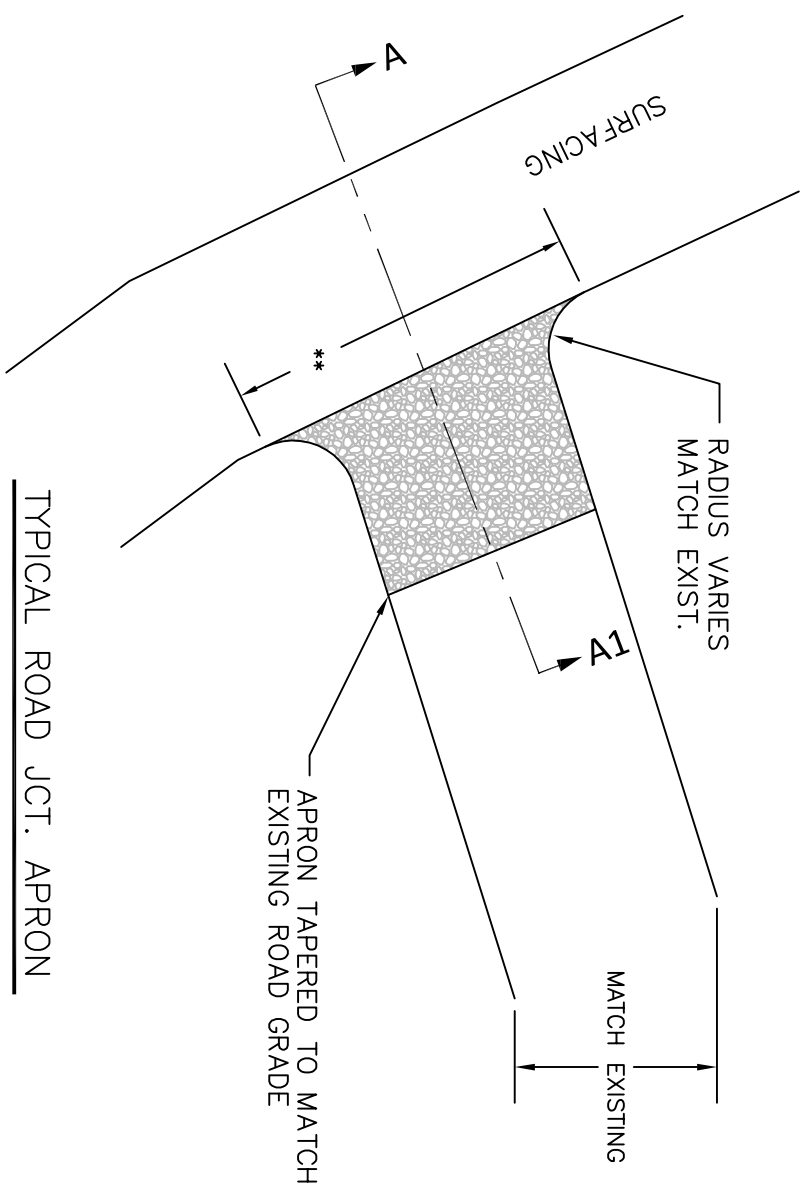


ALWAYS
THINK
SAFETY

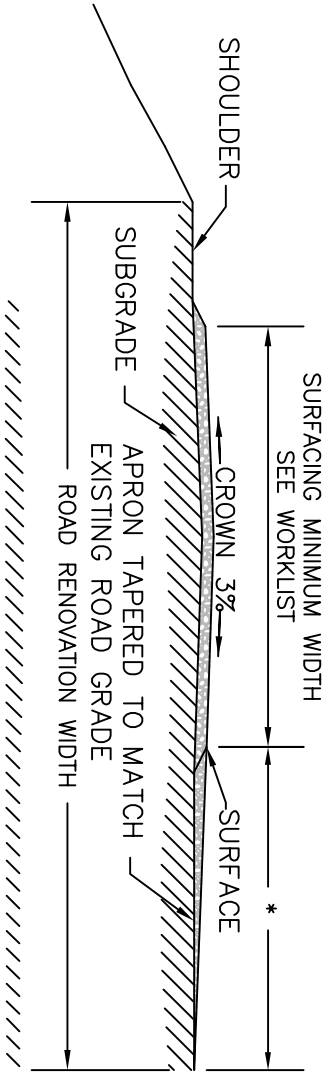
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

TYPICAL TURNOUT SECTION

DRAWN: JAB	SCALE: AS SHOWN
DATE: JUNE 2020	SHEET 1 OF 1
DRAWING NO. ORM05-TS-2020-0006-C8	



TYPICAL ROAD JCT. APRON



TYPICAL SURFACING SECTION A-A1

NOTES:

APRONS SHALL BE PLACED AT THE JUNCTIONS SPECIFIED IN THE WORK LIST.

SURFACING SHALL BE GRADE "C" AND COMPACTED TO THE NEW SURFACING DEPTH OF ADJACENT ROADWAY. TAPER DEPTH TO MATCH EXISTING ROAD GRADE.

*APRON LENGTHS VARY. EACH APRON SHALL BE CONSTRUCTED WITH 10 CUBIC YARDS OF COMPACTED, IN-PLACE AGGREGATE.

**JUNCTION WIDTHS VARY; MATCH EXISTING.

ALWAYS
THINK
SAFETY

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON	
ROAD JUNCTION SURFACING APRON SECTION	
DRAWN: JAB	SCALE: AS SHOWN
DATE: JUNE 2020	SHEET 1 OF 1
DRAWING NO. ORM05-TS-2020-0006-C9	

NOTES:

- A. Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.
- B. Summary of quantities are shown on drawing Exhibit C-4 (Estimate of Quantities).
- C. All culverts and bands shall be aluminized.



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CULVERT LIST

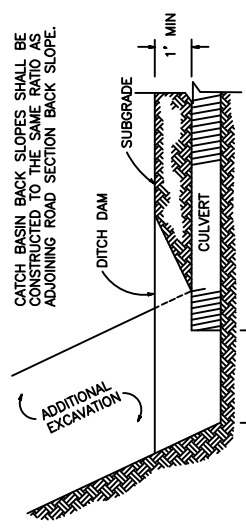
DRAWN: JAB SCALE: AS SHOWN
DATE: JUNE 2020 SHEET 1 OF 1
DRAWING NO. ORM05-TS-2020-0006-C10

ROAD NO.	CULVERT LOCATIONS DESIGNED						AS BUILT						DOWNSPOUTS						REMARKS		
	STATION OR M.P.	SIZE	GAGE	LENGTH	SKW ANGLE	STATION OR M.P.	SIZE	GAGE	LENGTH	1/2 ROUND	FULL ROUND	RECT. FLUME	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE		LENGTH	SPLASH PADS YES/NO
34-3E-35.05	10+35	18"	16	32	0															YES	Installation Type 1
	19+78	18"	16	28'	0															YES	Installation Type 3
34-3E-35.06	3+73	18"	16	30'	30															YES	Installation Type 3
35-3E-01.00	0.43	18"	16	36'																YES	Installation Type 3
	0.73	24"	14	32'																YES	Installation Type 1
	0.89	18"	16	36'																YES	Installation Type 3
35-3E-03.00	0.06	30"	14	40'																YES	Installation Type 1
	0.10	30"	14	42'																YES	Installation Type 1
	0.28	24"	14	32'																YES	Installation Type 3
	0.41	18"	16	32'																YES	Installation Type 3
	0.55	18"	16	32'																YES	Installation Type 3
	0.73	18"	16	36'																YES	Installation Type 3
	0.85	18"	16	36'																YES	Installation Type 2
	1.03	36"	14	60'																YES	Installation Type 1
	1.18	18"	16	34'																YES	Installation Type 3
	1.49	18"	16	36'																YES	Installation Type 3
	1.65	30"	14	50'																YES	Installation Type 3
	2.20	24"	14	34'																YES	Installation Type 1
	2.33	24"	14	32'																YES	Installation Type 3
	2.54	24"	14	42'																YES	Installation Type 1
	2.90	18"	16	32'																YES	Installation Type 3
	3.35	18"	16	36'																YES	Installation Type 3
35-3E-12.03	2+14	24"	14	28'	0															YES	Installation Type 1
PROJECT TOTAL 18" CMP: 436 LF																					
PROJECT TOTAL 24" CMP 200 LF																					
PROJECT TOTAL 30" CMP: 132 LF																					
PROJECT TOTAL 36" CMP: 60 LF																					
PROJECT TOTAL SPLASH PADS (No.): 22																					

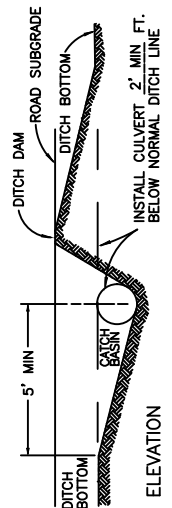
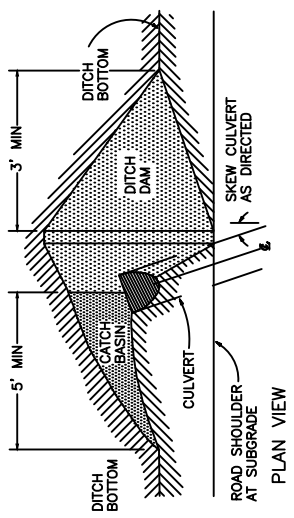
EXHIBIT C-11

SHEET 1 OF 1

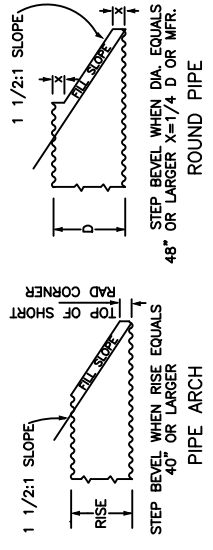
RANCHERO T.S.



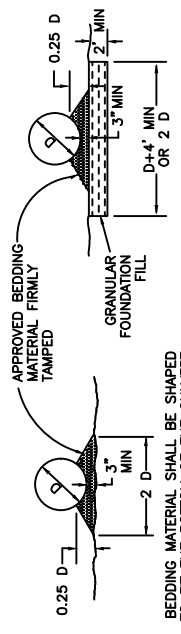
CROSS SECTION AT CATCH BASIN



CATCH BASIN

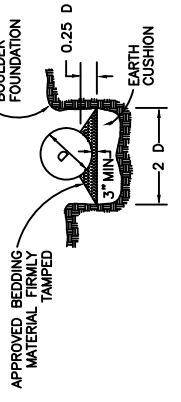


BEVELED END DETAIL



BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

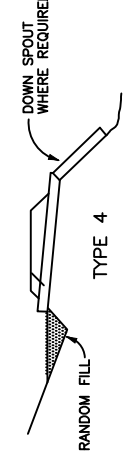
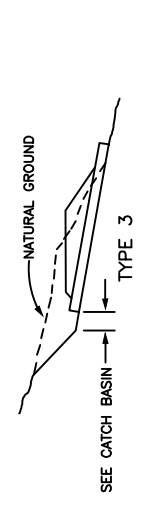
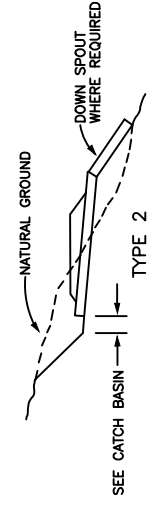
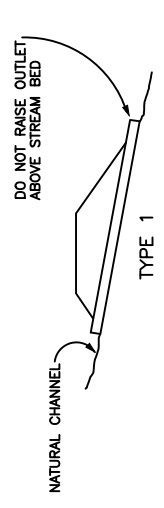
BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT



BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT. EARTH CUSHIONING OF SILTY CLAY LOAM OR SAND MAY BE USED IF MATERIAL CAN BE PLACED IN THE DRY CONDITION. IF THE EXCAVATION IS WET, USE GRANULAR FOUNDATION FILL MATERIAL. MAINTAIN 8" MIN. DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS AND THE BOTTOM OF THE CULVERT.

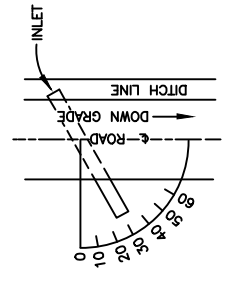
BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION

BEDDING OF CULVERTS



CULVERT INSTALLATION TYPES

ALWAYS
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THE GRADE OF CROSSEDRAINS SHALL BE AT LEAST 2% GREATER THAN THE GRADE OF THE DITCH.

SKUEW DIAGRAM

REV. NO.	DESCRIPTION	DATE	APPROV.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

CULVERT INSTALLATION DETAILS

DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	1 OF 1

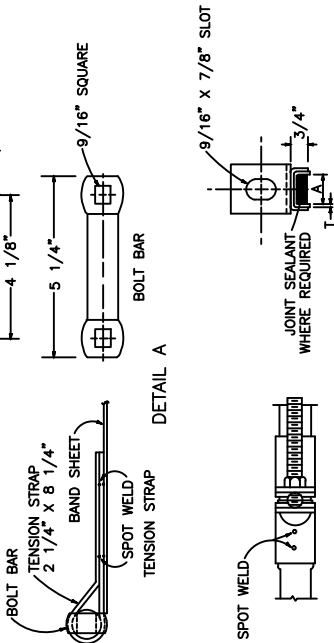
DRAWING NO. ORMO5-TS-2020-0006-C11

EXHIBIT C-12

SHEET 1 OF 1

RANCHERO T.S.

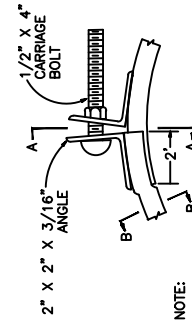
NOTE: DESIGN VARIATIONS IN FASTENERS, (STRAPS, BARS & WELDS) WHICH PROVIDE A TENSILE STRENGTH OF 7500 LBS. ARE PERMISSIBLE.



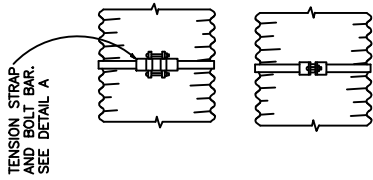
DIMENSIONS IN INCHES

T	A	PIPE WALL THICKNESS
.079	3/4	.108 OR LIGHTER
.108	1	.138 OR HEAVIER

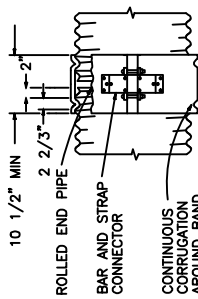
SECTION A-A



NOTE: AS AN ALTERNATE TO SWEDGE, AN OVERSIZE BRIDGE CLIP MAY BE USED.



CHANNEL BAND COUPLER

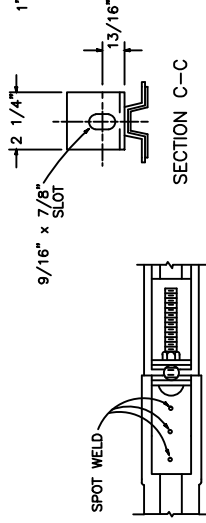


STANDARD CONSTRUCTION IS 1 PIECE 12" THRU 48" AND 2 PIECE 54" AND ABOVE

"HUGGER" COUPLER BANDS

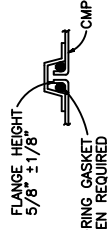
THE HUGGER COUPLER BAND OR AN APPROVED EQUIVALENT COUPLER BAND SHALL BE MADE OF THE SAME MATERIAL AND FINISH AS THE PIPES JOINED. THE COUPLER BANDS SHALL HAVE A MINIMUM WIDTH OF 1 1/2 INCHES AND MAY BE TWO NUMERICAL THICKNESSES LIGHTER THAN THE GAGE OR THICKNESS DESIGNATED FOR THE CONDUIT JOINED. THE BAND SHALL BE DESIGNED TO BE DRAWN TOGETHER WITH TWO 1/2 INCH BOLTS THROUGH USE OF A BAR AND STRAP SUITABLY WELDED TO THE BAND. THE BAND SHALL ENGAGE AND MESH WITH THE SECOND ANNULAR CORRUGATION INWARD FROM THE END OF EACH OF THE CONDUIT SECTIONS JOINED.

WHEN DESIGNATED ON THE PLANS OR IN THE SPECIAL PROVISIONS, GASKETS SHALL BE INSTALLED WHEN THE "HUGGER" TYPE OR AN APPROVED EQUIVALENT COUPLER BAND IS INSTALLED ON SPILLWAY, OVERSIDE OR DOWN DRAINS.

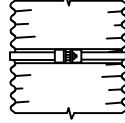


SECTION C-C

SECTION D-D



SHOWN WITH ALTERNATE TYPES OF JOINT SEALERS



FLANGED END COUPLER

CULVERT SIZE INCHES	STANDARD COUPLER BANDS				FLAT-DIMPLED			
	WIDTH INCHES	NO. OF BOLTS	WIDTH INCHES	NO. OF BOLTS	WIDTH INCHES	NO. OF DIMPLES	WIDTH INCHES	NO. OF DIMPLES
UNDER 18	7	2	7	2	10 1/2	2	2	2
18 TO 54	12	3	12	3	10 1/2	2	3	2
OVER 54	24	5	24	5	16 1/2	4	5	4

DATA IN THIS BLOCK DOES NOT APPLY TO PERFORATED PIPE UNDERDRAIN. FOR BANDS WITH "PUNCH-OUT" TYPE CONNECTIONS, 2 BOLTS ARE PERMISSIBLE FOR EACH LAP. BANDS SHALL LAP 1/2" WIDTH ONTO EACH SECTION OF PIPE AND MUST FULLY ENIRCLE THE JOINT FORMING A NEARLY WATERTIGHT CONNECTION. SEE SECTION 400.

- Ⓐ BANDS WITH ANGLES
- Ⓑ BANDS WITH TENSION TYPE CONNECTIONS

ALWAYS
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SAFETY

CULVERT BAND
DETAIL

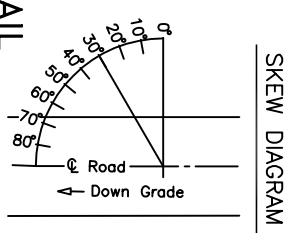
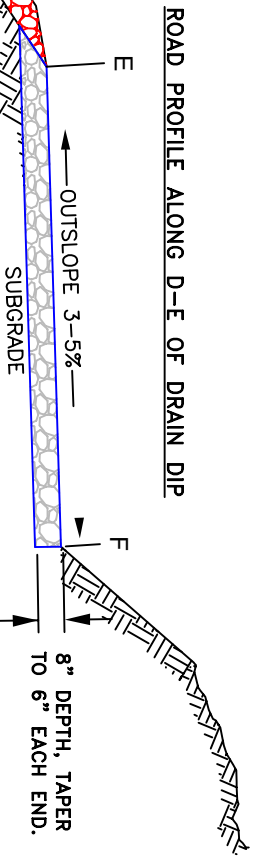
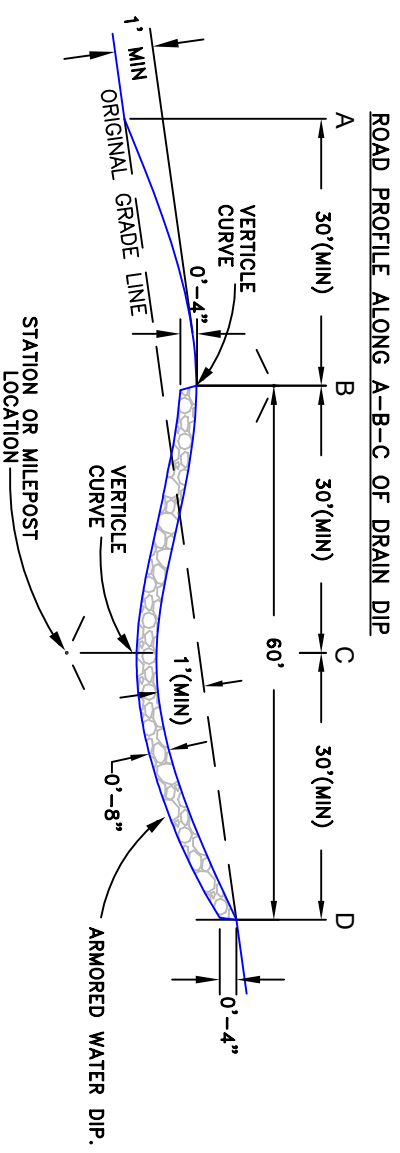
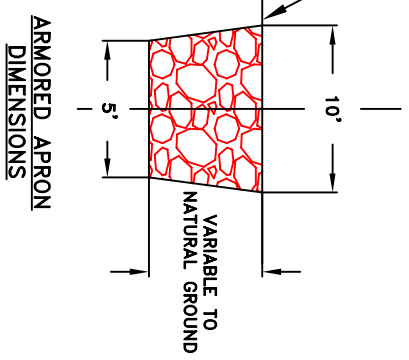
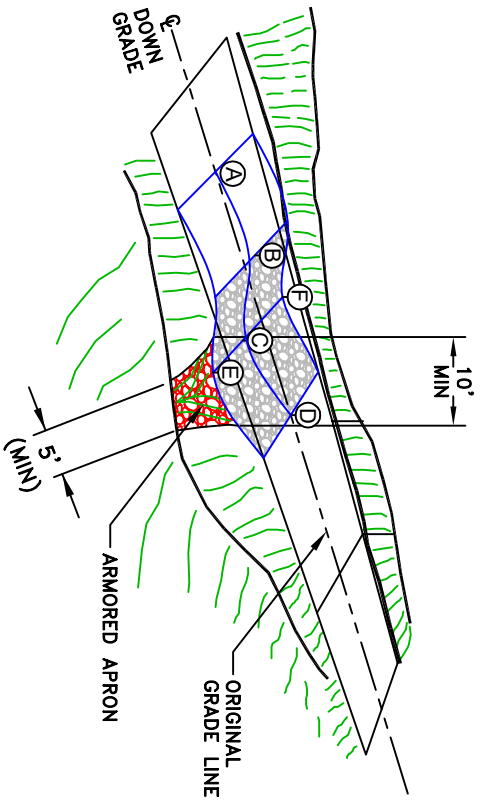
REV. NO. DESCRIPTION DATE APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON




DRAWN: JAB SCALE: NONE
DATE: JUNE 2020 SHEET 1 OF 1

DRAWING NO. ORM05-TS-2020-0006-C12

NOTES

- 1) THE WATER DIP INVERT SHALL BE SMOOTH AND FREE DRAINING.
- 2) THE MINIMUM DIFFERENCE IN ELEVATION BETWEEN THE SAG AND THE CREST OF THE WATER DIP ALONG THE OUTSLOPE HINGE POINT IS 1.0 FEET.
- 3) THE MINIMUM DIFFERENCE IN ELEVATION BETWEEN THE SAG AND THE CREST OF THE WATER DIP ALONG THE FILLSLOPE SHOULDER IS 1.5 FEET.
- 4) SKEW DIP MINIMUM 15-30 DEGREES FROM PERPENDICULAR TO CENTERLINE.
- 5) EXCAVATED SOIL SHALL BE UTILIZED IN CONSTRUCTION OF WATER DIP. SIDECASTING OF VEGETATIVE MATTER IS PERMITTED.
- 6) PIT RUN MATERIAL SHALL BE PLACED ON FILL SLOPE AND SUBGRADE OF EACH ARMORED WATERDIP.
- 7) SEE ROAD RENOVATION WORKLIST FOR WATER DIPS TO BE ARMORED.
- 8) EACH DIP SHALL BE REINFORCED WITH 40 CUBIC YARDS OF 4 INCH MINUS ROCK, ON ROADWAY AND OUTFALL.



- LEGEND**
-  CUT/FILL SLOPES
 -  SUBGRADE ARMOR MATERIAL (4 INCH MINUS)
 -  FILL SLOPE ARMOR MATERIAL PIT RUN OR OTHER APPROVED MATERIAL.

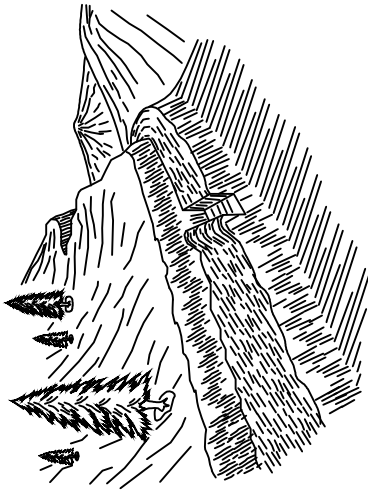
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

TYPICAL ARMORED WATER DIP CONSTRUCTION

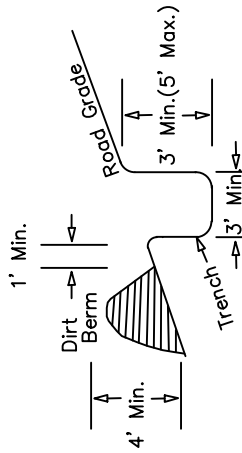
DRAWN BY JWR	SCALE NONE
DATE JUNE 2020	SHEET 1 OF 1
DRAWING NO. ORM05-TS-2020-0006-C13	

DRAWINGS NOT TO SCALE
TYPICAL ARMORED WATER DIP CONSTRUCTION DETAIL

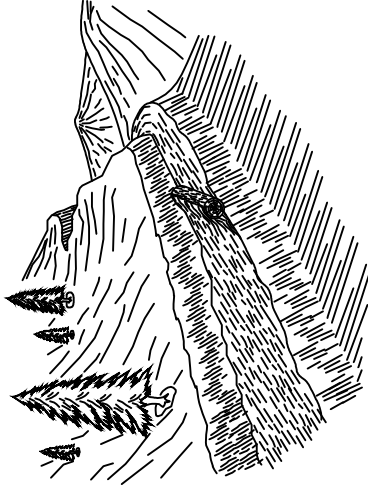
EXHIBIT C-14
SHEET 1 OF 2
RANCHERO T.S.



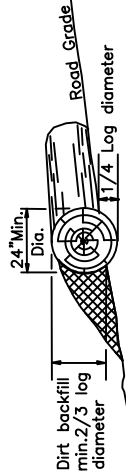
EARTH/TRENCH BARRICADE



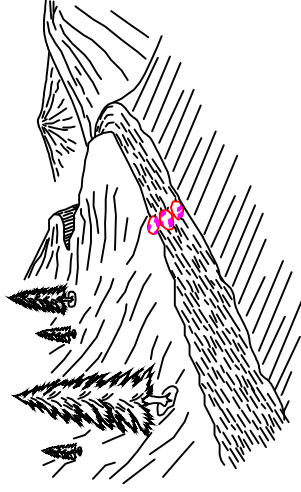
1. BARRICADE LENGTH SHALL EXTEND ACROSS THE ENTIRE ROAD SURFACE TO A POINT SUFFICIENT TO PROHIBIT MOTOR VEHICLE TRAFFIC.
2. THE EXACT LOCATION SHALL BE AS STAKED IN THE FIELD.
3. THE BARRICADE SHALL BE SKEWED AS NEEDED TO DRAIN OR AS DIRECTED BY THE AUTHORIZED OFFICERS REPRESENTATIVE.
4. A MINIMUM OF 1' IS OF LEVEL GROUND IS NEEDED BETWEEN TOE OF THE DIRT BERM AND THE EDGE OF THE TRENCH.



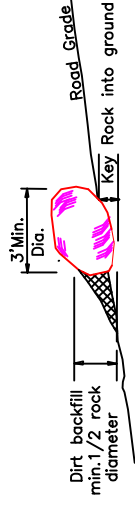
LOG BARRICADE



1. LOG BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL BARRICADES SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.
5. THE MINIMUM SMALL END DIAMETER OF THE LOG BARRICADE SHALL BE 24".

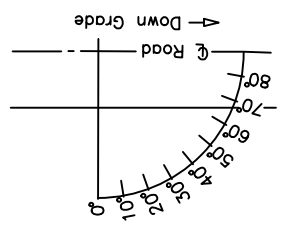


ROCK BARRICADE



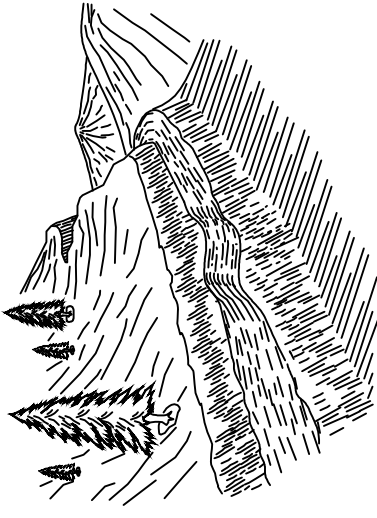
1. ROCK BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. THE LENGTH SHALL BE SUFFICIENT TO BLOCK ROAD FROM VEHICLE USE.
4. THE MINIMUM DIAMETER OF ROCK SHALL BE 3 FEET.
5. THE MAXIMUM SPACE BETWEEN ROCKS SHALL BE 36" OR AS APPROVED BY THE AUTHORIZED OFFICER.

SKEW DIAGRAM

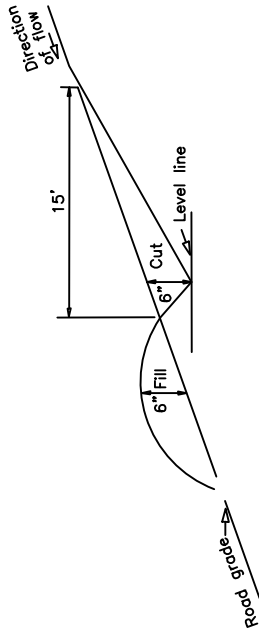


REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
DRAINAGE & EROSION CONTROL DETAILS			
DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	1 OF 2
DRAWING NO. ORM05-TS-2020-0006-C14			

EXHIBIT C-14
SHEET 2 OF 2
RANCHERO T.S.

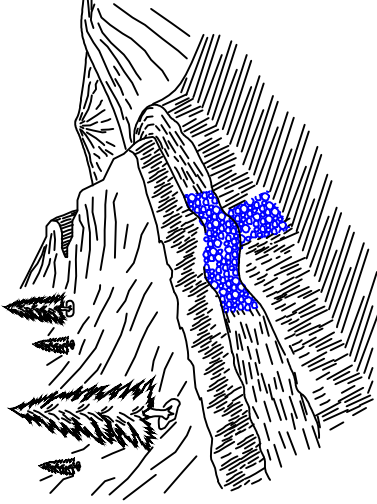
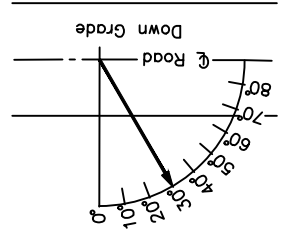


WATER BAR



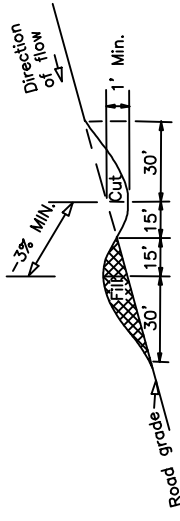
1. CROSS-DRAINS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL CROSS DRAINS SHALL BE SKEWED 30 DEGREES.
4. THE CROSS-DRAINS INVERT SHALL BE SMOOTH AND FREE DRAINING.

SKEW DIAGRAM



ARMORED WATER DIP

1. SEE EXHIBIT C-13: ARMORED WATER DIP CONSTRUCTION DETAILS



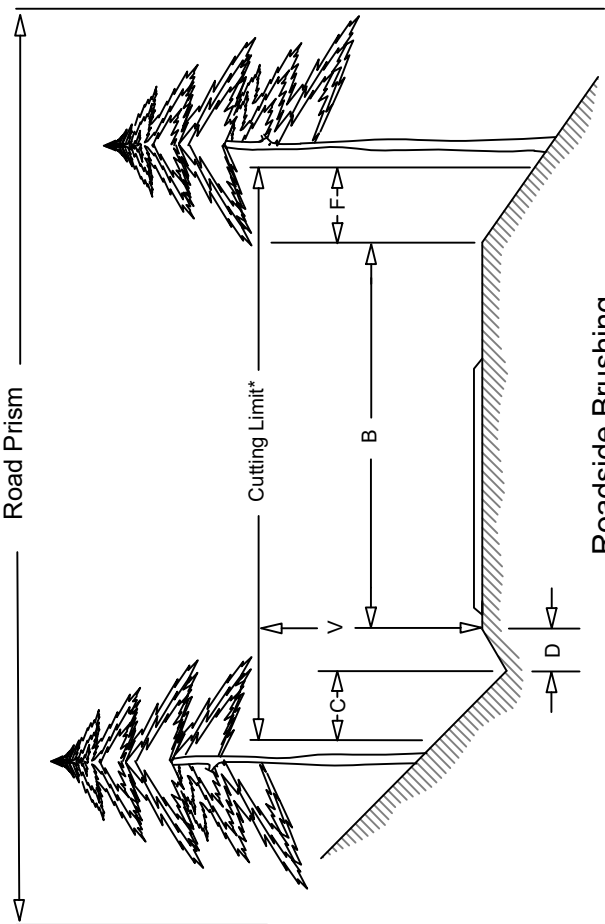
1. WATER DIPS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL WATER DIPS SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE AND BE READILY CROSSED BY HIGH CLEARANCE TYPE VEHICLES.

WATER DIP

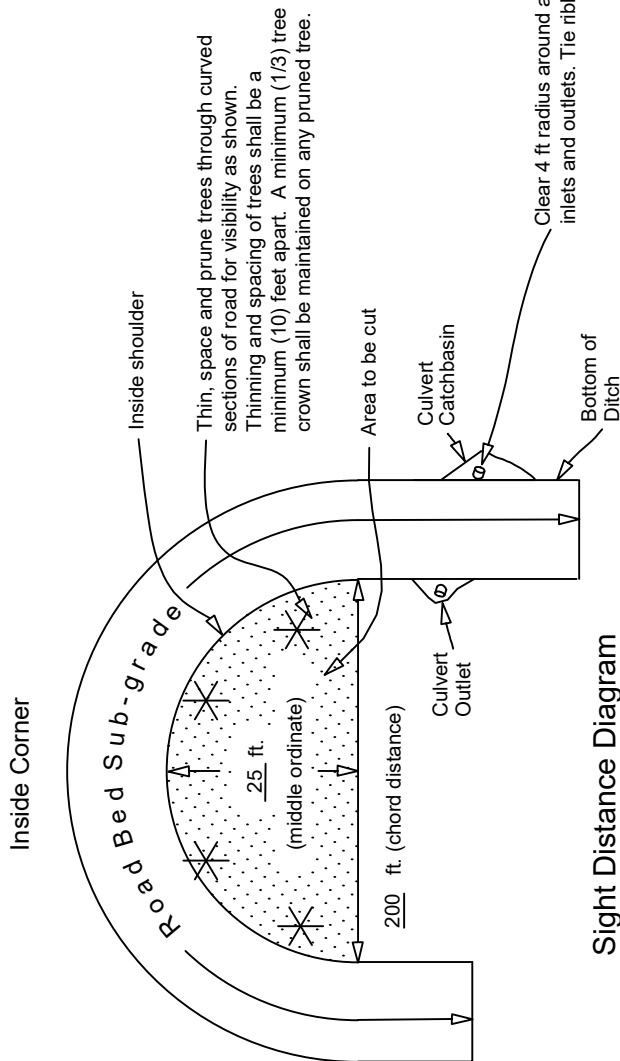
REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
DRAINAGE & EROSION CONTROL DETAILS			
DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	2 OF 2
DRAWING NO. ORM05-TS-2020-0006-C14			

EXHIBIT C 15
SHEET 1 OF 1

- Cutting Limit = C + D + B + F
- B = Road Bed Subgrade (includes turnouts)
Cut all vegetation to max. height of 1".
- C = 6 ft - Distance to be brushed on cut slope
beyond centerline of ditch. Cut all vegetation to max height of 6".
- D = Centerline of ditch to inside shoulder. Cut all vegetation to max. height of 1".
- F = 6 ft - Distance to be brushed on fill slope beyond outside shoulder
Cut all vegetation to max. height of 6".
- V = 14 ft - Height of vertical cutting limit



Roadside Brushing



Sight Distance Diagram
Road Side Brushing

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REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT -- MEDFORD, OREGON			
ROADSIDE BRUSHING DETAILS			
DRAWN:	JAB	SCALE:	NONE
DATE:	JUNE 2020	SHEET:	1 OF 1
DRAWING NO.	ORM05-TS-2020-0006-C15		

EXHIBIT C 16

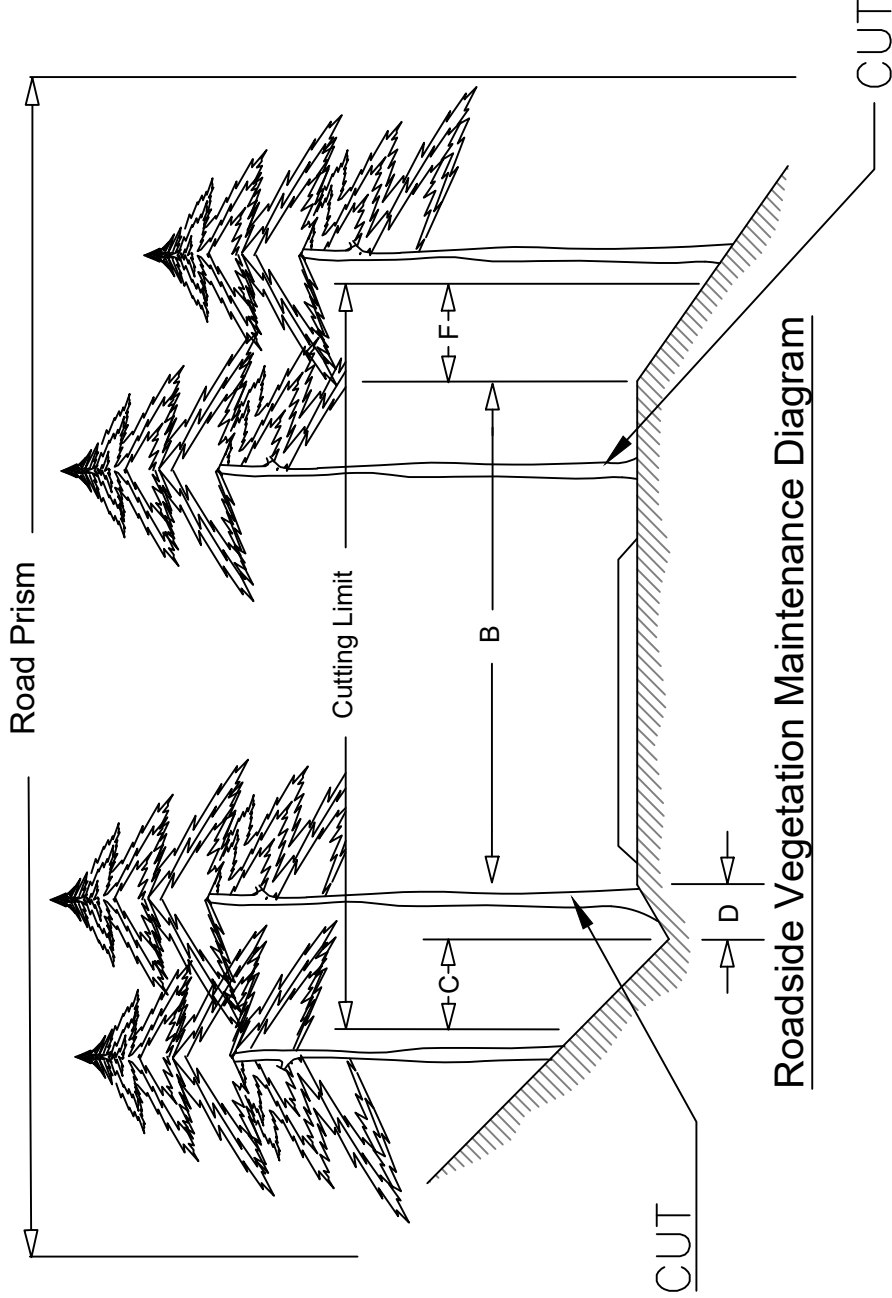
SHEET 1 OF 1

Cutting Limit = C + D + B + F
 B = Road Bed Subgrade (includes turnouts)
 Cut all trees.

C = 6 ft - Distance to remove trees over 6" DBH on cut slope
 beyond centerline of ditch.

D = Centerline of ditch to inside shoulder.

F = 6 ft - Distance to remove trees over 6" DBH on fill slope beyond outside shoulder



Roadside Vegetation Maintenance Diagram

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NOTES:

Cut all non-merchantable and merchantable trees over 6" at DBH within the cutting limits.

All merchantable roadside cut trees outside of timber sale units will be marked with blue paint. All merchantable roadside trees within timber sales units shall be cut unless painted orange or pink (reserve trees).

All stumps that may impede road maintenance equipment from properly maintaining the road shall be grubbed. Stump holes shall be filled (if needed) with suitable material and compacted.

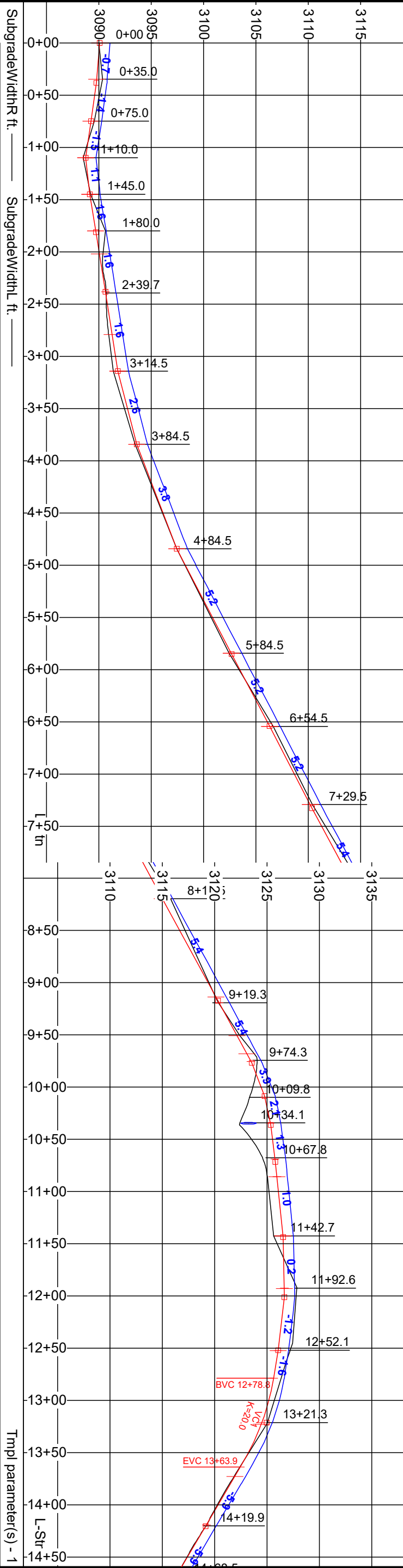
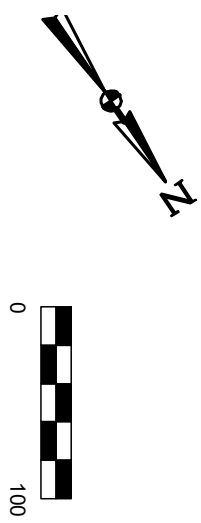
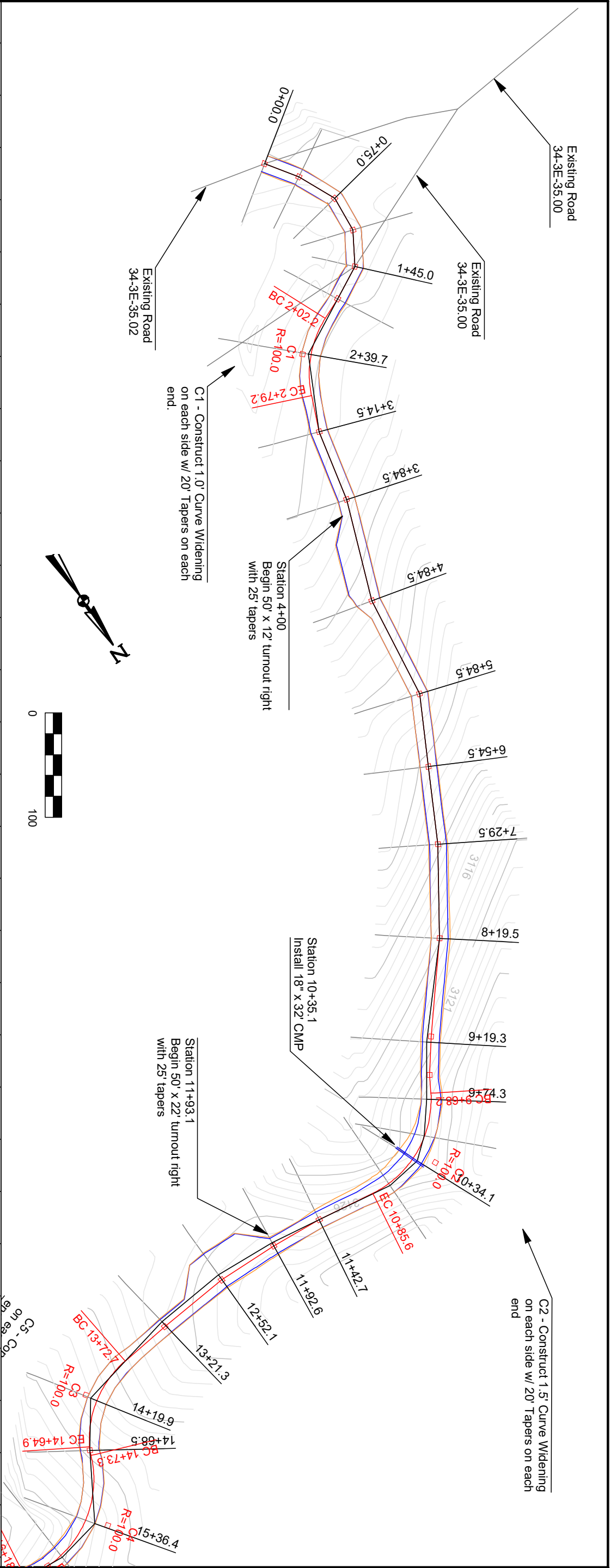
See Exhibit C-4 (Maps) and Exhibit C-21: Road Renovation Worklist for Roadside Vegetation Maintenance locations.

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			

ROADSIDE VEGETATION MAINTENANCE DETAILS

DRAWN: JAB	SCALE: NONE
DATE: JUNE 2020	SHEET: 1 OF 1
DRAWING NO. ORM05-TS-2020-0006-C16	

All distances shown are horizontal except for V



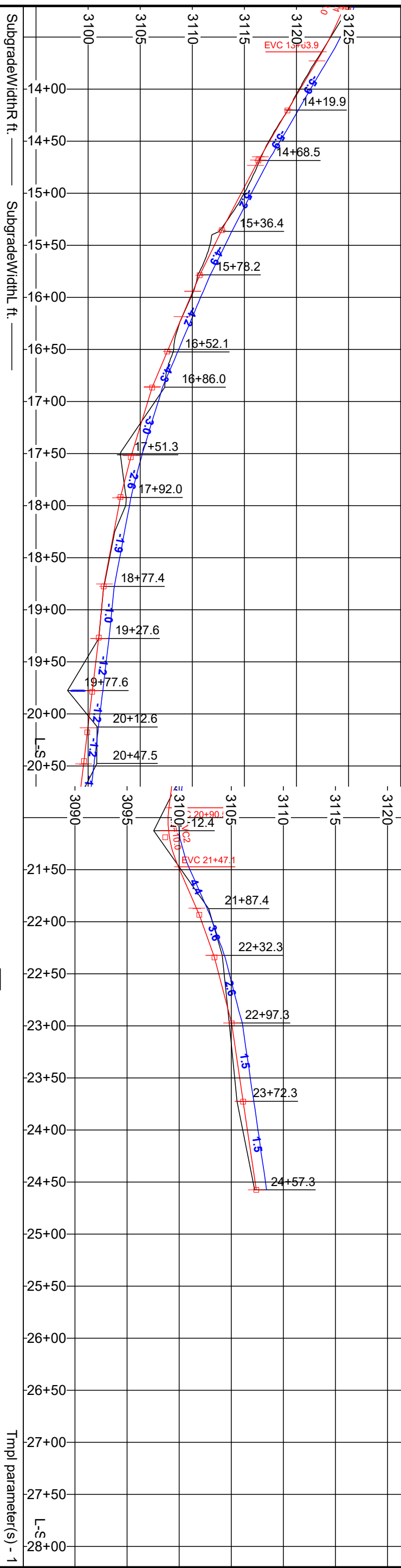
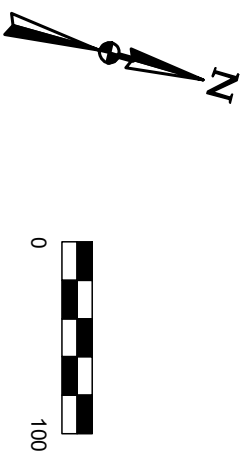
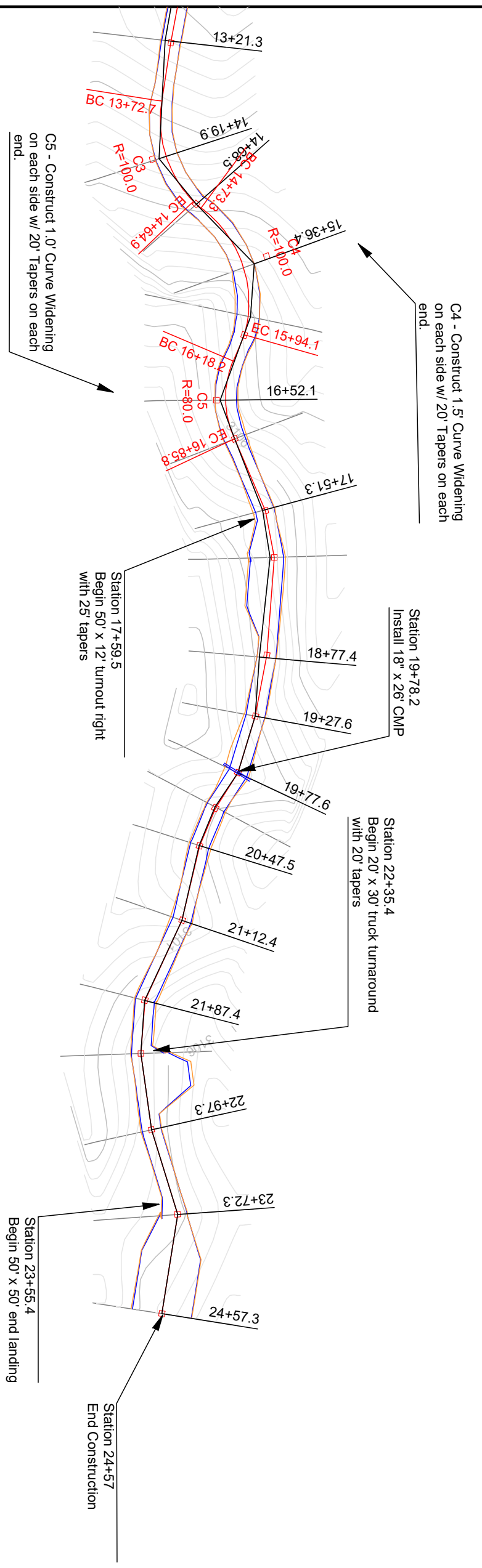
Sheet 1 of 2

PROJECT NO: ORM05-TS-2020-0006				
DESIGN OFFICE: Butte Falls				
DESIGNED BY: J. Brown				
DRAWN BY: J. Brown				
CHK'D BY: R. Schaff				
APPROVED BY:				
DATE: 3/16/2020	MARK	DESCRIPTION	DATE	APPV.

UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 EXHIBIT C-17
 34-3E-35.05
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT

OREGON



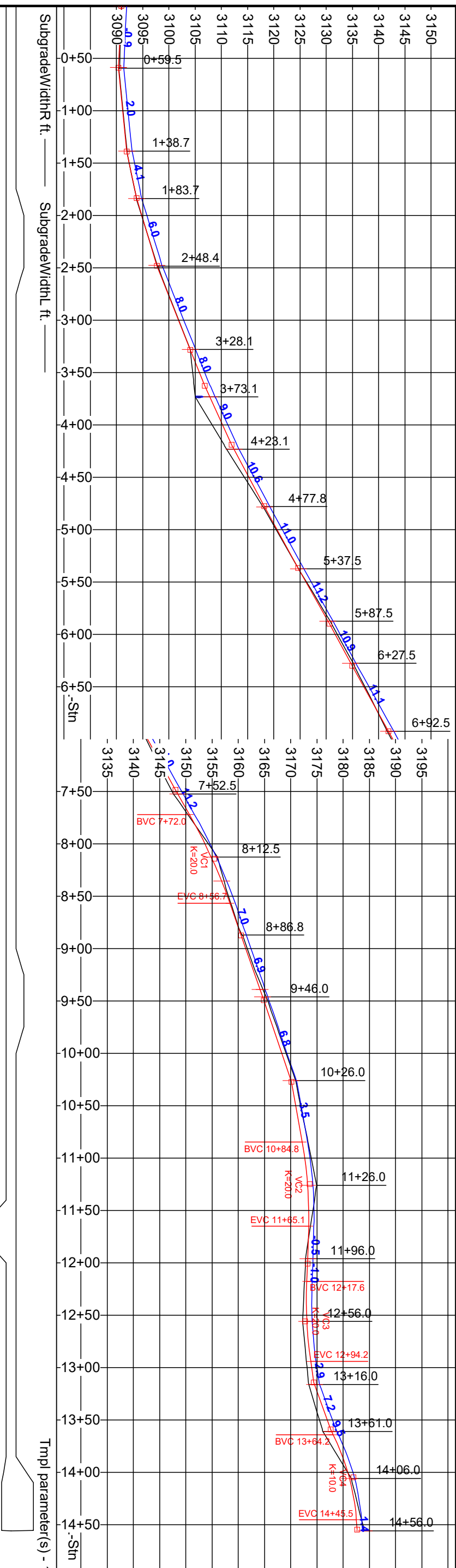
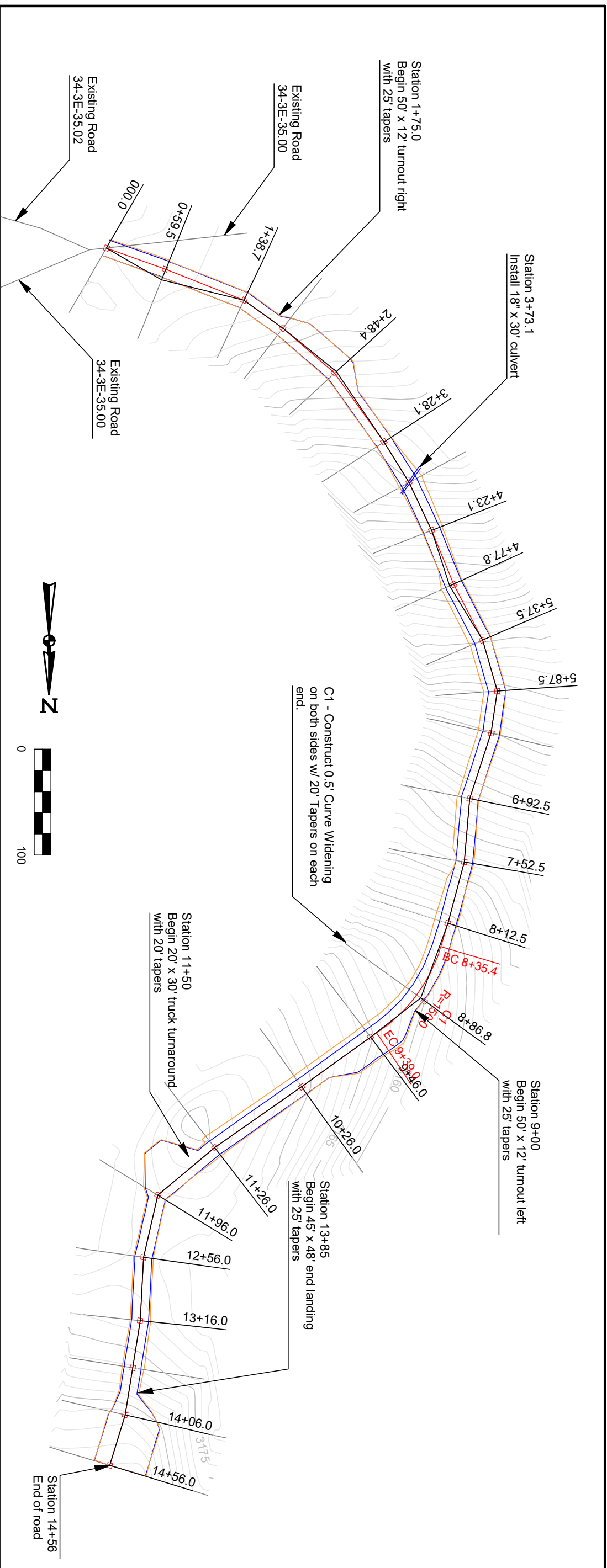


Sheet 2 of 2

PROJECT NO: ORM05-TS-2020-0006				
DESIGN OFFICE: Butte Falls				
DESIGNED BY: J. Brown				
DRAWN BY: J. Brown				
CHK'D BY: R. Schaff				
APPROVED BY:				
DATE: 3/16/2020	MARK	DESCRIPTION	DATE	APPV.

UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 EXHIBIT C-17
 34-3E-35.05
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT OREGON

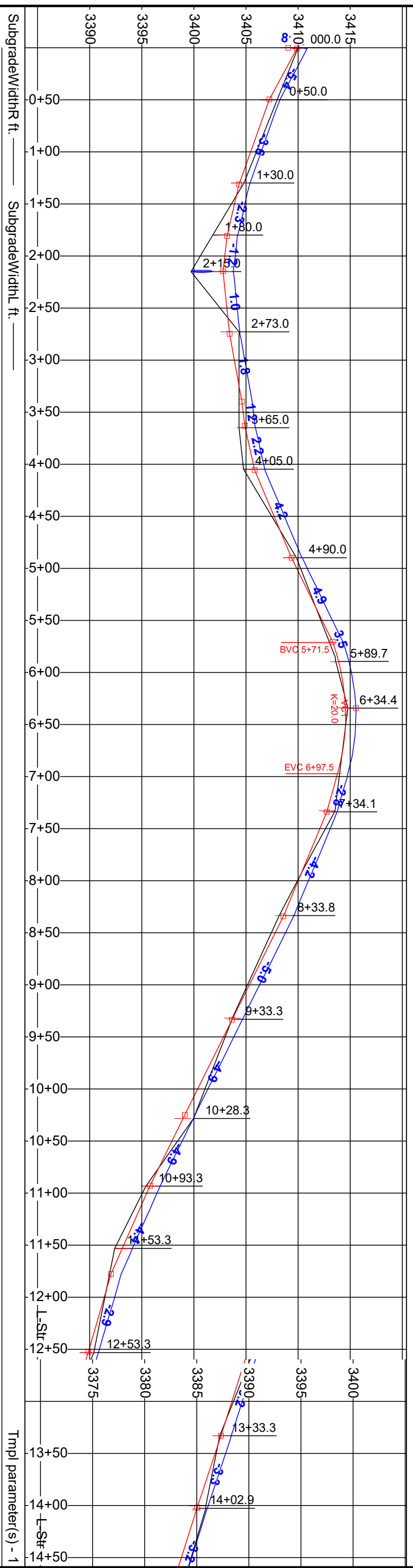
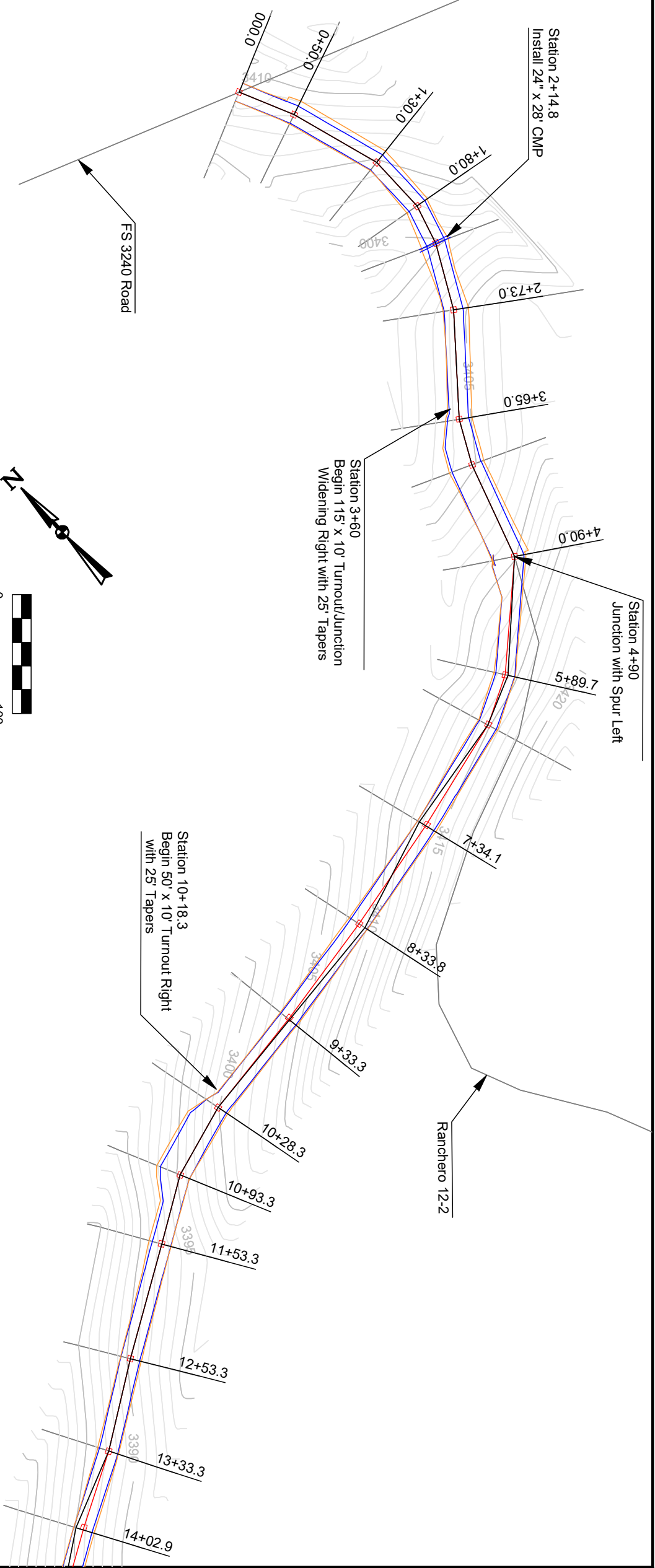




SHEET 1 OF 1	PROJECT NO: ORM05-TS-2020-0006				
	DESIGN OFFICE: Butte Falls				
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	DRAWN BY: J. Brown				
	CHK'D BY: R. Schaff				
	APPROVED BY:				
	DATE:	MARK	DESCRIPTION	DATE	APPV.

UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 EXHIBIT C-18
 34-3E-35.06
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT
 OREGON





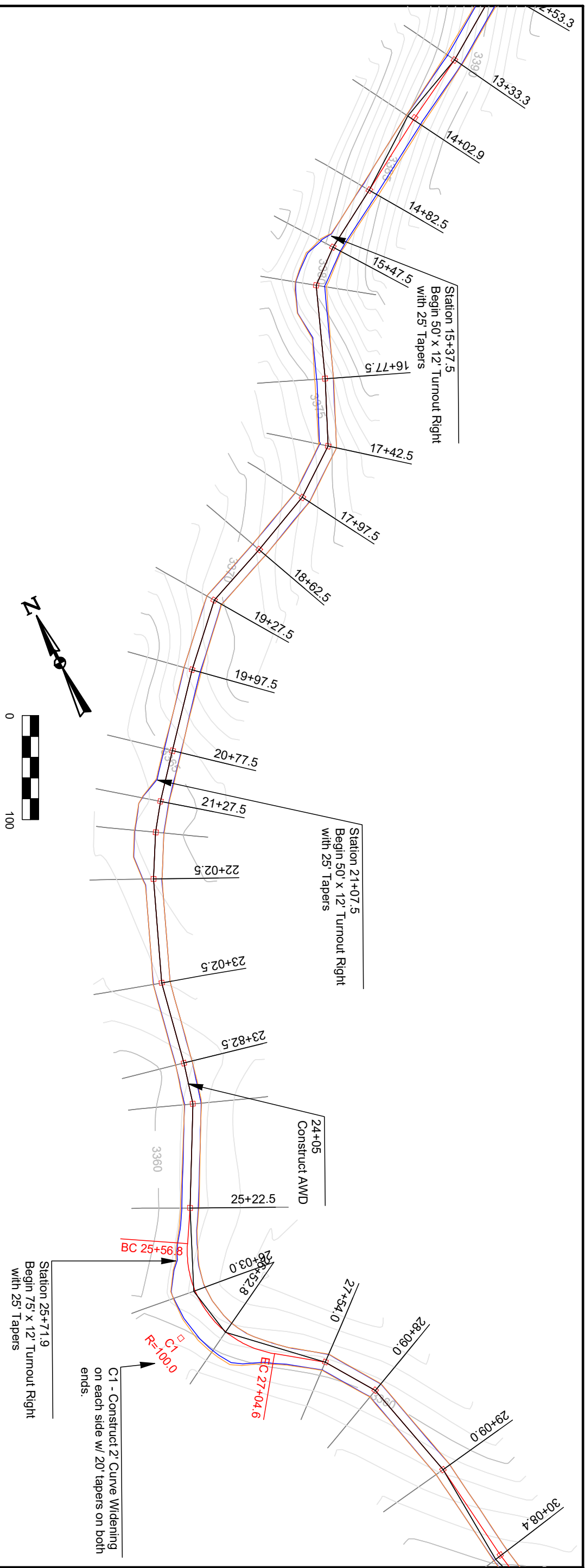
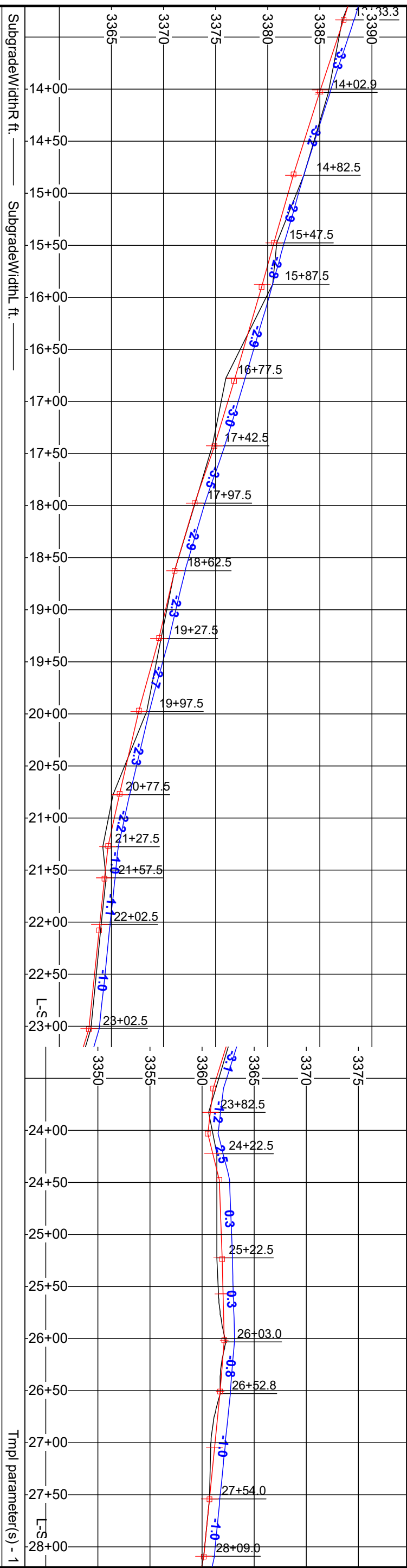
SubgradeWidthR ft. ——— SubgradeWidthL ft. ———

Temp parameter(s) - 1

Sheet 1 of 3	PROJECT NO: ORM05-TS-2020-0006				
	DESIGN OFFICE: Butte Falls				
	DESIGNED BY: J. Brown				
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UNITED STATES DEPARTMENT OF THE INTERIOR
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 EXHIBIT C-19
 35-3E-12.03
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT OREGON



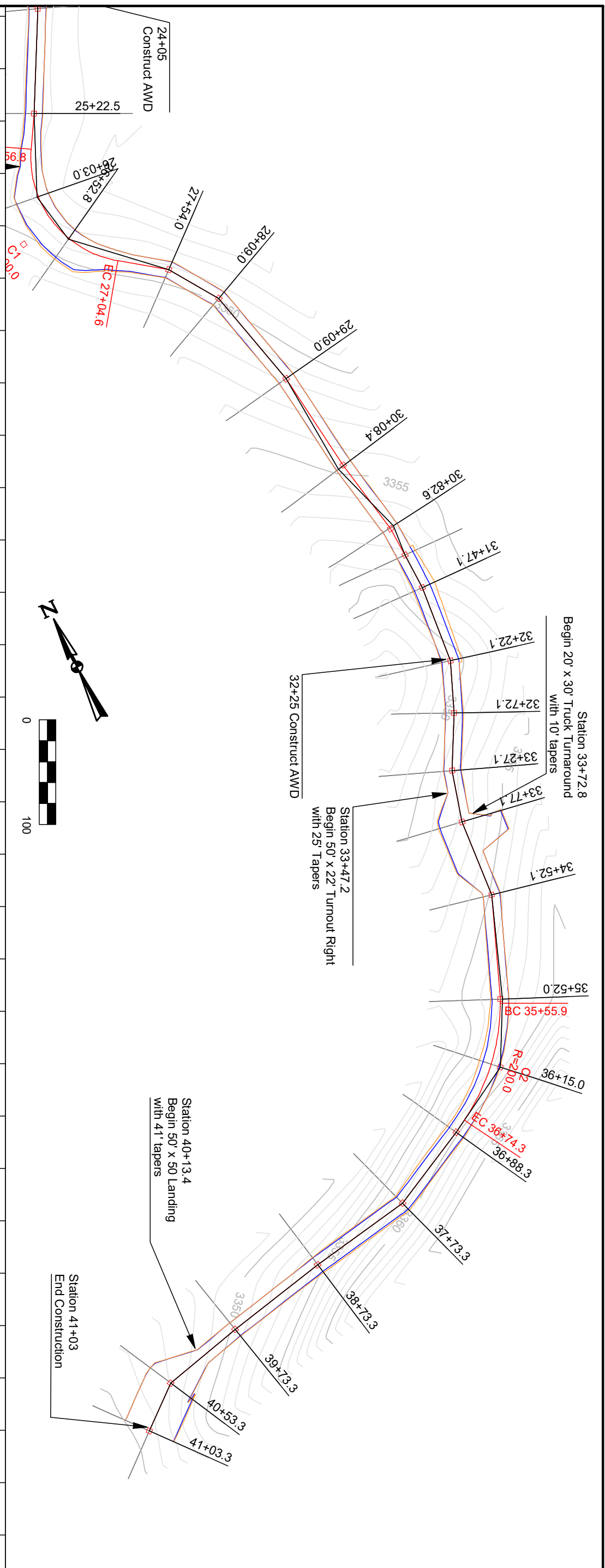
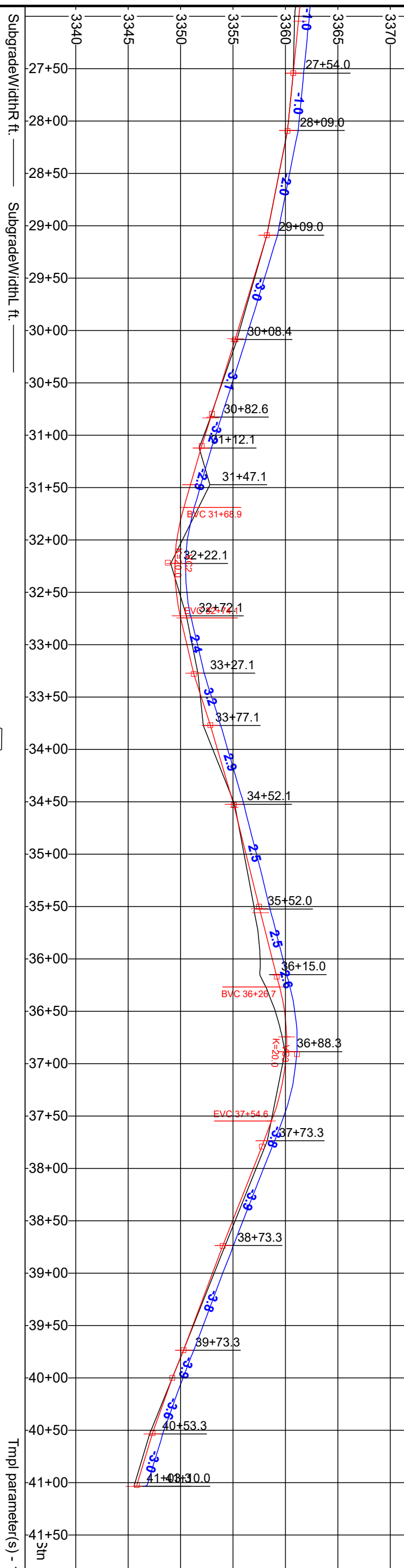


Sheet 2 of 3

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UNITED STATES DEPARTMENT OF THE INTERIOR
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 EXHIBIT C-19
 35-3E-12.03
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT OREGON





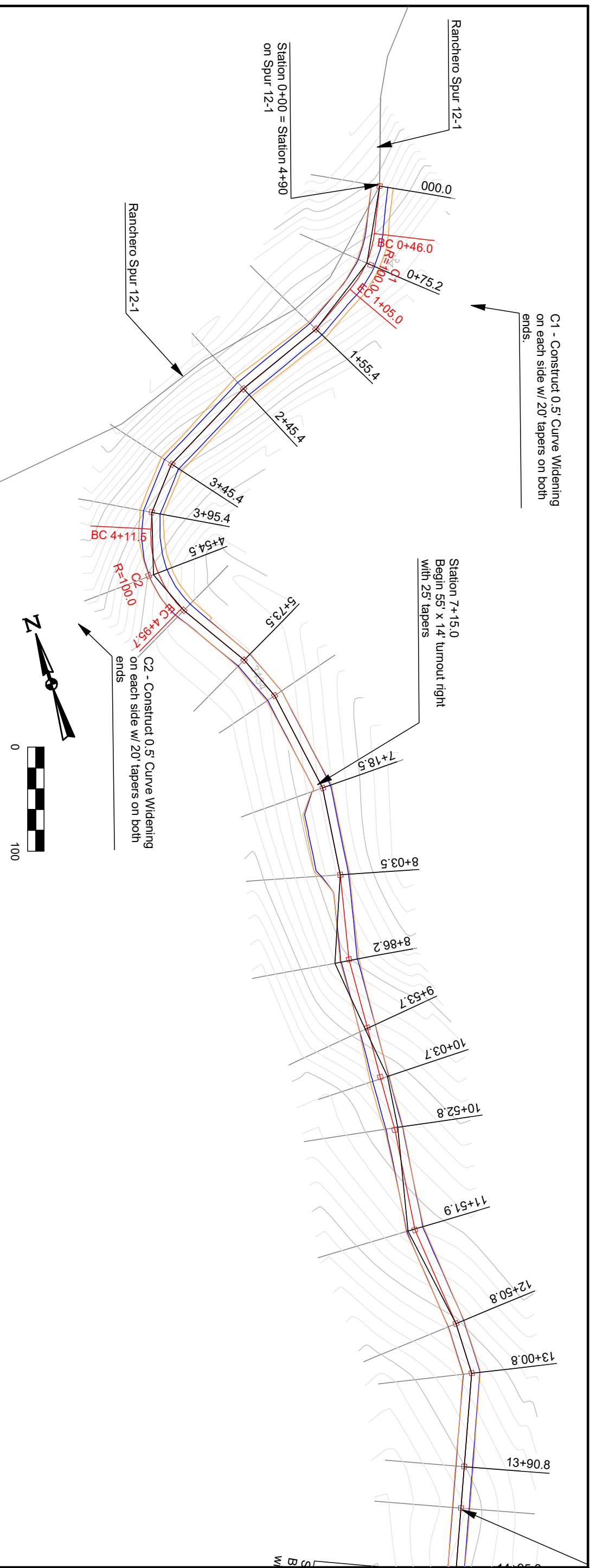
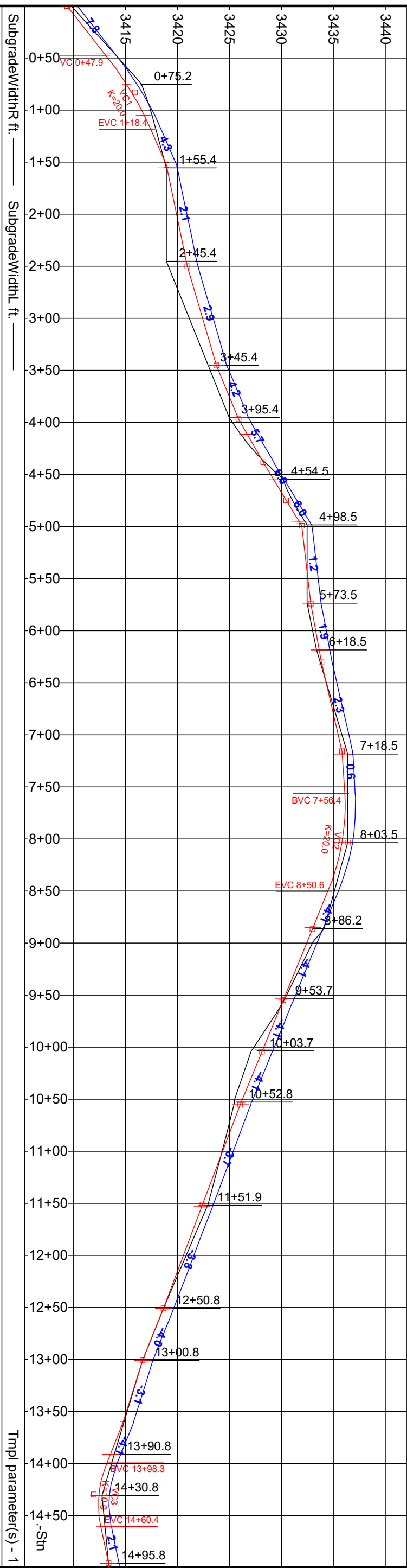
Sheet 3 of 3

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 EXHIBIT C-19
 35-3E-12.03
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT

OREGON





C1 - Construct 0.5' Curve Widening on each side w/ 20' tapers on both ends.

C2 - Construct 0.5' Curve Widening on each side w/ 20' tapers on both ends

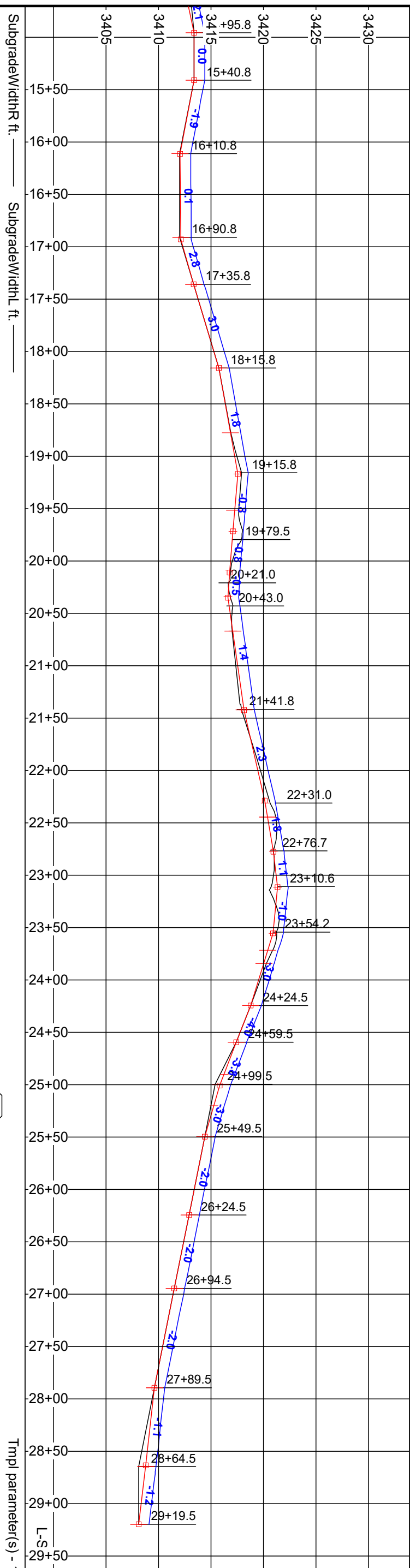
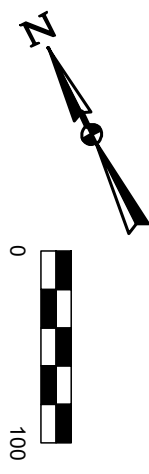
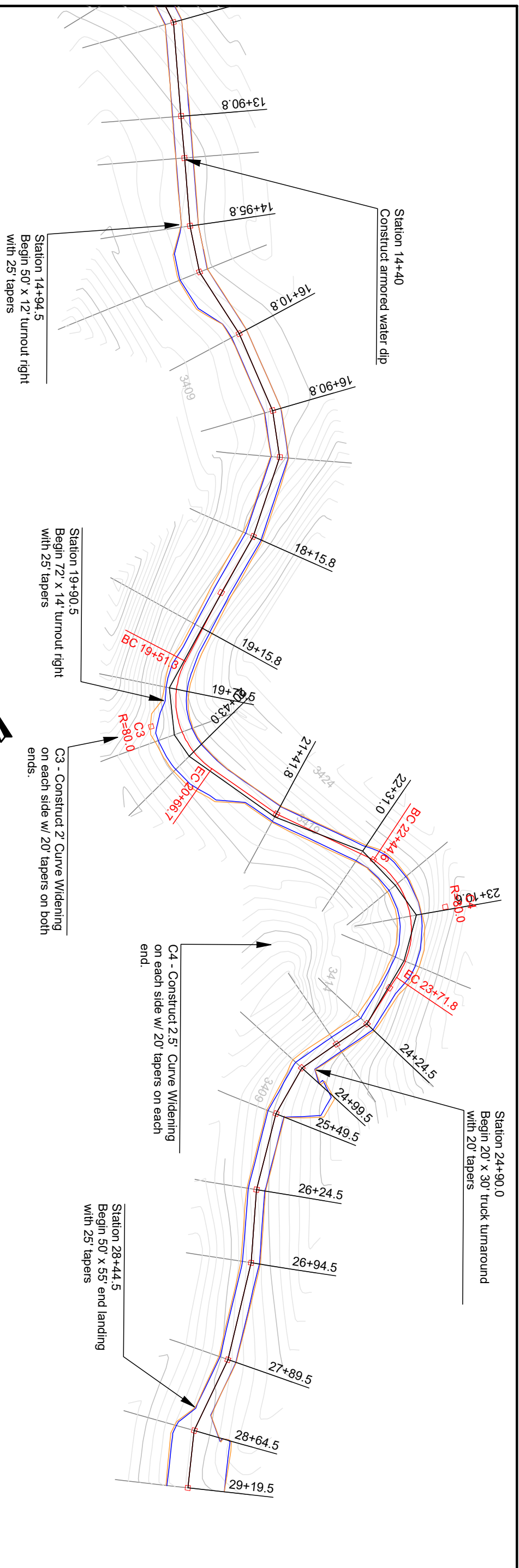
Station 7+15.0
Begin 55' x 14' turnout right with 25' tapers

SHEET 1 OF 2

PROJECT NO: ORM05-TS-2020-0006				
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UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 EXHIBIT C-20
 35-3E-12.04
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT OREGON





SubgradeWidthR ft. ——— SubgradeWidthL ft. ———

Trpl parameter(s) - 1

SHEET 2 OF 2

PROJECT NO: ORM05-TS-2020-0006				
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 EXHIBIT C-20
 35-3E-12.04
 RANCHERO TIMBER SALE
 MEDFORD DISTRICT

OREGON



Road Renovation Work List

Renovation/Improvement/Construction: This consists of road work to be performed on the road prior to its use. This work includes, but not limited to; clearing and grubbing, excavation for roads, compacting, watering, blading and/or rolling the road surface, cleaning/constructing ditches where needed, cleaning or enlarging catch basins and outlets, replacing/installing new culverts, cleaning the entire barrel of all culverts, maintaining water dips (WDs), maintaining/constructing armored water dips (AWDs), spot rocking, road surfacing, seeding and mulching, and constructing barricades. Remove all down trees from roadways. All aggregate conforming to Section 900 (Gradation A) and 1200 (Gradation C-1) shall be from commercial quarries.

Roadside Brushing: This consists of road work to be performed on the road prior to its use. The work includes, but is not limited to: brushing 6 horizontal feet from the centerline of the ditch and 6 horizontal feet from the outside shoulder of the road prism, removing brush within 4' of the inlet and outlet of CMPs, removing brush, limbs, and trees along the roadway to improve sight distance. Vegetation to be cut and disposed of will generally be 6 inches in diameter at breast height or less. Disposal from roadside brushing shall be lop and scatter unless otherwise noted in this worklist. Debris shall not be allowed to accumulate in concentrations, but shall be further reduced or removed. Concentrations will be defined as any debris, limbs or branches touching each other or piled on top of each other or any material sticking up over 2 feet in elevation above the ground. Cut trees or debris shall not be allowed to stand or lean against other standing uncut trees or brush. Such "hang ups" shall be removed and scattered down slope. Debris shall be cut so that the length of limbs, downed pole, hardwoods, or brush does not exceed eight feet. Brush shall be cut to meet regular specifications in Section 2100. While roadside brushing, there shall be no scarring or any other damage of the tree trunk or bole allowed. Use of Excavators for brush removal will be at the discretion of the Authorized Officer.

Roadside Vegetation Maintenance: This work also includes removing merchantable and non-merchantable trees 6 horizontal feet from the centerline of the ditch and 6 horizontal feet from the outside shoulder of the road prism as designated in the work list and on Exhibit C-3 (Roadside Vegetation Management Maps). Vegetation to be cut and disposed of will be from 6 inches diameter at breast height up to approximately 28 inches diameter at breast height. All roadside vegetation maintenance sections shall be posted, flagged, and staked with beginning and ending mileposts. Merchantable trees in sections outside of timber sale units are marked with blue paint. All merchantable roadside trees within timber sale units shall be cut unless painted orange or pink (reserve trees). All stumps that may hinder road maintenance operations including road blading operations and snow plowing shall be removed. Any damage that occurs to the road shall be repaired and re-compacted. Any loose soil that remains on site shall be re-compacted or disposed of at areas designated by the Authorized Officer. All disturbed areas shall be seeded and mulched. Any stumps that will not hinder road maintenance operations can be left. All remaining brush and limbs from tree removal operations shall be either chipped, piled in locations designated by the Authorized Officer, or lopped and scattered below the road in accordance with clearing and grubbing methods and/or roadside brushing disposal methods in Exhibit C-22 (Ranchero Road Specifications, Sections 200 and 2100).

Jct. – Junction	CY – Cubic Yards
AWD – Armored Water Dip	WD – Water Dip
CMP – Corrugated Metal Pipe	ASC – Aggregate Surface Course
PRR – Pit Run Rock	BST – Bituminous Surface Treatment
GRR – Grid Rolled Rock	NAT – Natural Surface Roads
DO – Ditch Out	WB – Water Bar
PVT - Private	

Road 34-3E-25.00 (Titanic Creek)

Segment A1 (BLM) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-03.00. Begin road renovation, roadside brushing, and roadside vegetation maintenance.

0.02 Existing mega gate.

0.08 End roadside vegetation maintenance.

0.22 Begin roadside vegetation maintenance.

0.30 Jct. w/ 34-3E-25.04 right. End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 34-3E-25.02 (Titanic Creek)

(BLM) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-03.00. Begin road renovation, roadside brushing, and roadside vegetation maintenance.

0.40 End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 34-3E-25.04 (Titanic Creek)

(BLM) ASC

M.P. Remarks

0.00 Jct. w/ 34-3E-25.00. Begin road renovation, roadside brushing, and roadside vegetation maintenance.

0.19 Jct. w/ 34-3E-25.05 left.

0.36 End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 34-3E-25.05 (Titanic Creek)

(BLM) ASC

M.P. Remarks

0.00 Jct. w/ 34-3E-25.04. Begin road renovation and roadside brushing.

0.08 End road renovation and roadside brushing.

Road 34-3E-33.00 (Friese Creek)

Segment A (Private) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-07.00. Begin road renovation and roadside brushing.

0.13 Property line (into BLM). End segment A.

Segment B (BLM) ASC

MP **Remarks**

- 0.13 Begin roadside vegetation maintenance.
- 0.21 Property line (into private). End segment B. End roadside vegetation maintenance.

Segment C (Private) ASC

MP **Remarks**

- 0.23 Jct. w/ private road right.
- 0.45 Jct. w/ private road right.
- 0.47 Property line (into BLM). End segment C.

Segment D1 (BLM) ASC

MP **Remarks**

- 0.84 Begin roadside vegetation maintenance.
- 0.95 Jct. w/ 34-3E-29.00 left and right. End Segment D1.

Segment D2 (BLM) NAT

MP **Remarks**

- 0.95 Begin chipping.
- 0.98 Existing mega gate.
- 1.14 End roadside vegetation maintenance.
- 1.22 Begin roadside vegetation maintenance.
- 1.35 Jct. w/ 34-3E-33.01 right. End road renovation, roadside brushing, chipping, and roadside vegetation maintenance.

Road 34-3E-33.01 (Friese Creek R/W)
(BLM) NAT

M.P. **Remarks**

- 0.00 Jct. w/ 34-3E-33.00. Begin road renovation and scarification of ruts, roadside brushing, chipping, and roadside vegetation maintenance.
- 0.06 End roadside vegetation maintenance.
- 0.10 Begin roadside vegetation maintenance.
- 0.19 Jct. w/ Jeep Road right.
- 0.35 Construct temp road 34-1 left. End road renovation, roadside brushing, chipping, and roadside vegetation maintenance.

Road 34-3E-35.00 (East) (Rancheria Spur)
Segment B1 (BLM) ASC

M.P. **Remarks**

- 0.00 Jct. w/ 34-3E-35.05. Begin road improvement including clearing, grubbing, scarification, and excavation. Berms on both sides of the existing road shall be pulled back in to create a 16' wide subgrade with ditches on both sides. Water from ditches shall be shed across the road at designated armored water dips. Begin surfacing 14' wide with a 12" compacted depth using gradation A from Table 903 in Exhibit C-22.
- 0.06 Construct armored water dip that drains right. Construct lead out ditch if necessary.
- 0.12 Construct armored water dip that drains right. Construct lead out ditch if necessary.
- 0.25 Construct armored water dip that drains right. Construct lead out ditch if necessary.
- 0.32 Construct 50' x 50' landing. Rock landing. Construct drainage ditches around landing.

Road 34-3E-35.00 (West) (Rancheria Spur)
Segment B2 (BLM) NAT

M.P. Remarks

- 0.00 Jct. w/ 34-3E-35.02. Begin road renovation, roadside brushing, and roadside vegetation maintenance.
- 0.09 Property line (into private). **Construct earth barricade.** End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 34-3E-35.02
Segment A (BLM) ASC

M.P. Remarks

- 0.00 Jct. w/ 35-3E-03.00. Begin road renovation and roadside brushing. Begin surfacing 14' wide with a 4" compacted depth using gradation C-1 from Table 1204 in Exhibit C-22. Surface two turnouts approximately 50' in length and 10' in width.
- 0.03 Existing mega gate.
- 0.07 Jct. w/ 34-3E-35.03 left. Begin roadside vegetation maintenance.
- 0.68 End segment A. End surfacing with 1.5" minus.

Segment B (BLM) NAT

MP Remarks

- 0.68 Begin surfacing 14' wide with an 8" compacted depth using gradation A from Table 903 in Exhibit C-22.
- 0.81 Jct. w/ 34-3E-35.00 left and right. End road renovation, roadside brushing, roadside vegetation maintenance, and surfacing.

Road 34-3E-35.03 (Section 35 Spur 3)
(BLM) NAT

M.P. Remarks

- 0.00 Jct. w/ 34-3E-35.02. Begin road renovation and roadside brushing.
- 0.10 End road renovation and roadside brushing.

Road 34-3E-35.05 (Rancheria Ridge Lower Spur)
(BLM) ASC

Sta Remarks

- 0+00 Jct. w/ 34-3E-35.02. Begin new construction. See Exhibit C-17 for plan, profile, and specifications. Begin surfacing 15' wide with a 12" compacted depth using gradation A from Table 903 in Exhibit C-22.
- 1+45 Jct. w/ 34-3E-35.00 left and right.
- 4+00 Construct 50' x 12' turnout right with 25' tapers.
- 10+35 Install new 18" x 32' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
- 11+93 Construct 50' x 22' turnout right with 25' tapers.
- 17+59 Construct 50' x 12' turnout right with 25' tapers.
- 19+78 Install new 18" x 28' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
- 22+35 Construct 20' x 30' truck turn around with 20' tapers.

23+55 Construct 50' x 50' landing with 25' tapers coming into landing.
24+57 End new construction.

Road 34-3E-35.06 (Rancheria Ridge Upper Spur)
(BLM) ASC

<u>Sta</u>	<u>Remarks</u>
0+00	Jct. w/ 34-3E-35.00. Begin new construction. See Exhibit C-18 for plan, profile, and specifications. Begin surfacing 15' wide with an 8" compacted depth using gradation A from Table 903 in Exhibit C-22. Place surface course surfacing 14' wide with a 4" compacted depth using gradation C-1 from Table 1204 in Exhibit C-22 on top of 4" minus base.
1+75	Construct 50' x 12' turnout left with 25' tapers.
3+73	Install new 18" x 30' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
9+00	Construct 50' x 12' turnout left with 25' tapers.
11+50	Construct 20' x 30' truck turn around right with 20' tapers.
13+85	Construct 45' x 48' landing with 25' tapers coming into landing.
14+56	End new construction.

Road 35-3E-01.00 (Rancheria Sp)
(BLM) ASC

<u>M.P.</u>	<u>Remarks</u>
0.00	Jct. w/ FS 32. Begin road renovation and scarification of ruts, roadside brushing, and roadside vegetation maintenance. Begin surfacing 14' wide with an 8" compacted depth using gradation A from Table 903 in Exhibit C-22. Surface six turnouts approximately 50' in length and 10' in width.
0.42	End roadside vegetation maintenance.
0.43	Replace existing 12" cross drain culvert with an 18" x 36' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
0.73	Install new 24" x 32' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
0.76	Begin roadside vegetation maintenance.
0.89	Replace existing 12" cross drain culvert with an 18" x 36' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
1.21	Property line (into private). End roadside vegetation maintenance.
1.24	Property line (into BLM). Begin roadside vegetation maintenance.
1.40	End road renovation and scarification of ruts, roadside brushing, roadside vegetation maintenance, and surfacing.

Road 35-3E-02.00
Segment A (Private) ASC

<u>M.P.</u>	<u>Remarks</u>
0.00	Jct. w/ FS 32. Begin road renovation, roadside brushing, and chipping.

0.29 Jct. w/ private road right. Begin surfacing 14' wide with an 8" compacted depth using gradation A from Table 903 in Exhibit C-22. Surface three turnouts approximately 50' in length and 10' in width.

0.34 Property line (into BLM). End segment A.

Segment B (BLM) NAT

MP Remarks

0.34 Begin scarification of ruts. Begin roadside vegetation maintenance.

0.40 Construct armored water dip.

0.50 Construct armored water dip.

0.66 Construct armored water dip.

0.78 End roadside vegetation maintenance.

0.86 End road renovation and scarification of ruts, roadside brushing and chipping, and surfacing.

Road 35-3E-03.00 (Titanic Creek)

Segment A1 (BLM) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-03.00. Begin road renovation and roadside brushing. Cap culvert replacements with 20 cubic yards of crushed aggregate gradation C-1 from Table 1204 from a commercial source.

0.06 Replace existing 18" draw culvert with a 30" x 40' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).

0.07 Property line (into BLM).

0.10 Replace existing 18" draw culvert with a 30" x 42' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).

0.15 Existing BLM quarry left (depleted).

0.28 Replace existing 18" cross drain culvert with a 24" x 32' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).

0.41 Replace existing 18" cross drain culvert with an 18" x 32' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).

0.46 Jct. w/ un-numbered road right.

0.55 Replace existing 18" cross drain culvert with an 18" x 32' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).

0.73 Replace existing 18" cross drain culvert with an 18" x 36' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).

0.81 Property line (into private).

0.85 Replace existing 18" cross drain culvert with an 18" x 36' CMP with a splash pad. Culvert installation shall be a Type 2 (refer to Culvert Installation Details Sheet for installation type).

- 1.02 Jct. w/ private road left.
- 1.03 Replace existing 24" draw culvert with a 36" x 60' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
- 1.06 Jct. w/ private road right.
- 1.13 Property line (into BLM). End segment A1.

Segment A2 (BLM) ASC

MP Remarks

- 1.13 Begin roadside vegetation maintenance.
- 1.18 Replace existing 18" cross drain culvert with an 18" x 34' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
- 1.49 Replace existing 18" cross drain culvert with an 18" x 36' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
- 1.58 Jct. w/ 34-3E-35.02 left.
- 1.61 End roadside vegetation maintenance.
- 1.65 Replace existing 18" draw culvert with a 30" x 50' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
- 1.84 Property line (into private). End segment A2.

Segment B1 (BLM) ASC

MP Remarks

- 1.89 Jct. w/ 34-3E-35.00 left.
- 2.16 Jct. w/ private road right.
- 2.20 Replace existing 18" draw culvert with a 24" x 34' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
- 2.33 Replace existing 18" cross drain culvert with a 24" x 32' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
- 2.37 Property line (into BLM).

Segment B2 (BLM) ASC

MP Remarks

- 2.54 Replace existing 18" draw culvert with a 24" x 42' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
- 2.55 Begin roadside vegetation maintenance.
- 2.81 Jct. w/ 34-3E-25.00 right.
- 2.90 Replace existing 18" cross drain culvert with an 18" x 32' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).
- 2.92 Jct. w/ 34-3E-26.02 left.
- 2.96 Jct. w/ 34-3E-26.02 left.
- 3.08 Jct. w/ 34-3E-25.01 left.

3.35 Replace existing 18" cross drain culvert with an 18" x 36' CMP with a splash pad. Culvert installation shall be a Type 3 (refer to Culvert Installation Details Sheet for installation type).

3.37 Jct. w/ 34-3E-25.02 left. End segment B2.

Segment C (BLM) NAT

MP Remarks

3.37 Remove all large water bars and recompact.

3.42 Remove earth barricade. Re-establish after use.

3.97 End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 35-3E-03.05 (Rancheria Section 3 Spur)

(BLM) NAT

M.P. Remarks

0.00 Jct. w/ 35-3E-10.00. Begin road renovation, roadside brushing, and roadside vegetation maintenance.

0.19 End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 35-3E-07.00 (Medco Railroad Grade N)

Segment A1 (Private) ASC

M.P. Remarks

0.00 Jct. w/ Rancheria Road (County). Begin road renovation and roadside brushing.

0.07 Jct. w/ private road right.

0.12 Jct. w/ private road left.

0.42 End segment A1.

Segment A2 (Private) ASC

MP Remarks

0.45 Jct. w/ private road right.

0.54 Property line (into BLM). End segment A2.

Segment A3 (BLM) ASC

MP Remarks

0.60 Existing cattle guard.

0.61 Begin roadside vegetation maintenance.

0.71 Jct. w/ old railroad grade left. End segment A3.

Segment B (BLM) ASC

MP Remarks

1.06 Jct. w/ 35-3E-05.00 right.

1.14 End roadside vegetation maintenance.

1.18 Begin roadside vegetation maintenance.

1.35 Jct. w/ 35-3E-05.02 right.

1.48 End roadside vegetation maintenance.

1.53 Jct. w/ old railroad grade left. End segment B.

Segment C (BLM) ASC

MP Remarks

1.53 Begin scarifying potholes.

2.09 Property line (into private). End segment C.

Segment D (Private) ASC

MP Remarks

2.37 Jct. w/ 34-3E-33.00 right. End road renovation, scarifying potholes, and roadside brushing.

Road 35-3E-10.00 (Rancheria Road)

Segment A (Private) ASC

M.P. Remarks

0.00 Jct. w/ FS 32. Begin road renovation and roadside brushing.

0.94 Jct. w/ 35-3E-03.00 right. End segment A.

Segment B (Private) ASC

MP Remarks

1.28 Jct. w/ private roads left and right.

1.47 Jct. w/ private road left.

1.64 Property line (into BLM). End segment B.

Segment C (BLM) ASC

MP Remarks

1.65 Jct. w/ 34-3E-29.00 left. Begin roadside vegetation maintenance.

1.68 Jct. w/ 34-3E-29.00 left.

1.77 Jct. w/ 35-3E-03.05 left. End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 35-3E-10.01 (Mud Springs Road)

Segment A (Forest Service) ASC

M.P. Remarks

0.00 Jct. w/ FS 32. Begin road renovation, scarifying potholes, and roadside brushing.

0.11 Jct. w/ private road right.

0.14 Bridge.

0.19 Jct. w/ 35-3E-10.04 left.

0.23 Jct. w. 35-3E-15.00 right.

0.24 Property line (into BLM). End scarifying potholes.

Segment B (BLM) ASC

MP Remarks

0.49 Property line (into private). End segment B.

Segment C (Forest Service) ASC

MP Remarks

0.91 Jct. w/ 35-3E-14.00 right. End segment C.

Segment D (Private) ASC

MP Remarks

1.33 Property line (into BLM). End segment D.

Segment E (BLM) ASC

MP Remarks

1.60 Property line (into private). End segment E.

Segment F (Private) ASC

MP Remarks

1.86 Jct. w/ 35-3E-14.01 left. End road renovation and roadside brushing.

Road 35-3E-10.04 (Concrete Bridge Road)
(Private) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-10.00. Begin road renovation, roadside brushing, and chipping.
0.78 Jct. w/ 35-3E-11.02 right. End road renovation, roadside brushing, and chipping.

Road 35-3E-11.00 (Twincheria R/W)
Segment A (Private) ASC

M.P. Remarks

0.00 Jct. w/ FS 32. Begin road renovation, roadside brushing, and roadside vegetation maintenance.
0.09 End roadside vegetation maintenance.
0.13 Jct. w/ 35-3E-11.01 right. End road renovation and roadside brushing.

Road 35-3E-11.01 (Fireline Road Sp)
(BLM) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-11.00. Begin road renovation and roadside brushing.
0.09 Begin roadside vegetation maintenance.
0.32 Begin temporary road 11-3 construction. End road renovation, roadside brushing, and roadside vegetation maintenance.

Road 35-3E-11.02
Segment A1 (Private) ASC

M.P. Remarks

0.00 Jct. w/ 35-3E-10.04. Begin road renovation, roadside brushing, and chipping.
0.31 End segment A1.

Segment A2 (Private) NAT

MP Remarks

0.31 Begin scarifying.
0.46 Property line (into BLM). End scarifying. End segment A2.

Segment B (BLM) NAT

MP Remarks

0.49 End road renovation, roadside brushing, and chipping.

Road 35-3E-11.04 (Twincheria Sec 11 Spur)
Segment A (Private) ASC

M.P. Remarks

0.00 Jct. w/ FS 32. Begin road renovation and roadside brushing.
0.04 Begin scarifying. Begin surfacing 14' wide with an 8" compacted depth using gradation A from Table 903 in Exhibit C-22. Surface two turnouts approximately 50' in length and 10' in width.
0.19 Property line (into BLM). End scarifying. End segment A.

Segment B (BLM) NAT

MP Remarks

- 0.19 Remove earth barricade. Begin road improvement including brushing, clearing, grubbing, widening the existing road to a 16' subgrade, and straightening the existing road.
- 0.24 Jct. w/ 35-3E-11.05 left.
- 0.42 End road improvement, brushing, and surfacing.

Road 35-3E-11.05 (Twincheria Short Spur)

(BLM) NAT

M.P. Remarks

- 0.00 Jct. w/ 35-3E-11.04. Begin road improvement including brushing, clearing, grubbing, widening the existing road to a 16' subgrade, and straightening the existing road. Begin surfacing 14' wide with an 8" compacted depth using gradation A from Table 903 in Exhibit C-22. Surface one turnout approximately 50' in length and 10' in width.
- 0.17 End road improvement, brushing, and surfacing.

Road 35-3E-12.03 (Twincheria Lower Spur)

(BLM) ASC

Sta Remarks

- 0+00 Jct. w/ FS 3240. Begin new construction. See Exhibit C-19 for plan, profile, and specifications. Begin surfacing 15' wide with a 12" compacted depth using gradation A from Table 903 in Exhibit C-22.
- 2+14 Install new 24" x 28' CMP with a splash pad. Culvert installation shall be a Type 1 (refer to Culvert Installation Details Sheet for installation type).
- 3+60 Construct 115' x 10' turnout right with 25' tapers.
- 4+90 Jct. w/ 35-3E-12.04 left (To be constructed).
- 10+18 Construct 50' x 10' turnout right with 25' tapers.
- 15+37 Construct 50' x 12' turnout right with 25' tapers.
- 21+07 Construct 50' x 12' turnout right with 25' tapers.
- 24+05 Construct armored water dip.
- 25+71 Construct 75' x 12' turnout right with 25' tapers.
- 32+25 Construct armored water dip.
- 33+47 Construct 50' x 22' turnout right with 25' tapers.
- 33+72 Construct truck turn around left with 10' tapers.
- 40+13 Construct 50' x 50' landing with 25' tapers coming into landing.
- 41+03 End new construction.

Road 35-3E-12.04 (Twincheria Upper Spur)

(BLM) ASC

Sta Remarks

- 0+00 Jct. w/ 35-3E-12.03. Begin new construction. See Exhibit C-20 for plan, profile, and specifications. Begin surfacing 15' wide with a 12" compacted depth using gradation A from Table 903 in Exhibit C-22.
- 7+15 Construct 55' x 14' turnout right with 25' tapers.

- 14+40 Construct armored water dip.
- 14+94 Construct 50' x 12' turnout right with 25' tapers.
- 19+90 Construct 75' x 14' turnout with 25' tapers.
- 24+90 Construct 20' x 30' truck turn around with 20' tapers.
- 28+44 Construct 50' x 50' landing with 25' tapers coming into landing.
- 29+20 End new construction.

Road 35-3E-14.01 (Medco R/W)

Segment A1 (Private) ASC

M.P. Remarks

- 0.00 Jct. w/ 35-3E-10.01. Begin road renovation and roadside brushing.
- 0.06 Property line (into private) End segment A1.

Segment A2 (Private) NAT

MP Remarks

- 0.70 Jct. w/ private road left. End segment A2.

Segment B (Private) NAT

MP Remarks

- 1.21 Jct. w/ 35-3E-12.01 left. End segment B.

Segment C (Private) NAT

MP Remarks

- 1.85 Construct temporary road 1-3 left.
- 1.95 Existing landing left. End road renovation and brushing.

FS 32 (Rancheria – Fireline Road)

(Forest Service) ASC

M.P. Remarks

- 0.00 Jct. w/ Rancheria Road (County). Begin road renovation and roadside brushing.
- 0.18 Jct. w/ private roads left and right.
- 0.44 Jct. w/ private road right and 35-3E-10.01 right.
- 0.65 Jct. w/ private road right.
- 0.68 Jct. w/ private road left.
- 0.80 Jct. w/ 35-3E-10.00 left.
- 0.89 Jct. w/ 35-3E-10.03 left.
- 1.20 Jct. w/ 35-3E-11.04 left.
- 1.73 Property line (into BLM).
- 1.93 Jct. w/ 35-3E-11.00 right.
- 1.98 Property line (into private).
- 2.01 Jct. w/ private road right.
- 2.14 Jct. w/ private roads left and right.
- 2.25 Property line (into BLM).
- 2.36 Jct. w/ private road right.
- 2.54 Jct. w/ private road right.
- 2.71 Property line (into private).
- 2.75 Jct. w/ private road right.
- 2.90 Jct. w/ private road right.

- 2.92 Jct. w/ 35-3E-02.00 left.
- 3.19 Jct. w/ private road right.
- 3.41 Property line (into BLM).
- 3.43 Jct. w/ 35-3E-01.00 right.
- 3.78 Jct. w/ un-numbered road right.
- 4.00 Jct. w/ FS 3240 right. End road renovation and roadside brushing.

FS 3240 (Twincheria Road)
(Forest Service) ASC

M.P. Remarks

- 0.00 Jct. w/ FS32. Begin road renovation and roadside brushing. Scarify potholes.
- 0.76 Jct. w/ FS 3240-100 left.
- 0.78 Property line (into private).
- 1.07 Property line (into BLM).
- 1.26 Construct 35-3E-12.03 right.
- 1.30 Property line (into Forest Service). Cattle guard. End road renovation, scarifying, and roadside brushing.

FS 3240-100
(Forest Service) ASC

M.P. Remarks

- 0.00 Jct. w/ FS3240. Begin road renovation and roadside brushing.
- 0.21 Property line (into Forest Service). End road renovation and roadside brushing.

Temp Road 34-1 (T34S, R03E, Section 34)
(BLM) NAT

Sta Remarks

- 0+00 Jct. w/ 34-3E-33.01. Begin cut and fill construction for a 14' wide outsloped temporary road.
- 5+34 Construct landing. End temporary route construction.

Temp Road 1-3 (T35S, R03E, Section 1)
(BLM) NAT

Sta Remarks

- 0+00 Jct. w/ 35-3E-14.01. Begin cut and fill construction for a 14' wide outsloped temporary road.
- 11+73 Construct landing. End temporary route construction.

Temp Road 11-3 (T35S, R03E, Section 11)
(BLM) NAT

Sta Remarks

- 0+00 Jct. w/ 35-3E-11.01. Begin cut and fill construction for a 14' wide outsloped temporary road.
- 0+25 Remove earth barricade. Re-establish after use.
- 4+25 Construct landing. End temporary route construction.

TIMBER SALE ROAD SPECIFICATIONS

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GENERAL – 100

101 - Prewrite Conference(s):

A prework conference will be held prior to the start of new construction, improvement, renovation, surfacing, and seeding/mulching operations. The Purchaser shall request the conference at least 72 hours prior to the time it is to be held. The conference will be attended by the Purchaser and/or his representative(s), subcontractor(s) and/or his or their representative(s) and the Authorized Officer and/or his representative(s).

The purpose of the prework conference will be to review the required work, exhibits and specifications, and to establish a work schedule and a list of the Purchaser's representatives and subcontractor(s).

102 - Definitions:

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

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

ACI - American Concrete Institute

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

ASTM - American Society for Testing and Materials.

Base Course - Surfacing structure consisting of crushed gravel or stone, crushed sandstone, 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Road Centerline - The longitudinal center of a roadbed.

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

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

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

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

Scarification - The process of loosening or breaking up of the surface layer of

soil or road, usually to a specified depth.

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

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

Spalls - Flakes or chips of stone.

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

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

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

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

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

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

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

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

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

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

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

exclusive of shoulders.

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

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

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

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

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

*102a - Tests Used in These Specifications:

- | | |
|--------------------|--|
| <u>AASHTO T 11</u> | Quantity of rock finer than No. 200 sieve. |
| <u>AASHTO T 27</u> | Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation. |
| <u>AASHTO T 89</u> | 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 density of soil.
Method A - 4" mold, soil passing a No. 4 sieve 25 blows/layer & 3 layers.
Method C - 4" mold, soil passing a 3/4 inch sieve 25 blows/layer & 3 layers. |

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

- AASHTO T 119 Slump of hydraulic cement concrete.
 - AASHTO T 152 Air content of freshly mixed concrete.
 - AASHTO T 166 Specific Gravity of compacted Bituminous Mixtures.
 - AASHTO T 176 Shows relative portions of fine dust or claylike materials in soil or graded aggregate.
 - AASHTO T 180 (OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop height.
 - AASHTO T 191 Sand Cone. Density of soil in place: For subgrade use 6-inch or 12- inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.
 - AASHTO T 205 Rubber balloon. Density of soil in place. Use for compacted or firmly bonded soil.
 - AASHTO T 209 Maximum Specific Gravity of Bituminous Paving Mixtures.
 - AASHTO T 210 Durability of aggregates based on resistance to produce fines.
 - AASHTO T 224 Correction for coarse particles in the soil.
 - AASHTO T 238 Density of Soil and Soil-Aggregate in place by nuclear methods.
 - AASHTO T 248 Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
 - ASTM D 4564 Determination of relative density of cohesionless soils.
 - DMSO (dimethyl sulfide) Determines volume of expanding clays in aggregates. Usually associated with marine basalts.
- 103 - Compaction equipment shall meet the following requirements:
- 103b - Sheepfoot and Tamping rollers. A tamping roller unit shall consist of two watertight metal drums mounted in frames in such manner as to be fully oscillating, together with a tractor having sufficient weight and power under actual working

conditions to pull the roller drums at a minimum speed of 2.5 miles per hour. The drums shall be no less than 60 inches in diameter and no less than 54 inches in length, measured at the drum's surface, and shall be studded with tamping feet projecting not less than 7 inches from the face of the drums.

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

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

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

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

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

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

CLEARING AND GRUBBING - 200

- 201 - This work shall consist of clearing, grubbing, removing and disposing of vegetation, debris, surface objects, and protruding obstructions within the clearing limits in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans and as staked on the ground.
- 202 - Where clearing limits have not been staked, established by these specifications or shown on the plans, the limits shall extend 10 feet back of the top of the cut slope and 5 feet out from the toe of the fill slope.
- 203 - Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsections 202, as shown on the plans, as staked on the ground, and as posted.
- 203b - Standing trees and snags to be cleared shall be felled within the limits established for clearing unless otherwise authorized.
- 204 - Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground and protruding obstacles remaining as a result of the clearing operation (in accordance with Subsections 204a, 204b, 204c, 204d, and 204e between the top of the cut slope and the toe of the fill slope.
- 204a - Stumps including those overhanging cut banks, shall be removed within the required excavation limits.
- 204b - Stumps and other protruding objects shall be completely removed within the limits of required embankments having heights of less than 4 feet.
- 204c - On excavated areas, roots and embedded wood shall be removed to a depth not less than 6 inches below the subgrade.
- 204d - On areas to be occupied by embankments having heights greater than 4 feet, no stump or portion thereof shall remain within 3 feet of embankment subgrades or slope surfaces after grubbing is completed.
- 204e - Roots and embedded wood material shall be removed to a depth not less than 1 foot below embankment subgrades or slope surfaces.

- 205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections.
- 206 - Clearing and grubbing debris shall be disposed of by chipping in accordance with Subsection 209, and/or scattering in accordance with Subsection 210, and/or piling in accordance with Subsection 211 and at the following road locations.

Road No.	From M.P./Sta	To M.P./Sta	Activity Type	Disposal Method
34-3E-25.00	0.00	0.08	Rdside Veg. Maint.	Scatter and/or Pile
	0.22	0.30	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-25.02	0.00	0.40	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-25.04	0.00	0.36	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-33.00 B	0.13	0.21	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-33.00 D1-D2	0.84	1.14	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-33.01	0.00	0.06	Rdside Veg. Maint.	Scatter and/or Pile
	0.10	0.35	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-35.00 (East)	0.00	0.32	Road Improvement	Pile
34-3E-35.00 (West)	0.00	0.09	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-35.02 A-B	0.00	0.81	Rdside Veg. Maint.	Scatter and/or Pile
34-3E-35.05	0+00	24+57	Road Construction	Pile
34-3E-35.06	0+00	14+56	Road Construction	Pile
35-3E-01.00	0.00	0.42	Rdside Veg. Maint.	Scatter and/or Pile
	0.76	1.21	Rdside Veg. Maint.	Scatter and/or Pile
	1.24	1.40	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-02.00 B	0.34	0.78	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-03.00 A2-C	1.13	1.61	Rdside Veg. Maint.	Scatter and/or Pile
	2.55	3.97	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-03.05	0.00	0.19	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-07.00 A3-B	0.61	1.14	Rdside Veg. Maint.	Scatter and/or Pile
	1.18	1.48	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-10.00 C	1.65	1.77	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-11.00 A	0.00	0.09	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-11.01	0.09	0.32	Rdside Veg. Maint.	Scatter and/or Pile
35-3E-11.04 B	0.19	0.42	Road Improvement	Pile
35-3E-11.05	0.00	0.17	Road Improvement	Pile
35-3E-12.03	0+00	41+03	Road Construction	Pile
35-3E-12.04	0+00	29+20	Road Construction	Pile
Temp Road 34-1	0+00	5+34	Road Construction	Pile
Temp Road 1-3	0+00	11+73	Road Construction	Pile
Temp Road 11-3	0+00	4+25	Road Construction	Pile

- 208b - Trees, firm logs, and other firm large pieces, 4 inches in diameter and 8 feet in length and larger and not removed from the contract area by the Purchaser, shall be piled at locations determined by the Authorized Officer.

- 208c - Clearing debris shall be placed outside the roadway in a neat, compacted windrow laid approximately parallel and along the toe-line of embankment slopes. The top of the windrow shall not extend above the subgrade. Material in the windrow shall be matted down with construction equipment to form a compact and uniform pile. Windrows shall have 16-foot minimum breaks at least every 150 feet. Windrows shall not be placed against trees. A pioneer road may be constructed to provide an area for placement of windrows provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.
- 209a - Clearing and grubbing debris shall be reduced to chips (if chipped) having a maximum thickness of 2 inches and faces not exceeding 6 square inches on an individual surface. Chips can be used as a mulch and be produced and stockpiled at locations that will not interfere with construction, and ultimately spread over designated portions of embankments and cut slopes in layers not to exceed 3 inches in loose thickness.
- 210 - Disposal of clearing and grubbing debris or stumps and cull logs shall be by scattering over government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer. The areas for such scattering shall have the prior approval of the Authorized Officer.
- 210a - Disposal of clearing and grubbing debris stumps and cull logs on non- government property by piling this material outside of clearing limits will be permitted provided the Purchaser obtains a written permit from the property owner on whose property the disposal is to be made. The Purchaser shall furnish the Authorized Officer a certified copy of the permit and a written release from the property owner absolving the Government from responsibilities in connection with the disposal of debris on said property.
- 211 - Disposal of clearing and grubbing debris or stumps and cull logs shall be by piling on government lands outside of established clearing limits in an area and in a manner acceptable to the Authorized Officer.
- 212 - No grading will be permitted prior to completion and approval by the Authorized Officer of the required clearing and grubbing work, except that stump grubbing may proceed with the excavation of the road prism.
- 213 - No clearing or grubbing debris shall be left lodged against standing trees.

EXCAVATION AND EMBANKMENT - 300

- 301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, insloping, outsloping, crowning and scarification of the subgrade, compaction, disposal of excess and

unsuitable materials, and other earth-moving work in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

- 302 - Excavation shall also consist of the excavation of road and landing cut sections, borrow sites, backfilling, leveling, ditching, grading, compaction, and other earth moving work necessary for the construction of the roadway in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes or metal tags.
- 303 - Suitable material removed from the excavation shall be used in the formation of embankment subgrade, shoulders, slopes, bedding, backfill for structures, and for other purposes as shown on the plans.
- 304 - Borrow shall consist of suitable material required for the construction of embankments or for other portions of the work; such material shall be obtained from sources selected by the Purchaser at his option and approved by the Authorized Officer.
- 305 - Embankment construction shall consist of the placement of excavated and borrowed materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the roadway and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes.
- 305a - Material used in the construction of embankment sections shall be free of stumps, cull logs, brush, muck, sod, roots, frozen material, and other deleterious materials and shall be placed and compacted as specified.
- 305b - Embankment materials shall be placed in successive parallel layers on areas cleared of stumps, cull logs, brush, sod, and other vegetative and deleterious materials, except as provided under Subsection 204. Roadway embankments of earth material shall be placed in horizontal layers not exceeding 8 inches in depth.
- 305c - Embankments formed of material containing less than 25 percent rock not larger than 8 inches in the greatest dimension shall be placed in 12-inch layers. Material containing more than 25 percent rock not larger than 12 inches in the greatest dimension shall be placed in successive layers not exceeding 2 feet in thickness.
- 306 - Layers of embankment, final subgrade, and selected roadway excavation material as specified under Subsections 305a, 305b, and 317 shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements

of Subsections 103b, 103f, 103g, 103h, and 103i and in accordance with the following table:

Road No.	From Sta./M/P.	To Sta./M.P.	Subsection 306
34-3E-35.00 (East)	0.00	0.32	306 e
34-3E-35.05	0+00	24+57	306 a
34-3E-35.06	0+00	14+56	306 a
35-3E-11.04	0.19	0.42	306 e
35-3E-11.05	0.00	0.17	306 e
35-3E-12.03	0+00	41+03	306 a
35-3E-12.04	0+00	29+20	306 a
Temp Road 34-1	0+00	5+34	306 f
Temp Road 1-3	0+00	11+73	306 f
Temp Road 11-3	0+00	4+25	306 f

- 306a - Minimum compaction for each layer of embankment, selected borrow, and selected roadway excavation material placed at optimum moisture shall be 1 hour of continuous compacting for each 150 cubic yards in place or fraction thereof.
- 306e - The final subgrade except landings and temporary roads shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103b, 103f, 103g, 103h, and 103i. Minimum compaction shall be 1 hour of continuous compacting for each 8 stations of road or a fraction of as measured along the center line of the constructed road. Landings and temporary roads shall be compacted by routing construction equipment over full width.
- 306f - Compaction of embankment layers placed as specified under Subsection 305b above shall be accomplished by routing construction equipment over full width of embankment structures except as specified in Subsection 306.
- 306g - All fill slopes shall be compacted to 75 percent of maximum density, either by walking with cat/excavator or by pressing with excavator bucket, to prevent surface erosion and raveling.
- 308 - In the case of rock fills, placement of material in layers is not required and such material may be placed by end-dumping or other methods approved by the Authorized Officer provided that the rock be reasonably prevented from escaping beyond the embankment toe.
- 309 - The top of cut slopes shall be rounded by blending into the adjacent terrain for a distance not less than 1 foot and not more than 3 feet beyond the top of the cut. Rounding shall be performed in soils that can be shaped without ripping or blasting.

- 311 - In solid rock cuts where pockets that will not drain are formed by blasting below the subgrade elevation, drainage shall be provided by ditching to the edge of the subgrade and backfilling to grade, and compacting the pockets and the ditch with rock fragments, gravel, or other suitable porous material.
- 312 - When material, except solid rock, encountered in cuts at subgrade, is suitable for use in forming the finished roadbed, the top 6-inch layer of the subgrade shall be thoroughly scarified for the full width of the roadbed. Roots, sod, and other deleterious material or stones that will not pass a 6-inch square opening shall be removed. The scarified material shall be processed to the optimum moisture content suitable for maximum density and compacted in accordance with these specifications.
- 313 - In cut areas where solid rock is encountered at, or near subgrade, the rock shall be excavated to a minimum depth of 6 inches below subgrade elevation and the excavated area backfilled with suitable material. The backfill material shall be processed to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.
- 314 - When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of 2 feet below the subgrade elevation and the excavated area backfilled with a selected borrow material approved by the Authorized Officer. The backfill material shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density in accordance with the requirements of Subsection 306. Unsuitable material shall be disposed of as directed by the Authorized Officer.
- 316 - Borrow material from sources selected at the Purchaser's option shall be inspected and approved in writing by the Authorized Officer prior to placement.
- 317 - Selected borrow shall consist of talus material, finely broken rock, gravel, or other material of granular or favorable characteristics from sources shown on the plans.
- 318 - Selected borrow or selected roadway excavation material shall be uniformly spread on the roadbed in lifts not to exceed 6 inches in depth until the required thickness shown on the plans is attained.

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

- 320 - Ditches shall conform to the slope, grade, dimensions, and shape of the required cross section shown on the plans. Roots, stumps, rocks, and other projections shall be removed to form smooth, even slopes.
- 323 - In the construction of channel changes and stream-crossing embankment sections,

- natural stream flow shall be maintained unless otherwise provided.
- 324 - Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of 1 foot on the uphill side.
 - 327 - The finished grading shall be approved in writing by the Authorized Officer in segments. The Purchaser shall give the Authorized Officer 3 days notice prior to final inspection of the grading operations and start of surfacing operations.
 - 328 - The Purchaser shall adopt methods and procedures in using explosives, which will prevent damage to adjacent landscape features, and which will minimize scattering rocks and other debris outside the road prism.

PIPE CULVERTS – 400

- 401 - This work shall consist of furnishing and installing pipe culverts and splash pads in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer upon completion of the roadbed and upon installation of the appurtenance structures. Additional pipe and splash pads may be required at the option of the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost of furnishing and installing such items. Costs will be based upon the unit prices set forth in the current BLM Timber Appraisal Production Cost Schedule.
- 403 - Grade culverts shall have a gradient of from 2 percent to 4 percent greater than the adjacent road grade. Grade culverts shall be skewed down grade 30 degrees as measured from the perpendicular to the centerline unless otherwise specified on the plans.
- 404 - Damage to the spelter, or burn back in excess of 3/8 inch, shall be wire brushed and painted with two coats of zinc-rich paint on zinc-coated, steel pipe and aluminum-rich paint on aluminum or aluminum-coated pipe.
- 405a - Corrugated-**aluminized** steel-welded pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218, AASHTO M 274, or AASHTO M 289 as specified on the plans.
- 406 - Coupling bands shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 with the exception of band widths and the "Hugger"-type band which shall conform to the details, dimensions, and typical diagram shown on the plans.

- 406a - "Hugger"-type coupling bands shall only be used with annular corrugated pipe and pipe-arch culverts, or helically corrugated pipe and pipe-arch culverts having annular reformed ends. Annular reformed ends shall consist of two annular corrugations.
- 407 - Special sections, such as elbows, branch connections, and flared-end sections, shall be **aluminized** and of the same gauge as the pipe to which they are joined, and shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274.
- 408 - Pipe culverts and pipe-arch culverts shall be placed on the bed starting at the downstream end with the inside circumferential laps pointing downstream and with the longitudinal laps at the side or quarter points. Coupling bands of the type required under these specifications shall be installed so as to provide the circumferential and longitudinal strength necessary to preserve the pipe alignment, prevent separation of the pipe sections, and minimize infiltration of fill material.
- 410 - Pipe shall be unloaded and handled with reasonable care. If the Authorized Officer determines any structure is damaged to the extent that it is unsuitable for use in the road construction, it shall be replaced at the Purchaser's expense.
- 411 - Trenches necessary for the installation of pipe culverts shall conform to the lines, grades, dimensions, and typical diagram included in the plans and Exhibit C-11 (Culvert Installation Detail Sheet).
- 412 - Where ledge rock, boulders, soft, or spongy soils are encountered, they shall be excavated a minimum of 24 inches below the invert grade for a width of at least one pipe diameter or span on each side of the pipe and shall be backfilled with selected granular or fine readily compactable soil material or crushed rock material in accordance with Section 1200 gradation C.
- 413 - Pipe culverts and pipe-arch culverts shall be bedded on a selected granular, crushed rock material in accordance with Section 1200 gradation C, or fine readily compactable soil material having a depth of not less than 6 inches as shown on plans. Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.
- 416 - Side-fill material for pipe culverts at the following locations:

Road No.	M.P./Sta
34-3E-35.05	10+35
	19+78

34-3E-35.06	3+73
35-3E-01.00	0.43
	0.73
	0.89
35-3E-03.00	0.06
	0.10
	0.28
	0.41
	0.55
	0.73
	0.85
	1.03
	1.18
	1.49
	1.65
	2.20
	2.33
	2.54
	2.90
	3.35
35-3E-12.03	2+14

shall be placed within 1 pipe diameter, or a minimum of 2 feet, of the sides of the pipe barrel, and to 1 foot over the pipe with fine, readily compactable soil, crushed rock material in accordance with Section 1200 gradation C, or granular fill material free of excess moisture, muck, frozen material, roots, sod, or other deleterious or caustic material and devoid of rocks or stones of sizes which may impinge upon and damage the pipe or otherwise interfere with proper compaction.

417 - For pipe culverts at the following locations:

Road No.	M.P./Sta
34-3E-35.05	10+35
	19+78
34-3E-35.06	3+73
35-3E-01.00	0.43

	0.73
	0.89
35-3E-03.00	0.06
	0.10
	0.28
	0.41
	0.55
	0.73
	0.85
	1.03
	1.18
	1.49
	1.65
	2.20
	2.33
	2.54
	2.90
	3.35
35-3E-12.03	2+14

Side-fill material conforming to the requirements of Subsection 416 shall be placed and compacted under the haunches of the pipe, and shall be brought up evenly and simultaneously on both sides of the pipe to 1 foot above the pipe, in layers not exceeding 8 inches in depth and 1 pipe diameter/span, or a minimum of 1 feet in width each side of, and adjacent to, the full length of the pipe barrel. Each layer shall be moistened or dried to a uniform moisture content suitable for maximum compaction and immediately compacted by approved hand or pneumatic tampers.

- 418 - Side fills beyond the compaction limits specified under Subsection 417 shall be compacted as specified under Section 300.
- 419 - The pipe culverts after being bedded and backfilled as required by these specifications shall be protected by a 1.5-foot cover of fill before heavy equipment is permitted to cross the drainage structures. Removal of the protection fill shall be as directed by the Authorized Officer.
- 423 - Construction of catch basins and ditch dams conforming to lines, grades, dimensions and typical diagrams shown on the plans, shall be required for culverts at the following locations:

Road No.	M.P./Sta
34-3E-35.05	10+35
	19+78
34-3E-35.06	3+73
35-3E-12.03	2+14

- 424 - Construction of splash pads conforming to lines, grades, dimensions and typical diagram shown on the plans, shall be required for culverts at the following locations:

Road No.	M.P./Sta
34-3E-35.05	10+35
	19+78
34-3E-35.06	3+73
35-3E-01.00	0.43
	0.73
	0.89
35-3E-03.00	0.06
	0.10
	0.28
	0.41
	0.55
	0.73
	0.85
	1.03
	1.18
	1.49
	1.65
	2.20
	2.33
	2.54
	2.90
	3.35
35-3E-12.03	2+14

- 425 - Where pervious materials are used for backfill and bedding, collars consisting of selected impervious material shall be placed at the inlet and at various intervals along the pipe barrel as shown on the plans and as directed by the Authorized Officer.
- 427 - Record culvert sizes, lengths and location actually installed on a copy of the culvert list. This culvert list shall be furnished to the Authorized Officer.
- 428 - Remove and dispose of old culverts in a legal manner, and for any fees required. The Purchaser shall remove the old culverts from the work site prior to road acceptance.
- 429 - Keep the excavation site dewatered so that the installation of culverts is completed under dry conditions. Dispose of excess water by using pumping or natural drainage ways near the site. Provide for downstream waterflow with no more that 10% increase in natural stream turbidity due to transport of excavated material or sediment during construction. Diversion streams shall not be returned to the natural channel until all in-stream work has been completed.

RENOVATION AND IMPROVEMENT OF EXISTING ROADS - 500

- 501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, minor excavation and/or embankment, cleaning and shaping drainage ditches, trimming vegetation from cut and embankment slopes, and cleaning and repairing drainage structures of existing roads in accordance with these specifications, shown on the plans, and as marked on the ground with stakes.
- 502 - The existing road surface shall be scarified (where needed) to its full width and to a depth of 6 inches below ruts or potholes to eliminate surface irregularities and bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes at the following locations:

Road No.	From M.P.	To M.P.
34-3E-25.00	0.00	0.30
34-3E-25.02	0.00	0.40
34-3E-25.04	0.00	0.36
34-3E-25.05	0.00	0.08
34-3E-33.00 A-D2	0.00	1.35
34-3E-33.01	0.00	0.35
34-3E-35.00 (East)	0.00	0.32
34-3E-35.00 (West)	0.00	0.09
34-3E-35.02 A-B	0.00	0.81
34-3E-35.03	0.00	0.10

35-3E-01.00	0.00	1.40
35-3E-02.00 A-B	0.00	0.86
35-3E-03.00 A-C	0.00	3.97
35-3E-03.05	0.00	0.19
35-3E-07.00 A1-D	0.00	2.37
35-3E-10.00 A-C	0.00	1.77
35-3E-10.01 A-F	0.00	1.86
35-3E-10.04	0.00	0.78
35-3E-11.00 A	0.00	0.13
35-3E-11.01 A	0.00	0.32
35-3E-11.02 A1-B	0.00	0.49
35-3E-11.04 A-B	0.00	0.42
35-3E-11.05	0.00	0.17
34-3E-14.01 A1-C	0.00	1.95
FS 32	0.00	4.00
FS 3240	0.00	1.30
FS 3240-100	0.00	0.21

- 502a - Rocks larger than 4 inches in maximum dimension shall be removed from the scarified layers of the roadbed. Material so removed will not be permitted to remain on road shoulders or in ditches.
- 502b - Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.
- 504 - 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 Subsections 103f, 103g, 103h, and 103i and in accordance with Subsection 504a.
- 504a - Minimum compaction required shall be 1 hour of continuous rolling for each 5 stations of road, or fraction thereof, as measured along the centerline per layer of material.
- 506 - 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 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 - Existing and new drainage structures at the following locations:

Road No.	M.P./Sta
34-3E-35.05	10+35
	19+78
34-3E-35.06	3+73
35-3E-01.00	0.43
	0.73
	0.89
35-3E-03.00	0.06
	0.10
	0.28
	0.41
	0.55
	0.73
	0.85
	1.03
	1.18
	1.49
	1.65
	2.20
	2.33
	2.54
	2.90
	3.35
35-3E-12.03	2+14

shall be replaced and placed with structures of the type, gauge, diameter, and length shown on the plans and in accordance with the placement requirements set forth under section 400 of these specifications and on Exhibit C-10, Culvert List.

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

Road No.	From M.P.	To M.P.	Total Miles	Type
34-3E-25.00	0.00	0.30	0.30	Scatter
34-3E-25.02	0.00	0.40	0.40	Scatter
34-3E-25.04	0.00	0.36	0.36	Scatter

34-3E-25.05	0.00	0.08	0.08	Scatter
34-3E-33.00 A-D1	0.00	0.95	0.95	Scatter
34-3E-33.00 D2	0.95	1.35	0.40	Chip
34-3E-33.01	0.00	0.35	0.35	Chip
34-3E-35.00 (West)	0.00	0.09	0.09	Scatter
34-3E-35.02 A-B	0.00	0.81	0.81	Scatter
34-3E-35.03	0.00	0.10	0.10	Scatter
35-3E-01.00	0.00	1.40	1.40	Scatter
35-3E-02.00 A-B	0.00	0.86	0.86	Chip
35-3E-03.00 A-C	0.00	3.97	3.97	Scatter
35-3E-03.05	0.00	0.19	0.19	Scatter
35-3E-07.00 A1-D	0.00	2.37	2.37	Scatter
35-3E-10.00 A-C	0.00	1.77	1.77	Scatter
35-3E-10.01 A-F	0.00	1.86	1.86	Scatter
35-3E-10.01	0.00	0.78	0.78	Chip
35-3E-11.00 A	0.00	0.13	0.13	Scatter
35-3E-11.01 A	0.00	0.32	0.32	Scatter
35-3E-11.02 A1-B	0.00	0.49	0.49	Chip
35-3E-11.04 A-B	0.00	0.42	0.42	Scatter
35-3E-11.05	0.00	0.17	0.17	Scatter
35-3E-14.01 A1-C	0.00	1.95	1.95	Scatter
FS 32	0.00	4.00	4.00	Scatter
FS 3240	0.00	1.30	1.30	Scatter
FS 3240-100	0.00	0.21	0.21	Scatter

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

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

WATERING - 600

- 601 - This work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds, laying dust, or for other uses in accordance with these specifications.
- 602 - Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to

properly execute the compaction requirements in conformance with these specifications, and for laying dust during work periods.

- 603 - Water trucks used in this work shall be equipped with a distributing device of ample capacity and of such design as to ensure uniform application of water on the road bed.
- 605 - The Purchaser shall secure the necessary water permits and pay all required water fees for use of water source(s) selected by the Purchaser and approved by the Authorized Officer.

AGGREGATE BASE COURSE - 900
SCREENED ROCK MATERIAL

- 901 - This work shall consist of furnishing, hauling, and placing one or more lifts of screened rock material on roadbeds and landings approved for placing screened rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.
- 902a - Screened rock materials to be used in this work may be obtained from sources selected by the Purchaser, at his option, providing the rock materials furnished comply with these specifications and the sources are approved in writing by the Authorized Officer prior to use.
- 903 - Screened rock material shall conform to the following gradation requirements:

Table 903

SCREENED ROCK MATERIAL GRADATION REQUIREMENTS
Percentage by Weight Passing Square Mesh Sieves
(AASHTO T 27)

Sieve Designation	Gradation			
	A	B	C	D
4 inch	100			
3 inch	95-100	100		
2 inch		95-100	100	
1-1/2 inch			95-100	100

1 inch				95-100
No. 4	11-44	16-49	21-54	26-59
No. 200	2-15	2-15	0-15	0-15

- 904 - Screened 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.
- 904a - Screened rock material shall show a durability value of not less than 35 as determined by AASHTO T 210.
- 905 - The roadbed as shaped and compacted under sections 300 and 500 of these specifications, shall be approved in writing by the Authorized Officer prior to placement of screened rock materials. Notification for final inspection, prior to rocking, shall be 72 hours prior to that inspection and shall be 10 days prior to start of rock operations.
- 906 - Screened rock material shall be placed in layers not to exceed 6 inches in thickness. Where the required total thickness is more than 6 inches, the rock material shall be shaped and compacted in two or more layers of approximately equal thickness.
- 906a - Screened rock materials used to repair or reinforce a soft, muddy, frozen, yielding, or rutted subgrades shall not be construed as surfacing under this specification.
- 907 - Filler or binder material obtained from sources shown on the plans and approved by the Authorized Officer shall be uniformly blended with the screened rock material on the road. Filler or binder materials shall be free from stones, vegetative matter, and other deleterious materials.
- 908 - Screened rock material shall be blade-processed and spread to required dimensions. Processing shall be performed in such a manner as to minimize aggregate segregation.
- 910 - Screened rock material, bladed and shaped as specified, shall be moistened or dried to optimum moisture content for maximum compaction and compacted to full width by compaction equipment conforming to the requirements of Subsections 103f, 103g, 103h, and 103i. Minimum compaction shall be 6 passes over each full-width layer, or fraction thereof.

AGGREGATE SURFACE COURSE - 1200
CRUSHED ROCK MATERIAL

- 1201 - This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds 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 at the purchaser's expense.

- 1202a - Crushed rock materials used in this work may be obtained from commercial sources selected by the Purchaser at his option and expense, providing the rock materials furnished comply with the specifications.

- 1203 - When crushed rock material is produced from gravel, not less than 65 percent by weight of the particles retained on the No. 4 sieve will have 2 manufactured fractured faces.

- 1204 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirements:

TABLE 1204

AGGREGATE SURFACE
COURSE CRUSHED ROCK
MATERIAL

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

Sieve Designation	C	C-1	D	D-1	E	E-1
1-1/2-inch	100	100	-	-	-	-
1-inch	-	-	100	100	-	-
3/4-inch	50-90	60-90	-	70-98	100	100
1/2-inch	-	-	-	-	-	70-98
No. 4	25-50	30-55	30-60	36-60	40-75	44-70
No. 8	-	22-43	-	25-47	-	30-54

No. 30	-	11-27	-	12-31	-	15-34
No. 40	5-25	-	5-30	-	5-35	-
No. 200	2-15	3-15	3-15	3-15	2-15	3-15

- 1205 - Crushed rock material retained on the No. 4 sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.
- 1206 - Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T210.
- 1207 - That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have a liquid limit of not more than 35 and a plasticity index of not less than 4 and not more than 12 as determined by AASHTO T 89 and AASHTO T 90.
- 1208 - 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.
- 1209 - Shaping and compacting of roadbed or base course shall be completed and approved in writing, prior to placing crushed rock material, in accordance to the requirements of Subsections 300 and 500 for placing on the roadbed and landings and Subsection 900 for placing on the base course. Notification for final inspection prior to rocking shall be 72 hours prior to the inspection and shall be 10 days prior to start of surfacing operations.
- 1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and staked on the ground. Compacted layers shall not exceed 4 inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved in writing by the Authorized Officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these

places and then adding or removing crushed rock material until the surface is smooth and uniform.

- 1210a - Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification.
- 1212 - Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f, 103g, 103h, and 103i . Minimum compaction shall be 1 hour of continuous compacting for each 150 cubic yards of crushed rock material placed per layer, or fraction thereof.

SLOPE PROTECTION - 1400

- 1401 - This work shall consist of furnishing, hauling, and placing stone materials for splash pads in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross- sections shown on the plans. Material not conforming to these specifications will be rejected and shall be removed from the slope protection structure at the purchaser’s expense and as directed by the Authorized Officer.
- 1402 - Stone material shall consist of hard angular quarry rock of such quality that it will not disintegrate on exposure to water or weathering, and shall be graded in accordance with these specifications.

NOTE: Guide for relation between volume, size and weight. (175 lbs./cu./ft.):

<i>Volume/ Cubic Foot</i>	<i>Average Dimension in inches</i>	<i>Approximate Weight in Pounds</i>
<i>12</i>	<i>27.5 x 27.5 x 27.5</i>	<i>2100</i>
<i>6</i>	<i>21.8 x 21.8 x 21.8</i>	<i>1050</i>
<i>4</i>	<i>19.1 x 19.1 x 19.1</i>	<i>700</i>
<i>3</i>	<i>17.3 x 17.3 x 17.3</i>	<i>525</i>
<i>1</i>	<i>12.0 x 12.0 x 12.0</i>	<i>175</i>
<i>2/3</i>	<i>10.5 x 12.0 x 12.0</i>	<i>120</i>
<i>1/2</i>	<i>9.5 x 9.5 x 9.5</i>	<i>88</i>
<i>1/3</i>	<i>8.3 x 8.3 x 8.3</i>	<i>60</i>
<i>1/4</i>	<i>7.6 x 7.6 x 7.6</i>	<i>44</i>
<i>1/6</i>	<i>6.6 x 6.6 x 6.6</i>	<i>30</i>
<i>1/8</i>	<i>6.0 x 6.0 x 6.0</i>	<i>22</i>
<i>1/100</i>	<i>2.6 x 2.6 x 2.6</i>	<i>2</i>

- 1404 - The material shall be well graded from the smallest to the maximum size specified.

Stones smaller than the specified 10 percent size shall consist of spalls and fine rock fragments so distributed as to provide a stable compact mass.

1405 - Rip rap shall conform to the following gradations:

TABLE 1405

Class	Approx. Cubic Dimension (inches)	Sphere Diameter (inches)	% of Total Volume Smaller than Size of Stone
1	6-8	8	100
	5-6	6	80
	2-5	6	50
	0-2	2	10
2	8-10	12	100
	6-8	8	80
	3-6	6	50
	0-3	4	10
3	14-16	21	100
	10-14	18	80
	5-10	12	50
	0-5	6	10
4	18-20	24	100
	14-18	22	80
	6-14	18	50
	0-6	8	10
5	26-28	36	100
	20-26	32	80
	8-20	25	50
	0-8	10	10
6	28-34	42	100
	22-28	34	80
	10-22	27	50
	0-10	12	10

*Rocks smaller than six inches in diameter are not counted.

1406 - The placement of slope protection stones by the end dumping method shall be conducted to prevent the stones from escaping beyond the embankment toe.

1407 - Determination of the acceptability of the slope protection material gradation will be through visual inspection by the Authorized Officer.

EROSION CONTROL - 1700

- 1701 - This work shall consist of measures to control soil erosion or water pollution during the construction operation through the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans.
- 1704 - The erosion control provisions specified under this Subsection shall be coordinated with the Soil Stabilization requirements of Section 1800.
- 1705 - The surface area of erodible earth material exposed at any one time by clearing and grubbing shall not exceed 21,780 square feet (0.50 acres) after October 15 without prior approval by the Authorized Officer.
- 1706 - The surface area of erodible earth material exposed at one time by excavation, borrow, or fill within the right-of-way shall not exceed 21,780 square feet (0.50 acres) after October 15 without prior approval by the Authorized Officer.
- 1706a - The Purchaser shall perform, during the same construction season, erosion control measures, on all exposed excavation, borrow, and embankment areas.
- 1707 - Completed and partially completed segments of roads at the following locations:

Road No.	From Sta./M.P.	To Sta./M.P.
34-3E-35.00 (East)	0.00	0.32
34-3E-35.05	0+00	24+57
34-3E-35.06	0+00	14+56
35-3E-12.03	0+00	41+03
35-3E-12.04	0+00	29+20
Temp Route 34-1	0+00	5+34
Temp Route 1-3	0+00	11+73
Temp Route 11-3	0+00	4+25

carried over the winter and early spring periods shall be stabilized by seeding and mulching in accordance with Section 1800.

- 1708 - Newly constructed roads to be carried over the winter period, shall be blocked to vehicular traffic.
- 1708a - Road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway using water bars, maintaining drainage, and performing additional measures necessary to minimize erosion and other damage to the roadway, as directed by the Authorized Officer. Portions of roads not having surface rock in place will be blocked or barricaded to prevent vehicular traffic.
- 1711 - The Purchaser shall construct catch basins and energy dissipators for pipe culverts (splash pads) conforming to the requirements and details shown on the respective exhibits.

SOIL STABILIZATION – 1800

- 1801 - This work shall consist of seeding and mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications. This work is not required for road acceptance under Section 18 of this contract.
- 1802 - Soil stabilization work consisting of seeding and mulching shall be performed on existing roads and designated locations in accordance with these specifications at the following locations:

Road No.	From M.P.	To M.P.	Reason
34-3E-25.00 A1	0.00	0.08	Roadside Veg Maintenance
	0.22	0.30	Roadside Veg Maintenance
34-3E-25.02	0.00	0.40	Roadside Veg Maintenance
34-3E-25.04	0.00	0.36	Roadside Veg Maintenance
34-3E-33.00 B	0.13	0.21	Roadside Veg Maintenance
34-3E-33.00 D1-D2	0.84	1.14	Roadside Veg Maintenance
	1.22	1.35	Roadside Veg Maintenance
34-3E-33.01	0.00	0.06	Roadside Veg Maintenance
	0.10	0.35	Roadside Veg Maintenance
34-3E-35.00 (East)	0.00	0.32	Road Improvement
34-3E-35.00 (West)	0.00	0.09	Roadside Veg Maintenance
34-3E-35.02 A-B	0.00	0.81	Roadside Veg Maintenance
34-3E-35.05	0+00	24+57	New Road Construction

34-3E-35.06	0+00	14+56	New Road Construction
35-3E-01.00	0.00	0.42	Roadside Veg Maintenance
	0.43	0.43	Culvert Replacement
	0.73	0.73	Culvert Replacement
	0.89	0.89	Culvert Replacement
	0.76	1.21	Roadside Veg Maintenance
	1.24	1.40	Roadside Veg Maintenance
35-3E-02.00 B	0.34	0.78	Roadside Veg Maintenance
35-3E-03.00 A1-C	0.06	0.06	Culvert Replacement
	0.10	0.10	Culvert Replacement
	0.28	0.28	Culvert Replacement
	0.41	0.41	Culvert Replacement
	0.55	0.55	Culvert Replacement
	0.73	0.73	Culvert Replacement
	0.85	0.85	Culvert Replacement
	1.03	1.03	Culvert Replacement
	1.13	1.61	Roadside Veg Maintenance
	1.18	1.18	Culvert Replacement
	1.49	1.49	Culvert Replacement
	1.65	1.65	Culvert Replacement
	2.20	2.20	Culvert Replacement
	2.33	2.33	Culvert Replacement
	2.54	2.54	Culvert Replacement
	2.55	3.97	Roadside Veg Maintenance
	2.90	2.90	Culvert Replacement
	3.35	3.35	Culvert Replacement
35-3E-03.05	0.00	0.19	Roadside Veg Maintenance
35-3E-07.00 A3-B	0.61	1.14	Roadside Veg Maintenance
	1.18	1.48	Roadside Veg Maintenance
35-3E-10.00 C	1.65	1.77	Roadside Veg Maintenance
35-3E-11.00 A	0.00	0.09	Roadside Veg Maintenance
35-3E-11.01	0.09	0.32	Roadside Veg Maintenance
35-3E-11.04 B	0.19	0.42	Road Improvement
35-3E-11.05	0.00	0.17	Road Improvement
35-3E-12.03	0+00	41+03	New Construction
35-3E-12.04	0+00	29+20	New Construction
Temp Road 34-1	0+00	5+34	New Construction
Temp Road 1-3	0+00	11+73	New Construction
Temp Road 11-3	0+00	4+25	New Construction

- 1802a - Soil stabilization work consisting of seeding and mulching shall be performed on new road construction, landings, disturbed areas, borrow sites, waste disposal sites, and specials areas in accordance with these specifications and as shown on the plans.
- 1803 - Soil stabilization work as specified under Subsections 1802 and 1802a shall be performed during the following seasonal periods:

From: September 1	To: October 15 (of the same year)
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If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas in accordance with Subsection 1707 and then complete the requirements of Section 1800 the next construction season.

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

- 1803a - The Purchaser shall begin soil stabilization work within 10 days of the starting work date when notified by the Authorized Officer.
- 1806a - Additional soil stabilization work consisting of seeding 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 Sec. 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.
- 1808 - Mulch materials conforming to the requirements of Subsection 1808a shall be furnished by the Purchaser in the amounts specified under Subsection 1811 and applied in accordance with Subsection 1812.
- 1808a - Straw mulch shall be certified weed free from commercial grain fields and native grass fields. Straw mulch shall be from oats, wheat, rye, or other approved grain crops and shall be free from, mold, or other objectionable material. Straw mulch shall be in an air-dry condition and suitable for placement.
- 1809 - Mulch material shall be delivered to the work area in a dry state. Material found to be wet 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.
- 1810 - Bulk mulching material required under these specifications shall be delivered to the work area bound either by twine, string or hemp rope. Wire binding will not be permitted.

- 1811 - The Purchaser shall furnish and apply to approximately **13.85 acres** designated for treatment as shown on the plans and as specified under Subsections 1802 and 1806a, a mixture of grass seed and mulch material at the following rate of application:

a. Two Stage:

Grass Seed	20 lbs./acre
Mulch	2,000 lbs./acre

- The above proportion and application rate are subject to adjustment by the Authorized Officer during the application operation.
- 1814 - The Purchaser may reduce the application rate on partially covered slopes and refrain from application on areas already well stocked with grass or on rock surfaces as determined by the Authorized Officer.
- 1815 - The seed and mulch materials shall be placed by the dry method in accordance with the requirements set forth in Subsection 1815b.
- 1815b - 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.
- 1817 - At the beginning of each day's operation, a measured area will be seeded and mulched to assure uniform application.
- 1819 - The Purchaser shall notify the Authorized Officer at least 3 days in advance of date he intends to commence the specified soil stabilization work.
- 1821 - 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.
- 1822 - 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.
- 1824 - 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.

ROADSIDE BRUSHING - 2100

- 2101 - This work shall consist of the removal of vegetation from the road prism - variable distance, and inside curves in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet (Exhibit C-15) of this exhibit, 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 chain saws.
- 2103 - Vegetation cut manually and/or mechanically less than 6 inches in diameter when measured at D.B.H. shall be cut to a maximum height of 1 inch above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs below the 2 inch area will be severed from the trunk.
- 2103a - Vegetation shall be cut and removed from the road bed between the outside shoulders and the ditch centerline and such vegetation shall be cut to a maximum height of 1 inch above the ground and running surface. Limbs below the 1 inch area will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.
- 2104 - Trees in excess of 6 inches in diameter at D.B.H. shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of 14 feet above the running surface of the roadway on cut and fill slopes, within the road prism- variable distance. Limbs shall be cut to within 1 inch of the trunk to produce a smooth vertical face. Removal of trees larger than 6 inches in diameter for sight distance or safety may be directed by the Authorized Officer.
- 2105 - Vegetation that is outside of the road prism-variable distance that protrudes into the road prism and within 14 feet in elevation above the running surface shall be cut, to within 1 inch of the trunk to produce a smooth vertical face.
- 2106 - Vegetative growth capable of growing 1 foot in height or higher shall be cut, within the road prism-variable distance or as directed by the Authorized Officer.
- 2107 - Inside curves shall be brushed out for a sight distance of 200 feet chord distance or a middle ordinate distance of 25 feet, whichever is achieved first. Overhanging limbs and vegetation in excess of 1 foot in height, shall be cut within these areas.
- 2108 - Self-propelled equipment shall not be permitted on cut and fill slopes or in ditches.
- 2109 - Debris resulting from this operation shall be scattered downslope from the roadway where indicated in the worklist. 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.

Road No.	From M.P.	To M.P.	Total Miles	Type
34-3E-25.00	0.00	0.30	0.30	Scatter
34-3E-25.02	0.00	0.40	0.40	Scatter
34-3E-25.04	0.00	0.36	0.36	Scatter
34-3E-25.05	0.00	0.08	0.08	Scatter
34-3E-33.00 A-D1	0.00	0.95	0.95	Scatter
34-3E-33.00 D2	0.95	1.35	0.40	Chip
34-3E-33.01	0.00	0.35	0.35	Chip
34-3E-35.00 (West)	0.00	0.09	0.09	Scatter
34-3E-35.02 A-B	0.00	0.81	0.81	Scatter
34-3E-35.03	0.00	0.10	0.10	Scatter
35-3E-01.00	0.00	1.40	1.40	Scatter
35-3E-02.00 A-B	0.00	0.86	0.86	Chip
35-3E-03.00 A-C	0.00	3.97	3.97	Scatter
35-3E-03.05	0.00	0.19	0.19	Scatter
35-3E-07.00 A1-D	0.00	2.37	2.37	Scatter
35-3E-10.00 A-C	0.00	1.77	1.77	Scatter
35-3E-10.01 A-F	0.00	1.86	1.86	Scatter
35-3E-10.01	0.00	0.78	0.78	Chip
35-3E-11.00 A	0.00	0.13	0.13	Scatter
35-3E-11.01 A	0.00	0.32	0.32	Scatter
35-3E-11.02 A1-B	0.00	0.49	0.49	Chip
35-3E-11.04 A-B	0.00	0.42	0.42	Scatter
35-3E-11.05	0.00	0.17	0.17	Scatter
35-3E-14.01 A1-C	0.00	1.95	1.95	Scatter
FS 32	0.00	4.00	4.00	Scatter
FS 3240	0.00	1.30	1.30	Scatter
FS 3240-100	0.00	0.21	0.21	Scatter

- 2110 - Vegetation 6 inches and smaller in diameter shall be chipped where indicated in the worklist. Chips shall be scattered downslope from the roadway. Vegetation over 6 inches in diameter shall be disposed of by direction of the Authorized Officer.
- 2114 - Sections of roadway to have vegetation removed will be marked at start and stop points with red-topped painted stakes.
- 2115 - Mechanical brush cutters shall not be operated when there are people and

- occupied vehicles within 400 feet of the immediate operating area.
- 2116 - Traffic warning signs shall be required at each end of the work area. Signs shall meet the requirements of the Manual on Uniform Traffic Devices.

SPECIAL PROVISIONS

1. **EQUIPMENT**
 - Construction equipment shall be washed prior to entering BLM lands. Removal of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts is required. Equipment shall be inspected by CO prior to entering BLM lands. Provide 48 hours' notice of inspection to BLM prior to mobilization.
2. **SOIL STABILIZATION:**
 - All disturbed soil shall be seeded and mulched. Purchaser shall apply native grass seed and certified weed free straw mulch for soil stabilization operations. The Purchaser shall supply native seed and certified weed free straw. Native seed and certified weed free straw may be purchased from the BLM, if available.
3. **DAMAGE:**
 - The Purchaser shall protect and is responsible for any damage to existing telephone lines, transmission lines, fiber optic lines, fences, ditches, and other existing improvements as required in Section 14. Damage to utilities and existing improvements shall be promptly paid for or repaired to a condition which is, in the opinion of the Authorized Officer and the governing utility company, at least as good as the condition just prior to such damage.
4. **DUST ABATEMENT:**
 - The application of dust abatement materials such as Lignin, Mag-chloride, or approved petroleum based dust abatement products shall be restricted from application just after severely wet weather, at stream crossings to be designated by the Authorized Officer, or other locations that could result in direct delivery to a water body.
 - All dust abatement applications shall be approved by the Authorized Officer prior to application.
5. **WATER SOURCES:**
 - The Purchaser is responsible for obtaining water and associated rights and permits.
6. **PERMITS:**
 - All permits required are the responsibility of the Purchaser.
7. **CULVERT REMOVAL:**
 - When removing culverts unless constructing armored water dips, pull slopes back to the natural slope, or at least 2:1, to minimize sloughing, erosion, and the potential for the stream to undercut stream banks during periods of high stream flows. Remove excess sediment from stream channels during culvert removal, replacement, and installation activities. Apply seed and mulch to all disturbed or exposed soils at each stream culvert removal site.
8. **COMMERCIAL AGGREGATE**
 - If aggregate furnished for this work comes from a commercial source, then the

aggregate shall be from an accredited weed free quarry or shall have been stockpiled in the period between November 1st and June 15th immediately prior to application. Aggregate which has been stockpiled between June 16th and October 31st of prior years will not be accepted. Aggregate crushed between June 16th and October 31st of the same application year shall not be stockpiled for more than two weeks before application.

9. ROAD RENOVATION:

- Road renovation shall generally take place between May 15th and October 15th of the same year. Waivers may be granted from the Authorized Officer for working outside of this time period. Seasonal restrictions for stream work and wildlife may still apply.
- Loose material cleaned from ditch lines and/or slide material shall not be sidecast or placed where it can enter wetlands, riparian reserves, floodplains, and waters of the State.

10. STREAMS:

- All in-stream work shall be done from June 15 thru September 15 both days included.
- Construct silt fences 25 and 50 feet below culvert replacement sites (on live streams) to trap sediment and prevent it from entering nearby stream channels.
- Live streams shall be diverted around or through the work area in a manner that will minimize sedimentation downstream. Keep excavation site dewatered so that installation of culverts can be carried out only under dry conditions. Dispose of excess water by using natural drainage ways or devices near the site to the extent of their natural capacity and in a manner that will avoid damage to adjacent property. Utilize dewatering methods such as temporary sediment traps and/or silt fences for areas to be excavated. Provide for downstream water flow without significant transport of excavated material or sediment during construction. At no time shall turbidity limits exceed DEQ's water quality standards.
- Ensure that all large wood is retained in the stream channel during culvert cleaning activities by moving logs which had accumulated on the stream side of a culvert to the downstream side of the culvert.

11. TEMPORARY ROUTES

- All temp routes and native surfaced roads (that were previously closed before timber sale activities began) shall be winterized if access is needed over two dry seasons by October 15th. Winterization includes water barring, seeding, mulching, and barricading. All temp routes shall be ripped, water barred, barricaded, seeded, and mulched after use unless otherwise specified.
- Clearing, grubbing, and excavation activities of temporary spur routes shown on Exhibit C shall be performed in accordance with Exhibit C-22.
- Construction of temporary spur routes shall be to a subgrade width of 14'.

12. ROADSIDE BRUSHING

- While roadside brushing, there shall be no scarring or any other damage of the tree trunk or bole allowed.

- Use of Excavators and/or flailers for brush removal will be at the discretion of the Authorized Officer.
- All culvert inlets and outlets shall be brushed for a radius of 4 feet.
- All bridges shall be brushed 8 horizontal feet from the outer most portion of the structure.

13. WET SEASON HAUL

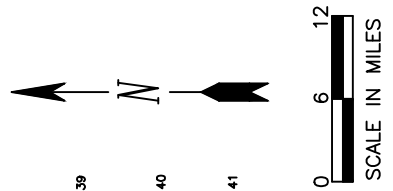
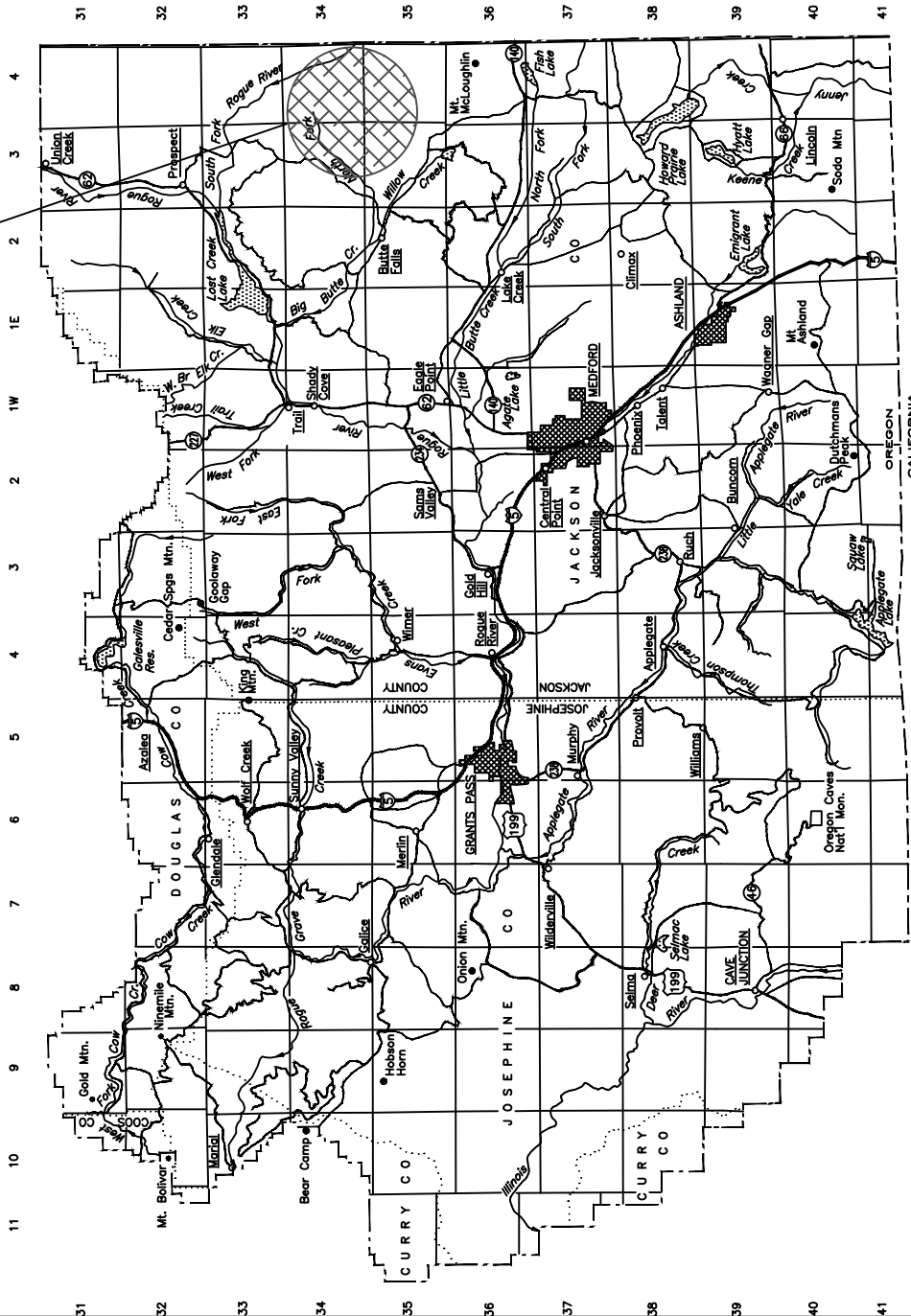
- The Purchaser may wet season haul, with the Authorized Officer's approval on the following roads: 34-3E-25.00, 34-3E-25.02, 35-3E-03.00 A1-B2, 35-3E-07.00 A1-B, 35-3E-10.00 A-C, 35-3E-10.01 A-F, 35-3E-11.00 A, 35-3E-11.01, 35-3E-14.01 A1-C, FS32, FS3240, and the FS3240-100. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.
- The Purchaser may wet season haul on these roads that will be rocked under Exhibit C work, with the Authorized Officer's approval on the following roads: 34-3E-35.00 (East), 34-3E-35.02 A-B, 34-3E-35.05, 34-3E-35.06, 35-3E-01.00, 35-3E-02.00 B, 35-3E-11.04 A-B, 35-3E-11.05, 35-3E-12.03, and the 35-3E-12.04. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.
- The Purchaser shall have the option to rock road numbers 34-3E-25.04, 34-3E-25.05, 34-3E-33.00 A-D2, 34-3E-33.01, 34-3E-35.00 (West), 34-3E-35.03, 35-3E-02.00 A, 35-3E-03.00 C, 35-3E-03.05, 35-3E-07.00 C-D, 35-3E-10.04, and the 35-3E-11.02, for wet weather haul. Purchaser option rocking depths will be determined and approved by the Authorized Officer. Any costs for rocking and installation of additional drainage features will be at the Purchaser's expense and shall be completed in accordance with the plans and specifications show in Exhibit C of this contract.

EXHIBIT D-1
SHEET 1 OF 1

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

Exhibit No.	Description
D-1	TITLE SHEET
D-2	ROAD MAINTENANCE SPECIFICATIONS
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PROJECT LOCATION



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REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR		
	BUREAU OF LAND MANAGEMENT		
	MEDFORD DISTRICT - MEDFORD, OREGON		
RANCHERO T.S.			
TITLE SHEET			
DESIGNED			
REVIEWED			
APPROVED			
DRAWN	JAB	SCALE	AS SHOWN
DATE	JUNE 2020	SHEET	1 OF 1
DRAWING NO.	ORM05-TS-2020-0006-D1		

ROAD MAINTENANCE SPECIFICATIONS

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GENERAL - 3000

- 3001 - The Purchaser shall be required to maintain all roads as shown on the Exhibit D-3 maps of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.
- 3001a - The Purchaser shall be required to provide maintenance on roads in accordance with Subsections 3403.
- 3002 - The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. Any roads required to be constructed, improved, or renovated under terms of this contract shall be maintained to the geometric standards required in Exhibit C of this contract.
- 3003 - The minimum required maintenance on any roads shall include the provisions specified in Subsections 3101, 3104, and 3105.
- 3004 - The Purchaser shall be responsible for providing timely maintenance and cleanup on any roads with logging units substantially completed prior to moving operations to other roads. The maximum length of non-maintained or non- cleanup of the road prism shall not exceed the sum of one (1) mile at any time.

Release of maintenance requirements may be granted, upon written request, when the conditions specified in Sections 3300 and 3400 are met satisfactorily.

OPERATIONAL MAINTENANCE - 3100

- 3101 - The Purchaser shall blade and shape the road surface and shoulders with a motor grader. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.
- 3102 - The Purchaser shall furnish and place (commercial source) **500** cu. yds. of aggregate conforming to the requirements in Section 1200 of Exhibit C of this contract on the roadway and landings at locations and in the amounts designated by the Authorized Officer.

This aggregate shall be used to repair surface failures and areas of depleted surface depth excluding damages covered by Section 12 of this contract. The aggregate shall be furnished, hauled, placed, spread, and compacted by use of dump trucks, water trucks, and motor grader or similar equipment.

- 3103 - The purchaser shall maintain established berms and place additional berms using adjacent material where needed to protect fills as directed by the Authorized

Officer.

- 3104 - The purchaser shall perform other road cleanup including removal of debris, fallen timber, bank slough, and slides which can practicably be accomplished by a motor grader, rubber tired front end bucket loader, rubber tired backhoe or comparable equipment, and by the use of hand tools.
- 3104a - Removal of bank slough and slide material includes placement of material at the nearest designated, suitable 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 as directed by the Authorized Officer.
- 3104b - The Purchaser shall be responsible for removal of all slides or slough, up to fifteen 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 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 the work, based on current BLM Road Cost Guide. Adjustments in purchase price for completed work shall be made as necessary 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 water-bars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.
- 3106 - The Purchaser shall be responsible for repair and replacement of all materials eroded from road shoulders and fill slopes, up to fifteen 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 repair and replacement of eroded material exceeding fifteen 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 Road Cost Guide. 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 in accordance with Section 2100 of Exhibit C.

- 3108 - The Purchaser shall avoid fouling gravel or bituminous surfaces through covering with earth and debris from side ditches, slides or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway.

Skidding of logs on the roadway in or outside designated logging units is not authorized without prior written approval by the Authorized Officer. Repair required caused by such skidding activity is not considered maintenance and shall be repaired at the Purchaser's expense.

- 3108a - The Purchaser shall perform logging operations on gravel roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer. The Purchaser shall furnish gravel for necessary repairs at designated locations. Repair of the roads is not considered maintenance and shall be repaired at the Purchaser's expense.

SEASONAL MAINTENANCE - 3200

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

- 3204 - The Purchaser shall be responsible for performing post storm inspections and maintenance during the winter season to minimize erosion and potential road or watershed damage.

FINAL MAINTENANCE - 3300

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

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

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

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

OTHER MAINTENANCE - 3400

- 3401 - The Purchaser shall repair any damage to road surfaces that was specified under Subsection 3108 and 3108a. This repair includes restoring the roadway to the designed standard and replacement of surfacing with approved surface material. This repair is not limited to use of equipment specified in Subsection 3104.
- 3402 - The Purchaser shall be permitted to remove ice and snow from roads authorized for use under this contract only when prior written approval has been secured from the Authorized Officer. The Purchaser shall submit a written request for permission to remove ice and snow in advance of the date operations are to begin.

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

- 3403 - The Purchaser shall be required to furnish and apply non-saline water during dry hauling periods, when directed by the Authorized Officer, for the purpose of laying dust and to prevent loss of surface material. The first application of water shall be made at the rate of one-half gallon per yd^2 of road surface traveled. Subsequent applications shall be made for each 40 MBF of timber or 120 yds^3 of rock hauled. Subsequent watering may be done at a rate less than one-half gallon per yd^2 when a specified lesser rate is approved by the Authorized Officer.

The following roads shall be watered:

Road Number	From Sta./M.P.	to Sta./M.P.
35-3E-10.01 A-C	0.00	0.91
FS 32	0.00	4.00
FS 3240	0.00	1.30
FS 3240-100	0.00	0.21

The Purchaser shall secure any necessary water permits and pay all required water fees for use of the water sources selected by the Purchaser and approved by the Authorized Officer.

During drought periods when the transportation of water from the source to the roads noted above exceeds 15 miles, a reduction shall be made in the total purchase price to reflect the additional haul or the substitution of other acceptable dust palliatives in lieu of watering based on equipment rental rates from the current BLM Road Cost Guide.

- 3408 - Dust palliatives shall be applied with standard commercial distribution equipment operated in a manner that the material is uniformly applied on variable widths of surface at controlled rates.
- 3409 - The Purchaser shall notify the Authorized Officer a minimum of 3 days in advance of application of required dust palliative.
- 3410 - The Purchaser shall submit an application schedule for all dust palliative work to the Authorized Officer for approval. All work shall be in accordance with the approved plan.

DECOMMISSIONING – 3500

- 3501 - Decommissioning work includes ripping and/or subsoiling, installing water bars, placement of slash and/or placement of soil stabilization material, and blocking road from access by vehicles. This work is required for road acceptance under Section 18 of this contract.
- 3503 - Decommissioning shall be performed on existing roads in accordance with these specifications, and as shown on the plans at the following locations:

Road No or Site	From Sta/MP	To Sta/MP	Decommission or Obliterate
35-3E-03.00 C	3.37	3.97	Re-barricade & Water Bar
Temp Road 34-1	0+00	5+34	Decommission
Temp Road 1-3	0+00	11+73	Decommission
Temp Road 11-3	0+00	4+25	Decommission

- 3504 - Decommissioning work shall be completed after road use. All decommissioning work shall be performed during the following seasonal periods to address soil moisture:

From: September 1	To: October 15 (of the same year)
-------------------	-----------------------------------

- 3506 - Stockpiled slash shall be used to protect exposed areas created by the Purchaser's decommissioning operations described in these sections. Slash shall be uniformly spread and placed without bunching. The operation shall produce a dense, uniform mat. Where slash is not available, exposed soil areas shall be stabilized in accordance with Section 1800.
- 3508 - Protect areas mulched and treated with slash placement from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.
- 3509 - Access shall be blocked with barricades as shown on the Typical Road Camouflage Sheet Exhibit D-7 and Drainage and Erosion Control Detail Sheet Exhibit D-8 and at locations as shown on Exhibits D-4 and D-5.
- 3510 - Sections of roadway where ripping and/or is required shall be cleared of all vegetation and slash. The resultant slash shall be stockpiled in a manner that will allow retrieval and uniform spreading in accordance with Subsection 3506. No vegetation or slash shall be mixed with excavated material to be placed.






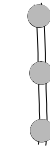

- 3511 - Ripping and/or subsoiling and water barring shall be done on designated roadways. Ripping shall be performed with wing-toothed rippers or excavators modified for tillage.
- 3513 - Water bars shall be installed across full width of roadway at spacing shown in the decommissioning worklist. Water bars shall be constructed as shown on Exhibit D-8.
- 3514 - Protection of exposed surfaces shall be accomplished by placement of soil stabilization material in accordance with Section 1800 and/or placement of slash described in Subsection 3506 on designated roadways, temporary roads, landings, other areas disturbed by the purchaser's decommissioning operations in accordance with these specifications and as shown in the plans.

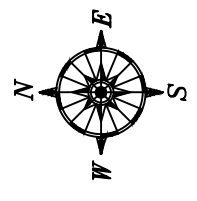
EXHIBIT D-3

SHEET 1 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

SALE AREA MAP

-  BLM OWNERSHIP
-  T.S. UNITS
-  BST ROAD
-  ROCKED ROAD
-  NATURAL SURFACE ROAD
-  PRIMITIVE ROUTE
-  RANCHERO HAUL ROUTES



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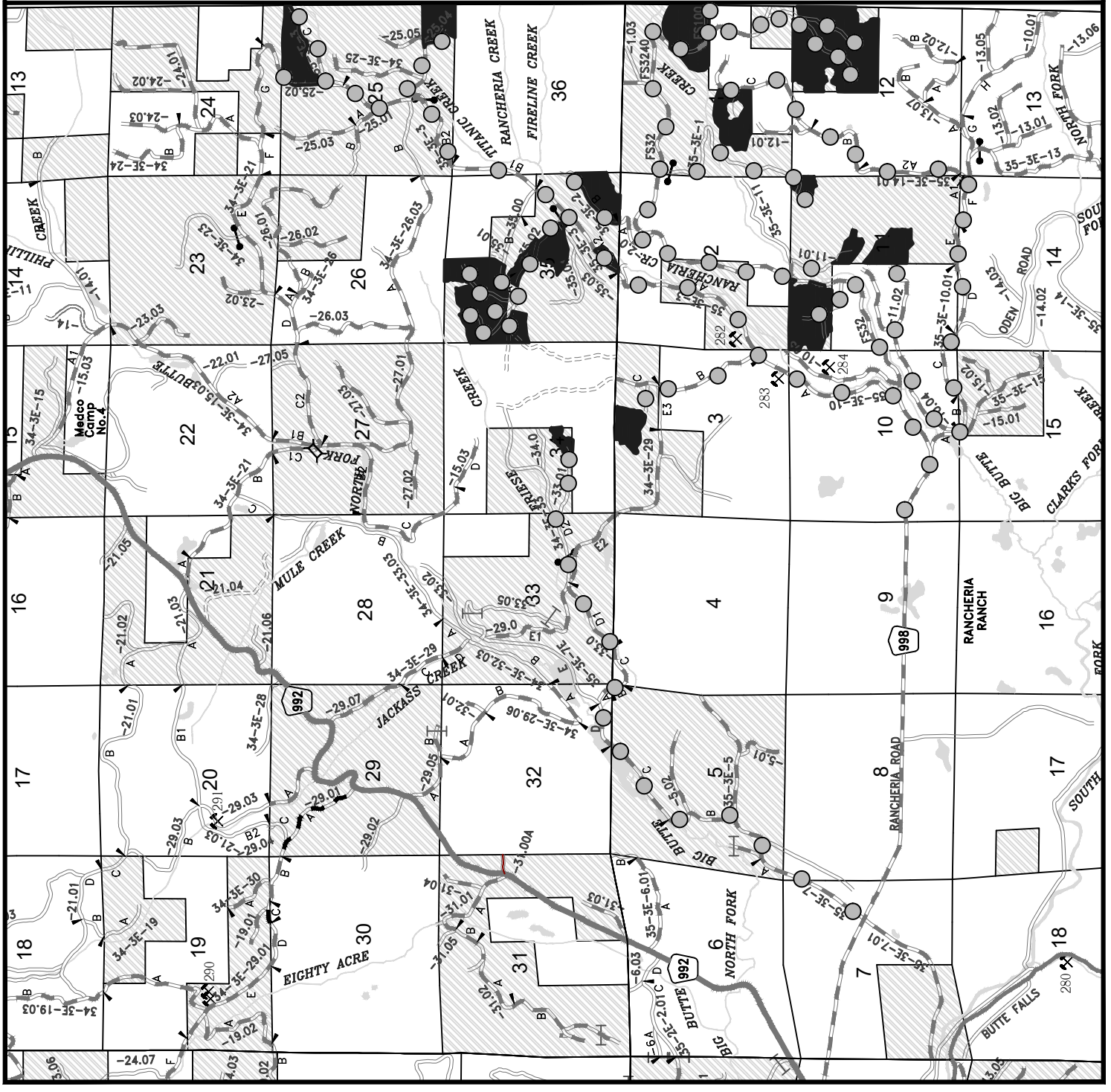
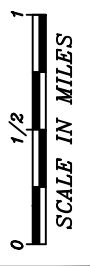


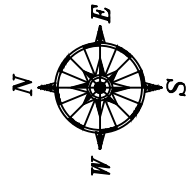
EXHIBIT D-3

SHEET 2 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROAD MAINTENANCE MAP

- BLM OWNERSHIP
- T.S. UNITS
- BST ROAD
- ROCKED ROAD
- NATURAL SURFACE ROAD
- PRIMITIVE ROUTE
- PURCHASER MAINTENANCE
- BLM MAINTENANCE



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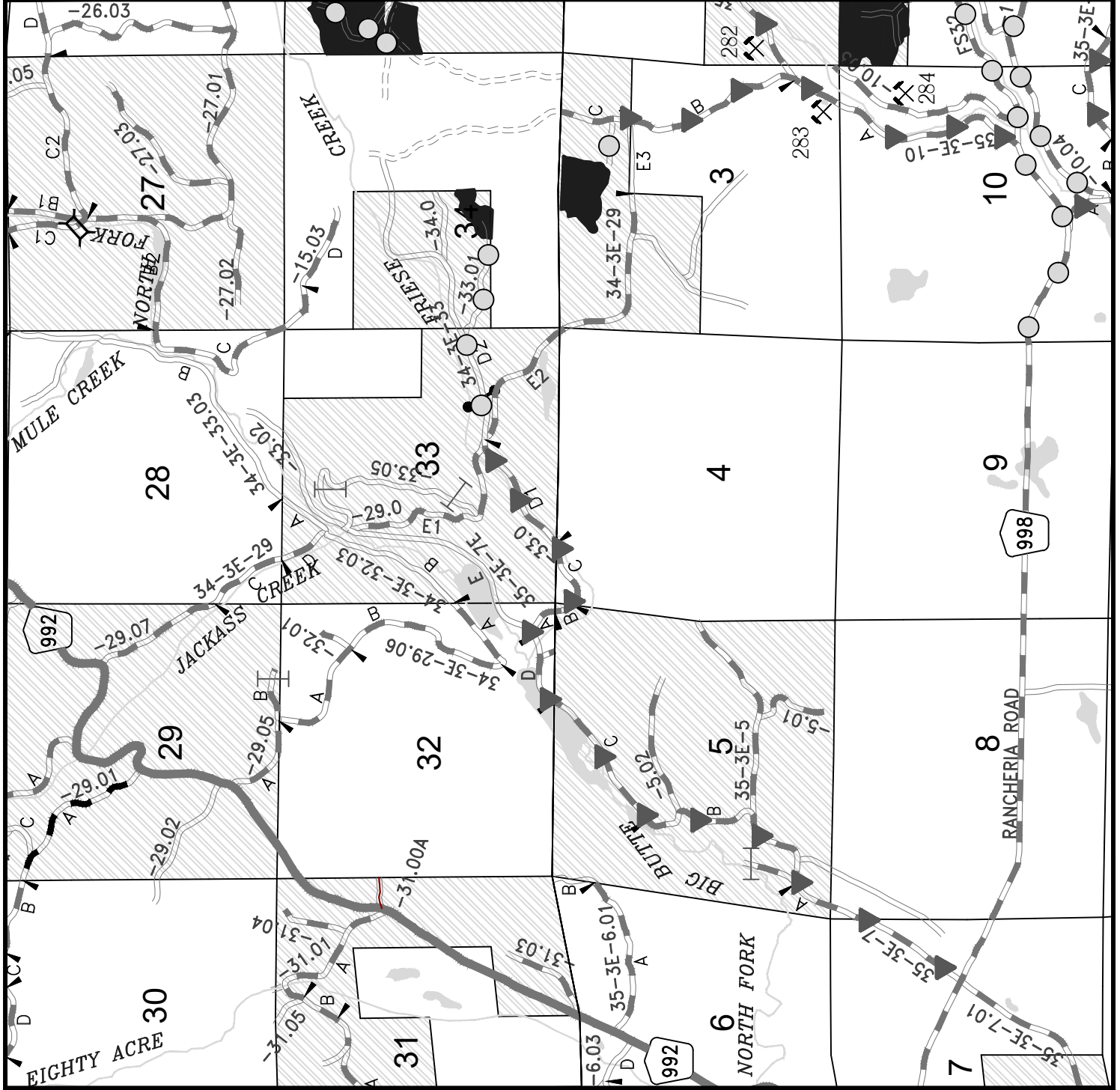
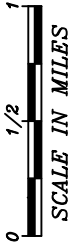






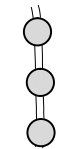



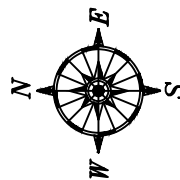
EXHIBIT D-3

SHEET 3 OF 4

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROAD MAINTENANCE MAP

- BLM OWNERSHIP 
- T.S. UNITS 
- BST ROAD 
- ROCKED ROAD 
- NATURAL SURFACE ROAD 
- PRIMITIVE ROUTE 
- PURCHASER MAINTENANCE 
- BLM MAINTENANCE 



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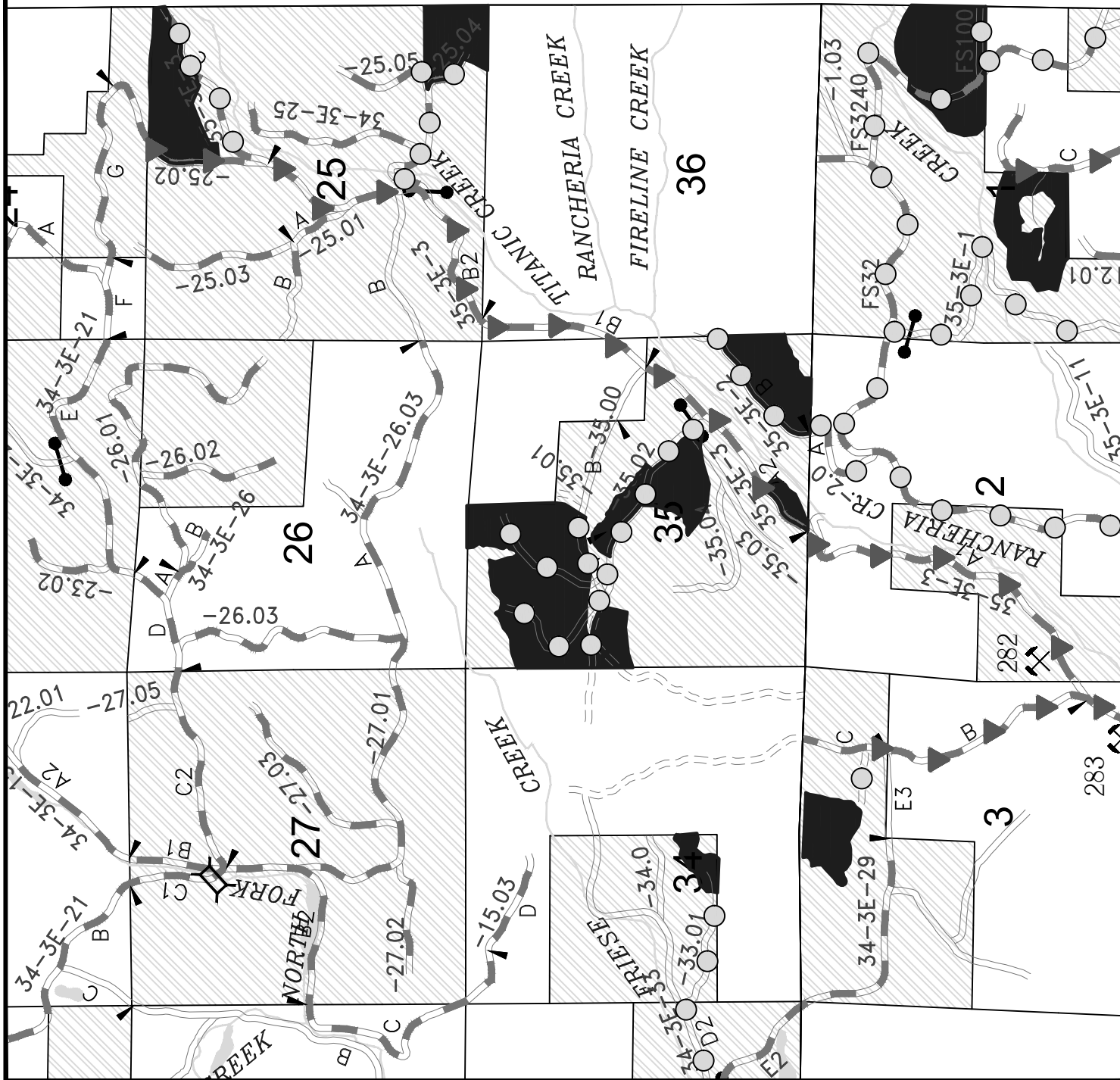


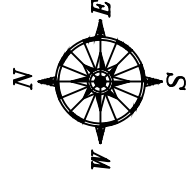
EXHIBIT D-3

SHEET 4 OF 4

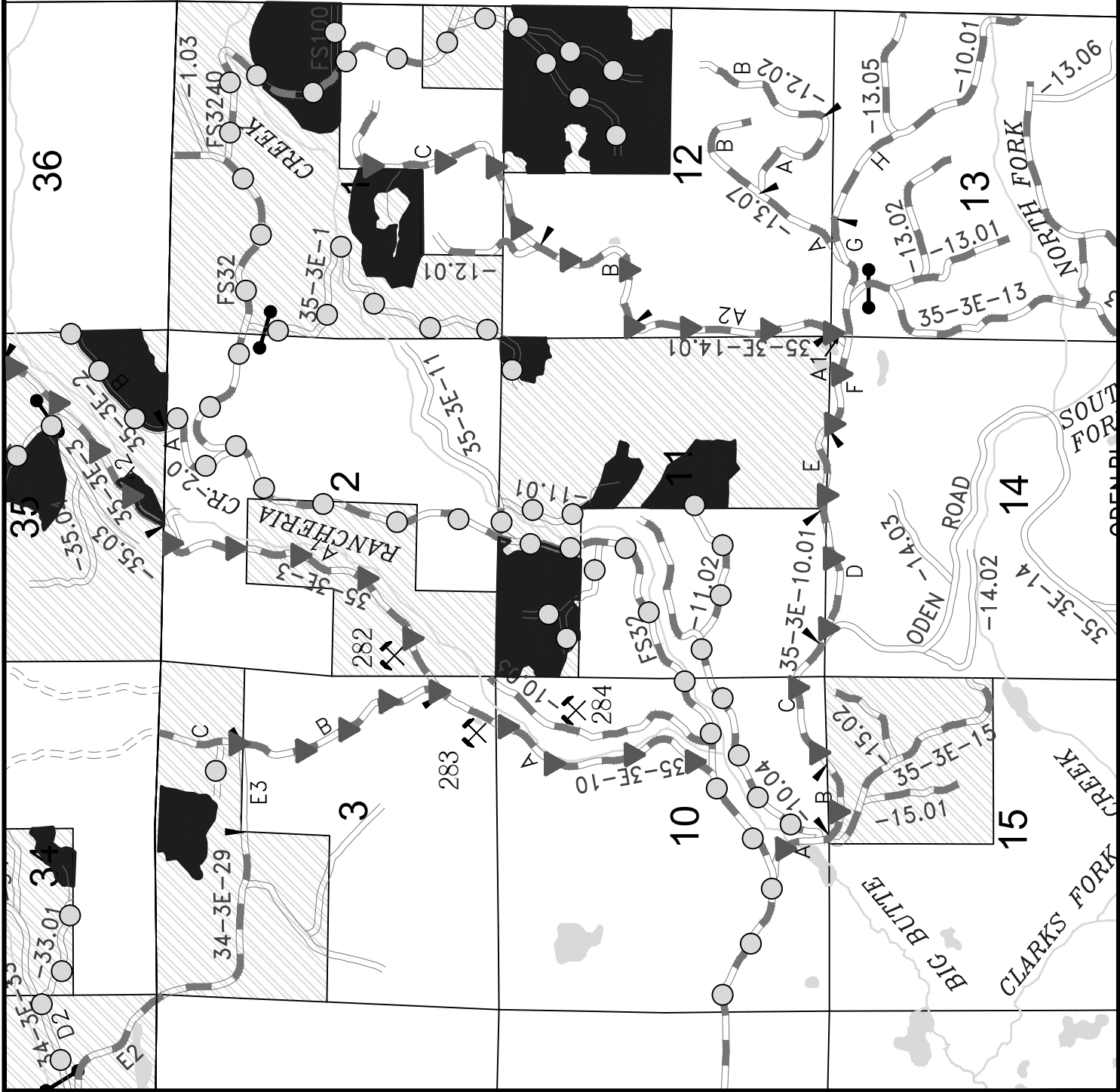
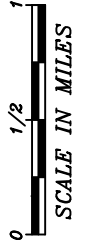
RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-00006

ROAD MAINTENANCE MAP

- BLM OWNERSHIP
- T.S. UNITS
- BST ROAD
- ROCKED ROAD
- NATURAL SURFACE ROAD
- PRIMITIVE ROUTE
- PURCHASER MAINTENANCE
- BLM MAINTENANCE



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RANCHERO TIMBER SALE Road Decommissioning Work List

GENERAL DEFINITIONS:

Decommission (Full) = Full Decommissioning shall include decompacting the surface to a depth of 12 to 18 inches, installing waterbars (every 150' for grades <10% - every 100' grades >10%) unless otherwise noted in the work list, and barricading and camouflaging the road entrance. Seeding with approved native seed species and mulching with weed-free straw or approved native materials.

Water Bar and Barricade = Work shall include installing waterbars (every 150' for grades <10% - every 100' grades >10%) unless otherwise noted in the work list, and barricading and camouflaging the road entrance. Seeding with approved native seed species and mulching with weed-free straw or approved native materials.

35-3E-03.00 (Titanic Creek)

Segment C (BLM) NAT

<u>MP</u>	<u>Remarks</u>
3.37	Jct. w/ 34-3E-25.02. Begin constructing water bars.
3.42	Reestablish earth barricade.
3.97	End water barring.

Temp Road 34-1 NAT

<u>MP</u>	<u>Remarks</u>
0+00	Jct. w/ 34-3E-33.01. Begin full decommission. Mechanically de-compact road surface to a depth of 12 to 18 inches for the entire length of the temporary road. Camouflage road entrance with debris for 100'.
0+50	Construct earth barricade.
5+34	End full decommission.

Temp Road 1-3 NAT

<u>MP</u>	<u>Remarks</u>
0+00	Jct. w/ 35-3E-14.01. Begin full decommission. Mechanically de-compact road surface to a depth of 12 to 18 inches for the entire length of the temporary road. Camouflage road entrance with debris for 100'.
0+50	Construct earth barricade.
11+73	End full decommission.

Temp Road 11-3 NAT

MP **Remarks**







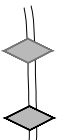

- 0+00 Jct. w/ 33-3W-22.01. Begin full decommission. Mechanically de-compact road surface to a depth of 12 to 18 inches for the entire length of the temporary road. Camouflage road entrance with debris for 100’.
- 0+50 Construct earth barricade.
- 4+25 End full decommission.

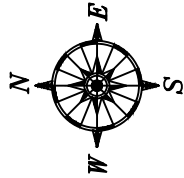
EXHIBIT D-5

SHEET 1 OF 3

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROAD DECOMMISSIONING MAP

- BLM OWNERSHIP 
- T.S. UNITS 
- BST ROAD 
- ROCKED ROAD 
- NATURAL SURFACE ROAD 
- PRIMITIVE ROUTE 
- ROAD TO BE WATER BARRED and BARRICADED 
- ROAD TO BE DECOMMISSIONED and BARRICADED 



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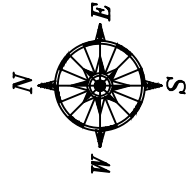
EXHIBIT D-5

SHEET 3 OF 3

RANCHERO TIMBER SALE
TRACT NO. ORM05-TS-2020-0006

ROAD DECOMMISSIONING MAP

- BLM OWNERSHIP 
- T.S. UNITS 
- BST ROAD 
- ROCKED ROAD 
- NATURAL SURFACE ROAD 
- PRIMITIVE ROUTE 
- ROAD TO BE WATER BARRED and BARRICADED 
- ROAD TO BE DECOMMISSIONED and BARRICADED 



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ROAD NUMBER	MP/STA	TO	LENGTH	MAINTENANCE RESPONSIBILITY			WATERING	SPOT ROCKING	ROAD CLOSURE AND DECOMMISSIONING				
				BLM MAINTENANCE	PURCHASER MAINTENANCE	THIRD PARTY MAINTENANCE			INSTALL EARTH BARRICADE	INSTALL MEGA GATE	INSTALL WATER BARS	RIPPING	SOIL STABILIZATION (SEED & MULCH)
ROAD NUMBER	MP/STA	MP/STA	MILE/STA	MILE	MILE	MILE	MILE	C.Y.	EACH	EACH	EACH	STATION	ACRE
34-3E-25.00	0.00	0.30	0.30		0.30								
34-3E-25.02	0.00	0.40	0.40	0.40									
34-3E-25.04	0.00	0.36	0.36		0.36								
34-3E-25.05	0.00	0.08	0.08		0.08								
34-3E-33.00 A-D1	0.00	0.95	0.95	0.95									
34-3E-33.00 D2	0.95	1.35	0.40		0.40								
34-3E-33.01	0.00	0.35	0.35		0.35								
34-3E-35.00 (East)	0.00	0.32	0.32		0.32								
34-3E-35.00 (West)	0.00	0.09	0.09		0.09								
34-3E-35.02 A-B	0.00	0.81	0.81		0.81								
34-3E-35.03	0.00	0.10	0.10		0.10								
34-3E-35.05	0+00	24+57	0.47		0.47								
34-3E-35.06	0+00	14+56	0.28		0.28								
35-3E-01.00	0.00	1.40	1.40		1.40								
35-3E-02.00 A-B	0.00	0.86	0.86		0.86								
35-3E-03.00 A1-B2	0.00	3.37	3.37	3.37									
35-3E-03.00 C	3.37	3.97	0.60		0.60				1		20		0.50
35-3E-03.05	0.00	0.19	0.19		0.19								
35-3E-07.00 A1-D	0.00	2.37	2.37		2.37								
35-3E-10.00 A-C	0.00	1.77	1.77		1.77								
35-3E-10.01 A-F	0.00	1.86	1.86		1.86								
35-3E-10.04	0.00	0.78	0.78		0.78								
35-3E-11.00 A	0.00	0.13	0.13		0.13								
PAGE 1 TOTALS			18.24	10.72	7.52				1		20		0.50



REV. NO. DESCRIPTION DATE APPROV.
 UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT
 MEDFORD, OREGON

ESTIMATE OF QUANTITIES*

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

ROAD NUMBER	FROM MP/STA	TO MP/STA	LENGTH MILE/STA	MAINTENANCE RESPONSIBILITY			WATERING MILE	SPOT ROCKING C.Y.	ROAD CLOSURE AND DECOMMISSIONING					
				BLM MAINTENANCE MILE	PURCHASER MAINTENANCE MILE	THIRD PARTY MAINTENANCE MILE			INSTALL EARTH BARRICADE EACH	INSTALL MEGA GATE EACH	INSTALL WATER BARS EACH	RIPPING STATION	SOIL STABILIZATION (SEED & MULCH) ACRE	
ROAD NUMBER	MP/STA	MP/STA	MILE/STA	MILE	MILE	MILE			EACH	EACH	EACH			ACRE
35-3E-11.01 A	0.00	0.32	0.32			0.32								
35-3E-11.02 A1-B	0.00	0.49	0.49			0.49								
35-3E-11.04 A-B	0.00	0.42	0.42			0.42								
35-3E-11.05	0.00	0.17	0.17			0.17								
35-3E-12.03	0+00	41+03	0.78			0.78								
35-3E-12.04	0+00	29+20	0.55			0.55								
35-3E-14.01 A1-C	0.00	1.95	1.95	1.95										
FS 32	0.00	4.00	4.00	4.00			4.00							
FS 3240	0.00	1.30	1.30	1.30			1.30							
FS 3240-100	0.00	0.21	0.21	0.21			0.21							
Temp Road 34-1	0+00	5+34	0.10	0.10			0.10				3	5.34	0.20	
Temp Road 1-3	0+00	11+73	0.22	0.22			0.22				7	11.73	0.50	
Temp Road 11-3	0+00	4+25	0.08	0.08			0.08				3	4.25	0.15	
PAGE 1 TOTALS			18.24	10.72	7.52						20			0.50
PAGE 2 TOTALS			10.59	1.95	8.64		5.51				13	21.32		0.85
PROJECT TOTALS			28.83	12.67	16.16		5.51				33	21.32		1.35

ALWAYS THINK SAFETY

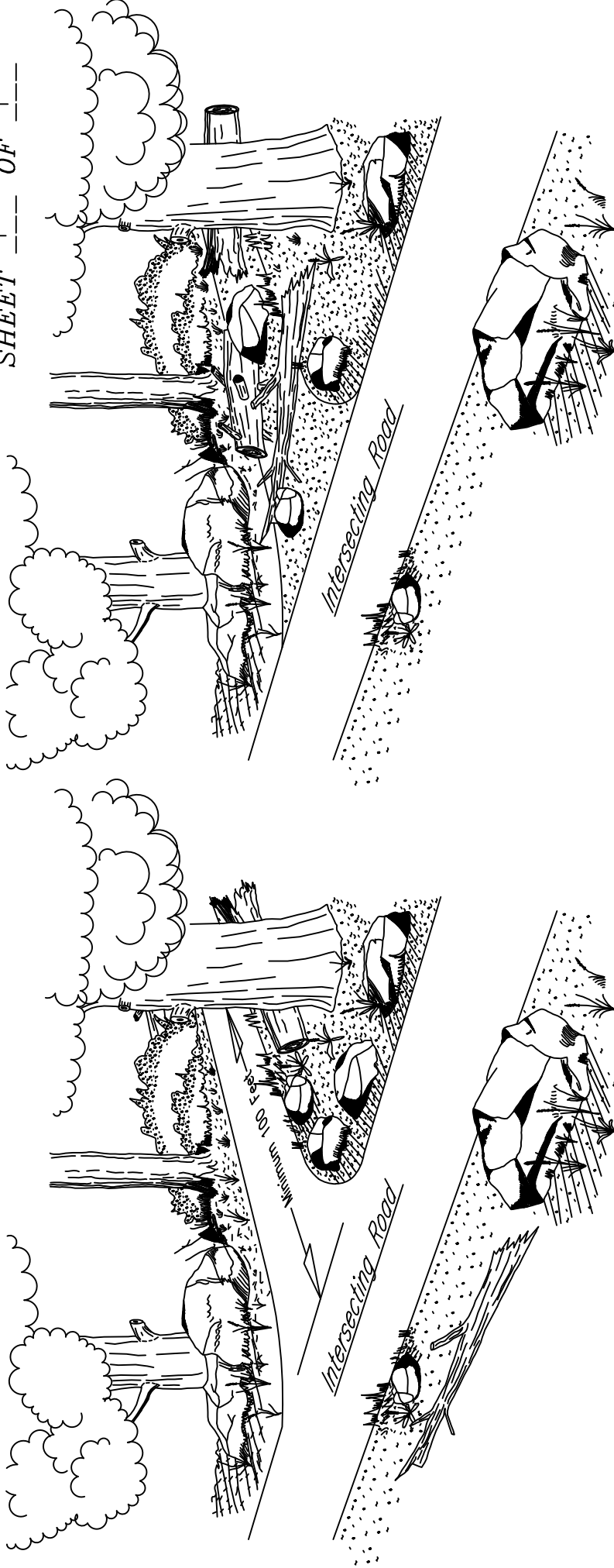
REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT MEDFORD, OREGON		

ESTIMATE OF QUANTITIES*

DRAWN: JAB
DATE: JUNE 2020
DRAWING NO. ORM05-TS-2020-0006-D6

SCALE: NONE
SHEET: 2 OF 2

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



Typical Entrance - Before

Typical Entrance - After

Notes:

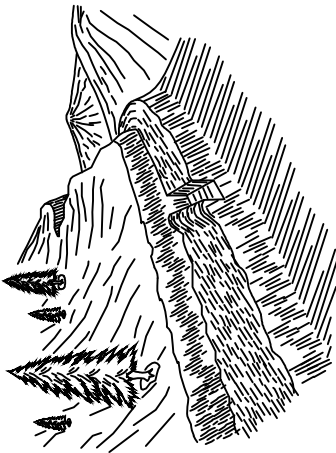
1. The Purchaser shall barricade and Camouflage the road prism and disguise the roadbed so that the road entrance and roadway are indiscernible from the intersecting road. Camouflaged entrances shall consist of logs, slash, boulders and others debris placed along road entrances for a minimum of 100 feet or to the first curve or hillcrest to discourage vehicle use. An Earth Berm or equivalent barricade shall be constructed at road entrance as approved by the Authorized Officer.
2. Where multiple entrances exist, the work shall include obscuring all road entrances. Ditchlines at intersecting roads will be restored as indicated on plan view. The Purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the road prism to the extent possible. No live trees should be used without approval of the Authorized Officer.

UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 MEDFORD DISTRICT - MEDFORD, OREGON

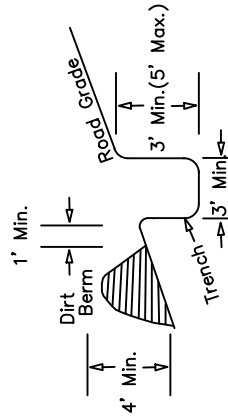
Typical Road
 Camouflage

DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	1 OF 1
DRAWING NO. ORM05-TS-2020-0006-D7			

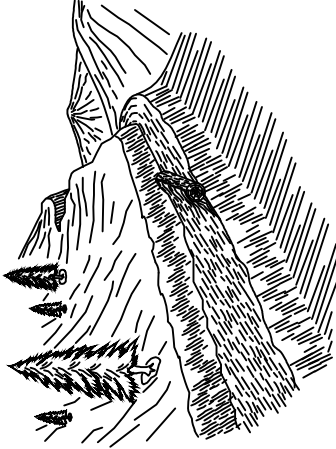
EXHIBIT D-8
SHEET 1 OF 2
RANCHERO T.S.



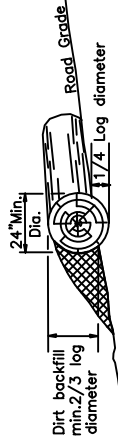
TRENCH BARRICADE



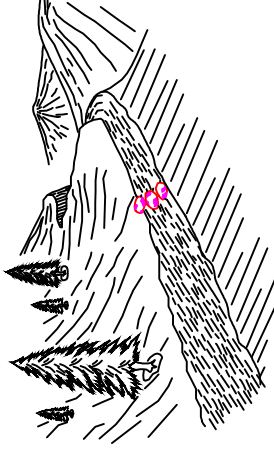
1. BARRICADE LENGTH SHALL EXTEND ACROSS THE ENTIRE ROAD SURFACE TO A POINT SUFFICIENT TO PROHIBIT MOTOR VEHICLE TRAFFIC.
2. THE EXACT LOCATION SHALL BE AS STAKED IN THE FIELD.
3. THE BARRICADE SHALL BE SKEWED AS NEEDED TO DRAIN OR AS DIRECTED BY THE AUTHORIZED OFFICERS REPRESENTATIVE.
4. A MINIMUM OF 1' IS OF LEVEL GROUND IS NEEDED BETWEEN TOE OF THE DIRT BERM AND THE EDGE OF THE TRENCH.



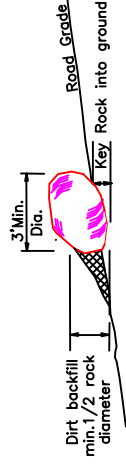
LOG BARRICADE



1. LOG BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL BARRICADES SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.
5. THE MINIMUM SMALL END DIAMETER OF THE LOG BARRICADE SHALL BE 24".

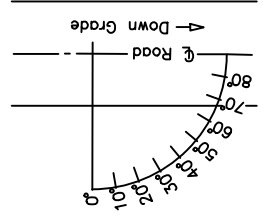


ROCK BARRICADE



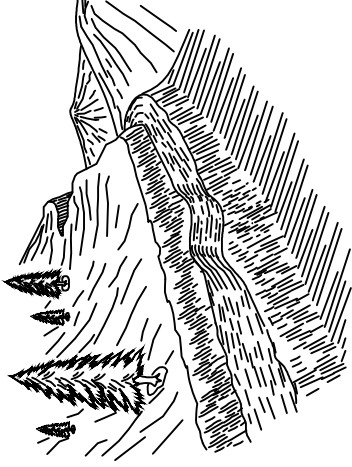
1. ROCK BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. THE LENGTH SHALL BE SUFFICIENT TO BLOCK ROAD FROM VEHICLE USE.
4. THE MINIMUM DIAMETER OF ROCK SHALL BE 3 FEET.
5. THE MAXIMUM SPACE BETWEEN ROCKS SHALL BE 36" OR AS APPROVED BY THE AUTHORIZED OFFICER.

SKREW DIAGRAM

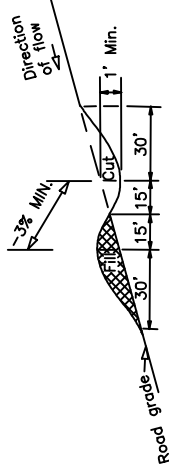


REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
DRAINAGE & EROSION CONTROL DETAILS			
DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	1 OF 2
DRAWING NO.	ORM05-TS-2020-0006-D8		

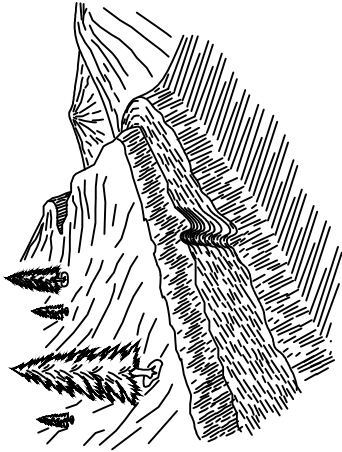
EXHIBIT D-8
SHEET 2 OF 2
RANCHERO T.S.



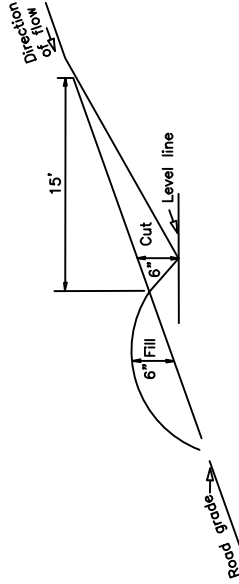
WATER DIP



1. WATER DIPS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL WATER DIPS SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE AND BE READILY CROSSED BY HIGH CLEARANCE TYPE VEHICLES.

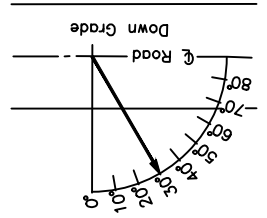


WATER BAR



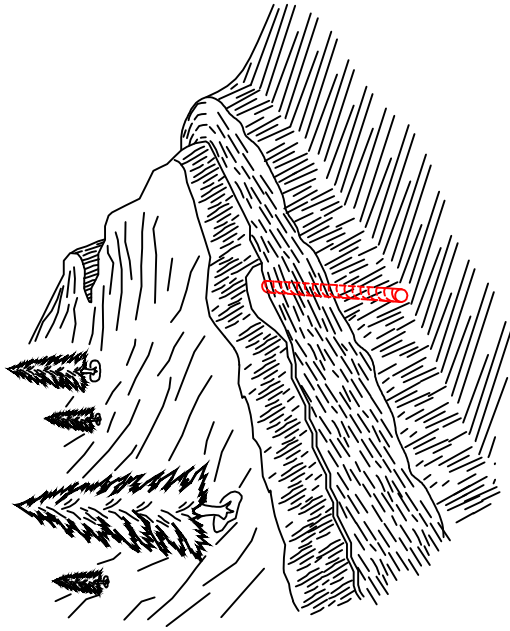
1. CROSS-DRAINS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL CROSS DRAINS SHALL BE SKEWED 30 DEGREES.
4. THE CROSS-DRAINS INVERT SHALL BE SMOOTH AND FREE DRAINING.

SKEW DIAGRAM



REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
DRAINAGE & EROSION CONTROL DETAILS			
DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	2 OF 2
DRAWING NO. ORM05-TS-2020-0006-D8			

EXHIBIT D-9
RANCHERO T.S.
SHEET 1 OF 1



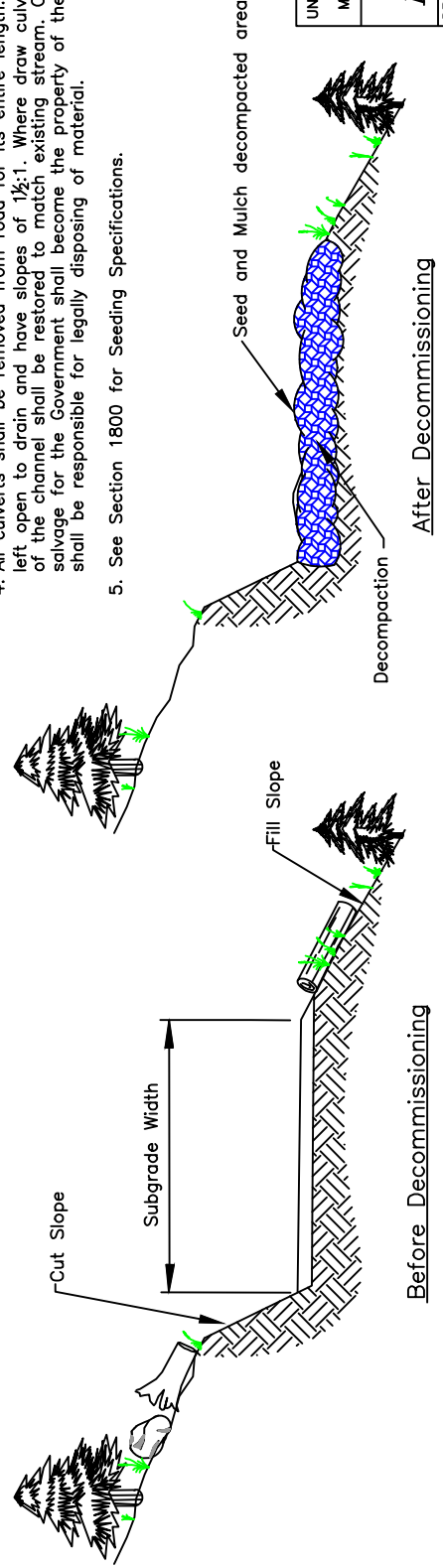
Typical Culvert Removal – Before



Typical Culvert Removal – After

Notes:

1. The Purchaser shall barricade, and decompact the road prism. Barricades shall be constructed as shown for each road.
2. Ditchlines at intersecting roads will be restored as indicated on plan view.
3. Road surface shall be decompact for its entire length using mechanical equipment. Decompact road surface to a depth of 12 to 18 inches or to a point where 10 inch diameter stones are the dominant substrate (whichever is shallower). Where it is determined by the Authorized Officer that decompaction may cause unacceptable damage to the root systems of residual trees along a majority of the road, decompaction may be intermittent, or scarification may be used instead. Decompacted areas shall be seed and mulched after completion.
4. All culverts shall be removed from road for its entire length. Excavated culverts shall be left open to drain and have slopes of 1½:1. Where draw culverts are removed the grade of the channel shall be restored to match existing stream. Culverts not designated as salvage for the Government shall become the property of the Contractor. The Contractor shall be responsible for legally disposing of material.
5. See Section 1800 for Seeding Specifications.



Typical Full Decommission

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT — MEDFORD, OREGON

Typical Full
Decommission Detail

DRAWN	JAB	SCALE	NONE
DATE	JUNE 2020	SHEET	1 OF 1
DRAWING NO.	ORM05-TS20-0006-D9		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Name of Bidder
Tract Number
Sale Name
Sale Notice <i>(dated)</i>
BLM District

DEPOSIT AND BID FOR: (Check One):

- Timber and/or Other Wood Products or**
(Examples of Other Wood Products: biomass, firewood, posts, poles, etc...)
- Vegetative Resources**
(Examples of Vegetative Resources: boughs, pinyon nuts, cones, plants, etc...)

<input type="checkbox"/> Sealed Bid for Sealed Bid Sale	<input type="checkbox"/> Written Bid for Oral Auction Sale
Time for opening sealed bids <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	Sale commences <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
On <i>(date)</i> Place	On <i>(date)</i> Place

In response to the above dated Sale Notice, the required deposit and bid are hereby submitted for the purchase of designated Timber and/or Other Wood Products or Vegetative Resources on the tract specified above.

Required bid deposit is \$ _____ and is enclosed in the form of:

- cash money order cashier's check certified check bank draft
- bid bond of corporate surety on approved list of the United States Treasury 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 product and species will be considered. If the bid is rejected the deposit will be returned.

BID SCHEDULE – TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES

NOTE: Bidders should carefully check computations in completing the Bid Schedule

BID SUBMITTED					ORAL BID MADE	
PRODUCT & SPECIES	UNIT	ESTIMATED VOLUME OR QUANTITY	UNIT PRICE	TOTAL VALUE	UNIT PRICE	TOTAL VALUE
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
TOTAL PURCHASE PRICE						

If sale contract is executed, undersigned is liable for total purchase price including all modifications executed under the terms of the contract. Timber and/or Other Wood Products or Vegetative Resources designated for taking may be less or more than 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)

<input type="checkbox"/> Signature, if firm is individually owned	Name of firm <i>(type or print)</i>
<input type="checkbox"/> Signatures, if firm is a partnership or L.L.C.	Business address, include zip code <i>(type or print)</i>
<input type="checkbox"/> Corporation organized under the state laws of	<i>(To be completed following oral bidding)</i>
Signature of Authorized Corporate Signing Officer	I HEREBY confirm the above oral bid By <i>(signature)</i>
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 and/or Other Wood Products or (1a) “Vegetative Resources” (2) Time bids are to be opened (3) Legal description

NOTICES

The Privacy Act and the regulations in 43 CFR 2.223(d) require that you be furnished with the following information:

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 and/or Other Wood Products or Vegetative Resources.

INSTRUCTIONS TO BIDDERS

1. **AUTHORITY** – Timber and/or Other Wood Products or Vegetative Resources, located on the revested Oregon and California Railroad Grant Lands and on the reconveyed Coos Bay Wagon Road Grant Lands is administered and sold pursuant to authority of the Act of August 28, 1937 (50 Stat. 874; 43 U.S.C. 1181a); Timber and/or Other Wood Products or Vegetative Resources located on other public lands of the United States under jurisdiction of the Bureau of Land Management are administered and sold pursuant to authority of the Act of July 31, 1947 (61 Stat. 681), as amended, by the Act of July 23, 1955 (69 Stat. 367; 30 U.S.C. 601 et. seq.). Regulations of the Secretary of the Interior governing sale of Timber and/or Other Wood Products or Vegetative Resources, are codified in 43 CFR Group 5400.

2. **QUALIFICATIONS OF BIDDERS** – A bidder for sale of Timber and/or Other Wood Products or Vegetative Resources must be either (a) a citizen of the United States, (b) a partnership composed wholly of such citizens, (c) an unincorporated association composed wholly of such citizens, or (d) a corporation authorized to transact business in the State in which the Timber and/or Other Wood Products or Vegetative Resources are located.

3. **INSPECTION OF TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES** – Bidder is invited, urged, and cautioned to inspect the Timber and/or Other Wood Products or Vegetative Resources prior to submitting a bid. By executing the Timber and/or Other Wood Products or Vegetative Resources sale contract, bidder warrants that the contract is accepted on the basis of his examination and inspection of the Timber and/or Other Wood Products or Vegetative Resources and his opinion of its value.

4. **DISCLAIMER OF WARRANTY** – Government expressly disclaims any warranty of the fitness of the designated Timber and/or Other Wood Products or Vegetative Resources for any purpose of the bidder; all Timber and/or Other Wood Products or Vegetative Resources are to be sold “As Is” without any warranty of merchantability by Government. Any warranty as to the quantity or quality of Timber and/or Other Wood Products or Vegetative Resources to be sold is expressly disclaimed by Government.

5. **BIDS** – Sealed or written bids for not less than the advertised appraised price, per Timber and/or Other Wood Products or Vegetative Resources must be submitted in duplicate to the District Manager who issued *Timber and/or Other Wood Products or Vegetative Resources Sale Notice*.

(a) **Sealed Bid Sales** – Bids will be received until time for opening which is set out in the Notice. Enclose both copies of bid with required bid deposit in a sealed envelope marked on the outside *Bid for Timber and/or Other Wood Products or Vegetative Resources*, time bid is to be opened, tract number, and legal description of land on which Timber and/or Other Wood Products or Vegetative Resources are located. In event of a tie, the high bidder shall be determined by lot from among those who submitted the tie bids.

(b) **Auction Sales** – Submission of the required bid deposit and a written bid is required to qualify for oral bidding. Oral bidding shall begin from the highest written bid. No oral bid will be considered which is not higher than the preceding bid. In the event there is a tie in high written bids, and no oral bidding occurs, the bidder who was the first to submit his bid deposit and written bid shall be declared the high bidder. If the officer conducting the sale cannot determine who made the first submission of high tie written bids, the high bidder shall be determined by lot. High bidder must confirm his bid, in writing, immediately upon being declared high bidder.

(c) Except as otherwise provided in 43 CFR 5442.2, bids will not be considered in resale of Timber and/or Other Wood Products or Vegetative Resources remaining from an uncompleted contract from any person or affiliate of such person who failed to complete the original contract because of (1) cancellation for the purchaser’s breach or (2) through failure to complete payment by expiration date.

(d) When it is in the interest of the Government to do so, it may reject any and all bids and may waive minor deficiencies in bids or in sale advertisement.

6. **BID FORMS** – All sealed, written bids, and confirmation of oral bids shall be submitted on forms provided by Government.

(a) **Timber and/or Other Wood Products or Vegetative Resources Sales** – For each product and species, bids shall specify (1) Bureau of Land Management estimated unit volume or quantity, (2) bidder’s price per unit and total value, and (3) bidder’s total purchase price. Estimated volume and price per unit are to be used for administrative and appraisal purposes only. Upon award of contract, the high bidder agrees to pay the Government for the Timber and/or Other Wood Products or Vegetative Resources designated for removal in accordance with the terms of the contract. Timber and/or Other Wood Products or Vegetative designated for taking may be less or more than total estimated volume or quantity shown above.

7. **BID DEPOSIT** – All bidders must make a deposit of not less than the amount specified in the *Timber and/or Other Wood Products or Vegetative Resources*

Notice. Deposit may be in the form of cash, money orders, bank drafts, cashiers or certified checks made payable to the Department of the Interior – BLM, bid bonds of a corporate surety shown on the approved list of the United States Treasury Department (*Applies To Timber Only*), or any approved guaranteed remittance approved by the Contracting Officer. Upon conclusion of bidding, the bid deposit of all bidders, except high bidder, will be returned. The cash deposit of the successful bidder may be applied toward the required sale deposit and/or the purchase price. Cash not applied to the sale deposit or the purchase price, or a corporate surety bid bond, will be returned at the time the contract is signed by the Government.

8. **AWARD OF CONTRACT** – Government may require high bidder to furnish such information as is necessary to determine the ability of bidder to perform the obligation of contract. Contract will be awarded to high bidder, unless he is not qualified or responsible or unless all bids are rejected. If high bidder is not qualified or responsible or fails to sign and return the contract together with required performance bond and any required payment, contract may be offered and awarded to the highest bidders qualified, responsible, and willing to accept the contract.

9. **TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES SALE CONTRACTS** – To be executed by purchaser, has been prepared by Government, and may be examined in the District or Field Manager’s office.

10. **PERFORMANCE BOND** – (*Primarily Used For Timber Sales*)

(a) A performance bond in an amount of not less than 20 percent of total purchase price is required, but the amount of the bond shall not be in excess of \$500,000, except when the purchaser opts to increase the minimum bond to permit cutting prior to payment as provided in 43 CFR 5451.2, or in the event the purchaser is a holder of an unresolved default the bond may be increased as provided in 43 CFR 5450.1(b). Performance bond may be (1) bond of a corporate surety shown on approval list issued by the United States Treasury Department and executed on an approved standard form, (2) personal surety bond executed on an approved standard form if Government determines principals and bondsman are capable of carrying out the terms of the contract, (3) cash bonds, (4) negotiable securities of the United States, or (5) any guaranteed remittance approved by the Contracting Officer.

(b) If purchaser elects to cut Timber and/or Other Wood Products or Vegetative Resources without skidding or yarding it to a loading point or removing it prior to the payment of the second or subsequent installments, Government shall require an increase in amount of performance bond initially required by an amount equal to the value of Timber and/or Other Wood Products or Vegetative Resources to be cut. Such increase must be on a bond rider form supplied by Government and be approved, in writing, by Government prior to cutting Timber and/or Other Wood Products or Vegetative Resources covered by the bond increase. This increased amount of bond shall be used to assure payment for Timber and/or Other Wood Products or Vegetative Resources cut in advance of payment.

11. **PAYMENT BOND**— (*Primarily Used For Timber Sales*)

If purchaser elects to (a) cut and remove Timber and/or Other Wood Products or Vegetative Resources, or (b) remove Timber and/or Other Wood Products or Vegetative Resources already cut which has been secured by an increased performance bond as provided in paragraph 10(b) above, before payment of the second or subsequent installments, Government shall require a payment bond on a form supplied by Government. Purchaser shall obtain written approval from Government of payment bond prior to cutting and/or removal of Timber and/or Other Wood Products or Vegetative Resources covered by the bond. Payment bond shall be used to assure payment for Timber and/or Other Wood Products or Vegetative Resources cut and/or removed in advance of payment.

12. **PAYMENT OF PURCHASE PRICE** – For sales of \$500 or more, Government may allow payment by installments. Except as discussed in paragraphs 10 and 11 above, no part of any Timber and/or Other Wood Products or Vegetative Resources sold may be severed, cut, or removed unless advance payment has been made as provided in contract.

13. **LIQUIDATED DAMAGES** – Within thirty (30) days from receipt of *Timber and/or Other Wood Products or Vegetative Resources Sale Contract*, the successful bidder shall sign contract and return it to Government, together with required bond and any required payment. If successful bidder fails to comply within the stipulated time, his bid deposit shall be retained by Government as liquidated damages.

14. **NINETY-DAY SALES** – If no bid is received within time specified in the advertisement of sale and if Government determines that there has been no significant rise in the market value of Timber and/or Other Wood Products or Vegetative Resources, it may, in its discretion, keep the sale open, not to exceed ninety (90) days.

15. *UNAUTHORIZED USE OF GOVERNMENT PROPERTY* – A sale may be refused to high bidder who has been notified that he has failed to make satisfactory arrangements for payment of damages resulting from unauthorized use of, or injury to, property of the United States.

16. *EQUAL OPPORTUNITY CLAUSE* – This contract is subject to the provisions of Executive Order No. 11246 of September 24, 1965, as amended, which sets forth the nondiscrimination clauses. Copies of this order may be obtained from the District Manager. 43 CFR 60-1.7(b) requires that the Equal Opportunity *Compliance Report Certification* will be completed by prospective contractors. Certification may be obtained from District Manager.

17. *LOG EXPORT* – All timber offered for sale except as noted in the *Timber Sale Notice* is restricted from export from the United States in the form of unprocessed timber and cannot be 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 saw logs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end product use; or (4)

western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimensions or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 common or better. 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 remanufacture of eight and three quarters (8-3/4) inches in thickness or less; or (6) shakes and shingles. In event purchaser wishes to sell any or all of timber restricted from export in the form of unprocessed timber, the buyer, exchanges, or recipient shall be required to comply with contractual provisions relating to “*unprocessed timber*”. Special reporting, branding and painting of logs may be included in contract provisions.*

18. *DETAILED INFORMATION* – Detailed information concerning contract provisions, bid, performance bond forms, tract location maps, and access conditions may be obtained from the District Manager. All persons interested in bidding on the products listed are encouraged to familiarize themselves with all such detailed information.