PART III: EXHIBITS

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.: 341-06-19

(2) Sale Name: Lone Deer

(3) Contract Expiration Date: October 1, 2007

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.

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.

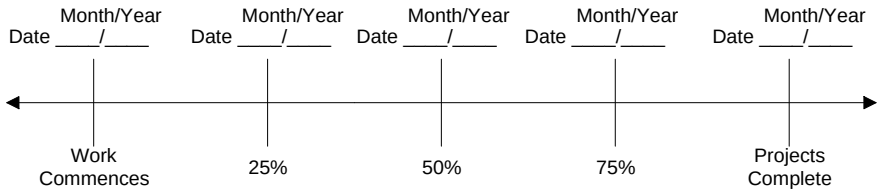
EXHIBIT B

OPERATIONS PLAN

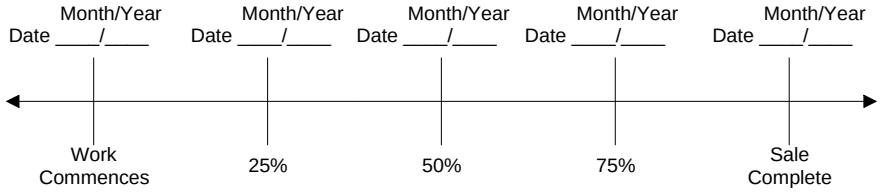
Completion Timeline

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
Purchaser

EXHIBIT C

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

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

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

(3) FROM: Coos Bay - 07 Phone 541-267-4136
(State Forestry District)
Address 63612 Fifth Road, Coos Bay, OR 97420

(4) PURCHASER: _____
Address _____

(5) **MINIMUM SCALING SPECIFICATIONS**			**CLASS**		
SPECIES	SCALING DIAMETER INCHES	*NET SCALE VOLUME	PER MBF	** SUM	SUB
Conifer	--	10	X		
Hardwoods	--	10	X		

* Apply minimum volume test to whole logs over 40' Westside; 20' Eastside.
** Sum (if indicated): see instructions and explain in Item (20).

(6) WESTSIDE SCALE: YES ☒ NO ☐
Actual taper all logs over 40' scaling length

(7) EASTSIDE SCALE: YES ☐ NO ☒
*Actual taper butt logs over 40' scaling length

(8) PENCIL BUCK YES ☐ NO ☒
back to Minimum Scaling Diameter _____

(9) ADD-BACK VOLUME -- YES ☒ NO ☐
Deductions due to delay

(10) **APPROVED SCALING LOCATIONS**	**Species**	**Yard**	**Truck**

(11) NOTICE OF CANCELLATION OF BRAND:
Effective Date: _____

_____
State Forester's Representative

(12) SALE NAME Lone Deer
COUNTY Douglas/Coos

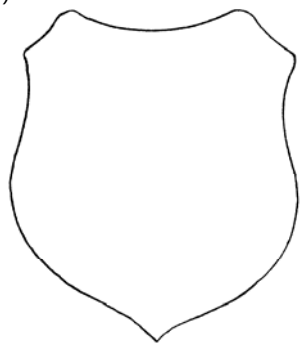
(13) STATE CONTRACT NUMBER 341-06-19

(14) SCALE: westside ☒ eastside ☐ cubic foot ☐

(15) STATE BRAND REGISTRATION NUMBER _____

(16) BUREAU BRAND CODE NUMBER _____

(17) STATE BRAND INFORMATION:
(COMPLETE)



(18) PAINT REQUIRED: YES ☒
COLOR Orange

(19) SPECIAL SCALES
PEELABLE CULL (all species)
UTILITY/PULP (all species)
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE
OTHER: _____
OTHER: _____

(20) REMARKS: Hardwoods may be scaled by the load at 3.5 MBF/load. A species verifications is required.

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

(21) SIGNATURES:

_____
Purchaser or Authorized Representative Date

_____
State Forester Representative Date

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

Distribution: ORIGINAL: Salem / COPIES: TPSO (4), Purchaser, Operator, District, Mgmt. Unit

EXHIBIT C

INSTRUCTIONS FOR FORM 343-307 (rev. 5/01)

(1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires Item (21). Complete date.

(2) Designate Third Party Scaling Organization (TPSO). Send 4 copies to TPSO, 1 to purchaser, 1 to Salem, and keep such copies as to district needs.

(3) State District office, address and phone.

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

(5) Minimum Scaling Specifications. Review Section 2040 or 2045, "Log Removal," of the Contract. Species, or combined species can be separate entries. Information serves as a basis for scaling (see also Items (13) thru (17)), and is required to show existence on the sale. **PerM** (per MBF). **SUM** (lump sum material). **SUB** (submerchantable material. SUB, as used by the State, references that material containing at least 10 bf (net) but less than the lower merchantable net volume limit or grade requirements for other merchantable (PerM) entries. PerM, SUM, and Sub must be indicated by checking the appropriate column. Species with the same specifications and value are combined into one entry. PerM and Sub require scaling therefore complete specifications. SUM need not be scaled, hence no specifications. Loads containing only SUM are to be ticketed if so instructed in Item (19). Mixed loads of SUM, PERM and/or subspecies will always be scaled.

(6) Westside -- 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) Eastside -- actual taper/taper table segment scale. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Eastside). Items with * follow U.S. Forest Service Eastside rules.

(8) Pencil Buck. Check NO if a westside sale, optional for eastside sales.

(9) Add-Back Volume. Add-Back is normally checked YES. Scaler records deductions (sap rot, weather checks, etc.) caused by an abnormal delay in removal. Enter separately on scale ticket. TPSO provides State with summaries that include this as a net volume by species. Salvage sales and certain other circumstances may require that "NO" be checked.

(10) Show scaling locations only applicable to TPSO. Not necessary to list markets. If all species are scaled at same location, enter "ALL."

(11) When logging is complete, recall branding hammers, date and sign where indicated, check CANCELLATION box at top of form, and send to TPSO.

(12) Enter sale name and county.

(13) Enter sale Contract number.

(14) Check Westside or Eastside log scale. Cubic foot refers to Northwest Log Rules Cubic Foot Scale.

(15) Oregon Forest Products Brand Registry Number (optional).

(16) DO NOT USE -- TPSO will fill in when applicable.

(17) Show one brand only. Complete drawing. If more than one brand is assigned to the sale, (1) make separate form for each brand, and (2) on each form, explain and show other brand(s) under REMARKS, Item 19.

(18) Check YES and designate orange.

(19) Special Scales. These are the Special Scales that will be applied. If "Other" is indicated, please describe. Give comments in Item (19).

(20) Use this space to designate weight conversion factors, or any other explanations to clarify scaling requirements. If additional scaling locations are approved, prepare another form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.

(21) Require purchaser to sign and date completed form.

EXHIBIT “D”

FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
14 feet	12 feet*	A to B	0+00 to 18+31	Outslope**
14 feet	12 feet*	B to C	0+00 to 32+15	Outslope**
12 feet***	12 feet*	C to D	0+00 to 2+00	Outslope**
14 feet	12 feet*	G to H	0+00 to 4+75	Outslope**
12 feet***	12 feet*	H to I	0+00 to 5+25	Outslope**
14 feet	12 feet*	J to K	0+00 to 7+00	Outslope**

*Surfaced width only applies if “WINTER AND WET WEATHER OPTION” is chosen.
**Drainage shall be changed to Ditch if “WINTER AND WET WEATHER OPTION” is chosen.
***Subgrade width shall be upgraded to 14 feet if “WINTER AND WET WEATHER OPTION” is chosen.

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.

Where clearing limits have not been marked, the “Road Brushing Specifications" in Exhibit D shall apply. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing debris shall not be left lodged against standing trees.

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

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 debris shall not be left lodged against standing trees. Grubbing classifications are as follows:

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 through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required.

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-engineered lines, grades, dimensions, and plans when provided.

All suitable excavated material shall be used where possible 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. All fills and drainage structure backfills shall be machine compacted according to the specifications in Exhibit F.

Unless road design 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.

Excess excavation shall not be sidecast where material will enter a stream course or where material will accumulate in areas deemed a high landslide hazard location by STATE.

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 follows: 400 divided by the radius of the curve equals the amount of extra width.

DRAINAGE

Ditch. Construct "V" ditch 3 feet wide and to a depth of 1 foot below subgrade. Subgrade shall be crowned at 4 to 6 percent. Construct ditchouts away from subgrade at locations marked in the field.

Outslope. Road subgrade shall be outsloped at 4 to 6 percent.

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: As marked in the field.

GRADING	Back Slopes	Fill Slopes
Rock	Vertical to 1/4:1	Not steeper
Common - side slopes 50% and over	3/4:1	than 1½:1
Common - side slopes less than 50%	1/2:1	
Common - turnpike (level) section	2:1	

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed as Directed by STATE. Surface is to be crowned for drainage, with general grade no more than 3 percent.

EXHIBIT "D"

ADDITIONAL ROAD IMPROVEMENT/CONSTRUCTION INSTRUCTIONS

A to B – The road shall be bladed to achieve a smooth running surface.

B – This will be a truck turnaround. The large berm of material on the north side of this area shall be excavated. A small portion of the material shall be spread across the entire area to smooth the surface. Another small portion of the material shall be taken to the saddles on either side of this point, and placed there in order to fill in the ruts. The remaining material shall be taken to a waste area approximately 400 feet to the east of Point B.

B to C – The road shall be cleared of brush and small trees and shall be bladed in order to achieve a smooth running surface. The waste area at Point F is beyond the areas of the road where the waste will be generated. To get to the waste area, a cat may be used to clear the road in order to pass a dump truck. Additional improvement shall be done as follows:

5+00 – 5+85 –	Cutbank slough shall be removed in order to achieve adequate width. Material shall be taken to the waste area at Point F.
6+90 –	Existing culvert, leave in place, clean inlet.
9+12 –	Remove tree and small slide in road. Material can be drifted to wide corner at Station 10+00.
10+45 –	Install a culvert, 18" x 30', to catch spring activity.
12+80 – 13+35 –	Remove slide (approx. 50 yds). Material shall be taken to waste area at Point F.
13+40 – 17+20 –	Cutbank slough and overhanging brush shall be removed in order to gain adequate width. Material shall be taken to the waste area at Point F.
27+50 – 27+85 –	Replace existing culvert at 27+85 with an 18" x 30' culvert. Ditch spring water that starts at 27+50, so it runs to the culvert at 27+85.

C to D – This is a spur and landing to be constructed. There are two possibilities for a landing location, an upper one and a lower one. Purchaser may choose to use either location. Construction shall be accomplished with a cat. Trees and brush shall be removed and a landing pad constructed at either location. No endhaul will be necessary for either location.

G to H – The road shall be bladed to achieve a smooth running surface. The approach off of the 7000 Rd at Point G shall be improved by raising up the grade and widening the road to accommodate a truck.

H to I – This is a minimum standard road and landing to be constructed. The location is flagged on the ground. No endhaul is necessary for construction. A second optional landing may be constructed at approximately STA 2+25.

J to K – This is a road and landing to be constructed. A 24" x 40' culvert shall be installed at STA 1+20. No endhaul is necessary for construction.

L – This is an existing landing. The slash pile that is currently on the landing shall be picked up and hauled to the waste area at Point M, and piled so that it can be burned at a future time. A cat shall be used to smooth the landing surface. Any excess material generated from this shall also be hauled to the waste area at Point M.

ADDITIONAL ROAD IMPROVEMENT/CONSTRUCTION INSTRUCTIONS
(WINTER AND WET WEATHER OPTION ONLY)

A to B, B to C, C to D, G to H, H to I, J to K – If the "WINTER AND WET WEATHER OPTION" is chosen for any area, all road segments in that area shall receive a layer of 2 ½" – 0" crushed rock according to specifications in Exhibit "E" – ROCKING SPECIFICATIONS.

D, I, K, L – If the "WINTER AND WET WEATHER OPTION" is chosen for any area, the landing(s) in that area shall receive a layer of Jaw Run rock according to specifications in Exhibit "E" – ROCKING SPECIFICATIONS.

EXHIBIT “D”

ADDITIONAL ROAD DECOMMISSIONING INSTRUCTIONS

C to E – This road segment shall be decommissioned according to the following instructions (station distances are measured from Point A):

42+00 – 75+75 All material generated from the culvert removals shall be disposed of on site. This material shall be placed on the road bed, against the cutbank, on either side of the stream bed. Excavated pipes shall be removed from the area and disposed of at Point C – As Directed by State.
Where stream crossing pipes are removed, the stream banks shall be sloped at a 1 ½:1 and the banks shall be grass seeded and have straw placed over the grass seed. Grass seeding shall be accomplished as soon as possible after the removal of the culverts, at an application rate of 50 lbs/acre. A Coastal Erosion Grass Seed Mix shall be used.
The road between these stations shall have waterbars installed as specified in Exhibit “H”. Additional waterbars shall be installed directly above a culvert removal site, in order to keep the runoff away from the excavation spoils.

44+50 30” x 40’ culvert at this location shall be removed.

46+75 24” x 45’ culvert at this location shall be removed.

49+75 15” x 30’ culvert at this location shall be removed.

52+15 30” x 45’ culvert at this location shall be removed.

56+80 The slide material at this location shall be placed up against the cutbank side of the road, in order to make the road passable for the excavator and dump truck.

57+55 30” x 50’ culvert at this location shall be removed. A portion of the old slide material that is covering the inlet of this pipe, shall be excavated and placed in the road bed.

65+00 The spring water coming off the hillside at this location shall be ditched across the road in such a way as to avoid the steep draw below the road. The slump on the outside portion of the road shall be pulled back and placed in the road bed.

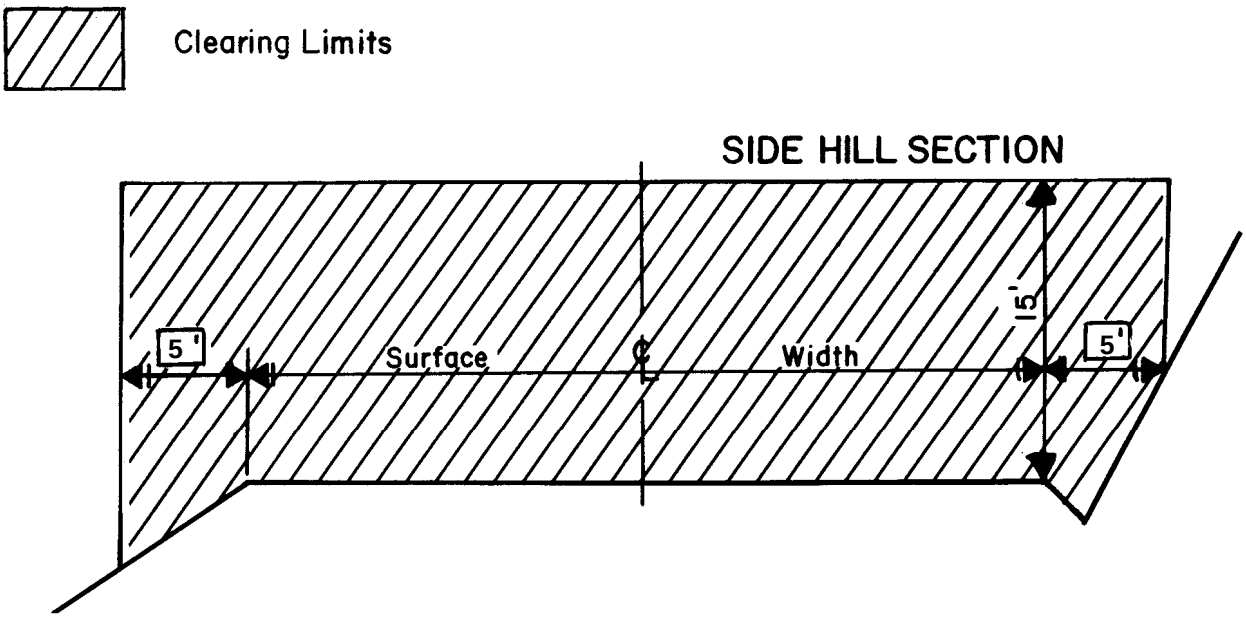
74+65 24” x 45’ culvert at this location shall be removed. The spring water shall be ditched across the road.

75+75 The slump on the outside edge of the road shall be pulled back. The material shall be placed in the road bed.

Any additional culverts (ditch relief) identified during the decommissioning process, shall also be removed and disposed of as specified above. These removal sites shall act as additional waterbars.

EXHIBIT “D”

ROAD BRUSHING SPECIFICATIONS



REQUIREMENTS

Unless otherwise approved in writing by STATE, brush and trees shall be cut to a height of 6 inches or less above the ground surface or obstructions such as rocks or existing stumps.

PURCHASER is required to **either** clear up to the designated clearing height as shown on the above diagram **or** clear the designated distance past the top of the cutbank as shown on the above diagram.

Debris resulting from the brushing operation shall be removed from the roadway, cutslope, ditches, and water courses within 72 hours and may be scattered downslope from the road or placed in other stable locations, unless otherwise approved by STATE.

EXHIBIT "D"

END-HAULING REQUIREMENTS

POINT TO POINT	STA. TO STA.	WASTE AREA LOCATION	WASTE AREA TREATMENT
B to C	5+00 to 17+20	(1)	(1, 2, 3)
L	--	(2)	(1, 2, 3)

End-Haul Areas General Requirements

Material shall not be intentionally side cast.

Clearing and grubbing debris shall be end-hauled.

When blasting is required, it shall be accomplished using timing devices, delayed charges, low intensity shots, or other suitable means to contain as much material as possible within the road prism.

Containment

Full containment: The amount of material lost over the outside edge of the road shall not exceed 6 inches in depth measured perpendicular to the natural ground slope. Pioneer excavation shall be removed by digging, loading, and hauling rather than by pushing or scraping methods.

Trees and stumps may have up to 12 inches of material directly above them. 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

(1) Point F

(2) Point M

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) See Exhibit "D" – Special Instruction for Road Improvement/Construction.

EXHIBIT “E”

ROAD SURFACING
(WINTER AND WET WEATHER OPTION ONLY)

TYPE OF ROCK	SIZE OF ROCK	COMP. DEPTH	YDS/ STA	TONS/ STA	POINT TO POINT	STATION TO STATION	APPROX. TOTAL TRUCK MEASURE VOLUME	
Hard Crushed Quarry	2 ½”-0”	3"	17.2	22.86	A to B	0+00 to 3+70	95.76 Ton	72 CY
Hard Crushed Quarry	2 ½”-0”	6"	35.4	47.10	A to B	3+70 to 18+31	694.26 Ton	522 CY
Hard Crushed Quarry	2 ½”-0”	8”	48.1	64.04	B to C	0+00 to 32+15	2058.84 Ton	1548 CY
Hard Crushed Quarry	2 ½”-0”	8"	48.1	64.04	C to D	0+00 to 2+00	143.64 Ton	108 CY
Hard Crushed Quarry	2 ½”-0”	8"	48.1	64.04	G to H	0+00 to 4+75	311.22 Ton	234 CY
Hard Crushed Quarry	2 ½”-0”	8”	48.1	64.04	H to I	0+00 to 5+25	335.16 Ton	252 CY
Hard Crushed Quarry	2 ½”-0”	8"	48.1	64.04	J to K	0+00 to 7+00	454.86 Ton	342 CY
LANDINGS					**NO. OF LNDGS.**	**POINTS**		
Hard Crushed Quarry	6” Jaw Run	6"	54	71.82	4	D, I, K, L	287.28 Ton	216 CY

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

EXHIBIT “E”

CRUSHED ROCK SPECIFICATIONS
(WINTER AND WET WEATHER OPTION ONLY)

Materials. The material shall be fragments of rock or other hard, durable particles crushed to the required size and a filler of finely crushed stone, sand, or other finely divided mineral matter. The material shall be free from vegetation and lumps of clay.

Quality and Grading Requirements. The stone base materials shall be crushed rock, including sand.

River gravel shall not be used.

The material from which base material is produced or manufactured shall meet the following test requirements:

Hardness - Test Method AASHTO T 96 35% Maximum

Durability - Test Method ODOT TM 208
Passing No. 20 Sieve: 30% Maximum
Sediment Height: 6" Maximum

For 2½ "-0"	Passing	3" sieve	100%
	Passing	2½" sieve	95-100%
	Passing	1¼" sieve	55-75%
	Passing	1/4" sieve	30-45%

Of the fraction passing 1/4" sieve, 40% to 60% shall pass the No. 10 sieve.

For Jaw-Run	Passing	6" sieve	100%
	Passing	3” sieve	45-65%

EXHIBIT “E”

ROCK ACCOUNTABILITY
(WINTER AND WET WEATHER OPTION ONLY)

The rock shall meet the quality and size specifications in Exhibit E. A sample of the rock shall be supplied to STATE for testing and approval prior to rocking. 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 sediments will not enter streams.

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

Load Records. Notify STATE before spreading the rock and maintain a record of all rock delivered for spreading. Make the record available for STATE inspection. A report listing the amount of rock delivered the prior month must be submitted no later than the 15th of each month.

EXHIBIT “F”

COMPACTION AND PROCESSING REQUIREMENTS

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 visible deformation ceases, or in the case of a sheepsfoot roller, the roller "walks out." At least 3 passes shall be made over the entire width and length of the road. A pass is defined as traveling a road section in one direction and then back over that same section again. Compaction shall be accomplished by using the approved equipment listed below or others approved by STATE:

Subgrade shall be crowned at 4 to 6 percent unless otherwise specified.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
B to C*, C to D*, G to H*, H to I*, J to K*	Vibratory Roller

*Only required if “WINTER AND WET WEATHER OPTION” is chosen.

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 or, in the case of a sheepsfoot roller, the roller "walks out." At least 3 passes shall be made over the entire width and length of each layer. A pass is defined as traveling a fill layer in one direction and then back over that same layer again.

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 the approved equipment listed below or others approved by STATE:

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
J to K	Crawler Tractor

EXHIBIT “F”

COMPACTION AND PROCESSING REQUIREMENTS

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 a 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. A pass is defined as traveling a road section in one direction and then back over that same section again. Compaction shall be accomplished by using the approved equipment listed below or others approved by STATE:

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 unless otherwise specified.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
A to B*, B to C*, C to D*, G to H*, H to I*, J to K*	Vibratory Roller

*Only required if “WINTER AND WET WEATHER OPTION” is chosen.

COMPACTION EQUIPMENT OPTIONS

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.

Crawler Tractors. D-7 Caterpillar or equivalent or larger.

EXHIBIT “G”

CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract. Culverts shall be constructed of corrugated galvanized or aluminized steel. Corrugated polyethylene may be used for sizes up to 36 inches in diameter. All culverts shall conform to the material and fabricating requirements of the "Standard Specifications for Highway Construction" prepared by the Highway Division of the Oregon State Department of Transportation. Corrugation types and shapes other than those meeting the above minimum Highway requirements, shall be approved in writing by STATE.

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 stipulated in special instructions.

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

Culvert grade shall slope away from ditch grade at least 2 percent unless otherwise specified.

Culverts less than 36 inches in diameter shall be installed with the lock seam on the inlet end placed within 45 degrees of the bottom of the trench.

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 pipe. The culvert trench shall be excavated 3 pipe diameters wide to Permit compaction and working on each side of the pipe. Tamping shall be done in 6-inch lifts, 1 pipe diameter each side of the pipe to 95 percent density or over. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

A bedding of granulated material or 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 pipe.

Backfill shall consist of granulated material, crushed rock, or job-excavated soil free of stumps, limbs, rocks, or other objects which would damage the pipe.

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

Joining shall be done with bands of like material and corrugations. Manufacturers' instructions shall be followed for prefabricated pipe assembly.

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

A manufacturer's certification that the product was manufactured, tested, and supplied in accordance with this specification shall be furnished to the Project Engineer upon request.

EXHIBIT “G”

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” and 18” for culverts 42” to 96” (add 6" for roads which will not be rocked). 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 a 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.

Following are the minimum standard gauges for pipe and coupling bands. Some culverts may require different gauges and may be found in the culvert listing.

			Band Widths (")			Hugger Band Widths (")	
Dia.	Steel Pipe Gauge	Band Gauges	Annular	Helical	Dimpled	Annular	Helical
12-15	16	16	7	12	12	13 1/8	10 1/2
18-24	16	16	12	12	12	13 1/8	10 1/2
30-36	16	16	12	12	12	13 1/8	10 1/2
42	14	16	12	12	NA	13 1/8	10 1/2
48	14	16	24	24	NA	13 1/8	10 1/2
54	14	16	24	24	NA	13 1/8	10 1/2
60	12	16	24	24	NA	13 1/8	10 1/2
66-72	12	16	24	24	NA	13 1/8	10 1/2
78	12	16	24	24	NA	13 1/8	10 1/2
84	12	16	24	24	NA	14 3/4	10 1/2
90-120	12	16	26	26	NA	NA	NA

Culverts larger than 60” in diameter shall have 3” x 1” corrugations.

Polyethylene culverts shall be double walled and meet the requirements of AASHTO M-294-901, Type S.

EXHIBIT “G”

CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	POINT	STATION
1	18	30	B to C	10+45
2	18	30	B to C	27+85
3	24	40	J to K	1+20

CULVERT LIST

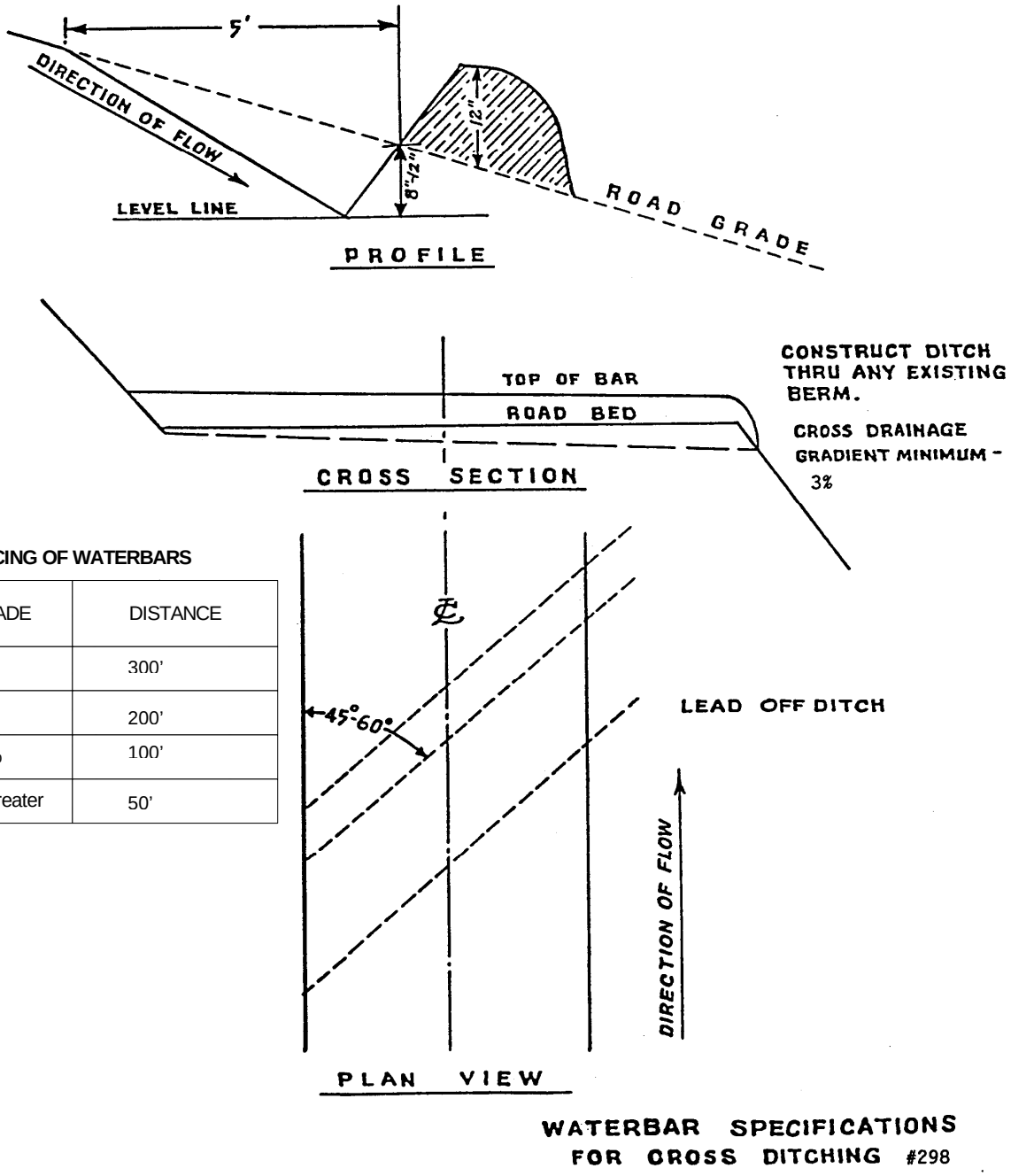
(WINTER WET WEATHER OPTION ONLY)

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	ROAD SEGMENT POINT TO POINT	STATION
4	18	30	B to C	As Directed
5	18	30	B to C	As Directed
6	18	30	B to C	As Directed
7	18	30	B to C	As Directed
8	18	30	C to D	0+00
9	18	30	G to H	0+00
10	18	30	H to I	0+00
11	18	30	J to K	0+00

State Timber Sale Contract
No. 341-06-19
Lone Deer

EXHIBIT “H”

WATERBAR SPECIFICATIONS



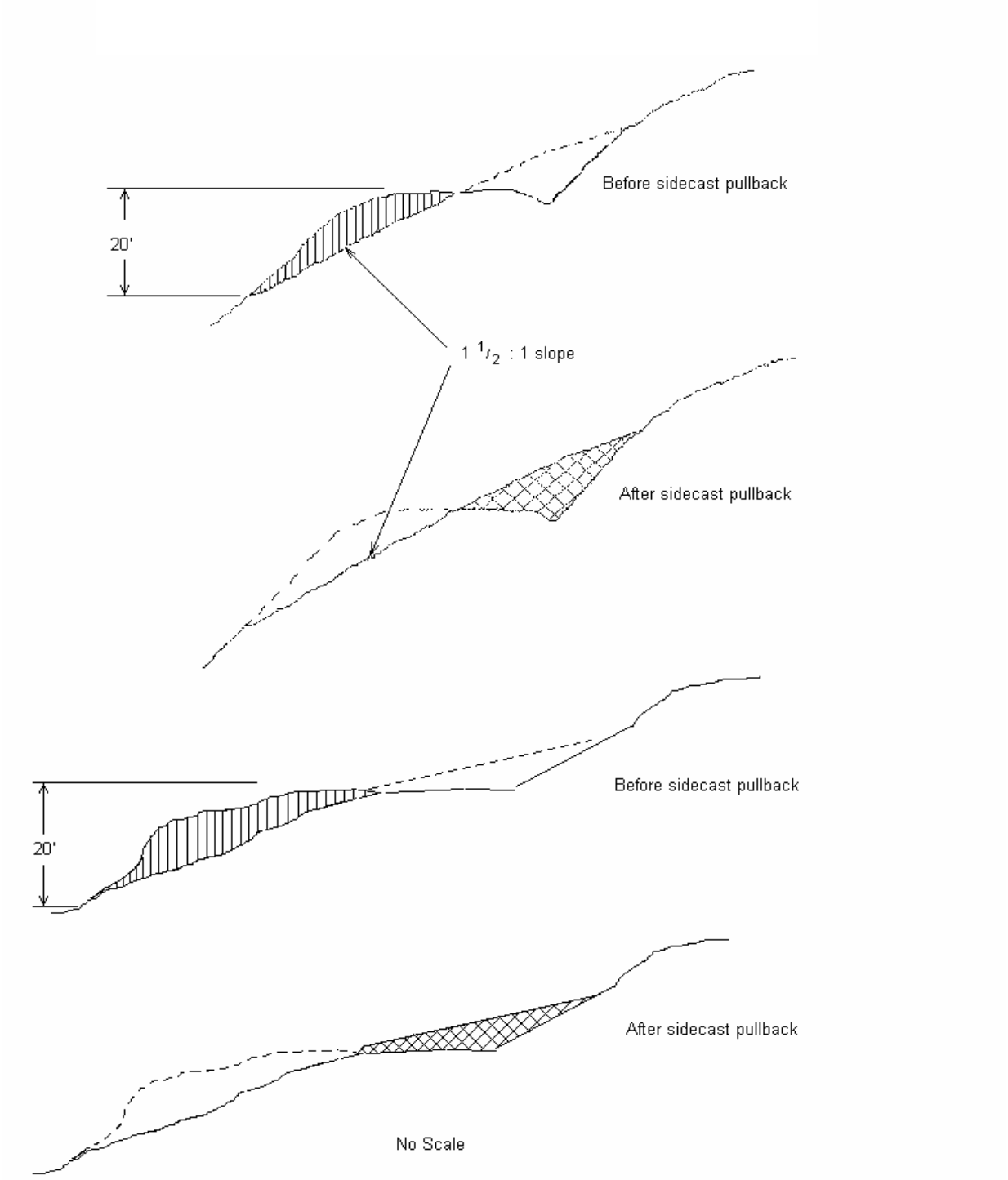
SPACING OF WATERBARS

ROAD GRADE	DISTANCE
≤ 5%	300’
6-10%	200’
11-15%	100’
16-20% or greater	50’

State Timber Sale Contract
No. 341-06-19
Lone Deer

EXHIBIT "I"

TYPICAL CROSS SECTION VIEW OF ROAD VACATING SIDECAST PULLBACK



PART IV: OTHER INFORMATION

WRITTEN PLAN

Timber Sale Name: Lone Deer

Project Name: 2645 Road Decommissioning

Legal: NW ¼ section 2, T 23S., R 11W., W.M., Coos County, Oregon, Lower portion of 2645 road as shown on Exhibit "A".

Landowner: Oregon Department of Forestry

Landowner Address: 63612 Fifth Rd
Coos Bay, OR. 97420

Landowner Telephone Number: (541) 267-4136

Notification Number: _____

Written Plan Submitted By: James McIntosh
Engineering Unit Supervisor

PROTECTED RESOURCE:

Stream crossing and ditch relief culverts slated for removal pass Type N tributaries which flow into a Type F tributary of Deer Creek.

SITUATION:

This road was discovered during the preparation process for the Lone Deer Timber Sale. The portion of the road slated for decommissioning was constructed about 35 years ago. The road decommissioning project involves the removal of stream crossing and ditch relief culverts, waterbaring and grass seeding. This decommissioning project is being done to avoid any future possibility of road fill failures at the stream crossing locations.

SITE CHARACTERISTICS:

There are six stream crossing culverts and an unknown amount of ditch relief culverts to be removed. These culverts range in diameter from 12" to 30". Fill heights over the culverts range from 3 to 8 ½ feet. There are also several places along the road where spring water cannot get off of the road surface and has created boggy areas. Sidecast failure slumps are also present along the road.

WRITTEN PLAN

The tributaries that run through these culverts are non-fish bearing streams. They run into a main tributary for Deer Creek which is fish-bearing up to a point beyond the project area.

PROCEDURE:

Stream crossing and ditch relief culverts are slated for removal using an excavator. Excavated pipes will be hauled out to a designated waste area. Where cross drain culverts are removed, stream banks will be pulled back to a stable slope of 1½ :1 slope ratio. Spoils will be graded to a minimum contact with flowing surface water. Waterbars will be excavated on a 45-60 degree skew to a depth of at least one-foot at intervals dictated by road gradient. Grass seeding of spoils, stream banks and waterbars will follow excavation. The waterbars will direct the spring water off of the road surface. The sidecast failure areas will be pulled back with an excavator. This material will be placed on the road bed, against the cutbank. Due to the last portion of this road being inside a Marbled Murrelet Management Area, all work on this project shall not begin until September 15 and be complete by September 30.

_____

Purchaser Representative Date

_____

Operator Representative Date

WRITTEN PLAN

SALE NAME: Lone Deer, 341-06-19

LOCATION: Portions of Sections 30 and 30, T22S, R10W, portions of sections 25, 35, and 36, T22S, R11W, Douglas County, and portions of sections 2 and 3, T23S, R11W, Coos County, Oregon.

LANDOWNER: Oregon Department of Forestry; 63612 Fifth Road, Coos Bay, Or.

CONTRACT PURCHASER:_____

NOTIFICATION NO:_____

This written plan is prepared to comply with the requirements for a written plan as provided for by the Forest Practices Act (OAR) 629-635-130 (1a). This plan outlines the measures to be taken to comply with Type F stream protection requirements. The affected stream is a tributary Deer Creek, a Type F stream located adjacent to sale areas I, II, and III.

SITUATION AND PROTECTED RESOURCE

Area I,II, and III of the Lone Deer timber sale are adjacent to fish bearing tributaries of Deer Creek. Sale boundaries have been posted at least 100 feet from the stream to meet all FPA requirements.

LAYOUT

Landings locations have been provided to enable deflection for suspension of logs while yarding the sale area.

FELLING AND BUCKING

1. Trees shall be directionally felled parallel to or away from stream riparian management areas (RMA's) as feasible.
2. High stumps shall be left as needed to prevent logs from entering stream channels as shown on the Exhibit "A."

YARDING

1. Operator will use a machine and logging system capable of fully suspending logs.
2. Operator will fully suspend logs when sufficient deflection is available.
3. Any corridors needed within the RMA will be spaced a minimum of 100 feet apart.

SLOPE PROTECTION. Purchaser shall establish or maintain plant species that will enhance slope stability in harvested areas where needed to minimize the risk of erosion.

_____ DATE:
PURCHASER REPRESENTATIVE

_____ DATE:
OPERATOR REPRESENTATIVE (if listed on notification)