PART III: EXHIBITS

State Timber Sale Contract
No. 341-18-19
High On The Hog

EXHIBIT B

629-Form 341-203

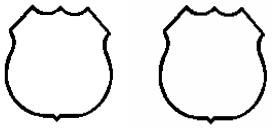
Revised 06/97

OREGON DEPARTMENT OF FORESTRY

TIMBER SALE OPERATIONS PLAN
(See Page 2 for instructions)

Date Received by STATE: _____

(5) State Brand Information (complete):



(1) Contract No.: 341-18-19

(2) Sale Name: High On The Hog

(3) Contract Expiration Date: October 31, 2020

Project Completion Dates: _____

(4) Purchaser: _____

(6) Purchaser Representatives:

Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____

(7) State Representatives:

Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____

(8) Name of Subcontractors & Starting Dates:

Projects: No(s) _____-_____	Date: _____	Phone: _____
No(s) _____-_____	Date: _____	Phone: _____
No(s) _____-_____	Date: _____	Phone: _____
No(s) _____-_____	Date: _____	Phone: _____
Logging: Felling _____	Date: _____	Phone: _____
Yarding: _____	Date: _____	Phone: _____

(9) Comments: _____

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

EXHIBIT B

INSTRUCTION SHEET FOR OPERATIONS PLAN

SUBMIT ONE COPY OF PLAN TO STATE

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

Explanation of Item No. (from Page 1)

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

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

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

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

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

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

1. Landing locations, approximate setting boundaries, and probable sequence of logging the settings. Number the settings in sequence.
2. Locations of spur roads planned for construction, other than those required by the timber sale contract. Provide spur road specifications.
3. Location of proposed tractor yarding roads. Show if and how marked on the ground.
4. Location of temporary stream crossings.
5. List the sequence of performing project work.
6. Location of rock sources - attach pit development plans.

Cable Landing, with numbers for sequence.

Tractor Landing with alphabetical sequence.

_ _ _ _ _ Approximate setting boundary.

- - - - - - - - Spur truck roads.

Tractor yarding roads.

X Temporary stream crossings.

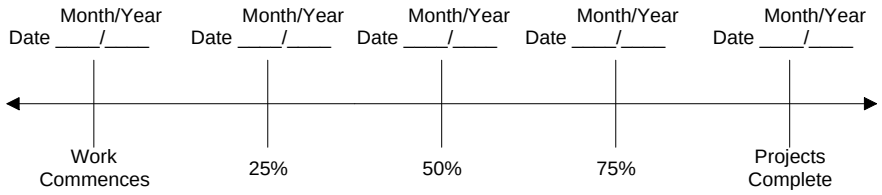
EXHIBIT B

OPERATIONS PLAN

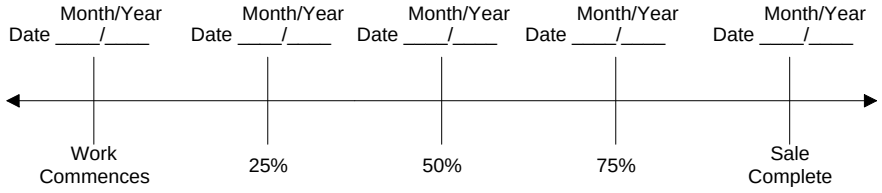
Completion Timeline

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

Projects



Harvest & Other Requirements



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

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

APPROVED: Date: _____

STATE OF OREGON - DEPARTMENT OF FORESTRY

_____

Title _____

SUBMITTED BY:
PURCHASER

_____

Title _____

Original: Salem
cc: District File
Unit
Purchaser
Operator
(Purchaser Representative)_____

EXHIBIT C – SAWMILL GRADE (WESTSIDE SCALE)

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER _____ ☐ Date _____
CANCELLATION ☐ Date _____

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

(3) FROM: Forest Grove (05) Phone (503) 357-2191
(State Forestry District)
Address 801 Gales Creek Road
Forest Grove, OR, 97116

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

(5) **MINIMUM SCALING SPECIFICATIONS**	
SPECIES	MINIMUM NET VOLUME
Conifers	10
Hardwoods	10

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

	YES	NO
(6) WESTSIDE SCALE: Use Region 6 actual taper rule. Logs over 40'.	☒	☐
(7) Weight Scale Sample	☐	☒

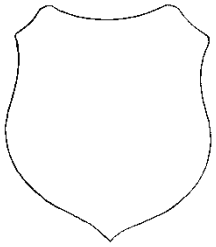
(8) **APPROVED SCALING LOCATIONS** (as shown on the ODF Approved Locations web-site)	Species	Yard	Truck	Weight

(9) SALE NAME: High On The Hog
COUNTY: Tillamook

(10) STATE CONTRACT NUMBER: 341-18-19

(11) STATE BRAND REGISTRATION NUMBER:
_____

(12) STATE BRAND INFORMATION (COMPLETE):



(13) PAINT REQUIRED: YES ☒
COLOR: Orange

(14) **SPECIAL REQUESTS** (Check applicable)	
PEELABLE CULL (all species)	☒
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE	☒
ADD-BACK VOLUME - Deductions due to delay	☒
OTHER:	

(15) **REMARKS** _____

Operator's Name (Optional inclusion by District): _____

(16) SIGNATURES:

_____
Purchaser or Authorized Representative Date

_____
State Forester Representative Date

_____
State Forester Representative PRINT NAME

Notify the District within one hour when branding or painting is inadequate for quick identification, the receipts are missing, not correctly or completely filled out, and/or when logs presented for scaling are impossible to scale accurately.

Distribution (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – SAWMILL GRADE
INSTRUCTIONS FOR FORM 343-307a (rev. 11/11)

(1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers, date and sign where indicated, write diagonally across page "CANCEL", and send to TPSO.

(2) Designate Third Party Scaling Organization (TPSO).

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

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

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

Yamhill Log Scaling & Grading Bureau
P.O. Box 709, Forest Grove, OR 97116
Phone: (503) 359-4474 Fax: (503) 359-4476
Email: yamhill@attglobal.net

Northwest Log Scalers, Inc .
5526 NE 122nd Ave, Portland, OR 97230
Phone: (503) 254-0600 Fax: (503) 408-0919
Email: info@nwlogscalers.com

Pacific Log Scaling & Grading Bureau, Inc.
P.O. Box 23939, Portland, OR 97281
Phone: (503) 684-5599 Fax: (503) 639-4880
Email: PacLogScale@aol.com

(3) State District office, address and phone.

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

(5) Minimum Scaling Specifications.

(6) Westside – Region 6 actual taper segment scale. Check Yes or No. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Westside).

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

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

(9) Enter sale name and county.

(10) Enter sale Contract number.

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

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

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

(14) Special Requests. These are requests that will be applied to ODF timber sales. All boxes applicable to the timber sales designated in the Exhibit C form must be "marked". If "Other" is indicated, it must contain a description and any necessary comments.

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

(16) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form.

Salem Distribution Instructions: Original will be mailed to Salem after it is electronically scanned and placed in the Salem transfer drive \\WPODFFILL01\Transfer\ScalingInstructions or e-mailed directly to scaling@odf.state.or.us. Scaling instructions for each brand should be scanned separately, for each approved TPSO.

Distribution (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
16 feet	12 feet	A to B	0+00 to 3+10	Ditch
16 feet	12 feet	C to D	0+00 to 7+10	Ditch
Match Existing	12 feet	E to C	0+00 to 15+45	Ditch
Match Existing	-	F to G	0+00 to 166+15	Ditch
Match Existing	12 feet	H to I	0+00 to 21+80	Ditch
Match Existing	12 feet	J to K	0+00 to 62+65	Ditch
Match Existing	12 feet	K to N	0+00 to 12+00	Ditch
Match Existing	12 feet	K to O	0+00 to 12+00	Ditch
Match Existing	12 feet	L to M	0+00 to 15+25	Ditch

CLEARING. This work shall consist of clearing, removing, and disposing of all trees, Snags, Down Timber, brush, surface objects, and protruding obstructions within the clearing limits. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections.

All danger trees, leaners, and Snags outside the clearing limits which could fall and hit the road shall be felled.

CLEARING CLASSIFICATION.

New Construction - Where clearing limits have not been marked, the clearing limits shall extend 5 feet back of the top of the cutslope and 5 feet out from the toe of the fill slope, or as directed by STATE.

Improvement - the “Road Brushing Specifications" in Exhibit G shall apply.

GRUBBING. This work shall consist of the removal or digging out of stumps and protruding objects.

All stumps shall be completely removed within the limits of required grubbing. Stumps overhanging cutslopes shall be removed. Grubbing debris shall not be placed or permitted to remain in or under any road embankment sections.

GRUBBING CLASSIFICATION.

New construction - from the top of the cutslope to the toe of the fill.

Improvements and reconstructions - 4 feet back from the shoulder of the subgrade or ditch, whichever is widest, or as marked in the field.

CLEARING AND GRUBBING DISPOSAL. Scatter in stable locations through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required. In areas where end-haul is required, clearing and grubbing debris shall be fully contained and hauled to a designated waste area. Clearing and grubbing debris shall be left in a stable location, and not left lodged against standing trees.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

EXCAVATION. Excavation and grading shall not be done when weather and/or ground conditions are such that damage will result to existing subgrade or cause excessive erosion.

Excavation shall conform to STATE-specified lines, grades, dimensions, and plans when provided.

Unless road plans show otherwise, all roads shall be on a balanced cross section, except when the slope is over 50 percent, the road shall be on full bench for the width specified.

Suitable excavated material shall be used for the formation of fills, shoulders, and drainage structure backfills. Embankment materials shall be free of woody debris, brush, muck, sod, frozen material, and other deleterious materials.

Sidecast includes any road generated excess excavation material which is not essential as part of the road prism, is not compacted, and is below the roadway. Sidecast shall not be placed where it will enter a stream course. Leaving sidecast below the road is only permissible if specifically allowed in "Full Bench and End Haul Requirements" in this Exhibit.

All fills shall be machine compacted according to the "Compaction and Processing Requirements" in this Exhibit.

ROAD WIDTH LIMITATIONS. PURCHASER shall obtain advance written approval from STATE to construct the road to a greater width than specified. Extra subgrade width shall be required for:

Fill Widening. Add to each fill shoulder 1 foot for fills 3 feet to 6 feet high; 2 feet for fills over 6 feet high.

Curve Widening. Widen the inside shoulder of all curves as specified in the plans or as follows: 400 divided by the radius of the curve equals the amount of extra width.

DRAINAGE

Subgrade. Subgrade shall be crowned at 4 to 6 percent as shown on the "Forest Road Specifications" table in this Exhibit.

Ditch. Construct "V" shaped ditch 3 feet wide and to a depth of 1 foot below subgrade.

Ditchouts. Construct ditchouts to drain away from subgrade at locations marked in the field or as directed by STATE.

TURNOUTS. Increase roadbed width an additional 8 feet for both subgrade and surfacing. Length shall be at least 25 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: Intervisible but not greater than 750 feet apart.

SLOPES	Back Slopes	Fill Slopes
Solid Rock	Vertical to ¼ :1	
Fractured Rock	¼:1	
Soil - side slopes 50% and over	½ :1	1½:1
Soil - side slopes less than 50%	¾ :1	1½:1

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed as posted in the field, no less than 50 feet wide and no more than 70 feet wide unless otherwise approved by STATE. Surface is to be crowned for drainage with general grade no more than 3 percent. Surface as shown in the "Road Surfacing" table in this Exhibit.

TURNAROUNDS. Increase subgrade width an additional 20 feet for a length of 20 feet at locations marked in the field.

SEASONAL WINTERIZATION. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit H, and blocked from vehicular traffic prior to October 31, annually and as directed by STATE.

EROSION CONTROL. Install up to 40 bio bags for erosion control in the ditch line on road segment H to I and J to K. Each Bio-bag shall be installed with a minimum of two wooden stakes.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

(1) Subgrade Preparation and Application of Surfacing Rock.

(a) Complete drainage ditches, ditchouts and other specified work prior to the application of surfacing rock.

(b) Subgrade shall be crowned at 4 to 6 percent.

(c) Upon completion of above required work, apply, process, and compact surfacing rock in accordance with specifications in the “Compaction and Processing Requirements” in this Exhibit. Final road surface shall be crowned at 4 to 6 percent.

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

Segment	Station	Work Description
A to B	0+00	Point A. Begin road construction; crown road, begin ditch.
	3+10	Point B. End road construction. Construct landing.
C to D	0+00	Point C. Begin road construction; crown road, begin ditch.
	7+10	Point D. End road construction. Construct landing.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

(1) Excavated Materials. Excavated materials shall be utilized for road and fill construction and hauled in where necessary. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with Exhibit D.

(2) Bank Slough Removal. Dig out all bank slough. Bank slough material shall not be pulled across existing surfacing rock, but shall be end-hauled to a nearby waste area and compacted for drainage, as directed by STATE. Waste materials shall be seeded and mulched in accordance with specifications in Exhibit I.

(3) Culvert Installation. Existing culvert geometry shall be modified to provide for optimum drainage and culvert performance. Modifications may include, skewing the culvert and/or installing the culvert at gradients equal to or exceeding the drainage (or ditch) gradient. All woody debris encountered during fill excavation shall be removed. All waste materials shall be hauled to nearby waste areas and shall be uniformly sloped and compacted for drainage. Waste materials shall be seeded and mulched in accordance with specifications in Exhibit I. Crushed rock shall be used for backfilling excavation trenches less than 3 feet deep. STATE may require the use of crushed rock for culvert bedding. Removed culverts shall be hauled off of STATE land.

(4) Drainage Ditches. Restore or construct ditchlines, including ditchouts, as directed by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. Ditch debris including woody debris shall be loaded and hauled to designated waste areas, and shall be accomplished with the use of an excavator and dump truck. Re-establish or construct culvert sediment basins. Waste materials from drainage ditches and sediment basins shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE. Damaged culvert inlets and/or outlets shall be repaired by opening them with a hydraulic jack, or cutting off the culvert end to allow for free passage of water at peak flow levels. Install a culvert marker at each newly installed culvert and at each existing culvert that is missing a marker that could be reached by a grader blade.

(5) Settling Ponds. Construct 6 settling ponds for erosion control on road segment J to K as directed by STATE. Excavated material shall be hauled to the designated waste areas designated on Exhibit A. Waste materials shall be sloped and compacted for drainage. Settling pond dimensions shall be a finished length of 8 feet, width of 3 feet, and 3 feet in depth, or as directed by STATE.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

(6) Subgrade Preparation and Application of Surfacing Rock.

(a) Complete culvert installations, drainage ditches, ditchouts, settling ponds, and other specified work prior to the application of new surfacing rock.

(b) Cut out all potholes and/or washboard sections from the existing surfacing.

(c) Process (grade and mix) the existing surface. Provide for a crown of 4 to 6 percent, and compact in accordance to the "Compaction and Processing Requirements" in this Exhibit.

(d) Upon completion of above required work, apply, process, and compact surfacing rock in accordance to this Exhibit.

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Segment	Station	Work Description
E to C	0+00	Point E. Begin road improvement; clean or establish ditch.
	14+40	Junction with road segment A to B on right.
	15+45	Point C. End road improvement.
F to G	0+00	Point F. Begin road improvement; clean inlet and outlet of existing culverts and existing settling ponds.
	1+45	Existing culvert.
	4+67	Existing culvert.
	6+90	Bridge.
	12+95	Live water. Existing culvert.
	14+37	Existing culvert.
	21+65	Spurs on left and right.
	24+30	Existing culvert.
	28+20	Existing culvert. Install marker.
	30+45	Existing culvert. Install marker.
	36+30	Junction on left.
	39+00	Live water. Existing culvert.
	44+05	Existing culvert.
	48+85	Existing culvert.
	58+45	Existing culvert.
	61+10	Junction on left.
	66+10	Junction on right.
	80+20	Existing culvert.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Segment	Station	Work Description
	80+75	Junction with road segment H to I on left.
	84+95	Existing culvert.
	92+10	Junction on right.
	104+00	Existing culvert. Clean or establish ditch.
	104+50	Junction with road segment E to C on left, begin ditching.
	109+00	Existing culvert. Install marker.
	115+35	Existing culvert.
	125+10	Existing culvert.
	129+77	Junction on left.
	130+15	Existing culvert.
	137+90	Junction on right.
	147+75	Excavate ditchout on right to drain low spot.
	148+35	Junction on right.
	153+80	Existing culvert.
	166+15	Point G. End road improvement. Rock source on left.
H to I	0+00	Point H. Begin road improvement; clean or establish ditch, clean inlet and outlet of existing culverts.
	7+85	Live water. Existing culvert.
	8+70	Junction with road segment J to K on right.
	9+20	Live water. Existing culvert.
	10+75	Install Culvert No. 1 (18’ x 30”) as disconnect. Begin shallow ditch improvement on right (0.5’ deep x 1’ wide, “V” shaped).
	16+67	Live water. Existing culvert. End 1 foot ditch specifications, return to 3 foot ditch.
	18+25	Existing culvert. Install marker.
	21+90	Point I. End road improvement. Junction on right.
J to K	0+00	Point J. Begin road improvement; clean inlet and outlet of existing culverts, ditchline shall not be cleaned or reestablished. Install silt fencing at specified locations in accordance with specifications in Exhibit J.
	2+22	Begin silt fence replacement.
	2+94	Existing culvert. Install 2 settling ponds at inlet.
	3+75	End silt fence replacement.
	6+50	Existing culvert. Install 2 settling ponds at inlet.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Segment	Station	Work Description
	10+30	Begin silt fence replacement.
	12+22	End silt fence replacement.
	12+50	Existing culvert. Install 2 settling ponds at inlet.
	20+50	Live water. Existing culvert.
	22+70	Begin silt fence replacement.
	23+40	Live water. Existing culvert.
	23+65	End silt fence replacement.
	25+53	Existing culvert.
	34+20	Junction with road segment L to M on right; clean or establish ditch. Existing culvert.
	62+65	Point K. End road improvement.
K to N	0+00	Point K. Begin road improvement; clean or establish ditch, clean inlet and outlet of existing culverts.
	12+00	Point N.
K to O	0+00	Point K. Begin road improvement; clean or establish ditch, clean inlet and outlet of existing culverts.
	12+00	Point O. End road improvement.
L to M	0+00	Point L. Begin road improvement; clean or establish ditch, clean inlet and outlet of existing culverts.
	4+70	Live water. Existing culvert.
	8+60	Existing culvert.
	10+15	Existing culvert.
	15+25	Point M. End road improvement.

EXHIBIT D

END-HAUL REQUIREMENTS

POINT TO POINT	STA. TO STA.	CONTAINMENT - SIDECAST	WASTE AREA LOCATION	WASTE AREA TREATMENT
J to K	2+94, 6+50 and 12+50	1	1	1, 2 and 3
H to I	9+20 to 16+67	1	1	1, 2 and 3

End-Haul Areas General Requirements

Sidecast includes any road generated excess excavation material which is not essential as part of the road prism, is not compacted, and is below the roadway. Material shall not be sidecast unless specified above.

Clearing and grubbing debris shall be end-hauled. When controlled blasting is required, it shall be accomplished using timing devices, delayed charges, low intensity shots, or other suitable means to contain material within the road prism.

Containment/Sidecast

Full: No excavated material remains below the road.

Any amount of material exceeding the containment requirements shall be removed by whatever means necessary and end-hauled to a designated waste area.

Waste Area Location

As shown on Exhibit A.

Waste Area Treatment

(1) Deposit at waste area, spread evenly, compact, and provide adequate drainage.

(2) Pile woody debris separate from other waste material.

(3) Mulch and seed all waste areas in accordance with Exhibit I.

EXHIBIT D

ROAD SURFACING

ROAD SEGMENT: A to B				**POINT TO POINT**		**Sta. to Sta.**		**TOTAL VOLUME (CY)**
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	A to B		0+00 to 3+10		
				Volume (CY) Per		**Number of**		
Surfacing Rock	Pit-Run	A to B	12	Station	65	Stations	3.1	202
Junctions	Pit-Run	Point A	12	Junction	30	Junctions	1	30
Landings	Pit-Run	Point B	12	Landing	180	Landings	1	180
Total Rock for Road Segment:			A to B					412
ROAD SEGMENT: C to D				**POINT TO POINT**		**Sta. to Sta.**		**TOTAL VOLUME (CY)**
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	C to D		0+00 to 7+10		
				Volume (CY) Per		**Number of**		
Surfacing Rock	Pit-Run	C to D	12	Station	65	Stations	7.1	462
Turnaround	Pit-Run	Point D	12	Turnaround	29	Turnarounds	1	29
Junctions	Pit-Run	Point C	12	Junction	30	Junctions	1	30
Landings	Pit-Run	Point D	12	Landing	180	Landings	1	180
Total Rock for Road Segment:			C to D					701
ROAD SEGMENT: E to C				**POINT TO POINT**		**Sta. to Sta.**		**TOTAL VOLUME (CY)**
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	E to C		0+00 to 15+45		
				Volume (CY) Per		**Number of**		
Surfacing Rock	Pit-Run	E to C	6	Station	31	Stations	15.45	479
Turnouts	Pit-Run	E to C	6	Turnout	20	Turnouts	1	20
Total Rock for Road Segment:			E to C					499
ROAD SEGMENT: F to G				**POINT TO POINT**		**Sta. to Sta.**		**TOTAL VOLUME (CY)**
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	F to G		0+00 to 15+45		
				Volume (CY) Per		**Number of**		
Spot Rock	1 ½" – 0	F to G	Varies	Load	10	Loads	18	180
Total Rock for Road Segment:			F to G					180
ROAD SEGMENT: H to I				**POINT TO POINT**		**Sta. to Sta.**		**TOTAL VOLUME (CY)**
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	H to I		0+00 to 21+90		
				Volume (CY) Per		**Number of**		
Surfacing Rock	1 ½" – 0	H to I	6	Station	31	Stations	21.9	679
Turnouts	1 ½" – 0	H to I	6	Turnaround	20	Turnarounds	2	40
Junctions	1 ½" – 0	Point H	6	Junction	30	Junctions	1	30
Culvert Bedding /Backfill	1 ½" – 0	10+75	Varies	Culvert	20	Culverts	1	20
Total Rock for Road Segment:			H to I					769
ROAD SEGMENT: J to K				**POINT TO POINT**		**Sta. to Sta.**		**TOTAL VOLUME (CY)**
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	J to K		0+00 to 62+65		
				Volume (CY) Per		**Number of**		
Surfacing Rock	1 ½" – 0	J to L	6	Station	31	Stations	34.20	1,061
Surfacing Rock	Pit-Run	L to K	6	Station	31	Stations	28.45	882
Turnouts	1 ½" – 0	J to L	6	Turnout	20	Turnouts	4	80
Turnouts	Pit-Run	L to K	6	Turnout	20	Turnouts	5	100
Junctions	1 ½" – 0	Point J	6	Junction	20	Junctions	1	20
Total Rock for Road Segment:			J to K					2,143

EXHIBIT D

ROAD SURFACING

ROAD SEGMENT: L to M				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	L to M Volume (CY) Per		0+00 to 15+25 Number of		
Surfacing Rock	Pit-Run	L to M	6	Station	31	Stations	15.25	473
Turnouts	Pit-Run	L to M	6	Turnout	20	Turnouts	1	20
Junctions	Pit-Run	Point L	6	Junction	20	Junctions	1	20
Landings	Pit-Run	Point M	6	Landing	90	Landings	1	90
Total Rock for Road Segment:			L to M					603

ROCK TOTALS (CY)	1½"-0”	Pit-Run
	2,210	3,097

Roads shall be uniformly graded, shaped and approved by STATE prior to rocking.

EXHIBIT D

ROCK ACCOUNTABILITY

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

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

Depth Measurement. Rock shall be spread and compacted according to the depths specified in Exhibit D. Truck measure volumes are given, but shall not limit the amount of rock spread.

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

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

Moisture Content: Compaction must take place when moisture content of the materials being compacted is favorable for effective compaction as determined by STATE.

Compaction Pass: A pass is defined as traveling a road section forward and then backward over that same section.

Subgrade. Subgrade surfaces of the road segments listed below shall be graded and compacted prior to rocking. Compaction shall be accomplished by traveling all surfaces from shoulder to shoulder until the surface is smooth and hard and visible deformation ceases. At least 3 passes shall be made over the entire width and length of the road. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Subgrade shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments	1

Fills. Embankments and fills shall be placed in (approximately) horizontal layers not more than 8 inches in depth. Each layer shall be separately, and thoroughly, compacted. Compaction equipment shall be operated over the entire width of each layer until visible deformation of the layers ceases. At least 3 passes shall be made over the entire width and length of each layer.

Placing individual rocks or boulders with more depth than the allowed layer thickness shall be permitted, provided the embankment will accommodate them. Such rocks and boulders shall be at least 6 inches below the subgrade. They shall be carefully distributed and the voids filled with finer material, forming a dense and compacted mass. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments.	1, 2 and 4

Crushed Rock. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of crushed rock shall be moistened or dried to uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 6 inches in depth. When more than 1 layer is required, each shall be shaped and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road until the surface is smooth and hard and visible deformation ceases. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Rock shall be compacted and processed during the same project period it is spread, unless otherwise approved in writing by STATE.

Rock shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring crushed rock.	1

Pit-Run Rock. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of pit-run rock shall be moistened or dried to uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 8 inches in depth. When more than 1 layer is required, each shall be shaped and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Rock shall be crowned at 4 to 6 percent as specified in the “Forest Roads Specifications” table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring Pit-Run	3 or a combination of 1 and 4

COMPACTION EQUIPMENT OPTIONS

1 Vibratory Rollers. The drum shall have a smooth surface, a diameter not less than 48 inches, a width not less than 58 inches, and a turning radius of 15 feet or less. (*Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 VPM, corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 VPM. It shall be activated by a power unit of not less than 25 horsepower.) The vibratory roller shall be self-propelled and operated at speeds ranging from 0.9 miles to 1.8 miles per hour, as directed by STATE.

2 Vibratory Hand-Operated or Backhoe-Mounted Tamper. Vibratory hand-held or hydraulic tampers shall be used for compaction of backfill materials around culverts (and/or bridge approach embankment materials around abutments). The tamper shoe dimensions shall be a minimum of 10" X 13" and capable of a centrifugal force of 2,250 pounds.

3 Vibratory Grid Compactors. The roller shall have a grid surface and have an operating weight of 32,000 pounds or more. The rock shall be worked with a grader weighing at least 20,000 pounds during the grid rolling process. All rock shall come in contact with the vibratory grid compactor.

4 Dozer. A dozer/track-type tractor weighing a minimum of 82,000 pounds shall be operated over the pit-run rock so that the entire surface comes in contact with the tracks.

EXHIBIT E

CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract.

Culverts shall be constructed of corrugated double-walled polyethylene and meet the requirements of AASHTO M-294-06, Type S Culvert.

Polyethylene culverts shall not be used where required culvert diameter is over 36 inches.

Polyethylene joints shall be made with split couplings, corrugated to engage the culvert corrugations, and shall engage a minimum of 4 corrugations, 2 on each side of the culvert joint.

Culverts shall be located according to the alignment and grade as shown on the Plan and Profile, and/or as staked in the field, or as specified in special instructions.

The STATE Representative shall determine final culvert locations and stake the locations in the field prior to installation.

Cross Drain Culverts

Cross drain culverts on road grades in excess of 3 percent shall be skewed at least 30 degrees from perpendicular to the road centerline, except that cross drain culverts at the low point of dips in roads shall not be skewed. Cross drains shall be skewed to fit the required culvert length to the road prism.

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3 percent or greater than 10 percent.

Disconnect Culverts

The culvert inlet shall be located as close to the channel that it is disconnecting, while the culvert outlet shall be located as far from the channel as possible; discharge culvert outflow on the forest floor, allowing for filtration before the water enters the disconnected channel.

The foundation and trench walls for all culverts shall be free from logs, stumps, limbs, stones, and other objects which would dent or damage the culvert. The culvert trench shall be excavated 3 culvert diameters wide to permit compaction and working on each side of the culvert. Tamping shall be done in 6-inch lifts, 1 culvert diameter each side of the culvert. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

A bedding of crushed rock as specified shall be placed to provide a wide band of support and to transmit the load from above evenly over the entire length of the culvert for all culverts. Backfill shall consist of crushed rock on improvement segments.

Transporting of the culvert shall be done carefully. Dragging or allowing free fall from trucks or into trenches shall not be permitted.

EXHIBIT E

CULVERT SPECIFICATIONS

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be as follows: 12" for culverts 18” to 36”. Minimum vertical cover for other designs shall be as specified by STATE.

Lengths of individual culvert sections shall be not less than 10 feet, unless otherwise provided for in special instructions.

The ends of each culvert shall be free of logs and debris which would restrict the free flow of water.

The intake end of relief culverts shall be provided with a sediment catching basin 3 feet in diameter at the bottom. The outlet end of any culvert which would allow water to erode embankment soil shall be provided with an energy dissipator, half round, or other approved slope protection device. Construct lead-off ditches away from culvert outlets where the slope gradients restrict the free flow of water.

Compaction by tamping utilizing a Vibratory Hand-Operated or Backhoe-Mounted Tamper is required for all culverts on improvement sections.

All culverts scheduled for replacement shall become property of the PURCHASER and be removed from STATE land in the same project period in which replacement occurred.

The intake ends of culverts in fills less than 3 feet to the top of the culvert shall be marked by driving steel posts within 6 inches of the downgrade side. Posts shall be painted with a rust-resistant paint and be a minimum of 5 feet long, with the spade driven 2 feet into the ground.

Settling Ponds and Bio Bags shall be installed within 72 hours of culvert installation, unless otherwise approved in writing by STATE.

CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	MATERIAL TYPE	ROAD SEGMENT POINT TO POINT	STATION
1	18	30	CPP	H to I	10+75

CPP = Polyethylene

EXHIBIT F

ROCK QUARRY DEVELOPMENT AND USE

1. PURCHASER shall prepare a written development plan for the quarry area. The plan shall be submitted to STATE for approval prior to conducting any operation in quarry area. The plan shall include, but not be limited to:

   (a) Location of benches and roads to benches.
   (b) Disposal site for woody debris, overburden and reject material.
   (c) Time lines for rock quarry use.
   (d) Erosion Control measures.

2. PURCHASER shall schedule and coordinate quarry and stockpile usage with other existing or planned activity requiring quarry or stockpile usage. PURCHASER shall notify STATE 5 days prior to the start of quarry development activities.

3. The quarry site shall be left in a condition free from overburden and debris. Access roads to the quarry, and the quarry floor, shall be cleared at the termination of use. Overburden shall be removed for a distance of 20 feet beyond the developed rock source.

4. All overburden and reject material shall be hauled to the designated waste area as directed by STATE.

5. PURCHASER shall conduct the operations relative to the disposal of waste material in such manner that sediment, rock, or debris shall not be washed, conveyed, or otherwise deposited in any stream.

6. Benches shall be maintained/constructed at intervals of 40 feet or less in height and shall be a minimum of 20 feet in width. Any gravel or talus slopes shall be left with a working face at an angle of 60 percent or less. There shall be a minimum of one bench with an access road to it. Said bench shall be easily accessible with tractors. Quarry face shall be developed in a uniform manner. All quarry backslopes shall be left in a stable condition.

7. Oversized material that is produced shall be piled in a designated area adjacent to the pit. It shall not be wasted.

8. The quarry floor shall be developed to provide for drainage away from the quarry. Ditchout shall be excavated to drain new quarry floor. All excavated material shall be placed adjacent to the quarry or hauled to the waste area. All quarry and stockpile site drainage ditches shall be maintained. Quarry access roads shall be cleared and blocked upon completion of quarry use as directed by STATE.

9. Proper winterization and storm-water control measures such as waterbarring, drainage, utilization of filter bales, mulching and/or blocking access shall be constructed and maintained to protect the watershed and Project Work, as directed by STATE.

10. Apply seed and mulch to the waste area, as specified in Exhibit I.

EXHIBIT F

PIT-RUN ROCK SPECIFICATIONS

For 6"-0" Pit-Run	Passing	10" sieve	100%
	Passing	6" sieve	60-85%
	Passing	3" sieve	30-50%
	Passing	1/4" sieve	0-20%

Material shall be well graded, free of organic material and shall not have excessive fine materials.

Control of gradation shall be by visual inspection by STATE.

EXHIBIT G

ROAD BRUSHING SPECIFICATIONS

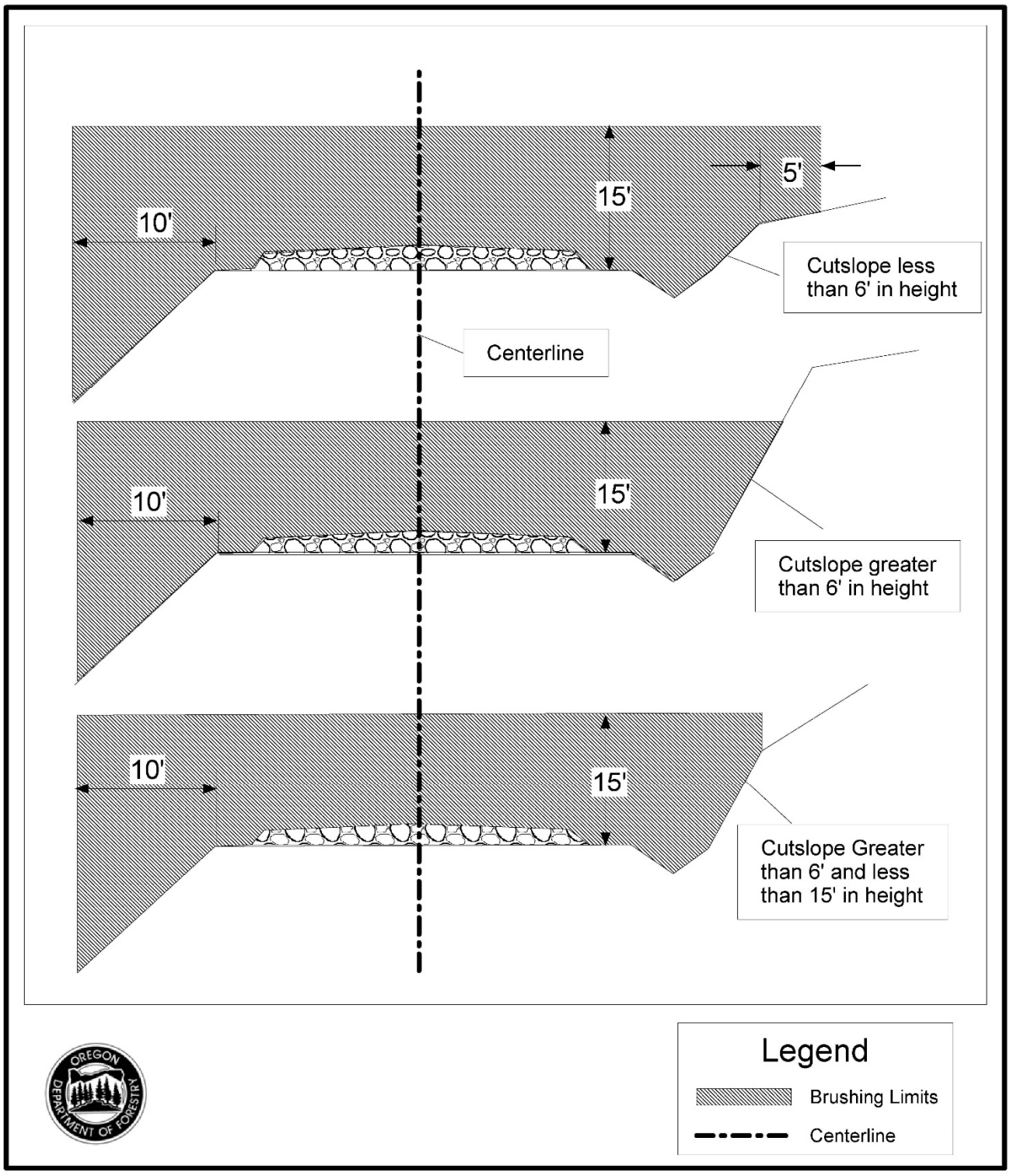


EXHIBIT G

ROAD BRUSHING SPECIFICATIONS

REQUIREMENTS

The minimum height of clearing shall be 15 feet from the road surface, and the minimum width of clearing on the down slope side of the road shall be 10 feet horizontal distance. The minimum width of brushing on the cutslope side of the road shall be dictated by the height of the cutslope as indicated in the three drawings above.

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

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

Trees larger than 6 inches in diameter at stump height, located within clearing limits but outside of the ditchline or shoulder, shall not be cut down, but shall be limbed for road visibility. Planted or established conifers, located within brushing limits but outside of the ditchline or shoulder, shall not be cut down, but shall be limbed for road visibility unless otherwise directed by STATE.

Existing debris on the roadway, cutslope, ditchline, or catch basin shall be removed and treated. Debris shall be mulched or scattered downslope from the road or placed in other stable locations. Large non-merchantable debris, 6 inches or larger in diameter, shall be mulched or cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.

Merchantable blown down trees encountered shall be bucked in lengths as directed by STATE, and placed in locations acceptable to STATE, or pushed out of the road prism.

When spur roads to be brushed end with a Landing, the Landing is to be brushed as directed by STATE.

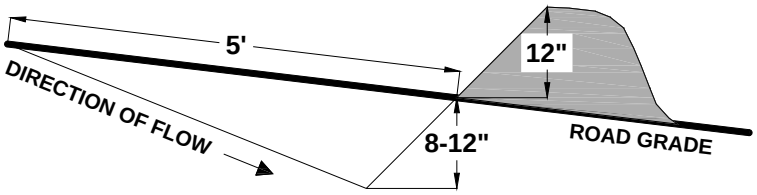
CULVERT AND ROAD MARKER DAMAGES. Culvert and road markers damaged, or any portion of a marker damaged from PURCHASER activities shall be replaced.

EXHIBIT H

WATERBAR SPECIFICATIONS

PROFILE

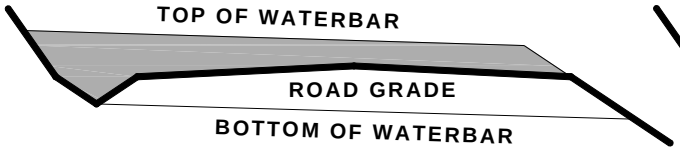
DITCHED AND OUTSLOPED



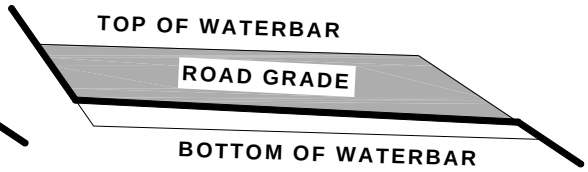
SPACING OF WATERBARS	
ROAD GRADE	DISTANCE
< 6 %	400'
6 - 10 %	200'
11 - 15 %	150'
> 15 %	100'

CROSS SECTION

DITCHED



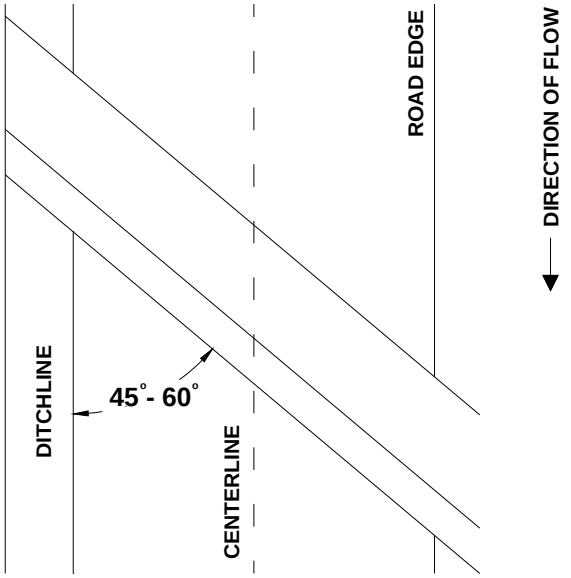
OUTSLOPED



CONSTRUCT DITCHOUT THRU ANY EXISTING BERM.
CROSS DRAINAGE GRADIENT MINIMUM 3%.

PLAN VIEW

DITCHED



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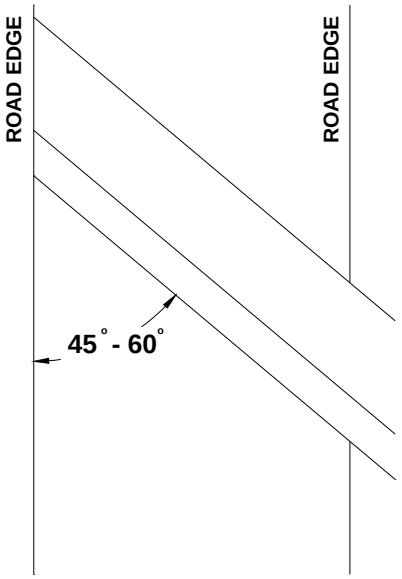
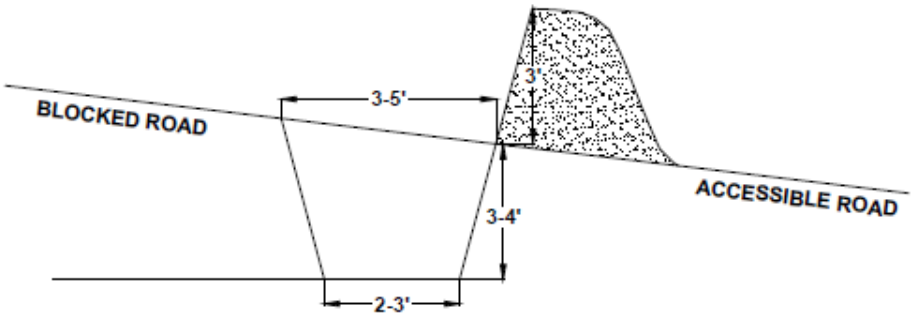


EXHIBIT H

TANK TRAP SPECIFICATIONS

PROFILE
DITCHED AND OUTSLOPED



CROSS SECTION

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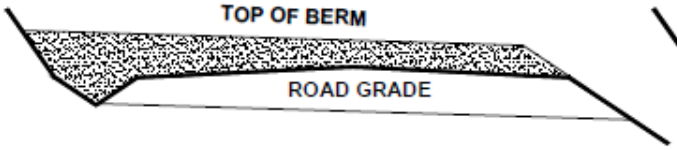

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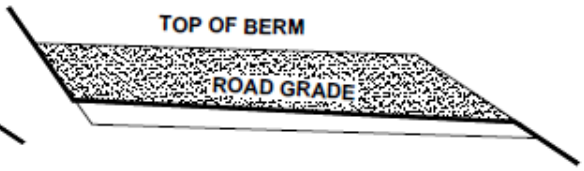
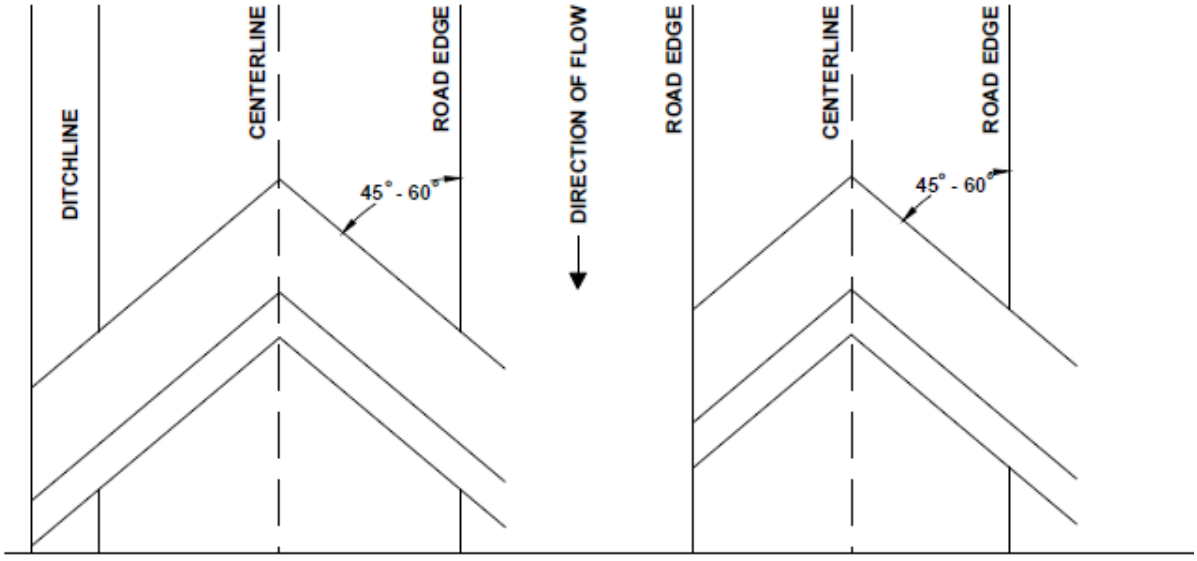


CONSTRUCT DITCHOUT THRU ANY EXISTING BERM.
CROSS DRAINAGE GRADIENT MINIMUM 3%

PLAN VIEW

DITCHED

OUTSLOPED



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

State Timber Sale Contract
No. 341-18-19
High On The Hog

EXHIBIT I

SEEDING AND MULCHING

This work shall consist of preparing seedbeds and furnishing and placing required seed, fertilizer, and straw mulch. Straw mulch shall consist of straw that is free of noxious weeds. Apply seed and fertilizer to all waste areas, and bare soils resulting from Project No. 1 and 2. Apply straw mulch to all bare soils within 100' of streams resulting from Project No. 1 and to all waste areas.

Seeding Seasons. Seeding shall be performed only from March 1 through June 15 and August 15 through October 31. Seeding materials shall not be applied during windy weather or when the ground is excessively wet or frozen. Areas of disturbed soil shall be seeded by the end of the project period in which work was started.

APPLICATION METHODS FOR SEED AND FERTILIZER

Dry Method. Mechanical seeders, seed drills, landscape seeders, cultipacker seeders, fertilizer spreaders, or other approved mechanical seeding equipment shall be used to apply the seed and fertilizer in the amounts and mixtures specified. Hand-operated seeding devices may be used when seed and fertilizer are applied in dry form.

APPLICATION RATES FOR SEED AND FERTILIZER

The seed mixture listed below shall be applied at 100 lbs. per acre. The seed mixture shall be comprised of the following:

SPECIES	MIXTURE	PURE LIVE SEED	GERMINATION
Annual Rye	33%	95%	>90%
Orchard Grass	33%	95%	>90%
Perennial Rye	34%	95%	>90%

Fertilizer: Chemical analysis shall be 16-20-0 and shall be applied at the rate of 200 pounds per acre. Fertilizer shall not be applied within 100 feet of streams.

Mulching Period. Straw mulch shall be applied within 24 hours of spreading grass seed and fertilizer.

APPLICATION RATES FOR MULCH

Place straw mulch to a reasonably uniform thickness of 1½ to 2½ inches. This rate requires between 2 and 3 tons of dry mulch per acre.

Application Locations:

Location
All Waste Areas

EXHIBIT J

SPECIFICATIONS FOR SILT FENCE

FABRIC SPECIFICATIONS – shall be woven fabric and shall meet or exceed the following requirements, unless otherwise approved in writing by STATE:

Silt Fence Fabric

(1)	Height – 36 Inches		
(2)	Grab Tensile (at 10% Elongation)	120 lbs.	ASTM D4632
(3)	Mullen Burst	280 lbs.	ASTM D3786
(4)	Flow Rate	12 gal/min/ft^2	ASTM D4491
(5)	Permeability	0.005 cm/sec	ASTM D4491
(6)	UV Resistance	70% strength retained	ASTM D4355
(7)	Puncture	60 lbs.	ASTM D4833
(8)	Trapezoidal Tear Strength	60 lbs.	ASTM D4533
(9)	Apparent Opening Size	0.841 mm	ASTM D4751
(10)	Mass	3 oz./yd^2	ASTM D4632

INSTALLMENT REQUIREMENTS – fabric shall be installed according to the following requirements:

(a) Fabric used as silt fence shall be installed vertically.

(b) The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and both ends securely fastened to the post, or overlap 2”x2” posts and attach as shown on detail.

(c) The filter fabric fence shall be installed to follow the contours where feasible. The fence posts shall be spaced a maximum of 6 feet apart and driven securely into the ground a minimum of 18 inches.

(d) The filter fabric shall have a minimum vertical burial of 6 inches. All excavated material from filter fabric fence installation, shall be back filled and compacted, along the entire disturbed area.

Standard of heavy-duty filter fabric fence shall have manufactured stitched loops for 2”x2” post installation. Stitched loops shall be installed on the uphill.

(e) The erosion control facilities during active operations shall be inspected and maintained a minimum of once a month or within 24 hours following a storm event.

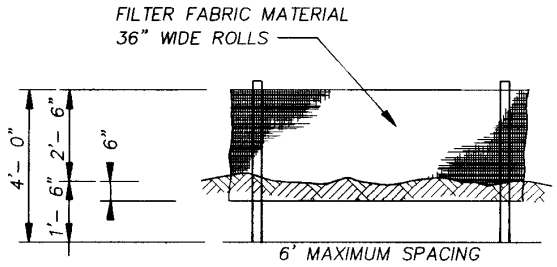
(f) Temporary erosion control measures shall remain functional and in place until their removal is directed by the State. The purchaser shall completely restore all areas disturbed by removal of temporary erosion control measures. Removed materials shall become property of the purchaser to be disposed of in accordance with applicable laws and jurisdictions.

(g) Filter fabric fence shall not be removed before the up slope area has been permanently protected and stabilized.

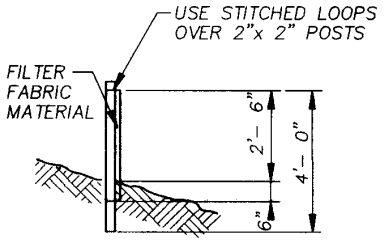
EXHIBIT J

SPECIFICATIONS FOR SILT FENCE

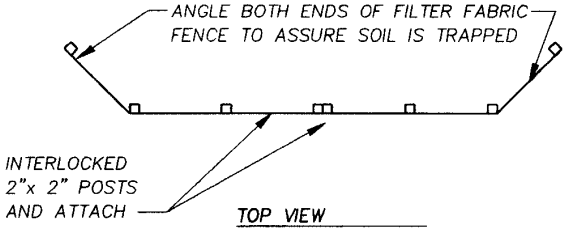
SILT FENCE INSTALLATION (TYPICAL)



FRONT VIEW



SIDE VIEW



TOP VIEW

NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. 2"x 2" FIR, PINE OR STEEL FENCE POSTS.
3. STITCHED LOOPS TO BE INSTALLED UPHILL SIDE OF SLOPE.
4. COMPACT ALL AREAS OF FILTER FABRIC TRENCH.

EXHIBIT K

SPECIFICATIONS FOR BRUSH AND SLASH DISPOSAL

Operation Area

Timber Sale Area shown on Exhibit A

Description of Work

Pile brush and/or Slash sufficient to create conditions suitable for economical planting of conifer species as directed by STATE.

(a) Piles may be of any size with the following exceptions:

(1) Piles within 50 feet of ODF Property Boundary or Reforested Areas shown on Exhibit A shall not have horizontal dimensions that exceed 100 square feet.

(2) Piles within 25 feet of any Reserved Tree shall not have horizontal dimensions that exceed 100 square feet.

(b) Piles shall be free of mineral soil nor shall they contain anything other than brush and Slash, except as otherwise required by this Exhibit.

(c) Piles shall not contain Slash that exceeds 8" in diameter.

(d) Piles with horizontal dimensions that exceed 100 square feet shall be covered with 100 square feet of 4 mil polyethylene plastic sheeting. Additional woody debris shall be piled on top of the plastic sheeting to complete the piling, as directed by STATE. PURCHASER shall supply the materials used for covering the piles.

Capacities

Equipment shall be a track-mounted machine with a ground-pressure rating of not more than 6.8 PSI and a net horsepower of 85 or more. The machine shall be capable of a minimum horizontal reach of 26 feet and a minimum vertical reach of 16 feet.

The bucket shall be of a hydraulically controlled "clamshell" style equipped with rake teeth at least 14 inches in length, and capable of 360-degree continuous rotation unless otherwise approved in writing by STATE.

Operator must be experienced in operating similar equipment on land clearing operations, be able to operate the equipment proficiently, and pile the Slash on the area as directed by STATE.

Support, including transport, other equipment, replacements, supplies, maintenance, and repairs shall be furnished as required to complete work without cost to STATE.

Work Scheduling

Work shall not begin until PURCHASER has arranged to have the equipment operators meet with STATE to review the requirements specified in Section 2365, "Progressive Operations", Section 2560, "Slash Disposal", and this Exhibit. Slash piling may be done concurrent with yarding operations provided the work is acceptable to STATE. Any Slash piling done subsequent to yarding operations shall be continuous until the work is completed and accepted by STATE, unless interrupted by poor weather, fire closures, or other uncontrollable circumstances. Equipment breakdowns shall be repaired without undue delay, and provision shall be made for replacement of equipment to prevent prolonged delays. Slash piling shall be accomplished only during dry weather conditions and shall not be allowed when operations might damage sites or affect stream flows. Any exception to these instructions must be authorized in writing by STATE.