

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

TIMBER SALE CONTRACT

(Applicable to Sales to be Measured before Felling)

Name of Purchaser

National Forest
Plumas

Ranger District
Mt. Hough

Region
Pacific S-West

Contract Number

Sale Name
Butterfly MP Thin

Award Date

Termination Date
12/31/2012

The parties to this contract are The United States of America, acting through the Forest Service, United States Department of Agriculture, hereinafter called Forest Service, and _____ hereinafter called Purchaser.

Forest Service having advertised a sale at which either (1) Purchaser, whose required bid deposit is now held by Forest Service as an initial deposit, was the successful bidder, or (2) no bids were received and Purchaser having subsequently offered at least the minimum advertised price and made an initial deposit in the same amount as the bid deposit specified in the sale advertisement; and the parties hereto desiring to record their agreement; now therefore,

Unless provided otherwise herein, Forest Service agrees to sell and permit Purchaser to cut and remove Included Timber and Purchaser agrees to purchase, cut, and remove Included Timber.

This contract consists of three Divisions: AT - Specific Conditions, BT - Standard Provisions, and CT - Special Provisions, together with Sale Area Map, Plans and specifications for developments (if any), and such attachments as may be provided for in Division CT. Specific Conditions are numbered and apply to the Part, Section, Subsection, or Item of the Standard Provisions, as indicated hereunder. Other conditions of this contract are stated in Division CT - Special Provisions.

IN WITNESS WHEREOF, the parties hereto have executed this contract as of the award date.

UNITED STATES OF AMERICA

Two Witnesses:^{1/}

By: _____
Contracting Officer

(Title)

(Name)

By: _____
(Purchaser) ^{2/}

(Address)

(Name)

(Title)

(Address)

(Business Address)

I, ^{3/} _____, certify that I am the _____

Secretary of the corporation named as Purchaser herein; that _____

who signed this contract on behalf of Purchaser, was then _____

of the corporation; that the contract was duly signed for and in behalf of the corporation by authority of its governing body, and is

within the scope of its corporate powers.

**CORPORATE
SEAL** ^{4/}

INSTRUCTIONS:

- 1/ The signatures and addresses of two witnesses are required if Purchaser is other than a corporation.
- 2/ If Purchaser is a co-partnership, the signatures should be: XYZ Company, by John Doe, a member of the firm. If Purchaser is a corporation, form of signature should be: XYZ Company, by John Doe, President (or other officer or agent) and the seal of the corporation must be impressed or indicated.
- 3/ The certificate must be completed if Purchaser is a corporation.
- 4/ If the corporation has no corporate seal that fact shall be stated, in which case a scroll or adhesive seal shall follow the corporate name.

EXAMPLE 1/

Subcontractor Certification
Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion

Timber Sale Name: _____
 National Forest: _____

The prospective subcontractor (participants in lower tier covered transactions) certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this timber sale by any Federal department or agency.

Where the prospective subcontractor is unable to certify to any of the statements in this certification, such prospective subcontractor shall attach an explanation to this proposal.

Name of Subcontractor: _____
 Business Address: _____

_____ Date _____ Signature

1/ It is the Purchaser's responsibility to have subcontractors complete this certification and to maintain a file of completed certifications. This certification does not need to be returned to the Forest Service, except at the written request of the Contracting Officer.

The following conditions apply to the indicated portions of Division BT - Standard Provisions issued June 2006.

AT1 - Location and Area, applicable to BT1.1

This Sale Area of 288 acres more or less is located in:

Sections 27, 28, 33 and 34, T 25 N, R 9 E, Mount Diablo Meridian

AT2 - Volume Estimate and Utilization Standards, applicable to BT2.1, BT2.2, BT2.4, and BT6.4

Species	Product	Estimated Quantity *	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Net Merch. Factor
Douglas Fir	Sawtimber	536.90	CCF	10.0	1	10	6.0	12
Incense Cedar	Sawtimber	97.00	CCF	10.0	1	10	6.0	12
Ponderosa Pine	Sawtimber	199.00	CCF	10.0	1	10	6.0	12
Sugar Pine	Sawtimber	98.50	CCF	10.0	1	10	6.0	12
White Fir	Sawtimber	207.70	CCF	10.0	1	10	6.0	12
Combined Softwood	Non-Saw	1,173.30	CCF	3.0	1	10	1.0	16
Timber Subject to Agreement under CT2.11#								
Combined Softwood	Sawtimber	unestimated	CCF	10.0	1	10	6.0	12
Other Softwood	Non-Saw	unestimated	CCF	3.0	1	10	1.0	16
Total Quantity		2,312.40	CCF					

* Quantities not included here are described in BT2.4.

AT3- Timber Designations, applicable to BT2.3; acres are approximate:

	Number	Acres
Clearcutting Units (BT2.31)	_____	_____
Specified Road Clearing (BT2.32)	_____	_____
Overstory Removal Units (BT2.33)	_____	_____
Understory Removal Units (BT2.34)	_____	_____
Individual Trees (BT2.35)	139.2	_____
Incompletely Measured Payment Units (BT2.36)	_____	_____

AT4 - Timber Payment Rates, applicable to BT3.1 and BT4.0

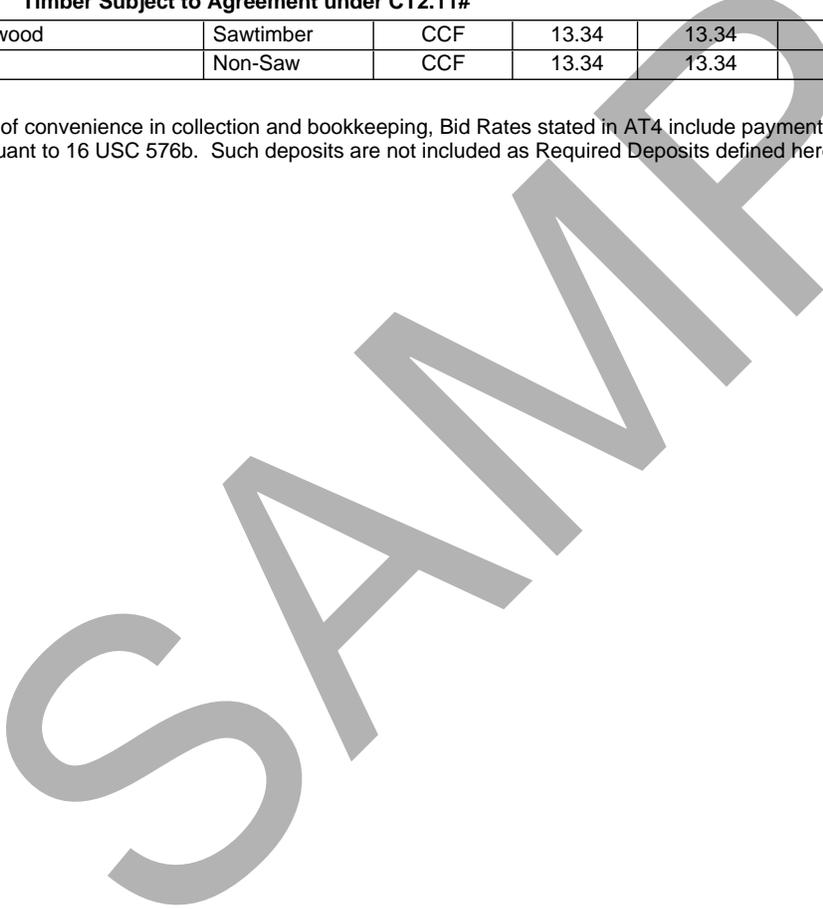
AT4a - For Species and Products to be Paid for at Rates Escalated under BT3.2

Not Applicable

AT4b- For Species and Products to be Paid for at Flat Rates

Species	Product	Unit of Measure	Rates per Unit of Measure				Required Deposits Slash Disposal
			Base \$	Advertised \$	Bid Premium \$	Bid (Flat) \$	
Douglas Fir	Sawtimber	CCF	21.04	21.04			.32
Incense Cedar	Sawtimber	CCF	9.32	9.32			.32
Ponderosa Pine	Sawtimber	CCF	5.00	5.00			.32
Sugar Pine	Sawtimber	CCF	16.25	16.25			.32
White Fir	Sawtimber	CCF	3.00	3.00			.32
Combined Softwood	Non-Saw	CCF	8.17	8.17			.32
Timber Subject to Agreement under CT2.11#							
Combined Softwood	Sawtimber	CCF	13.34	13.34			.32
Other Softwood	Non-Saw	CCF	13.34	13.34			.32

For purposes of convenience in collection and bookkeeping, Bid Rates stated in AT4 include payment of deposits for sale area betterment required pursuant to 16 USC 576b. Such deposits are not included as Required Deposits defined hereunder.



AT4c - Schedule of Payment Units

Payment Unit No.	App rox. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment \$	Quantity of Species and Products to be Paid for at Flat Rates under AT4b	Total Flat Rate Payment \$	Total Required Deposits for Slash Disposal \$
21	124.8			Douglas Fir Sawtimber 352.00 CCF		551.14
				Incense Cedar Sawtimber 68.80 CCF		
				Ponderosa Pine Sawtimber 96.00 CCF		
				Sugar Pine Sawtimber 50.10 CCF		
				White Fir Sawtimber 129.20 CCF		
				Combined Softwood Non-Saw 1,026.20 CCF		
				Total PU Quantity And Value	1,722.30 CCF	
955	.74			Douglas Fir Sawtimber 1.80 CCF		10.72
				Incense Cedar Sawtimber 0.70 CCF		
				Ponderosa Pine Sawtimber 6.90 CCF		
				Sugar Pine Sawtimber 10.70 CCF		
				White Fir Sawtimber 5.80 CCF		
				Combined Softwood Non-Saw 7.60 CCF		
				Total PU Quantity And Value	33.50 CCF	
956	.74			Douglas Fir Sawtimber 14.90 CCF		9.31
				Incense Cedar Sawtimber 1.30 CCF		
				Ponderosa Pine Sawtimber 2.70 CCF		
				Sugar Pine Sawtimber 2.20 CCF		
				White Fir Sawtimber 0.40 CCF		
				Combined Softwood Non-Saw 7.60 CCF		
				Total PU Quantity And Value	29.10 CCF	
957	.82			Douglas Fir Sawtimber 7.00 CCF		11.39
				Incense Cedar Sawtimber 0.70 CCF		
				Ponderosa Pine Sawtimber 17.30 CCF		
				Sugar Pine Sawtimber 2.20 CCF		
				White Fir Sawtimber 0.00 CCF		
				Combined Softwood Non-Saw 8.40 CCF		
				Total PU Quantity And Value	35.60 CCF	
958	.83			Douglas Fir Sawtimber 14.30 CCF		12.67
				Incense Cedar Sawtimber 0.70 CCF		
				Ponderosa Pine Sawtimber 1.20 CCF		
				Sugar Pine Sawtimber 1.50 CCF		
				White Fir Sawtimber 13.10 CCF		
				Combined Softwood Non-Saw 8.80 CCF		
				Total PU Quantity And Value	39.60 CCF	
963	.94			Douglas Fir Sawtimber 2.30 CCF		6.98
				Incense Cedar Sawtimber 0.60 CCF		
				Ponderosa Pine Sawtimber 9.60 CCF		
				Sugar Pine Sawtimber 1.10 CCF		
				White Fir Sawtimber 0.00 CCF		
				Combined Softwood Non-Saw 8.20 CCF		
				Total PU Quantity And Value	21.80 CCF	
965	.96			Douglas Fir Sawtimber 11.20 CCF		13.22
				Incense Cedar Sawtimber 2.80 CCF		
				Ponderosa Pine Sawtimber 3.80 CCF		
				Sugar Pine Sawtimber 3.00 CCF		
				White Fir Sawtimber 10.60 CCF		
				Combined Softwood Non-Saw 9.90 CCF		
				Total PU Quantity And Value	41.30 CCF	

Payment Unit No.	App rox. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment \$	Quantity of Species and Products to be Paid for at Flat Rates under AT4b	Total Flat Rate Payment \$	Total Required Deposits for Slash Disposal \$
966	.98			Douglas Fir Sawtimber 4.20 CCF Incense Cedar Sawtimber 1.50 CCF Ponderosa Pine Sawtimber 9.60 CCF Sugar Pine Sawtimber 2.60 CCF White Fir Sawtimber 1.50 CCF Combined Softwood Non-Saw 9.00 CCF		9.09
				Total PU Quantity And Value 28.40 CCF		
969	1.12			Douglas Fir Sawtimber 19.80 CCF Incense Cedar Sawtimber 2.60 CCF Ponderosa Pine Sawtimber 3.50 CCF Sugar Pine Sawtimber 3.30 CCF White Fir Sawtimber 8.40 CCF Combined Softwood Non-Saw 11.80 CCF		15.81
				Total PU Quantity And Value 49.40 CCF		
971	1.18			Douglas Fir Sawtimber 17.20 CCF Incense Cedar Sawtimber 0.00 CCF Ponderosa Pine Sawtimber 6.50 CCF Sugar Pine Sawtimber 8.50 CCF White Fir Sawtimber 4.40 CCF Combined Softwood Non-Saw 12.00 CCF		15.55
				Total PU Quantity And Value 48.60 CCF		
972	1.23			Douglas Fir Sawtimber 26.60 CCF Incense Cedar Sawtimber 3.50 CCF Ponderosa Pine Sawtimber 13.80 CCF Sugar Pine Sawtimber 1.50 CCF White Fir Sawtimber 0.40 CCF Combined Softwood Non-Saw 13.40 CCF		18.94
				Total PU Quantity And Value 59.20 CCF		
974	1.31			Douglas Fir Sawtimber 10.70 CCF Incense Cedar Sawtimber 4.40 CCF Ponderosa Pine Sawtimber 20.00 CCF Sugar Pine Sawtimber 6.70 CCF White Fir Sawtimber 3.30 CCF Combined Softwood Non-Saw 13.70 CCF		18.82
				Total PU Quantity And Value 58.80 CCF		
976	1.51			Douglas Fir Sawtimber 28.10 CCF Incense Cedar Sawtimber 1.10 CCF Ponderosa Pine Sawtimber 1.20 CCF Sugar Pine Sawtimber 0.70 CCF White Fir Sawtimber 8.40 CCF Combined Softwood Non-Saw 15.00 CCF		17.44
				Total PU Quantity And Value 54.50 CCF		
979	2.07			Douglas Fir Sawtimber 26.80 CCF Incense Cedar Sawtimber 8.30 CCF Ponderosa Pine Sawtimber 6.90 CCF Sugar Pine Sawtimber 4.40 CCF White Fir Sawtimber 22.20 CCF Combined Softwood Non-Saw 21.70 CCF		28.90
				Total PU Quantity And Value 90.30 CCF		

The following definitions are established for the terms used in AT4:

Base Rates are the lowest rates of payment for timber that are authorized by this contract. Base Rates remain constant throughout the life of this contract and are not subject to change by rate redetermination, except for reduction under BT3.31, BT3.32, or BT3.33.

Advertised Rates are the minimum acceptable Bid Rates for timber, exclusive of Required Deposits. These rates are those indicated by appraisal, with a cost allowance made for construction of Specified Roads listed in AT7, but are never less than Base Rates.

Bid Premium Rates are the amounts by which Purchaser's bid is in excess of Advertised Rates. The Bid Premium Rates are constant during this contract, except as provided in BT3.31, BT3.32, and BT3.33.

Bid Rates are the rates bid by Purchaser (exclusive of Required Deposits for slash disposal and road maintenance) and are the sum of Advertised Rates and Bid Premium Rates. Until a rate redetermination becomes effective, the Bid Rate for species and products in AT4a is the Tentative Rate that is subject to quarterly adjustment under BT3.2; for species and products in AT4b, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Purchaser may be required to pay for slash disposal (16 USC 490) and road maintenance (16 USC 537). Required Deposits may be adjusted as part of a rate redetermination or a Contract Term Extension. The table shows only Required Deposits for slash disposal; road maintenance deposits, if any, are given in CT5.32#.

Base Index is the specified average of the lumber or other product selling value index used as the basis for computing adjustment in rates for variance in product selling value, as provided in BT3.2.

AT5 - Indices Used in Quarterly Adjustment, applicable to BT3.2

Not Applicable

AT6 - High Stumps, applicable to BT6.412

Species	Product	Maximum Stump Height (inches)
Douglas Fir	Sawtimber	12
Incense Cedar	Sawtimber	12
Ponderosa Pine	Sawtimber	12
Sugar Pine	Sawtimber	12
White Fir	Sawtimber	12
Combined Softwood	Non-Saw	6

AT7 - Specified Roads, applicable to BT5.2

Name and Date of Governing Road Specifications: Federal Highway Administration Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects(2003)-english

Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking ^{1/}
25N12	Blackhawk (R) (segment 0 to 2.1)	Single Lane - 10 mph	2.1 / 3.38	8 08/05/2010	FS	FS	FS BC
25N46	Wells (R) (segment 0 to .6)	Single Lane - 5 mph	.6 / .97	9 08/05/2010	FS	FS	FS BC

^{1/} Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to BT5.212.

AT8 - Forest Service Engineering Completion Schedule, applicable to BT5.21

Road No.	Road Name	Type of Work	Completion Date
NOT APPLICABLE			

AT9 - Fire Precautionary Period, applicable to BT7.2

May 01 to December 01, inclusive

AT10 - Purchaser Responsibility to Furnish Crews and Equipment for:

Initial Fire Suppression, applicable to BT7.3

Within 25 road miles

Fire Suppression Reinforcement, applicable to BT7.312 and BT7.313

Within 100 road miles

AT11 - Purchaser's Obligation per Operations Fire, applicable to BT7.41

Maximum Amount: \$ \$12,900

AT12 - Termination Date, applicable to BT8.2

December 31, 2012

AT13 - Normal Operating Season, applicable to BT6.31, BT6.66, BT8.21 and BT9.3

First Period: June 01 to October 31, inclusive

Second Period: _____ to _____, inclusive

AT14 - Performance Bond, applicable to BT9.1

Performance Bond Amount: _____

AT15 - Downpayment, applicable to BT4.211

Downpayment Amount: _____

AT16 - Periodic Payment Amount, applicable to BT4.213

	<u>Periodic Payment Determination Date</u>	<u>Amount</u>
Initial Payment:	_____	_____
Additional Payment:	_____	_____

AT17 - Market-Related Contract Term Addition Producer Price Index, applicable to BT8.212

Index Name: Wood Chips **Index Number:** 211135

AT18 - Inapplicable Standard Provisions

The following listed Sections, Subsections, or Items of Division BT - Standard Provisions - are hereby made inapplicable. (Instructions: List by reference number and title.)

BT4.211	DOWNPAYMENT
BT8.212	MARKET-RELATED CONTRACT TERM ADDITION

AT19 - List of Special Provisions

The following listed special provisions are attached to and made a part of this contract as Division CT. Provisions with reference numbers followed by # contain blanks into which data have been entered for this sale. (Instructions: List by reference number, title, and date.)

CT2.11#	TIMBER SUBJECT TO AGREEMENT (06/1972)
CT2.21#	UTILIZATION AND REMOVAL OF NON-SAWTIMBER PRODUCTS (08/2006)
CT2.35#	DESIGNATION OF TIMBER AND SUBDIVISION/PAYMENT UNIT BOUNDARIES (08/2007)
CT2.351#	DESIGNATION BY SPACING (04/2004)
CT4.211	DOWNPAYMENT (06/2007)
CT4.212	TEMPORARY REDUCTION OF DOWNPAYMENT (08/2009)
CT5.11#	REQUIREMENTS OF RIGHTS-OF-WAY AND LAND USE AGREEMENTS (05/2008)
CT5.12#	USE OF ROADS BY PURCHASER (06/1999)
CT5.125#	SHARE COST ROAD LIABILITY INSURANCE (08/2006)
CT5.213#	DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (04/2004)
CT5.221#	MATERIAL SOURCES (04/2004)
CT5.31#	ROAD MAINTENANCE REQUIREMENTS (07/2001)
CT5.32#	ROAD MAINTENANCE DEPOSIT SCHEDULE (07/2001)
CT5.35#	ROAD AND WATER SUPPLY USE (05/2008)
CT6.24#	SITE SPECIFIC SPECIAL PROTECTION MEASURES (04/2004)
CT6.314	RELEASE OF PAYMENT UNIT (08/2006)
CT6.315#	SALE OPERATIONS SCHEDULE (08/2006)
CT6.331	LOG TRUCKING (08/2006)
CT6.37	SUBSTITUTE METHODS (08/2006)
CT6.41#	FELLING, BUCKING, AND LIMBING (08/2007)
CT6.42#	GROUND BASED SKIDDING (08/2006)
CT6.5	STREAMCOURSE PROTECTION (08/2006)

CT6.6#	EROSION PREVENTION AND CONTROL (05/2008)
CT6.7#	SLASH TREATMENT (08/2006)
CT6.8-2#	MEASURING - OPT 2 (08/2006)
CT6.83	ACCOUNTABILITY (08/2006)
CT7.2#	SPECIFIED FIRE PRECAUTIONS (08/2006)
CT7.22#	EMERGENCY PRECAUTIONS (08/2006)
CT8.212	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)
CT8.66# (Option 1)	USE OF TIMBER (04/2004)

SAMPLE

Engineer's Estimate for Public Works

Butterfly MP Thin Timber Sale

Mt. Hough Ranger District

Plumas National Forest

Item No.	Item Description	Method of Meas.	Estimated Quantity	Pay Unit	Unit Price \$	Amount \$
<u>Road 25N46 Wells (Reconstruct)</u>						
201(03)	Clearing and Grubbing, Slash Treatment Methods for Tops & Limbs 4; Logs 4; and Stumps 4; Utilization of Timber 2	CQ	0.56	Mile	<u>\$2,500.00</u>	<u>\$1,400.00</u>
201(08)	Individual Removal of Trees (Hazard); Slash Treatment for Tops and Limbs 4; Logs 4; Utilization of Timber 2	AQ	2.00	Each	<u>\$100.00</u>	<u>\$200.00</u>
203(02)	Excavation and Embankment Method 2	CQ	80.00	C.Y.	<u>\$5.00</u>	<u>\$400.00</u>
203(19)A	Drainage Excavation Type; Lead-off Ditch	AQ	105.00	L.F.	<u>\$2.00</u>	<u>\$210.00</u>
203(20)	Drainage Excavation Type; Dip	AQ	6.00	Each	<u>\$265.00</u>	<u>\$1,590.00</u>
203(20)C	Drainage Excavation Type; Low Water Crossing	AQ	1.00	Each	<u>\$2,350.00</u>	<u>\$2,350.00</u>
306(01)	Reconditioning of Roadbed, Compaction D	CQ	0.56	Mile	<u>\$4,150.00</u>	<u>\$2,324.00</u>
Subtotal Road 25N46						<u>\$8,474.00</u>
<u>Road 25N12 Blackhawk (Reconstruction)</u>						
201(03)	Clearing and Grubbing, Slash Treatment Methods for Tops & Limbs 4; Logs 4; and Stumps 4; Utilization of Timber 2	CQ	0.10	Mile	<u>\$1,400.00</u>	<u>\$140.00</u>
202(01)	Selective Clearing, Trim all Brush and Limbs to 10' Above the Road	CQ	0.01	Acre	<u>\$6,600.00</u>	<u>\$66.00</u>
203(02)	Excavation and Embankment, Method 2	CQ	25.00	C.Y.	<u>\$5.00</u>	<u>\$125.00</u>
306(01)	Reconditioning of Roadbed, Compaction D	CQ	0.10	Mile	<u>\$1,400.00</u>	<u>\$140.00</u>
Subtotal Road 25N12						<u>\$471.00</u>
Project Total						<u>\$8,945.00</u>

**UNITED STATES DEPARTMENT OF AGRICULTURE
Forest Service**

**TIMBER SALE CONTRACT
DIVISION BT**

June 2006
(Date of Issue)

STANDARD PROVISIONS FOR TIMBER SALES TO BE MEASURED BEFORE FELLING

This Division is organized into Parts, Sections, Subsections, and Items. These are numbered in accordance with the following scheme: Part BT1.0, Section BT1.1, Subsection BT1.11, and Item BT1.111. References to a Part include all Sections, Subsections, and Items within that Part; references to a Section include all Subsections and Items within that Section; and references to a Subsection include all Items within that Subsection. Cross-references within this contract cite the reference number of the applicable Division, Part, Section, Subsection, and Item. Descriptive headings used

are not to be considered in determining the rights and obligations of the parties.

The Standard Provisions in this Division are subject to Specific Conditions of the contract stated in Division AT. Wherever appropriate, Specific Conditions established in Division AT are cited by reference number. The listing of Sections, Subsections, or Items of this Division in AT18 has the effect of striking or deleting them from Division BT. AT19 lists Special Provisions that comprise Division CT. Where appropriate, references to Special Provisions are made by citing the applicable reference numbers.

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BT1.0—SALE AREA

BT1.1 Sale Area Map. The boundaries of “Sale Area” and any Payment Unit thereof, are as shown on the attached “Sale Area Map” that is made a part hereof, and were, before timber sale advertisement, designated on the ground by Forest Service to meet the anticipated needs of the parties. The location of Sale Area and its approximate acreage are stated in AT1. Payment Units may be revised and additional ones may be established only by written agreement. Upon Purchaser’s request, Forest Service shall subdivide Payment Units to reduce them to a size that can be logged within 60 days at Purchaser’s normal rate of logging. However, the rate of logging used in such adjustment of Payment Unit size shall not be less than a rate necessary for removal of all Included Timber during Normal Operating Seasons prior to Termination Date. Payment Units or cutting units may be eliminated from Sale Area under conditions described in BT6.36. Catastrophically Damaged areas may be removed from Sale Area under BT8.32.

Where applicable, the following are also identified on Sale Area Map:

- (a) Identified claims limiting Purchaser’s rights under BT1.2;
- (b) Payment Units where timber is to be Measured or Marked after date of timber sale advertisement and approximate location of sample Marked timber under BT2.36 and BT2.4;
- (c) Boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units under BT2.3;
- (d) Diameter limits for Overstory Removal Units and Understory Removal Units under BT2.33 and BT2.34;
- (e) Areas where leave trees are Marked to be left uncut under BT2.35;
- (f) Specified Roads listed in AT7;
- (g) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items under CT5.221;
- (h) Roads where log hauling or use is prohibited or restricted under BT5.12;
- (i) Roads and trails to be kept open under BT6.22;
- (j) Improvements to be protected under BT6.22;
- (k) Locations of known wildlife or plant habitat and cave resources to be protected under BT6.24;
- (l) Locations of areas known to be infested with specific invasive species of concern under BT6.35;
- (m) Maximum stump heights when more than one height is listed by areas in AT6 under BT6.412;
- (n) Skidding or yarding methods specified under BT6.42;
- (o) Streamcourses to be protected under BT6.5;
- (p) Locations of meadows requiring protection under BT6.61;
- (q) Locations of wetlands requiring protection under BT6.62;
- (r) Locations of temporary roads to be kept open under BT6.631; and
- (s) Other features required by Division BT or CT.

BT1.2 Claims. Valid claims are excluded from Sale Area, except those on which timber cutting is authorized

in writing by the claimant and except mining claims on which cutting is authorized by the Act of July 23, 1955 (30 USC 614). Claims that limit Purchaser’s rights to operate under this contract and that Forest Service has been able to identify are shown on Sale Area Map. Purchaser is not obligated to operate contrary to existing claim limitations. Forest Service shall designate boundaries of claims on the ground to the extent necessary to identify Included Timber.

BT2.0—TIMBER SPECIFICATIONS

BT2.1 Included Timber. “Included Timber” consists of:

BT2.11 Standard Timber. Live and dead trees and portions thereof that meet Utilization Standards under BT2.2 and are designated for cutting under BT2.3.

BT2.12 Substandard Timber. Live and dead trees that:

- (a) Do not meet Utilization Standards and
- (b) Are located in Clearcutting Units or construction clearings or are otherwise designated for cutting.

BT2.13 Damaged Timber.

BT2.131 Damaged by Purchaser. Undesignated live trees meeting Utilization Standards:

- (a) Within 200 feet slope distance from centerline of roads constructed hereunder that are damaged by Purchaser’s construction to the extent that considerable deterioration or mortality is imminent and are designated by Forest Service for felling before the nearest road segment is Substantially Completed or
- (b) That are damaged by Purchaser in logging and are subsequently Marked before Purchaser has completed skidding or yarding operations in the immediate area.

By agreement, such trees may be left without charge if their removal would cause undue damage or be grossly uneconomic.

BT2.132 Negligent or Willful Damage. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Purchaser, if included by Contracting Officer.

BT2.133 Damage by Catastrophe. As provided under BT8.32, undesignated live and dead timber within Sale Area, meeting Utilization Standards, and affected by Catastrophic Damage. “Catastrophic Damage” as used hereunder is major change or damage to Included Timber on Sale Area, to Sale Area, to access to Sale Area, or a combination thereof:

(a) Caused by forces, or a combination of forces, beyond control of Purchaser, occurring within a 12-month period, including, but not limited to, wind, flood, earthquake, landslide, fire, forest pest epidemic, or other major natural phenomenon and

(b) Affecting the value of any trees or products meeting Utilization Standards, within Sale Area and estimated to total either:

- (i) More than half of the estimated timber quantity stated in AT2 or
- (ii) More than two hundred thousand cubic feet (2,000 CCF) or equivalent.

Catastrophic Damage does not include changes caused by forest pest epidemics or foreseeable deterioration if Included Timber was sold for salvage or pest control.

BT2.134 Minor Damage by Natural Causes. Undesignated trees within Sale Area and meeting Utilization Standards, in amounts less than specified in BT2.133, that become insect infested, windthrown, suffer serious damage, or die, as designated by agreement.

BT2.14 Unintentionally Cut Timber. Trees, within or immediately adjacent to Sale Area or to road construction or other authorized clearing outside Sale Area, not designated for cutting under BT2.3 but that are cut through mistake by Purchaser, when included by Contracting Officer.

BT2.15 Construction Timber. Trees to be used for construction under BT5.1.

BT2.16 Other Material. Species or products not listed in AT2, upon written approval of Contracting Officer under BT3.41.

BT2.2 Utilization and Removal of Included Timber. "Utilization Standards" for trees and minimum pieces are stated in AT2. To meet minimum tree specifications, trees must equal or exceed tree diameters listed in AT2 and contain at least one minimum piece. Except for timber required or authorized to be left, Purchaser shall fell and buck such trees and shall remove from Sale Area all pieces that:

(a) Meet minimum piece standards in AT2 or

(b) Do not meet such standards, but would have qualified as part of minimum pieces if bucking lengths were varied to include such material.

BT2.3 Timber Designations. Timber designated for cutting shall be confined to Sale Area, except as provided in BT2.131, BT2.14, BT2.15, BT2.32, and BT5.1. Sale Area Map indicates Payment Units, if any, where Marking under BT2.35 is to be done after timber sale advertisement, except for construction clearing under BT2.32, designation changes under BT2.37, and damaged timber.

The boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units were plainly Marked on ground before timber sale advertisement and are shown on Sale Area Map. Boundary trees shall not be cut. Such units where Measuring is to be completed after date of timber sale advertisement are also shown. The number of units and approximate acreage of timber designations are stated in AT3.

BT2.31 Clearcutting Units. All trees that meet Utilization Standards within "Clearcutting Units" are designated for cutting.

BT2.32 Construction Clearing. All timber is designated for cutting that is within the clearing limits of roads constructed hereunder or is in other authorized clearings. All dead or unstable live trees are designated for cutting that are sufficiently tall to reach Purchaser's landings or the roadbed of Specified and Temporary Roads when Marked in advance of felling of timber in the immediate vicinity. Pieces meeting Utilization Standards from such dead or unstable live trees shall be removed, unless there is agreement that to do so could damage the

road. Such designation may be revised as part of agreed changes in road location under BT5.2.

BT2.321 Specified Road Clearings. Timber within the clearing limits of Specified Roads is within separate Payment Units, as shown on Sale Area Map, and the quantities are in AT2. These Payment Units are subject to revision, as specified in BT2.37. The quantities of dead or unstable trees designated outside the clearing limits are not included in AT2.

BT2.322 Other Authorized Clearings. Timber within authorized clearings for Temporary Roads, landings, or other construction clearings is designated for cutting. Quantities of such timber are not included in AT2.

BT2.33 Overstory Removal Units. All trees within "Overstory Removal Units" are designated for cutting when they meet Utilization Standards and equal or exceed the diameter limits shown on Sale Area Map.

BT2.34 Understory Removal Units. All trees within "Understory Removal Units" are designated for cutting when they meet Utilization Standards and are smaller than the diameter limits shown on Sale Area Map.

BT2.35 Individual Trees. All trees to be cut, other than in the units described in BT2.31, BT2.32, BT2.33, and BT2.34, are Marked or designated by description. Trees are "Marked" when individually designated by Forest Service with paint marks above and below stump height.

Sale Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.

BT2.36 Incompletely Measured Payment Units. Trees within incompletely Measured Payment Units shown on Sale Area Map at time of timber sale advertisement shall be designated in accordance with CT2.36. A representative sample of the timber to be designated has been Marked prior to timber sale advertisement in accordance with such rules. The approximate locations of the representative sample areas are shown on Sale Area Map.

BT2.37 Designation Changes. Within Sale Area, minor adjustments may be made in boundaries of cutting units or in the timber individually Marked for cutting when acceptable to Purchaser and Forest Service.

In event Contracting Officer accepts alternate facilities under BT5.26, Contracting Officer shall revise the affected Payment Units and adjust estimated quantities.

In the event Purchaser does not construct portions of Specified Roads, Payment Units involved shall be revised to eliminate the road portions not to be constructed. Parts of such areas within non-road-related Payment Units shall be added to such Payment Units and the timber thereon shall be designated by the methods provided for in the Payment Units. Estimated quantities for Payment Units so revised shall be adjusted as necessary.

BT2.4 Quantity Estimate. The estimated quantities of timber by species designated for cutting under BT2.3 and expected to be cut under Utilization Standards are listed in AT2. Estimated quantity in AT2 does not include the following:

(a) Damaged timber under BT2.13;

(b) Unintentionally cut timber under BT2.14;

(c) Construction timber under BT2.15 cut outside of Payment Units and removed from construction use for utilization by Purchaser;

(d) Timber within clearing limits of Temporary Roads or other authorized clearings and that is not designated under BT2.31, BT2.33, BT2.34, or BT2.35; or

(e) Dead or unstable live trees that are sufficiently tall to reach Purchaser's landings or the roadbed of Specified Roads under BT2.32.

Estimated quantities for such timber not included in AT2 shall be determined as stated in CT6.8.

If Sale Area Map shows Payment Units where Marking or Measuring is to be completed after date of timber sale advertisement, the objective of Forest Service shall be to designate for cutting in such Payment Units sufficient timber so that Sale Area shall yield the approximate estimated quantities by species or species groups stated in AT2. However, the estimated quantities stated in AT2 are not to be construed as guarantees or limitations of the timber quantities to be designated for cutting under the terms of this contract.

Quantity adjustments shall not be made under this Section after there is modification for Catastrophic Damage under BT8.32.

BT2.41 Adjustment for Quantity Deficit. If Sale Area Map shows Payment Units where Marking or Measuring is to be completed after the date of timber sale advertisement and if Contracting Officer determines that a deficit in the estimated quantity will cause the quantity designated to be less than 90 percent of the total estimate shown in AT2, Forest Service, upon request by Purchaser, shall designate additional timber within Sale Area. Such additional timber shall be limited to that estimated to be necessary to reach approximately the estimated quantities by species listed in AT2. Any such additional designation shall be consistent with land and resource management plans.

BT2.42 Adjustment for Excess Quantity. If Sale Area Map shows Payment Units where Marking or Measuring is to be completed after date of timber sale advertisement and if Contracting Officer determines that the quantity designated will be more than 120 percent of the total estimated quantity listed in AT2, Forest Service, upon request by Purchaser, shall make an adjustment in Marking or cutting unit boundaries with the objective of designating for cutting the approximate estimated quantities by species listed in AT2. Such adjustments in quantities shall be confined to (a) Marking adjustments on Sale Area and (b) reduction in area to be cut over. Such adjustments or reductions shall not conflict with the silvicultural treatment being applied on Sale Area and shall not materially change the average value by species of the timber designated for cutting. Such adjustments may be made notwithstanding the provisions of BT1.1 and BT2.3.

If the timber designated for cutting is not reduced by such adjustments to less than 120 percent of the total estimated quantity listed in AT2, Purchaser, after cutting 120 percent of the total estimated quantity listed in AT2, may elect to have Sale Area reduced to eliminate Payment Units where felling has not begun.

BT2.43 Adjustment for Quantity Errors. An estimated quantity shown in AT2 shall be revised by correcting identified errors made in determining estimated quantity that result in a change in total timber sale quantity of at least 10 percent or \$1,000 in value, whichever is less, when an incorrect estimated quantity is caused by computer malfunction or an error in calculations, area determination, or computer input.

No adjustments in quantity shall be made for variations in accuracy resulting from planned sampling and Measuring methods or judgments of timber quality or defect.

For payment purposes, corresponding revisions in quantity and total payment shall be shown in AT4c for each Payment Unit involved. Adjustment in rates will not be made. Adjustment in quantities shall not obligate Forest Service to designate additional quantities when the original quantity estimate is overstated.

BT3.0—RATES OF PAYMENT

BT3.1 Current Contract Rates. Included Timber that is Released for Cutting shall be paid for at Current Contract Rates determined under this Section. "Current Contract Rates" shall be (a) Flat Rates and (b) Tentative Rates adjusted by the escalation procedures in BT3.2. Flat Rates and Tentative Rates shall be those listed in AT4, unless superseded by rates redetermined under BT3.3 or established for Contract Term Extension.

Current Contract Rates, based on rates redetermined under BT3.3 or established under BT8.23, shall apply to all Payment Units from which removal of timber from Sale Area has not been completed on the effective date of the revised rates, except Current Contract Rates in effect at the time of Release for Cutting shall be applicable:

(a) On Payment Units for Specified Roads Released for Cutting on which clearing has begun and

(b) For not more than two other Payment Units from which removal from Sale Area has begun.

Notwithstanding the exceptions provided in this Section, rates redetermined under BT3.31, BT3.32, and BT3.33 shall apply to all Included Timber removed subsequent to the rate redetermination.

In event there are more than two Payment Units from which timber removal has not been completed on the effective date, the rates in effect at the time of Release for Cutting shall apply to the two units from which the greatest estimated proportions of Payment Unit quantities have been removed. Otherwise, in released Payment Units, redetermined rates or rates established for Contract Term Extension shall apply to the entire quantity shown in AT4c for those units. In addition, Required Deposits shall be made as listed in AT4 and CT5.32, or established under BT3.3 or BT8.23.

In the event Termination Date is adjusted under BT8.21 or BT8.212, Current Contract Rates shall be continued in the same manner as immediately prior to the adjustment period.

"Current Contract Value" is the sum of the products of Current Contract Rates and estimated remaining

quantities by species of Included Timber meeting Utilization Standards.

BT3.2 Escalation Procedure. Tentative Rates for those species and products listed in AT4a are subject to quarterly escalation in accordance with the following procedures: The calendar quarter index average for each price index described in AT5 is the arithmetic average of the three such monthly price indices preceding January 1, April 1, July 1, and October 1. The difference between calendar quarter index average and Base Index listed in AT4a shall be the basis for quarterly escalation. To arrive at Current Contract Rates for Payment Units Released for Cutting during the preceding calendar quarter, Tentative Rates for each species shall be reduced or increased by such difference, except when the calendar quarter index average is:

(a) Less than the Base Index, the reduction shall not result in a rate below Base Rate or

(b) Greater than the Base Index, the increase shall not exceed the difference between Tentative Rate and Base Rate.

In the event of Contract Term Extension, the escalation procedure will be used during the extension period, except that adjusted payment rates for any calendar quarter cannot be less than Tentative Rates, for each species and product group, established under BT8.23 for the extension period.

BT3.21 Unavailable Index. If an index described in AT5 is no longer available, Contracting Officer may replace that index. If Contracting Officer determines that a replacement index does not exist, Current Contract Rates for the remainder of the timber sale shall be a Flat Rate. Flat Rates will be Tentative Rates adjusted by the arithmetic average of the index described in AT5 for a 12-month period prior to its becoming unavailable using the quarterly adjustment procedure outlined in BT3.2. Contracting Officer will determine availability and a beginning point to average the index for Flat Rates. Such Flat Rates are subject to rate redetermination as provided elsewhere under this contract.

BT3.3 Rate Redetermination. Rates may be redetermined as set forth in this Section. Bid Premium Rates shall be added to all redetermined rates, except as provided in BT3.31, BT3.32, and BT3.33.

Rate redeterminations shall be made in accordance with the standard Forest Service methods in effect 45 days prior to rate redetermination. Such methods shall take into consideration factors that may affect timber value at rate redetermination date.

Redetermined rates shall not be less than Base Rates listed in AT4, except for reduction under BT3.31, BT3.32, or BT3.33. Required Deposits shall be redetermined. Redetermined Specified Road construction cost is subject to the limitations of BT5.26.

BT3.31 Rate Redetermination for Environmental Modification. In the event of a contract modification under BT8.33 or partial termination under BT8.34, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber remaining

immediately prior to the revision and the appraised unit value of Included Timber to be cut under the modification. The appraisal shall consider the estimated cost of any construction work listed in the Schedule of Items that was performed and abandoned.

Tentative Rates and Flat Rates in effect at the time of the revision will be adjusted by said differences to become Current Contract Rates. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to a new Base Rate limitation of the cost of essential reforestation or 25 cents per hundred cubic feet or equivalent, whichever is larger. However, existing Base Indices shall not be changed under this Subsection.

Redetermined rates, or differences for rates subject to BT3.2, and Required Deposits shall be considered established under BT3.1 for Included Timber removed subsequent to the contract revision.

BT3.32 Rate Redetermination after Catastrophic Damage. In event of Catastrophic Damage and adjustment, if any, of Included Timber, Contracting Officer shall make an appraisal to determine for each species the catastrophe-caused difference between the appraised unit value of Included Timber remaining immediately prior to the catastrophe and the appraised unit value of existing and potential Included Timber immediately after the catastrophe. Included Timber is any that would not be eliminated under BT8.32. Potential Included Timber is any that would be added under BT8.32.

Tentative Rates and Flat Rates in effect at the time of catastrophe shall be adjusted by said differences to become the redetermined rates for the purpose of a contract modification under BT8.32. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to new Base Rate limitations of 25 cents per hundred cubic feet or equivalent. However, existing Base Indices shall not be changed under this Subsection.

Upon agreement under BT8.32, redetermined rates and Required Deposits shall be considered established under BT3.1 for Included Timber removed subsequent to Catastrophic Damage.

At time of such appraisal, Specified Road construction cost shall include the estimated cost of any construction work listed in the Schedule of Items performed and abandoned.

BT3.33 Rate Redetermination for Market Change. In the event of delay or interruption, exceeding 90 days, under BT8.33, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the delay or interruption and the appraised unit value of Included Timber immediately after the delay or interruption. The appraisal shall be done after any rate redetermination done pursuant to BT3.31, using remaining volumes.

Tentative Rates and Flat Rates in effect at the time of delay or interruption or established pursuant to BT3.31 will be reduced, if appraised rates declined during the delay or interruption, to become Current Contract Rates.

Increases in rates will not be considered. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to a new Base Rate limitation of the cost of essential reforestation or 25 cents per hundred cubic feet or equivalent, whichever is larger. However, existing Base Indices shall not be changed under this Subsection.

Redetermined rates shall be considered established under BT3.1 for Included Timber removed subsequent to the delay or interruption.

BT3.34 Emergency Rate Redetermination.

Forest Service shall redetermine rates if, upon Purchaser's application, Forest Service determines that, because of changes in the timber market since the award date or the last rate redetermination under this provision, the Producer Price Index identified in AT17 has declined by 25 percent. Rates shall be redetermined under BT3.3 and shall be considered established under BT3.1 for Payment Units described therein at the time of Purchaser's application. This Subsection shall not apply during Contract Term Extension.

BT3.4 Other Payment Rates.

BT3.41 Material and Quantities Not in AT2.

Incidental amounts of products or portions of trees of species listed in AT2 that do not meet Utilization Standards may be removed without charge. Such material may be purposely removed in more than incidental amounts without charge upon written approval of Contracting Officer, and subject to agreement on deposits if needed for road maintenance and use.

Other species or products not listed in AT2 may be cut and removed upon written approval of Contracting Officer and subject to agreement on rates of payment and deposits if needed for road maintenance and use.

Timber for which the quantity is not included in the estimate listed in AT2, as described in BT2.4, shall be paid for at Current Contract Rates and Required Deposits.

BT3.42 Timber Cut Through Mistake. Undesignated timber meeting Utilization Standards, cut by Purchaser through mistake and included by Contracting Officer under BT2.14, shall be removed and paid for at Current Contract Rates and Required Deposits, unless such material is not listed in AT2. In such event, Contracting Officer, in accord with standard Forest Service methods, shall establish rates to be paid.

BT3.43 Undesignated Timber Damaged Without Negligence. Undesignated timber meeting Utilization Standards, damaged without negligence by Purchaser and designated by Forest Service under BT2.131, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits.

BT3.44 Undesignated Timber Unnecessarily Damaged or Negligently or Willfully Cut. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Purchaser, if included by Contracting Officer under BT2.132, shall be cut, removed, and paid for at Current Contract Rates and

Required Deposits that are in addition to liquidated damages under BT3.45.

If such timber is of a species or size not listed in AT2 or is of a quality different from designated timber, Contracting Officer shall establish payment rates in accord with standard Forest Service methods.

BT3.45 Liquidated Damages. Unnecessary damage to or negligent or willful cutting of undesignated timber, as described in BT3.44, on portions of Sale Area cut over under this contract is likely to cause substantial silvicultural or other damage to the National Forest. It will be difficult, if not impossible, to determine the amount of such damage. Therefore, Purchaser shall pay as fixed, agreed, and liquidated damages an amount equivalent to the amount payable at Current Contract Rates. If designated by Contracting Officer, Purchaser shall remove such damaged or cut timber and pay for it at Current Contract Rates.

BT4.0—PAYMENTS

BT4.1 Amount Payable for Timber. Except as provided in BT3.1, Current Contract Rates and Required Deposits in effect when a Payment Unit is Released for Cutting shall be applied to the timber quantities to determine the amount Purchaser shall pay. A "Payment Unit" is a portion of Sale Area established for payment purposes.

BT4.2 Timber Sale Account. "Timber Sale Account" is an account maintained by Forest Service of all Purchaser's deposits, credits, payment guarantees, and the charges for:

- (a) Timber at Current Contract Rates;
- (b) Slash disposal and road maintenance at Required Deposit rates;
- (c) Cooperative work at rates established by specific agreement under BT4.218; and
- (d) Other charges provided in this contract.

Cash deposits shall be recorded currently in such account.

Charges for Payment Units Released for Cutting shall be made when Forest Service prepares and furnishes to Purchaser periodic statements of quantity and value of such timber. Charges subject to escalation under BT3.2 shall be made initially on the basis stated in BT4.214 and shall be adjusted at the end of each calendar quarter, as provided in BT3.2.

Charges shall be made according to BT3.4 when trees are subsequently Marked or designated for cutting.

BT4.21 Cash Deposits. Within the limitations of this Subsection, Purchaser shall make cash deposits to meet Purchaser's obligations within 15 days of billing by Forest Service. Deposits shall be made to Forest Service, U.S.D.A., by mail or delivery to the address to be furnished by Forest Service. Forest Service shall explain the bill at the time it requests each deposit.

BT4.211 Downpayment. The downpayment amount shown in AT15 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to BT9.4, transferred to other timber sales, or refunded until stumpage value representing 25 percent of the total bid value of

the timber sale is shown on Timber Sale Account to have been cut, removed, and paid for, or if 36 CFR 223.49(e) is applicable, the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpayment. For lump sum timber sales, the downpayment may be applied to payment for release of the single payment unit.

If Forest Service makes a determination that this contract should not have been included under increased downpayment requirements (36 CFR 223.49(e)), the downpayment shall be revised and applied in accordance with 36 CFR 223.49(f).

BT4.212 Advance Deposits. Purchaser agrees to make cash deposits in advance of cutting to meet charges under BT4.2.

Forest Service billings for advance cash deposits shall be in such amounts that Timber Sale Account will maintain an unobligated balance that covers the applicable charges for Payment Units Released for Cutting and designated material not included in AT2 expected to be cut within the next 60 days. This advance cash deposit may be reduced to a smaller amount by the terms of BT4.211, BT4.213, BT4.215, and/or BT4.217. Except for amounts required pursuant to BT4.211, BT4.213, and BT4.217, Purchaser shall not be required to make advance deposits above those required under this Item.

When the credit balance in Timber Sale Account is exceeded by the charges for timber within Payment Units Released for Cutting and for the estimated quantity to be cut in 10 days of cutting designated material not included in AT2, Contracting Officer will suspend all or any part of Purchaser's Operations until payment or acceptable payment guarantee is received.

BT4.213 Periodic Payment Schedule. Purchaser shall make periodic payments for stumpage value, as shown in AT16.

In the event Purchaser has not paid the amount(s) stated in AT16 as stumpage for quantity removed by the periodic payment determination date(s), Forest Service shall issue a bill for collection for the difference between the required amount and payments made by Purchaser. If payment(s) fall due on a date other than a normal billing date, the payment date shall be extended to coincide with the next Timber Sale Account billing date.

The amount of the periodic payment(s) will be reduced if the payment(s) would result in Purchaser's credit balance for timber charges exceeding the Current Contract Value.

Only cash may be used for this purpose. No other form of payment is acceptable. Forest Service will apply the payments to subsequent charges on this contract under the terms of BT4.212.

Except for Contract Term Extensions under BT8.23, periodic payment determination date(s) that have not been reached shall be adjusted one day for each additional day of contract time granted.

BT4.214 Deposits for Charges Subject to Escalation. Deposits requested to cover estimated charges for timber subject to escalation under BT3.2 shall

be based upon Current Contract Rates and related deposits in effect during previous calendar quarter.

BT4.215 Deposits When Payment Guaranteed. To the extent payment guarantee is provided under BT4.3, requirements for advance cash deposits under BT4.212 shall be waived for the value of timber on Sale Area that has been Released for Cutting, but not removed, and for the estimated value of products removed from Sale Area for not more than a monthly billing period, subject to the provisions of BT4.4.

BT4.216 Blanket Cash Deposits. Purchaser may make cash deposits under a written agreement to cover charges made under this and other timber sale contracts within the same National Forest. Forest Service shall allocate such deposits to such timber sales. When there is to be no timber cutting hereunder for 30 days or more and payment of current charges has been made, the allocation to this timber sale shall be reallocated to other timber sales within the same National Forest at Purchaser's request. Purchaser shall not start cutting until allocation has again been made to this timber sale.

BT4.217 Extension Deposits. In the event of Contract Term Extension, Forest Service shall divide the difference between Current Contract Value as of the start of any Contract Term Extension and the credit balance of any deposit made pursuant to BT4.213 by the number of whole months remaining in Normal Operating Season(s) within the extension period to determine the amount of each "Extension Deposit."

Purchaser shall make the initial Extension Deposit prior to Forest Service executing the contract modification. In response to Forest Service billing under BT4.21, Purchaser shall make advance cash deposits. Such deposits shall at least equal each Extension Deposit required for each whole month remaining in Normal Operating Season(s) during the extension period. Extension Deposits shall be due by the last day of each month during Normal Operating Season whether or not any Payment Unit is to be released.

Due dates for Extension Deposits during the extension period may be delayed when Purchaser earns Contract Term Adjustment if Termination Date, as adjusted, results in one or more additional complete months within Normal Operating Season(s).

BT4.218 Cooperative Deposits. On a basis of cooperation or assistance (16 USC 572) and by a written agreement, Forest Service shall perform all or portions of the work that Purchaser is obligated to perform under this contract, as well as furnish other services in connection with activities under this contract. When Forest Service is to perform such work, Purchaser shall make one or more deposits to cover the estimated cost of the work. On request of Purchaser, Forest Service shall render monthly accounts, as may be specified in such agreement.

BT4.22 Temporary Reduction of Downpayment. When, under BT8.33, Contracting Officer orders a delay or interruption of Purchaser's Operations for more than 30 days when scheduled operations would be occurring but for the order, the downpayment amount

required shall be temporarily reduced upon the written request of Purchaser or at the discretion of the Contracting Officer. For the period of the delay or interruption, the downpayment on deposit may be reduced to \$1,000 or two (2) percent of the downpayment amount listed in AT15, whichever is larger.

Any downpayment amount temporarily reduced pursuant to this Subsection may be refunded or transferred at the request of Purchaser. However, if Purchaser has outstanding debt owed to the United States, Contracting Officer must apply the amount of downpayment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3701, *et seq.*).

Upon Purchaser's receipt of bill for collection and written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Purchaser shall restore the downpayment to the full amount shown in AT15 within 15 days after the date the bill for collection is issued, subject to the provisions of BT4.4. Purchaser shall not resume contract operations until the downpayment amount is fully restored.

BT4.23 Refund of Excess Cash. If at any time the credit balance of Timber Sale Account exceeds the charges for timber within Payment Units Released for Cutting and for designated material not included in AT2 that Forest Service estimates will be cut within the next 60 days, any portion of such excess that is due to cash in the account shall be refunded, if requested by Purchaser, unless deposited under BT4.211, BT4.213, or BT4.217. If Purchaser plans no cutting within the next 60 days, Forest Service may refund the entire unencumbered cash balance, except as provided in this Subsection. However, Forest Service shall not reduce the credit balance below the total value of partially cut Payment Units and designated material not included in AT2 that is cut before operations cease. After a refund for a shutdown, deposits shall be made to meet the requirements of BT4.212 before additional timber may be cut.

BT4.24 Refund after Final Charges for Released Timber. Any cash deposit, in excess of that required to meet charges under BT4.2, shall be refunded or transferred within 15 days of Purchaser's request after final charges for Included Timber have been made, except for amounts estimated to be required under BT9.5.

BT4.3 Payment Guaranteed by Bond or Deposited Securities. To guarantee payment, Purchaser may furnish and maintain an acceptable surety bond or deposit in a Federal Depository negotiable securities of the United States. The securities shall be deposited through the Regional Fiscal Agent accompanied by a power of attorney and agreement authorizing the bond-approving officer to sell or collect such securities if payment is not made within 15 days of billing by Forest Service. The penal sum of such surety bond or the market value at time of deposit of such negotiable securities shall be the maximum amount of the payment guaranteed.

For payment purposes, penal sum of the surety bond or market value at time of deposit of negotiable securities

shall be in lieu of the performance bond furnished under BT9.1.

BT4.31 Blanket Bond. If Purchaser furnishes an acceptable bond, or deposits securities, in accordance with BT4.3, to guarantee payment for timber from this and other timber sales within the same National Forest, the amount of such bond or deposited securities shall be allocated to such timber sales by Forest Service. When there is to be no timber cutting hereunder for 30 days or more and payment of current charges has been made, the allocation to this timber sale shall be reallocated to other timber sales at Purchaser's request. Purchaser shall not start cutting hereunder until this timber sale receives an allocation that will meet the obligation for payment guarantee.

BT4.32 Letters of Credit for Payment Bond. Notwithstanding the provisions of BT4.3, Purchaser may use letters of credit in lieu of a surety bond for payment bond purposes when approved by Contracting Officer.

BT4.4 Payments Not Received. (a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date allowed in the bill for collection for receipt of payment, Contracting Officer will suspend all or any part of Purchaser's Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:

- (i) Slash disposal and road maintenance deposits;
- (ii) Cooperative work at rates established by specific agreement under BT4.218;
- (iii) Damages pursuant to BT9.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to BT4.22;
- (vi) Periodic payments pursuant to BT4.213;
- (vii) Extension Deposits pursuant to BT4.217; and
- (viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date allowed in the bill for collection for receipt of payment shall be considered a breach under BT9.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date allowed for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

(c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:

- (i) Simple interest shall be assessed at the higher of the Current Value of Funds Rate or the Prompt Payment Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.

(ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.

(iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c)(i) and (c)(ii). The penalty charge shall accrue from the date of issue indicated on the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c)(i) and (c)(ii).

(iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.

(d) Forest Service remedies for Purchaser's failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Purchaser's Operations, and administrative offset, shall be stayed for so long as:

(i) A bona fide dispute exists as to Purchaser's obligation to make such payment and

(ii) Purchaser files and prosecutes a timely Claim.

BT5.0—TRANSPORTATION FACILITIES

BT5.1 Authorization. Purchaser is authorized to construct and maintain roads, bridges, and other transportation facilities, as needed for harvesting Included Timber on National Forest and other lands where Forest Service has such authority. As used in this contract "construct" includes "reconstruct."

Location and construction of Specified Roads shall be in accordance with BT5.2. Unless otherwise provided herein, construction may be progressive during this contract. Maintenance shall be governed by BT5.3. The location and clearing widths of all Temporary Roads or facilities shall be agreed to in writing before construction is started. "Temporary Roads" are roads other than Specified Roads that are constructed by Purchaser for the purpose of harvesting Included Timber.

Purchaser is authorized to cut and use for construction without charge construction timber designated by agreement.

BT5.11 Requirements of Rights-of-Way. Purchaser's road construction and use of rights-of-way identified in attached list or CT5.11 shall be confined to rights-of-way and limited by the related easements and stipulations, if any, unless Purchaser makes other arrangements that will not infringe upon or adversely affect the grantee's rights. Easements or right-of-way documents are available in the offices of the Forest Supervisor and District Ranger.

BT5.12 Use of Roads by Purchaser. Except as provided herein, Purchaser is authorized to use existing National Forest system roads and Specified Roads listed in AT7, when Forest Service determines that such use

will not cause damage to the roads or National Forest resources.

If Purchaser's use of an existing temporary or National Forest system road, not listed in AT7, cannot be satisfactorily accommodated without reconstruction, Purchaser shall be authorized to use such road upon agreement as to the minimum reconstruction work that Purchaser shall perform before hauling. When appropriate, such road shall be included in AT7 as an alternate facility under BT5.26.

CT5.12 lists existing roads shown on Sale Area Map that for such reasons as limitations in structural capacity, safety, and protection of soil, water, and roads:

(a) Cannot be used for log hauling or

(b) May be used only under the restrictive limitations stated therein.

BT5.2 Specified Roads. "Specified Roads" are roads, including related transportation facilities and appurtenances, shown on Sale Area Map and listed in AT7. Purchaser shall construct Specified Roads used under this contract. Construction initiated by Purchaser on any such Specified Road shall be completed to an agreed terminus that meets Purchaser's needs and prevents unnecessary impact on National Forest resources. Construction to such terminus shall be in full accordance with Plans and specifications and the Schedule of Items identified in AT7 or specifications attached hereto, except for agreed adjustments needed to accommodate such terminus. The "Schedule of Items" is a list and description of construction items, quantities, units of measure, methods of measurement, unit price, and total amount. Forest Service shall revise the Schedule of Items to show the estimated cost for the portion constructed to the revised terminus as a separate segment.

A Temporary Road shall not be constructed substantially on the location for a Specified Road, except by agreement.

In event of agreed substitution or revision of construction design, specifications, or performance responsibility under BT5.212, BT5.25, BT5.26, or CT5.215, AT7 shall be modified. If Purchaser does not need a Specified Road or a portion of a Specified Road for harvesting Included Timber and the Specified Road is not constructed, the deletion of the road or road segment will be a mutually agreed Design Change and Timber Sale Account will be adjusted for the reduction in cost, as provided in BT5.25.

References in the contract to specifications, standards, or test methods adopted by the American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing and Materials (ASTM), General Services Administration (GSA), or other recognized national technical associations shall mean specifications, standards, or test methods, including interim or tentative issues, that are in effect on the date of timber sale advertisement.

BT5.21 Engineering. Forest Service completed survey and design for Specified Roads prior to timber sale advertisement, unless otherwise shown in AT8 or

Purchaser survey and design are specified in AT7. On those roads for which Forest Service completes the design during the contract, the design quantities shall be used as the basis for revising estimated costs stated in the Schedule of Items and adjusting Timber Sale Account.

Forest Service engineering shall be completed according to the schedule in AT8. Should Forest Service be unable to perform the designated survey and design by the completion date or other agreed to time, upon written agreement, Purchaser shall assume responsibility for such work. In such event, Contracting Officer shall revise:

(a) AT7 to show Purchaser's performance responsibility.

(b) The Schedule of Items to include costs of survey and design, as provided under BT5.24, and adjust Timber Sale Account, as provided in BT5.25. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

Purchaser shall furnish a schedule to Forest Service of specific dates for the start of construction. The schedule of construction shall be submitted to Forest Service for approval within 60 days after contract award and prior to beginning work. Purchaser's construction schedule shall reflect Forest Service survey and design completion dates. Forest Service may agree to Purchaser's request for an alternate date for starting construction.

Purchaser shall perform survey, design, and construction staking of Specified Roads to be engineered by Purchaser in accordance with specifications attached hereto. Based upon the quantities developed by such design, as approved by Forest Service, Contracting Officer shall revise the estimated costs stated in the Schedule of Items and adjust Timber Sale Account. The methods of computing such revised costs shall be consistent with the methods that would have been used had the engineering been performed prior to timber sale advertisement.

BT5.211 Contract Plans. "Plans" are documents that show location, details, and dimensions of the work to be performed. On any of the contract Plans where a portion of the work is drawn out and the remainder is shown in outline, the parts drawn out shall apply to all other like portions of the work.

"Shop Drawings" include drawings, diagrams, layouts, schematics, descriptive literature, illustrations, lists or tables, performance and test data, and similar materials furnished by Purchaser to explain in detail specific portions of the work required by the contract. Purchaser shall submit a minimum of five (5) sets of required Shop Drawings to Forest Service, three (3) sets of which will be retained by Forest Service. Shop Drawings shall not exceed 24 inches by 36 inches in size. Approval or rejection and date will be noted or stamped on each set. Unless agreed otherwise, Forest Service shall approve or reject the Shop Drawings within 10 days of submission. Such approval of the Shop Drawings shall not be construed as a complete check, but will indicate

only that the general method of construction and detailing is satisfactory. If the Shop Drawings are rejected, Purchaser must make the noted revisions and resubmit the Shop Drawings.

A change in the amount of construction work that exceeds construction tolerances specified in the specifications identified in AT7 caused by a Forest Service error in construction staking shall be treated as a Design Change. When incompatible situations arise between Plans, specifications, and actual conditions on the ground, Purchaser shall make corrections pursuant to BT5.253.

BT5.212 Construction Staking. Purchaser shall avoid careless or negligent damage to construction stakes, flags, or marks. If such damage occurs, Purchaser shall be required to replace stakes necessary to construction. Purchaser's replacement staking shall be approved by Forest Service. Alternatively, upon Purchaser's request, Contracting Officer may agree to perform such work under BT4.218.

When AT7 shows that construction stakes are to be set by Forest Service after clearing, Purchaser shall submit to Forest Service a written schedule for clearing, construction staking, and construction that will provide Forest Service a reasonable period for setting construction stakes. Time for setting construction stakes may be modified by written agreement.

If Forest Service performs construction staking for Specified Roads, timing of such staking shall permit Purchaser's clearing and other construction activity to proceed without hindrance or delay, provided Purchaser's construction activity is reasonably consistent with needs identified in Purchaser's Operating Schedule or amendments thereto.

Should Forest Service be unable to perform construction staking in such reasonable period, upon written agreement, Purchaser shall assume the responsibility for construction staking for agreed upon portions of Specified Roads. In such event, Contracting Officer shall revise:

(a) AT7 to show Purchaser's performance responsibility.

(b) The Schedule of Items to include costs of construction staking, as provided under BT5.24, and adjust Timber Sale Account, as provided in BT5.25. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

BT5.22 Material Delivery. Within 60 days after award date, Purchaser shall provide Forest Service a written schedule showing the desired delivery dates of any material to be supplied by Forest Service. With reasonable notice, schedule may be amended by agreement. Forest Service agrees to make delivery within 15 days after the scheduled delivery dates that are at least 60 days after the schedule is submitted, unless prevented by causes beyond control of Forest Service.

If Purchaser does not provide Forest Service the written schedule within the period provided in this Subsection, Forest Service agrees to make delivery within 90 days after a late schedule is submitted, unless

prevented by causes beyond control of Forest Service. After delivery to and written receipt by Purchaser, Purchaser is responsible for installation of needed material and for any loss of or damage to such material due to Purchaser's negligence prior to installation or return of unused material to Forest Service.

At Purchaser's option, Forest Service deliveries shall be to Purchaser's storage area, as agreed, or to the nearest practicable point to the job site along existing roads. Unused material shall be returned to Forest Service at location of delivery, unless agreed otherwise.

BT5.23 Use of Partially Constructed Roads.

Unless Contracting Officer determines that there is justification under existing conditions and ground conditions permit hauling without undue damage, portions of Specified Roads shall be Substantially Completed prior to their use for hauling timber. When necessary to facilitate construction and protect bridges and roads from damage, timber felled in construction and timber logged directly to the road from areas immediately adjacent thereto may be hauled before road construction is Substantially Completed. Such hauling shall be confined to periods when abnormal soil erosion and damage to National Forest lands will not result.

"Substantially Completed" means:

(a) Completion of grading and installation of drainage structures so they will function effectively and

(b) Laying the specified depth of base course, if any.

No more than half of Included Timber to be hauled over such portions of road shall be hauled until the base course has been applied.

Unless agreed otherwise, specified reconstruction shall be completed on any portion of road prior to hauling on that portion.

BT5.24 Estimated Cost. Estimated costs by construction phases for Specified Roads listed in AT7 are stated by segments in the Schedule of Items. Such estimated costs are subject to adjustment under BT3.3, BT5.2, BT5.21, BT5.212, BT5.25, and BT5.26. Appropriately adjusted costs shall be made a part of a revised Schedule of Items and shown as adjustments to Timber Sale Account. The revised Schedule of Items shall supersede any prior Schedule of Items when it is dated and signed by Contracting Officer and a copy is furnished to Purchaser.

BT5.25 Construction Cost Adjustment. Contracting Officer, as provided in BT5.21, BT5.212, BT5.251, BT5.252, and BT5.253, shall adjust Specified Road construction cost estimates in the Schedule of Items and show the adjustments as credits or debits to Timber Sale Account in the month when the road segment is accepted.

BT5.251 Variation in Quantities. (a) This Item applies only to differences between quantities shown in the Schedule of Items and measured quantities actually constructed and accepted that are not covered under BT5.252 or BT5.253. Only changes in quantities where other than contract quantity or lump sum is specified in the Schedule of Items are subject to this Item.

(b) Adjustments to the Specified Road construction cost for variation in quantities shall be computed at unit rates established in the Schedule of Items for units of work actually constructed and measured in accordance with specified method of measurement shown in the Schedule of Items and described in the specifications identified in AT7, except that:

(i) When quantity of authorized work performed or material furnished by Purchaser, under any item shown in the Schedule of Items and covered by this Item, is more than 115 percent of original quantity, use Current Unit Rates to calculate the adjustment for that portion of work above 115 percent of original quantity.

(ii) When quantity of authorized work performed or material furnished by Purchaser, under any item shown in the Schedule of Items and covered by this Item, is less than 85 percent of original quantity, Forest Service shall make a revised estimate of cost for such work. Any revised estimate shall use the same procedures as those used in original estimates using rates comparable to those used in computing the most recent cost estimate for the timber sale. The revised cost estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

(c) "Current Unit Rates" are Forest Service estimates of the unit rates for doing the work at the time the adjustment is approved.

BT5.252 Physical Change. (a) Forest Service shall adjust the Specified Road construction cost if, prior to acceptance under BT6.36, a physical change, caused by a single event and not due to negligence of Purchaser, results in an increase or decrease in work and/or materials furnished by Purchaser involving additional estimated cost of:

(i) More than \$10,000 or

(ii) More than 10 percent of total Specified Road construction cost, whichever is less.

(b) Increases to the Specified Road construction cost shall include cumulative estimated costs of repairing damage from things such as slides, washouts, landslips, and fire. Plans and specifications shall be revised when necessary to meet new conditions. Quantities of work and/or materials determined from such revised Plans and specifications, together with estimated quantities of work and/or materials abandoned, shall be the basis for the revised Specified Road construction cost.

(c) Forest Service shall determine difference in quantities for portions of Specified Road affected by physical change by comparing most recent previous quantities with total of:

(i) Estimated quantities actually constructed prior to physical change, including work abandoned, and

(ii) Estimated quantities to be constructed following physical change.

(d) Forest Service shall calculate the amount of increase to the Specified Road construction cost by applying:

(i) Current Unit Rates to differences when quantities increase and

(ii) Unit rates comparable to those used in computing most recent cost estimate for the timber sale when quantities decrease.

(e) When quantity of authorized work to be performed or material furnished by Purchaser, under any item shown in the Schedule of Items, is reduced to less than 85 percent of original quantity, Forest Service shall make a revised estimate of cost for such work and adjust the Specified Road construction cost. Any revised estimate shall use the same procedures as those used in the original estimates using rates comparable to those used in the most recent cost estimate for the timber sale. The revised estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

BT5.253 Design Change. (a) "Design Change" is a change in work and/or materials shown in the Schedule of Items and described in Plans or specifications that has been mutually agreed to in writing or ordered by Contracting Officer. Changes of a minor nature (such as adjustment in horizontal and vertical alignment, that do not exceed specified tolerance, necessary to maintain or balance earthwork quantities substantially as designed) and variation in quantities, as described in BT5.251, shall not be considered Design Changes.

(b) Additions, deletions, or changes in types or diameter of culverts shown in Plans and changes in designated water sources shown on Plans shall be considered Design Changes.

(c) Forest Service may, by written notice from Contracting Officer, order changes in work to be performed and/or materials to be furnished by Purchaser within general scope of the contract. Such work shall:

(i) Be due to differences between anticipated and actual field conditions,

(ii) Be necessary to construct Specified Roads to design standards, or

(iii) Be necessary to assure stability of Specified Roads.

(d) In addition, Contracting Officer may include work to protect resource values in ordered Design Changes. Such work must be related to construction of Specified Roads and be necessary to prevent damage to soil and water values immediately tributary to Specified Roads. Other Design Changes may be made by mutual written agreement.

(e) Forest Service shall revise Plans and specifications as necessary to meet new conditions. Quantities of work and/or materials determined from such revised Plans and specifications, together with quantities of work and/or materials abandoned, shall be the basis for adjusting the Specified Road construction cost.

(f) Forest Service shall determine the difference in quantities for the portion of Specified Road affected by Design Change by comparing the most recent previous quantities with the total of:

(i) Estimated quantities actually constructed prior to Design Change and

(ii) Estimated quantities to be constructed following Design Change.

(g) Calculate the amount of adjustment to the Specified Road construction cost by applying:

(i) Current Unit Rates to difference when quantities increase and

(ii) Unit rates comparable to those used in computing most recent cost estimates of the timber sale when quantities decrease.

(h) When quantity of authorized work to be performed or material furnished by Purchaser, under any item shown in the Schedule of Items, is reduced to less than 85 percent of original quantity, Forest Service shall make a revised estimate of cost of such work and adjust the Specified Road construction cost. Any revised estimate shall use the same procedures as those used in original estimates using rates comparable to those used in the most recent cost estimate for the timber sale. The revised estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

BT5.26 Alternate Facilities. If under Purchaser's Operating Schedule, roads needed for the removal of Included Timber differ substantially from Specified Roads, other roads may be added to AT7. Contracting Officer shall assure that road routing, location, design, and needed easements will make such other roads acceptable as parts of the National Forest transportation facilities. Purchaser shall provide survey, design, and construction staking for such other roads.

Based on design quantities from such engineering, Forest Service shall estimate Specified Road construction costs of alternate facilities, using methods consistent with those used in the original computation of the Schedule of Items. If Specified Road construction costs for acceptable alternate facilities are less than the estimated costs of facilities listed in the original Schedule of Items that Purchaser does not construct, Timber Sale Account shall be adjusted by Forest Service to reflect the reduction in costs. In event of rate redetermination under BT3.3, such allowed costs shall be the redetermined estimated costs of facilities listed in the original Schedule of Items that Purchaser does not construct.

BT5.27 Temporary Credit for Unamortized Specified Road Construction Cost. When, under BT8.33, Contracting Officer orders a delay or interruption of Purchaser's Operations for more than 30 days when scheduled operations would be occurring but for the order, the Contracting Officer shall credit the unamortized cost of Specified Roads to Purchaser's Timber Sale Account, upon the written request of Purchaser or at the discretion of Contracting Officer. The amount credited to Purchaser shall be limited to stumpage paid above Base Rates.

Any Specified Road construction cost credited to Purchaser pursuant to this Subsection may be refunded or transferred at the request of Purchaser. However, if Purchaser has outstanding debt owed the United States,

Contracting Officer must apply the amount of credit that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act of 1996, as amended.

Upon written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Purchaser shall pay for timber a per unit amount, in addition to Current Contract Rates, that is equal to the amount credited to Purchaser's Timber Sale Account divided by 80 percent of the estimated remaining volume of the contract, until the full amount credited to Purchaser has been returned.

BT5.3 Road Maintenance. Purchaser shall maintain roads, commensurate with Purchaser's use, in accordance with Road Maintenance Requirements in CT5.31 and the Road Maintenance Specifications. Performance of road maintenance work by Purchaser may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on Purchaser's Operating Schedule under BT6.31.

When two or more commercial users are simultaneously using the same road where Forest Service is not requiring maintenance deposits, the commercial users will develop maintenance responsibilities and arrangements for accomplishing the work. Forest Service must agree to this plan. If the commercial users cannot agree on maintenance responsibilities, Forest Service shall resolve the differences.

If Purchaser elects to use different roads than those listed in CT5.31, Forest Service shall determine Purchaser's commensurate share of road maintenance and revise road maintenance deposits in CT5.32.

If Forest Service cannot perform its full commensurate share of road maintenance, Forest Service shall make a cash payment to Purchaser for performance of such work.

Unless agreed in writing, prehaul maintenance shall be completed on any portion of road prior to hauling on that portion. Maintenance, as used in this contract, does not include road reconstruction or repairs of an extraordinary nature.

BT5.4 Use by Others. Forest Service shall have the right to use any road constructed by Purchaser under this contract for any and all purposes in connection with the protection and administration of the National Forest. Other parties, in connection with the logging of tributary National Forest timber, may use roads constructed by Purchaser hereunder when Contracting Officer determines that such use will not materially interfere with Purchaser's Operations. Third party use shall be contingent upon Contracting Officer determining, and third party agreeing to pay, a fair share of maintenance cost commensurate with such commercial use.

Unless otherwise provided in CT5.4, Forest Service shall authorize other uses of roads constructed by Purchaser hereunder only if:

(a) Contracting Officer makes appropriate arrangements to relieve Purchaser of related maintenance costs commensurate with such other uses and

(b) Such other uses will not materially interfere with Purchaser's Operations.

Where Purchaser reconstructs a road having established use, Purchaser's use during reconstruction and thereafter shall be such as to reasonably accommodate such established use. Contracting Officer shall ensure that other users do not materially interfere with Purchaser's right to use such reconstructed road.

BT6.0—OPERATIONS

BT6.1 Representatives. Unless otherwise agreed, Purchaser shall designate, in writing, a representative who is authorized to receive notices in regard to performance under this contract and take related action. In no case shall Purchaser designate any representative to this contract who is currently debarred, proposed for debarment, or suspended by the Federal Government. Purchaser's representative shall provide a copy of the contract to Purchaser's field supervisor and persons authorized to assume responsibilities in the field supervisor's absence. Prior to initial operations and after shutdowns of 10 days or more, Purchaser's representative shall notify Forest Service 2 days, excluding weekends and Federal holidays before any operations begin on Sale Area.

Purchaser's representative shall designate, in writing, a field supervisor, one of whose responsibilities shall be on-the-ground direction and supervision of Purchaser's Operations. The field supervisor shall be readily available to the area of operations when operations are in progress and shall be authorized to receive notices in regard to performance under this contract and take related action. The responsibilities of the field supervisor shall include the safeguarding of National Forest resources and performance within the terms of the contract. Purchaser representative will furnish Forest Service with names of persons authorized to assume responsibilities in field supervisor's absence. Such delegations may be made a part of Purchaser's annual Operating Schedule under BT6.31.

Unless Contracting Officer designates another Forest Service representative and notifies Purchaser in writing, the District Ranger is the representative of Forest Service. Forest Service representative shall:

(a) Receive notice in regard to performance under this contract,

(b) Take action in relation to this contract, and

(c) Be readily available to the area of construction and logging operations.

Contracting Officer or Forest Service representative shall designate other on-the-ground representatives in writing along with their specific contractual responsibilities and authority. Representatives with authority delegated in writing are the only Forest Service personnel authorized to provide notice or take related actions under the contract. Such delegation shall be made within 30 days of receipt of Purchaser's Plan of Operations.

BT6.11 Notices. Notices by either party as to action taken or to be taken by the other respecting this contract shall be made in writing to the other party's designated representative.

BT6.2 Improvements. Purchaser is authorized to construct on National Forest land, buildings, facilities, and other improvements needed to log Included Timber. Such construction shall be located where approved in writing by Forest Service and shall be constructed and used in a manner that will protect National Forest values.

Purchaser shall comply with the rules and regulations governing the operation of premises that are occupied and shall perform the contract in a manner that will not interrupt or interfere with the conduct of Forest Service business.

Forest Service shall grant written permission before any camp, quarry, borrow pit, storage, or service area, other than as shown on Plans, is opened or operated on National Forest land or administered lands. A camp is interpreted to include the campsite or trailer parking area of any employee, agent contractor, Subcontractor or their employees or agents working on the project for Purchaser. Such permission, if granted, shall be without charge to Purchaser.

BT6.21 Removal. Unless Forest Service authorizes continued use, Purchaser shall remove or dispose of all improvements when no longer needed. Should Purchaser fail to remove or dispose of improvements within 6 months after Termination Date, Forest Service may dispose of improvements at Purchaser's expense under BT9.5 or may, upon written notice to Purchaser, assume title to improvements in the name of the United States. In the latter event, Purchaser shall not be required to remove such improvements.

BT6.22 Protection of Improvements. So far as practicable, Purchaser shall protect Specified Roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

- (a) Existing in the operating area,
- (b) Determined to have a continuing need or use, and
- (c) Designated on Sale Area Map.

Purchaser shall keep roads and trails needed for fire protection or other purposes and designated on Sale Area Map reasonably free of equipment and products, slash, and debris resulting from Purchaser's Operations. Purchaser shall make timely restoration of any such improvements damaged by Purchaser's Operations and, when necessary because of such operations, shall move such improvements, as specified in CT6.22.

BT6.221 Protection of Improvements Not Owned by Forest Service. Forest Service will notify all utility companies, or other parties affected, and make arrangements for all necessary adjustments of the public utility fixtures, pipelines, and other appurtenances likely to be affected by Purchaser's Operations.

When Purchaser's Operations are adjacent to properties of railway, telephone, or power companies, or other property, work shall not begin until Purchaser has identified actions necessary to prevent damage.

Purchaser shall cooperate with the owners of any underground or overhead utility lines in their removal and/or rearrangement operations in order that these operations may progress in a reasonable manner, utility duplication

or rearrangement work may be reduced to a minimum, and services shall not be unnecessarily interrupted.

In the event of interruption to utility services because of accidental breakage or as a result of lines being exposed or unsupported, Purchaser shall promptly notify the proper authority and shall cooperate with that authority in the restoration of service until the service is restored.

When materials are to be hauled across the tracks of any railway, Forest Service will make arrangements with the railroad for the use of any existing crossing or for any new crossing required. Purchaser shall make arrangements for use of alternate crossings. All construction work to be performed by Purchaser on the railroad right-of-way shall not damage railroad company's property.

BT6.222 Protection of Property. In construction and reconstruction of Specified Roads, Purchaser shall not unnecessarily remove, deface, injure, or destroy trees, shrubs, or other natural features, unless specifically authorized. To the extent practicable, Purchaser shall confine operations to within the clearing limit or other areas designated in the contract and prevent the depositing of rocks, excavated materials, stumps, or other debris outside these limits.

Material that falls outside these limits shall be retrieved, disposed of, or incorporated in the work to the extent practicable and necessary to protect adjacent resource values, unless otherwise agreed.

BT6.23 Protection of Land Survey Monuments. Forest Service shall appropriately designate on the ground all known survey monuments, section corners, and other corner accessories. Forest Service shall post identifying signs on two sides of each known bearing tree.

Forest Service shall arrange protective or perpetuate action that does not cause unnecessary delay to Purchaser in authorized clearings, such as Clearcutting Units and road construction, and in other instances where damage to monuments, section corners, and other corner accessories is unavoidable.

Purchaser shall protect all known survey monuments, witness corners, reference monuments, and bearing trees against avoidable destruction, obliteration, or damage during Purchaser's Operations. If any known monuments, corners, or accessories are destroyed, obliterated, or damaged by Purchaser's Operations, Purchaser shall hire the appropriate county surveyor or a registered land surveyor to reestablish or restore at the same location the monuments, corners, or accessories. Such surveyors shall use procedures in accordance with the Bureau of Land Management "Manual of Instructions for the Survey of the Public Lands of the United States" for General Land Office surveys and in accordance with State law for others. Purchaser shall record such survey in appropriate county records.

BT6.24 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources. (a) Areas, known by Forest Service prior to timber sale advertisement, needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Sale Area Map

and/or identified on the ground, and shall be treated as follows:

(i) Unless agreed otherwise, wheeled or track laying equipment shall not be operated in areas identified as needing special measures except on roads, landings, tractor roads, or skid trails approved under BT5.1 or BT6.422. Purchaser may be required to backblade skid trails and other ground disturbed by Purchaser's Operations within such areas in lieu of cross ditching required under BT6.6. Additional special protection measures needed to protect such known areas are identified in CT6.24.

(ii) Unless agreed otherwise, trees will not be felled into areas identified as needing special measures.

(iii) Purchaser shall conduct operations in a manner that does not damage or disturb identified areas. In the event that protective measures identified by the Forest Service are for any reason inadequate, Contracting Officer may delay or interrupt Purchaser's operations, under this Contract, and/or modify this Contract pursuant to BT8.33.

(iv) Purchaser shall immediately notify the Forest Service if its operations disturb or damage any area identified as needing special protection, and shall immediately halt its operations in the vicinity of such area until the Forest Service authorizes continued operations. In the event that Purchaser's operations disturb or damage an area identified as needing special protection, then Purchaser shall reimburse the Forest Service for the full cost and expense of any evaluative and remedial measures undertaken by the Forest Service in connection with such disturbance or damage. Such payment shall not relieve Purchaser from civil or criminal liability under applicable law.

(b) Nothing contained in this Subsection shall establish, or be deemed to establish any express or implied warranty on the part of the Forest Service (i) that the Forest Service has identified all areas within the Sale Area requiring special protection, or (ii) that measures prescribed by the Forest Service for protection of such areas are adequate.

(c) Following sale advertisement, additional areas needing special measures for protection may be discovered or identified; protective measures may be revised or newly prescribed; and, additional species of plants and/or animals may be added to federal lists of protected species. In such event, Contracting Officer may delay or interrupt Purchaser's operations, under this Contract, and/or modify this Contract pursuant to BT8.33.

(d) Discovery, by either the Purchaser or the Forest Service, of additional areas, resources, species, or members of species needing special protection shall be promptly reported to the other party.

BT6.3 Control of Operations. Under this contract, "Purchaser's Operations" shall include activities of or use of equipment of Purchaser, Purchaser's employees, agents, contractors, Subcontractors, or their employees or agents, acting in the course of their employment in operations hereunder on National Forest lands or within

Forest Service protection boundary (unless acting under the immediate supervision of Forest Service).

Purchaser's Operations shall be conducted in a workmanlike and orderly manner. The timing of required Forest Service designation of work on the ground and the performance of other Forest Service work shall not be such as to cause unnecessary delay to Purchaser.

"Release for Cutting" is written authorization to Purchaser to begin cutting in a Payment Unit. Upon Purchaser's request for release of a Payment Unit, Forest Service shall either:

(a) Give tentative approval and bill Purchaser as necessary under BT4.21 or

(b) Reject the request, stating reasons for rejection.

When payment or payment guarantee has been confirmed, Forest Service shall issue Release for Cutting within 10 days. Purchaser shall not cut timber in any Payment Unit until it is Released for Cutting.

BT6.31 Operating Schedule. Purchaser shall, before commencing operations, provide in writing an annual Operating Schedule of anticipated major activities and needs for logging Included Timber, such as logging, road maintenance, and construction, including construction staking under BT5.212 and material delivery under BT5.22. Upon reasonable notice to Forest Service, such schedule shall be subject to modifications necessitated by weather, markets, or other unpredictable circumstances.

Subject to BT6.6 and when the requirements of BT6.66 are met, Purchaser's Operations may be conducted outside Normal Operating Season. "Normal Operating Season" is the period(s) beginning and ending on the dates stated in AT13 of any year.

BT6.311 Plan of Operations. For timber sales with 2 or more years between award date and Termination Date, within 60 days of final award of contract, Purchaser shall furnish Forest Service a written general Plan of Operations that shall be in addition to the annual Operating Schedule required under BT6.31. The Plan of Operations shall set forth planned periods for and methods of road construction, timber harvesting, and completion of slash disposal, erosion control measures, and other contractual requirements. Forest Service written approval of the Plan of Operations is prerequisite to commencement of Purchaser's Operations. Purchaser may revise this Plan of Operations when necessitated by weather, markets, or other unpredictable circumstances, subject to approval of Contracting Officer. In the event of delays beyond the control of Purchaser that qualify for Contract Term Adjustment, the Plan of Operations shall be adjusted by mutual agreement to accommodate the adjusted contract period.

BT6.312 Plan of Operations for Road Construction. Annually, prior to start of construction, Purchaser shall submit a supplement to the Plan of Operations that shall include a schedule of proposed progress and a description of planned measures to be taken to provide erosion control for work in progress, including special measures to be taken on any segments of construction not Substantially Completed prior to periods of seasonal precipitation or runoff. Purchaser shall submit a

revised schedule when Purchaser proposes a significant deviation from the progress schedule.

Prior to beginning construction on any portion of Specified Roads identified as sensitive on Plans, Purchaser and Forest Service shall agree on proposed method of construction.

BT6.32 Protection of Residual Trees. Purchaser's Operations shall not unnecessarily damage young growth or other trees to be reserved.

BT6.33 Safety. Purchaser's Operations shall facilitate Forest Service's safe and practical inspection of Purchaser's Operations and conduct of other official duties on Sale Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser's employees.

In the event that Contracting Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract shall be modified and Purchaser may request an adjustment in Current Contract Rates to compensate for the changed conditions.

Unless otherwise agreed in writing, when Purchaser's Operations are in progress adjacent to or on Forest Service controlled roads and trails open to public travel, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warning of hazardous or potentially hazardous conditions associated with Purchaser's Operations. Purchaser and Forest Service shall agree to a specific Traffic Control Plan for each individual project prior to commencing operations. Devices shall be appropriate to current conditions and shall be covered or removed when not needed. Except as otherwise agreed, flagmen and devices shall be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) and as shown on Plans, Sale Area Map, Traffic Control Plan, or in specifications attached hereto.

BT6.34 Sanitation and Servicing. Purchaser shall take all reasonable precautions to prevent pollution of air, soil, and water by Purchaser's Operations. If facilities for employees are established on Sale Area, they shall be operated in a sanitary manner. In the event that Purchaser's Operations or servicing of equipment result in pollution to soil or water, Purchaser shall conduct cleanup and restoration of the polluted site to the satisfaction of Forest Service.

Purchaser shall maintain all equipment operating on Sale Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. Purchaser shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. Purchaser shall furnish oil-absorbing mats for use under all stationary equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources. Purchaser shall remove from National Forest lands all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), batteries, oily

bags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.

BT6.341 Prevention of Oil Spills. If Purchaser maintains storage facilities for oil or oil products on Sale Area, Purchaser shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States.

If the total oil or oil products storage exceeds 1,320 gallons in containers of 55 gallons or greater, Purchaser shall prepare a Spill Prevention Control and Countermeasures Plan. Such plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer.

Purchaser shall notify Contracting Officer and appropriate agencies of all reportable (40 CFR 110) spills of oil or oil products on or in the vicinity of Sale Area that are caused by Purchaser's employees, agents, contractors, Subcontractors, or their employees or agents directly or indirectly, as a result of Purchaser's Operations. Purchaser will take whatever initial action may be safely accomplished to contain all spills.

BT6.342 Hazardous Substances. Purchaser shall notify the National Response Center and Contracting Officer of all releases of reportable quantities of hazardous substances on or in the vicinity of Sale Area that are caused by Purchaser's employees, agents, contractors, Subcontractors, or their employees or agents, directly or indirectly, as a result of Purchaser's Operations, in accordance with 40 CFR 302.

BT6.35 Equipment Cleaning. (a) Areas, known by Forest Service prior to timber sale advertisement, that are infested with invasive species of concern are shown on Sale Area Map. A current list of invasive species of concern and a map showing the extent of known infestations is available at the Forest Supervisor's Office. For purposes of this provision, "Off-Road Equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

(b) Purchaser shall adhere to the following requirements with regard to cleaning "Off-Road Equipment":

(i) Prior to moving Off-Road Equipment onto the Sale Area, Purchaser shall identify the location of the equipment's most recent operation. Purchaser shall not move any Off-Road Equipment that last operated in an area infested with one or more invasive species of concern onto Sale Area without having cleaned such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and having notified Forest Service, as provided in (iii). If the location of prior operation cannot be identified, then Purchaser shall assume that the location is infested with invasive species of concern.

(ii) Prior to moving Off-Road Equipment from a cutting unit that is shown on Sale Area Map to be infested with invasive species of concern to, or through any other area that is shown as being free of invasive species of

concern, or infested with a different invasive species, Purchaser shall clean such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and shall notify the Forest Service, as provided in (iii).

(iii) Prior to moving any Off-Road Equipment subject to the cleaning requirements set forth above, Purchaser shall advise Forest Service of its cleaning measures and make the equipment available for inspection. Forest Service shall have 2 days, excluding weekends and Federal holidays, to inspect equipment after it has been made available. After satisfactory inspection or after such 2 day period, Purchaser may move the equipment as planned. Equipment shall be considered clean when a visual inspection does not disclose seeds, soil, vegetative matter, and other debris that could contain or hold seeds. Purchaser shall not be required to disassemble equipment unless so directed by the Forest Service after inspection.

(iv) If Purchaser desires to clean Off-Road Equipment on National Forest land, such as at the end of a project or prior to moving to, or through an area that is free of invasive species of concern, Purchaser shall obtain prior approval from Contracting Officer as to the location for such cleaning and measures, if any, for controlling impacts.

(v) Contracting Officer may order delay, interruption, or modification of this Contract pursuant to BT8.33.

(c) Nothing contained in this Subsection shall be interpreted as creating any warranty on the part of the Forest Service that all locations of invasive species of concern have been described herein, elsewhere in this Contract, or designated on the ground. Following sale advertisement, additional locations may be described or designated, and other species may be added to the list of invasive species of concern. In such event, Contracting Officer may order delay, interruption, or modification of this Contract pursuant to BT8.33.

(d) The parties shall promptly communicate with one another with respect to description or designation of additional locations; discovery of locations of new species or new infestation; and, addition of species to the list of invasive species of concern.

BT6.36 Acceptance of Work. Upon Purchaser's written request and assurance that work has been completed, Forest Service shall perform an inspection within 5 days, excluding weekends and Federal holidays, so as not to delay unnecessarily the progress of Purchaser's Operations. Such a request may be for acceptance of:

(a) Any reasonable portion of Specified Road listed in the Schedule of Items;

(b) Specific requirements on a Payment Unit (such as logging, slash disposal, erosion control, or snag felling); or

(c) All contract requirements on a Payment Unit.

Forest Service may perform such inspections without request from Purchaser.

Within 2 days of inspection, excluding weekends and Federal holidays, Forest Service shall furnish Purchaser

with written notice either of acceptance or of work remaining to be done.

In the event that Forest Service is unable to make such inspection within 5 days of Purchaser's request, Purchaser shall be notified in writing of necessity for postponement and time when inspection can be made. The same final approval procedure shall be used at the end of Purchaser's construction period on any completed portion of road.

When all contractual work of Purchaser has been accepted for any Payment Unit or cutting unit identified on Sale Area Map, Payment Unit or cutting unit shall be eliminated from Sale Area on written notice of either party to this contract.

BT6.361 Acceptance of Specified Roads. Specified Road work may be accepted subject to completion of clearing work that does not affect the road structure when completion is delayed for reasons beyond control of Purchaser, such as adverse weather.

Specified Road work may be accepted subject to completion of planting and seeding for soil stabilization when completion is delayed for reasons beyond control of Purchaser, such as seasonal limitations. Purchaser shall complete planting or seeding on such road during the next suitable planting season.

Specified Road work may be conditionally accepted prior to the application of dust palliatives when application is not necessary to prevent dusting of the road surface due to climatic conditions. Purchaser shall apply dust palliative on such roads prior to use during periods when dusting may occur.

Prior to request for final inspection, Specified Road work, roadways, borrow pits, and quarries, occupied and no longer needed by Purchaser in connection with Purchaser's Operations, shall be cleared of all rubbish, excess materials, and temporary structures.

BT6.4 Conduct of Logging. Unless otherwise specifically provided herein, Purchaser shall fell trees designated for cutting and shall remove the portions that meet Utilization Standards, as provided in BT2.2, prior to acceptance of Payment Unit for completion of logging under BT6.36. Forest Service may make exceptions for occasional trees inadvertently not cut or trees or pieces not removed for good reason, including possible damage to forest resources or gross economic impracticability at the time of removal of other timber. Logging shall be conducted in accordance with the following, unless CT6.4 provisions set forth requirements to meet special or unusual logging conditions:

BT6.41 Felling and Bucking. Felling shall be done to minimize breakage of Included Timber and damage to residual timber. Unless agreed otherwise, felling shall be done by saws or shears. Bucking shall be done to permit removal of all minimum pieces set forth in AT2. Purchaser may buck out cull material when necessary to produce pieces meeting Utilization Standards. Such bucked out material shall contain a minimum amount of sound wood, not in excess of the net Measure in percentage of gross Measure, or based on the merchantability factor, whichever is stated in AT2. If necessary to assess

extent of defect, Purchaser shall make sample saw cuts or wedges.

BT6.411 Felling in Clearings. Insofar as ground conditions, tree lean, and shape of clearings permit, trees shall be felled so that their tops do not extend outside Clearcutting Units, construction clearings, and areas of regeneration cutting.

BT6.412 Stump Heights. Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in AT6, except that occasional stumps of greater heights are acceptable when Purchaser determines that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, Purchaser shall re-cut high stumps so they will not exceed heights specified in AT6 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in AT6 were selected with the objective of maximum reasonable utilization of the timber, unless Sale Area Map shows special areas where stump heights are lower for aesthetic, land treatment, or silvicultural reasons.

BT6.413 Limbing. When Forest Service determines it is necessary to minimize damage to the residual stand during skidding, Purchaser shall cut exposed limbs from products prior to skidding. Purchaser may leave uncut those limbs that cannot be cut with reasonable safety.

BT6.42 Skidding and Yarding. Methods of skidding or yarding specified for particular areas, if any, are indicated on Sale Area Map. Outside Clearcutting Units and construction clearings, insofar as ground conditions permit, products shall not be skidded against reserve trees or groups of reproduction and tractors shall be equipped with a winch to facilitate skidding.

BT6.421 Rigging. Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

BT6.422 Landings and Skid Trails. Location of all landings, tractor roads, and skid trails shall be agreed upon prior to their construction. The cleared or excavated size of landings shall not exceed that needed for efficient skidding and loading operations.

BT6.423 Skidding on Roads. Products may be skidded on permanent roads authorized for hauling under BT5.12 only by prior written agreement.

BT6.424 Arches and Dozer Blades. Unless otherwise specified in CT6.424, skidding tractors equipped with pull-type arches or dozer blades wider than tractor width or C-frame width, whichever is greater, shall not be used in residual timber outside Clearcutting Units and other authorized clearings, except on constructed tractor roads or landings, unless there is written agreement that residual timber will not be damaged materially by such use.

BT6.5 Streamcourse Protection. "Streamcourses" that are subject to provisions of this Section are shown on Sale Area Map. Unless otherwise agreed, the following measures shall be observed to protect Streamcourses:

(a) Purchaser's Operations shall be conducted to prevent debris from entering Streamcourses, except as

may be authorized under paragraph (d). In event Purchaser causes debris to enter Streamcourses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, Purchaser shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to Streamcourses.

(b) Culverts or bridges shall be required on Temporary Roads at all points where it is necessary to cross Streamcourses. Such facilities shall be of sufficient size and design and installed in a manner to provide unobstructed flow of water and to minimize damage to Streamcourses. Trees or products shall not be otherwise hauled or yarded across Streamcourses unless fully suspended.

(c) Wheeled or track-laying equipment shall not be operated in Streamcourses, except at crossings designated by Forest Service or as essential to construction or removal of culverts and bridges.

(d) Flow in Streamcourses may be temporarily diverted only if such diversion is necessary for Purchaser's planned construction and Forest Service gives written authorization. Such flow shall be restored to the natural course as soon as practicable and, in any event, prior to a major storm runoff period or runoff season.

BT6.6 Erosion Prevention and Control. Purchaser's Operations shall be conducted reasonably to minimize soil erosion. Equipment shall not be operated when ground conditions are such that excessive damage will result. Purchaser shall adjust the kinds and intensity of erosion control work done to ground and weather conditions and the need for controlling runoff. Erosion control work shall be kept current immediately preceding expected seasonal periods of precipitation or runoff.

If Purchaser fails to do seasonal erosion control work prior to any seasonal period of precipitation or runoff, Forest Service may temporarily assume responsibility for the work and any unencumbered deposits hereunder may be used by Forest Service to do the work. If needed for such work, Purchaser shall make additional deposits on request by Forest Service. Any money deposited or used for this purpose shall be treated as cooperative deposits under BT4.218.

BT6.61 Meadow Protection. Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on Sale Area Map. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved under BT5.1 or BT6.422. Unless otherwise agreed, trees felled into meadows shall be removed by endlining. Resulting logging slash shall be removed where necessary to protect cover, soil, and water.

BT6.62 Wetlands Protection. Wetlands requiring protection under Executive Order 11990 are shown on Sale Area Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved under BT5.1 or BT6.422. Additional measures needed to protect such areas are provided in CT6.62.

BT6.63 Temporary Roads. As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, Purchaser shall employ such measures as out-sloping, drainage dips, and water-spreading ditches.

After a Temporary Road has served Purchaser's purpose, Purchaser shall give notice to Forest Service and shall remove bridges and culverts, eliminate ditches, out-slope roadbed, remove ruts and berms, effectively block the road to normal vehicular traffic where feasible under existing terrain conditions, and build cross ditches and water bars, as staked or otherwise marked on the ground by Forest Service. When bridges and culverts are removed, associated fills shall also be removed to the extent necessary to permit normal maximum flow of water.

BT6.631 Temporary Roads to Remain Open. To maintain short term access to portions of Sale Area for post-sale treatments and other purposes after a Temporary Road has served Purchaser's purpose, pursuant to BT6.63, Purchaser agrees, that on Temporary Roads designated on Sale Area Map as "Remain Open," to construct cross ditches and water bars, as designated, staked, or otherwise directed by Forest Service, that can be traversed by a normal two-wheel drive pickup truck. On "Remain Open" Temporary Roads, all bridges and culverts shall remain in place and ditches shall not be eliminated. All drainage structures shall be left in functional condition.

BT6.64 Landings. After landings have served Purchaser's purpose, Purchaser shall ditch and slope them to permit water to drain or spread. Unless agreed otherwise, cut and fill banks around landings shall be sloped to remove overhangs and otherwise minimize erosion.

BT6.65 Skid Trails and Fire Lines. Purchaser shall construct cross ditches and water-spreading ditches on tractor roads and skid trails, where staked or otherwise marked on the ground by Forest Service. Forest Service shall designate cross ditching on Purchaser-built fire lines prior to or during construction. By agreement, Purchaser may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.

BT6.66 Current Operating Areas. Where logging or road construction is in progress but not completed, unless agreed otherwise, Purchaser shall, before operations cease annually, remove all temporary log culverts and construct temporary cross drains, drainage ditches, dips, berms, culverts, or other facilities needed to control erosion.

Such protection shall be provided, prior to end of a Normal Operating Season, for all disturbed, unprotected ground that is not to be disturbed further prior to end of operations each year, including roads and associated fills, tractor roads, skid trails, and fire lines. When weather permits operations after Normal Operating Season, Purchaser shall keep such work on any additional disturbed areas as up to date as practicable.

BT6.67 Erosion Control Structure Maintenance. During the period of this contract, Purchaser shall provide maintenance of soil erosion control structures constructed by Purchaser until they become stabilized,

but not for more than 1 year after their construction. Contracting Officer may agree to perform such structure maintenance under BT4.218, if requested by Purchaser, subject to agreement on rates. Purchaser shall not be responsible for repair of such structures damaged by other National Forest users whose activities are not a part of Purchaser's Operations.

BT6.7 Slash Disposal. Purchaser's timing of product removal and preparatory work shall not unnecessarily delay slash disposal. Specific slash disposal measures to be employed by Purchaser are stated in CT6.7 and are in addition to Required Deposits for slash disposal.

BT6.8 Measuring. "Measuring" is the estimation of timber quantities using certain dimensions and applicable volume tables or formulae to determine the contents of trees or stands in a standard manner. Sampling may be on an individual tree or area basis. Examples of standard procedures are tree measurement, sample tree measurement, and area estimate. The quantity of timber designated or to be designated for cutting has been or shall be Measured, as specified in CT6.8.

BT6.81 Product Identification. Before removal from Sale Area, unless Contracting Officer determines that circumstances warrant a written waiver or adjustment, Purchaser shall:

(a) Hammer brand all products that are eight (8) feet or more in length and one-third (1/3) or more sound, on each end that is seven (7) inches or more in diameter.

(b) West of the 100th meridian, paint with a spot of highway-yellow paint all domestic processing products that are eight (8) feet or more in length and one-third (1/3) or more sound, on each end that is seven (7) inches or more in diameter. Each paint spot must be not less than three (3) square inches in size.

Contracting Officer shall assign brands and, if Sale Area is within a State that maintains a log brand register, brands shall be registered with the State. Purchaser shall use assigned brand exclusively on logs from this sale until Contracting Officer releases brand. Purchaser will furnish and apply highway-yellow paint of a lasting quality (oil-base or equivalent).

All hammer brands and/or highway-yellow paint must remain on logs until they are domestically processed. Purchaser shall replace identifying marks if they are lost, removed, or become unreadable. Purchaser may remanufacture products into different log lengths. Except for logs remanufactured as part of the mill in-feed process immediately before processing, remanufactured products must be rebranded with the assigned timber sale brand and repainted with highway-yellow paint, unless otherwise agreed to in writing by Contracting Officer. For such remanufactured products, Contracting Officer may approve use of a brand to be used exclusively as a catch brand, in lieu of the assigned timber sale brand.

BT6.9 Records. Upon request, Purchaser shall provide access to appropriate annual records in Purchaser's books and accounts to enable Forest Service to obtain and analyze accurate operating costs and selling price data for appropriate use in appraising Federal timber. Operating cost and selling price data shall include that

applicable for appraising timber obtained from Federal sources in or processed in the Region. Purchaser shall provide access to such data on behalf of subsidiary entities owned or controlled by Purchaser to the extent they participate in harvesting, manufacturing, or marketing timber into products recognized in National Forest timber appraisals in the area. To a like extent, Purchaser shall request in writing Purchaser's contractors and Subcontractors to make such data available to Forest Service.

Information so obtained shall be treated as confidential, as provided in regulations issued by the Secretary of Agriculture (7 CFR 1.12), and shall be available for review by parties from whom such data are obtained.

BT7.0—FIRE PRECAUTIONS AND CONTROL

BT7.1 Plans. Prior to initiating Purchaser's Operations during Fire Precautionary Period, Purchaser shall file with Forest Service a Fire Prevention and Control Plan providing for the prevention and control of fires on Sale Area and other areas of Purchaser's Operations. Such plan shall include a detailed list of personnel and equipment at Purchaser's disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one timber sale.

BT7.2 Fire Precautions. Specific fire precautionary measures listed in CT7.2 shall be applicable during Purchaser's Operations in "Fire Precautionary Period" described in AT9. Contracting Officer may change the dates of Fire Precautionary Period by advance written notice, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during Purchaser's Operations in Fire Precautionary Period.

BT7.21 Substitute Precautions. Forest Service may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.

BT7.22 Emergency Precautions. Forest Service may require the necessary shutting down of equipment on portions of Purchaser's Operations, as specified by the emergency fire precautions schedule of CT7.22. Under such conditions, after Purchaser ceases active operations, Purchaser shall release for hire by Forest Service, if needed, Purchaser's shutdown equipment for fire standby on Sale Area or other areas of Purchaser's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by Purchaser for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if Purchaser requests, shall be operated only by personnel approved by Purchaser. Personnel so hired shall be subject to direction and control by Forest Service and shall be paid by Forest Service at fire fighting rates common in the area or at prior agreed rates.

BT7.3 Fire Control. Purchaser shall, both independently and in cooperation with Forest Service, take all reasonable and practicable action to prevent and suppress

fires resulting from Purchaser's Operations and to suppress any forest fire on Sale Area. Purchaser's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at Purchaser's disposal on Sale Area or within the distance of Sale Area stated in AT10.

BT7.31 Purchaser's Reinforcement Obligations. Whenever an Operations Fire or Negligent Fire, whether on or off Sale Area, or any other forest fire on Sale Area, has not been suppressed by initial action and appreciable reinforcement strength is required, Forest Service may require further actions by Purchaser until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:

BT7.311 Suspend Operations. To suspend any or all of Purchaser's Operations.

BT7.312 Personnel. To release for employment by Forest Service any or all of Purchaser's personnel engaged in Purchaser's Operations or timber processing within the distance of Sale Area stated in AT10. Any organized crew so hired shall include Purchaser's supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.

BT7.313 Equipment. To make available for Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of Purchaser's equipment suitable for fire fighting and currently engaged in Purchaser's Operations within the distance of Sale Area stated in AT10. Equipment shall be operated only by personnel approved by Purchaser, if so requested by Purchaser.

BT7.4 Fire Suppression Costs. Purchaser's obligations for cost of fire suppression vary according to three classifications of fires as follows:

BT7.41 Operations Fire. An "Operations Fire" is a fire caused by Purchaser's Operations other than a Negligent Fire.

Forest Service, except as provided in BT7.3, shall use cooperative deposits under BT4.218 to perform fire suppression activities on Operations Fires. Purchaser agrees to reimburse Forest Service for such cost for each Operations Fire, subject to a maximum of the dollar amount stated in AT11. The cost of Purchaser's actions, supplies, and equipment on any such fire provided pursuant to BT7.3, or otherwise at the request of Forest Service, shall be credited toward such maximum. If Purchaser's actual cost exceeds Purchaser's obligation stated in AT11, Forest Service shall reimburse Purchaser for the excess.

BT7.42 Negligent Fire. A "Negligent Fire" is a fire caused by negligence or fault of Purchaser's Operations, including, but not limited to, one caused by smoking by persons engaged in Purchaser's Operations during the course of their employment, or during rest or lunch periods; or if Purchaser's failure to comply with the requirements of BT7.2 and BT7.3 results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Purchaser.

BT7.43 Other Fires on Sale Area. Forest Service shall pay Purchaser, at fire fighting rates common in the area or at prior agreed rates, for equipment or personnel furnished by Purchaser pursuant to BT7.3, or otherwise at the request of Forest Service, on any fire on Sale Area other than an Operations Fire or a Negligent Fire.

BT7.5 State Law. Purchaser shall not be relieved by the terms of this contract of any liability to the United States for fire suppression costs recoverable in an action based on State law, except for such costs resulting from Operations Fires. Amounts due Purchaser for fire fighting expenditures in accordance with BT7.41 shall not be withheld pending settlement of any such claim or action based on State law.

BT7.6 Performance by Contractor. Where Purchaser's employees, agents, contractors, Subcontractors, or their employees or agents perform Purchaser's Operations in connection with fire responsibilities, Purchaser's obligations shall be the same as if performance was by Purchaser.

BT8.0—OTHER CONDITIONS

BT8.1 Title and Liability.

BT8.11 Title Passage. All right, title, and interest in and to any Included Timber shall remain in Forest Service until it has been Measured, removed from Sale Area or other authorized cutting area, and paid for, at which time title shall vest in Purchaser. For purposes of this Subsection, timber in Payment Units Released for Cutting covered by cash deposit or payment guarantee under BT4.3 shall be considered to have been paid for. Title to any Included Timber that has been Measured and paid for, but not removed from Sale Area or other authorized cutting area by Purchaser on or prior to Termination Date, shall remain in Forest Service.

BT8.12 Liability for Loss. If Included Timber is destroyed or damaged by an unexpected event that significantly changes the nature of Included Timber, such as fire, wind, flood, insects, disease, or similar cause, the party holding title shall bear the timber value loss resulting from such destruction or damage; except that such losses caused by insect or disease after felling of timber shall be borne by Purchaser, unless Purchaser is prevented from removing such timber for reasons that would qualify for Contract Term Adjustment. Deterioration or loss of value of salvage timber is not an unexpected event, except for deterioration due to delay or interruption that qualifies for Contract Term Adjustment or under BT8.33.

In the event Included Timber to which Forest Service holds title is destroyed, Purchaser will not be obligated to remove and pay for such timber. In the event Included Timber to which Forest Service holds title is damaged, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the value loss and the appraised unit value of timber after the loss. Current Contract Rates in effect at the time of the

value loss shall be adjusted by differences to become the redetermined rates.

There shall be no obligation for Forest Service to supply, or for Purchaser to accept and pay for, other timber in lieu of that destroyed or damaged. This Subsection shall not be construed to relieve either party of liability for negligence.

BT8.2 Period of Contract. All obligations of Purchaser shall be discharged not later than "Termination Date" stated in AT12, unless it is adjusted pursuant to BT8.21 or BT8.212 or extended pursuant to BT8.23 or BT8.32, excepting only those obligations for which Forest Service has given written permission to delay performance. Such written permission shall be considered a Contract Term Adjustment for the purpose of Purchaser completing performance of obligations covered by such permission.

BT8.21 Contract Term Adjustment. "Contract Term Adjustment" means adjustment only as provided for in the three circumstances described in this Subsection. Under these circumstances, the contract term shall be adjusted in writing to include additional calendar days in one or more Normal Operating Seasons equal to the actual time lost, except as limited by paragraph (b) in this Subsection.

To qualify for such adjustment, Purchaser shall give written notice of the lost time not later than 30 days after end of Normal Operating Season in which time was lost and at least 10 days before Termination Date. Contracting Officer shall make prompt written acknowledgment of such notice, indicating concurrence with the number of days in the notice or the number of days Forest Service considers as qualifying for the adjustment. Lost portions of days shall be disregarded in computing time lost. The three circumstances qualifying for a Contract Term Adjustment are:

(a) Purchaser experiences delay in starting scheduled operations or interruptions in active operations, either of which stops removal of Included Timber from Sale Area through curtailment in felling and bucking, yarding, skidding and loading, hauling, or road construction, as scheduled under BT6.31, for 10 or more consecutive days during a Normal Operating Season due to causes beyond Purchaser's control, including, but not limited to, acts of God, acts of the public enemy, acts of the Government, labor disputes, fires, insurrections, or floods.

(b) Causes described in paragraph (a) substantially affect the disposition or processing of Included Timber during Normal Operating Season through their effects on primary timber processing facilities, with a resulting delay of 60 days or more in use of such facilities. In such event, Contract Term Adjustment shall not extend for more than 12 consecutive months.

(c) (i) Contracting Officer requests Purchaser, in writing, to delay or interrupt operations during the Normal Operating Season for any purpose other than suspension under BT4.4 or BT9.3 or

(ii) Purchaser suffers a delay or interruption of Purchaser's Operations affecting skidding, yarding,

and loading because of fire emergency closure ordered by Forest Service (or another agency in its behalf), and the total of such lost time is 10 or more days during any Normal Operating Season.

If Termination Date is adjusted, as described in this Subsection, and later extended under BT8.23, the appraisal for the extension shall be made as of the unadjusted Termination Date, but the date on which the new rates become effective, if higher than Current Contract Rates immediately prior to Termination Date, shall be the adjusted Termination Date.

BT8.211 Delay in Reconstruction of Processing Facilities. Notwithstanding the 12-month limitation in BT8.21, if Purchaser demonstrates a diligent effort has been made to replace primary timber processing facilities and that delays in doing so have been beyond Purchaser's control, Contracting Officer may authorize Contract Term Adjustment up to a total of 24 months.

BT8.212 Market-Related Contract Term Addition. The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in AT17. Purchaser will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Purchaser's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season. Contracting Officer must receive Purchaser's written request for a market-related contract term addition before the expiration of this contract.

The total amount of contract term addition is limited to the lesser of twice the length of the original contract or 3 years. The revised contract term may not exceed 10 years as a result of market-related contract term addition. Additional contract time may not be granted for those portions of the contract that have a required completion date or for those portions of the contract where Contracting Officer determines that the timber is in need of urgent removal or that timber deterioration or resource damage will result from delay.

When a contract is lengthened as a result of market-related contract term addition, any subsequent periodic payment date shall be delayed 1 month for each month added to the contract's term.

BT8.22 Termination for Catastrophe. In event of Catastrophic Damage, this contract may be modified under BT8.32, following rate redetermination under BT3.32, or terminated under this Subsection. Such termination shall not be considered a termination under BT8.34.

BT8.221 Termination by Purchaser. This contract shall be terminated, upon election and written notice by Purchaser, if Catastrophic Damage rate redetermination under BT3.32 shows that the appraised

weighted average Indicated Advertised Rate of all Included Timber remaining immediately prior to the catastrophe has been reduced through Catastrophic Damage by an amount equal to or more than the weighted average Current Contract Rate.

"Indicated Advertised Rates" are Forest Service estimates of fair market value of the timber.

BT8.222 Termination by Forest Service. This contract may be terminated by written notice from Contracting Officer, if there is Catastrophic Damage and Purchaser does not agree, under BT8.32, within 30 days of receipt from Contracting Officer of contract modifications proposed to permit the harvest of the catastrophe-affected timber.

BT8.23 Contract Term Extension. "Contract Term Extension" means an extension of the term of this contract, at the request of Purchaser, under this Subsection. This Subsection does not obligate Contracting Officer to grant Contract Term Extension.

When such extension is made, Forest Service shall make an appraisal using standard Forest Service methods and appraisal data in effect 45 days prior to the original Termination Date. Bid Premium Rates shall be added to such appraised rates to establish Flat Rates or Tentative Rates for the extension period. In event rates so established would develop Current Contract Value immediately prior to such an extension that is less than Current Contract Value at that time, Flat Rates and Tentative Rates in effect immediately prior to extension shall be retained for the extension period.

In consideration for granting an extension, Purchaser shall pay the Government for Purchaser's failure to cut and remove timber meeting Utilization Standards prior to Contract Term Extension, an amount that shall be the total of the costs to the Government resulting from the delay in harvest of Included Timber. Such costs will be determined by Forest Service and shall include, but not be limited to, the following:

(a) Interest at the Current Value of Funds Rate established by the Secretary of the Treasury, on Current Contract Value of timber remaining on Sale Area, less the credit balance of any deposit made pursuant to BT4.213, as of the original Termination Date, or as adjusted pursuant to BT8.21 or BT8.212, until the midpoint of the extension period;

(b) Increased costs of regeneration, including nursery stock loss, carryover, or replacement costs; and

(c) Costs of remarking timber on Sale Area, reestablishing cutting unit boundaries, and/or remarking areas requiring protection on Sale Area.

BT8.231 Conditions for Contract Term Extension. Contracting Officer may grant Purchaser's written request for Contract Term Extension, if Purchaser has met all of the following conditions at time of Purchaser's request:

(a) At least 75 percent of estimated quantity in AT2 has been cut and removed from Sale Area.

(b) Specified Roads needed by Purchaser for removal of all Included Timber, in accordance with the approved Plan of Operations submitted pursuant to

BT6.311, were constructed and accepted by Forest Service prior to the applicable road completion date shown in CT5.13.

(c) Purchaser's Operations to date have been in reasonable compliance with contract terms and the approved Plan of Operations under BT6.311.

(d) All contractual requirements have been met by Purchaser and accepted by Forest Service on area cut over at time of Purchaser's request, except for areas where logging is in progress at time of Purchaser's request. Purchaser's burning of current slash or seeding or planting for erosion control may be temporarily waived, if weather or other considerations make such work impractical.

(e) Any payment required under BT4.213 has been made.

Contract Term Extension shall not become effective, unless payments required by BT8.23 have been paid and the initial Extension Deposit required by BT4.217 has been made by the effective date of any extension.

BT8.3 Contract Modification. The conditions of this timber sale are completely set forth in this contract. Except as provided in BT8.32 and BT8.33, this contract can be modified only by written agreement between the parties. Only Contracting Officer may make contract modifications, with compensating adjustments to Current Contract Rates where appropriate, on behalf of Forest Service.

BT8.31 Changed Conditions. When it is agreed that the completion of certain work or other requirements hereunder would no longer serve the purpose intended because of substantial change in the physical conditions of Sale Area or Included Timber since the date of this contract, the requirements shall be waived in writing. The estimated cost of such waived work or other requirement shall be charged to Timber Sale Account.

BT8.32 Modification for Catastrophe. In event of Catastrophic Damage, Forest Service, in consultation with Purchaser, shall outline on Sale Area Map:

(a) Any areas of catastrophe-affected live and dead timber meeting Utilization Standards and having undesignated timber so situated that it should be logged with the designated timber;

(b) If needed, any such areas where the damaged undesignated timber can reasonably be logged separately; and

(c) Areas of affected or unaffected timber that are to be eliminated from Sale Area.

Forest Service shall locate and post the boundaries of all such areas, as needed.

After Sale Area Map has been outlined under this Subsection, Forest Service may propose contract modification to permit the harvest of catastrophe-affected timber. If Purchaser accepts Forest Service proposed modifications, this contract shall be modified to include rates redetermined under BT3.32 and other related revisions as necessary, such as revision of Operating Schedule to ensure prompt removal of affected timber when necessary to avoid further loss and provision for additional contract time, if needed.

BT8.33 Contract Suspension and Modification. (a) Contracting Officer may, by written order, delay or interrupt authorized operations under this contract or, notwithstanding BT8.3, modify this contract, in whole or in part:

(i) To prevent environmental degradation or resource damage, including, but not limited to, harm to habitat, plants, animals, cultural resources, or cave resources;

(ii) To ensure consistency with land and resource management plans or other documents prepared pursuant to the National Environmental Policy Act of 1969, 42 USC 4321-4347;

(iii) To conduct environmental analysis, including, but not limited to, engaging in consultation pursuant to the Endangered Species Act of 1973, 16 USC 1531, et seq.; or

(iv) Upon agreement of the Regional Forester, due to administrative appeal or litigation, regardless of whether Contracting Officer's order is required by a court order or this contract is named in such a proceeding.

(b) In the event of an order delaying or interrupting Purchaser's Operations under this Subsection, Purchaser's remedy shall be:

(i) Contract Term Adjustment,

(ii) reimbursement for Out-of-Pocket Expenses,

(iii) rate redetermination to measure any decline in the market,

(iv) temporary reduction of downpayment,

(v) temporary credit for unamortized Specified Road construction cost, and

(vi) temporary bond reduction.

However, the foregoing remedies shall be available only to the extent that the Contracting Officer's order was the sole and exclusive cause of the delay or interruption of Purchaser's operations.

(c) In cases of modification under this Subsection, Purchaser shall only receive a rate redetermination pursuant to BT3.31. However, if there is an order delaying or suspending operations in addition to a modification, then Purchaser shall also be entitled to the remedies provided under BT8.33(b) for such delay or suspension.

(d) Remedies awarded to the Purchaser shall not be duplicative, and Contracting Officer shall have the right to structure remedies provided herein to avoid duplicative compensation.

(e) Purchaser agrees that this Subsection, and the remedies provided herein shall apply regardless of any finding by any court or administrative body that the Forest Service failed to comply with any statute, regulation and/or policy in connection with awarding, advertising, or authorizing this sale, or a similar sale. However, nothing in this Subsection precludes Purchaser from exercising rights under the Contract Disputes Act.

BT8.34 Contract Termination. This contract may be terminated, in whole or in part, by Forest Service or Purchaser, as provided in Items BT8.341 and BT8.342, respectively. In the event of any such termination, Purchaser shall be entitled to the applicable remedies, subject to the limitation upon duplicative compensation

set forth in BT8.33(d). Purchaser agrees that this Subsection, and the remedies contained in the following Items shall apply regardless of any finding by any court or administrative body that the Forest Service failed to comply with any statute, regulation and/or policy in connection with awarding, advertising, or authorizing this sale, or a similar sale. However, nothing in this Subsection precludes Purchaser from exercising rights under the Contract Disputes Act.

BT8.341 Termination by Forest Service.

(a) The Chief or the Chief's designee may unilaterally terminate this contract, in whole or in part, for any of the reasons set forth in paragraph (a) of BT8.33.

(b) Purchaser's compensation for termination of this contract under this Item shall be:

(i) refund or release of advanced deposits for timber cut but not removed,

(ii) reimbursement for Out-of-Pocket Expenses, and

(iii) replacement timber under subparagraph (c), and/or liquidated damages under subparagraph (d); provided that liquidated damages shall be available if, and only if, after good faith efforts, the Parties (1) cannot locate replacement timber or agree upon the applicable stumpage price, or (2) the volume of deleted timber exceeds the volume of any replacement timber.

(c) Subject to applicable laws, regulations and policies, Forest Service and Purchaser shall make good faith efforts to identify replacement timber of similar volume, quality, access, and topography within Sale Area. If suitable replacement timber cannot be located within Sale Area, the parties shall expand the search to the National Forest in which the Sale Area is located. Stumpage price shall be adjusted under BT3.31 to account for differences between replacement timber and deleted timber. If Forest Service and Purchaser agree upon suitable replacement timber and the applicable stumpage price, then this contract shall not terminate and instead shall be modified pursuant to 36 CFR 223.85(c) and shall remain in force with respect to such replacement timber and, in the case of partial termination, any remaining Included Timber. If the parties cannot agree on suitable replacement timber or the applicable stumpage price of such timber, either party may end the search and Purchaser shall be compensated under subparagraph (d).

(d) Forest Service shall pay as fixed, agreed, and liquidated damages an amount equivalent to 15 percent of the estimated delivered log value of the volume of timber not harvested due to the termination or partial termination. Estimated delivered log value and volume of timber not harvested shall be determined by the Contracting Officer as of Termination Date, using Forest Service methods in use as of the Termination Date.

(e) In any instance of partial termination, in which the Forest Service deletes one or more cutting units from the Sale Area, Purchaser's sole and exclusive remedy with regard to remaining units shall be a rate redetermination pursuant to BT3.31. Purchaser shall be required to complete Contract Operations with regard to remaining

units and any obligations pertaining to cessation of operations on deleted units, including without limit erosion control, brush disposal, and road maintenance. If Purchaser fails to fulfill any such duty or obligation, then Contracting Officer may make deductions from compensation due Purchaser, including without limit costs and expenses of completing such work.

BT8.342 Termination by Purchaser. (a)

Purchaser may, by written notice, terminate this Contract, in whole or in part, as described herein,

(i) in the event of an order delaying or interrupting its operations pursuant to BT8.33, or

(ii) in the event of an order modifying this Contract pursuant to BT8.33, if Purchaser decides to reject the terms of the modification prior to its acceptance. Purchaser shall have the right to terminate this Contract in whole only when the Contracting Officer's order under BT8.33 applies to all cutting units within the Sale Area. When the order affects only a portion of the cutting units, Purchaser shall have the right to terminate this Contract in part, by deleting one or more of the units covered by the Contracting Officer's order. The foregoing right of termination, in whole or in part, shall not exist when the delay, interruption, or modification arises from wind, flood, landslide, fire, forest pest epidemic, or other major natural phenomenon.

(b) Purchaser's compensation for termination of this Contract, in whole or in part, under this Item shall be:

(i) refund or release of advanced deposits for timber cut but not removed,

(ii) reimbursement for Out-of-Pocket Expenses, and

(iii) if the duration of the delay or interruption exceeds either six months of Normal Operating Season time, or one calendar year from the date of the order, then: replacement timber as provided under (c) and/or liquidated damages under (d); provided that liquidated damages shall be available if, and only if, after good faith efforts, the Parties (1) cannot locate replacement timber or agree upon the applicable stumpage price, or (2) the volume of deleted timber exceeds the volume of any replacement timber.

(c) Subject to applicable laws, regulations and policies, Forest Service and Purchaser shall make good faith efforts to identify replacement timber of similar volume, quality, access, and topography within Sale Area. If suitable replacement timber cannot be located within Sale Area, the parties shall expand the search to the National Forest in which the Sale Area is located. Stumpage price shall be adjusted under BT3.31 to account for differences between replacement timber and deleted timber. If Forest Service and Purchaser agree upon suitable replacement timber and the applicable stumpage price, then this contract shall not terminate and instead shall be modified pursuant to 36 CFR 223.85(c) and shall remain in force with respect to such replacement timber and, in the case of partial termination, any remaining Included Timber. If the parties cannot agree on suitable replacement timber or the applicable stumpage price of such timber, either party may end the

search and Purchaser shall be compensated under subparagraph (d).

(d) Forest Service shall pay as fixed, agreed, and liquidated damages an amount equivalent to 15 percent of the estimated delivered log value of the volume of timber not harvested due to the termination or partial termination. Estimated delivered log value and volume of timber not harvested shall be determined by the Contracting Officer as of Termination Date, using Forest Service methods in use as of the Termination Date.

(e) In any instance of partial termination, in which Purchaser deletes one or more cutting units from Sale Area, Purchaser's sole and exclusive remedy with regard to remaining units shall be a rate redetermination pursuant to BT3.31. Purchaser shall be required to complete Contract Operations with regard to remaining units and any obligations pertaining to cessation of operations on deleted units, including without limit, erosion control, brush disposal, and road maintenance. If Purchaser fails to fulfill any such duty or obligation, then Contracting Officer may make deductions from compensation due Purchaser, including without limit costs and expenses of completing such work.

BT8.35 Out-of-Pocket Expenses.

"Out-of-Pocket Expenses" are Unrecovered expenditures arising directly from performing the contract that were rendered unrecovered due to delay, interruption, or termination pursuant to BT8.33 or BT8.34. An expenditure is "Unrecovered" within the meaning of this Subsection when Purchaser did not gain the benefit of its expenditure because Contract operations were not permitted. In determining whether an expenditure is "Unrecovered," Contracting Officer shall not conclude that an award of liquidated damages constitutes the benefit of that expenditure.

(a) Out-of-Pocket Expenses shall not include, in particular and without limitation, any of the following:

- (i) attorneys fees;
- (ii) costs and expenses of operating a saw mill or other processing facility;
- (iii) expectancy damages; and,
- (iv) anticipatory profits.

(b) Forest Service shall reimburse Purchaser for only the following Out-of-Pocket Expenses:

- (i) Out-of-Pocket Expenses for maintenance of the timber sale performance and payment bonds during the period when operations were delayed or interrupted or, if terminated, from the date operations were halted until the expiration of the bonds;
- (ii) Out-of-Pocket Expenses for maintenance of the downpayment or other cash deposits during the period when operations were delayed or interrupted or, if terminated, from the date operations were halted until the cash is returned to Purchaser;
- (iii) Out-of-Pocket Expenses for the lesser of move-out and move-in or leaving equipment and/or logging camps on site, if the Purchaser and Contracting Officer have agreed to leave equipment and/or logging camps on site in lieu of move-out and move-in;
- (iv) Out-of-Pocket Expenses for felling, bucking,

logging, skidding, yarding, and decking any products so processed, but not removed from Sale Area because: (1) the sale was terminated, or (2) the products no longer meet Utilization Standards because of delay or interruption;

(v) If terminated, in whole or in part, Out-of-Pocket Expenses for unamortized Temporary Roads, road maintenance, dust abatement and improvements authorized under B6.2;

(vi) Out-of-Pocket Expenses for the investment in Specified Roads during the period when operations were delayed or interrupted or, if terminated in whole or in part, Out-of-Pocket Expenses for unamortized Specified Road construction and reconstruction; and

(vii) If terminated, in whole or in part, Out-of-Pocket Expenses for bid preparation, including review of sale offering.

(c) Purchaser shall submit documentation of claimed expenditures, including those actually paid and those for which the Purchaser has a legal obligation to pay but has not yet paid, and supporting analysis to Contracting Officer to assist in Contracting Officer's calculation of reimbursement. Contracting Officer shall determine the amount of reimbursement under this Subsection using information from Purchaser and/or Forest Service methods in use on the date that operations were delayed, interrupted, or terminated. Purchaser's failure to substantiate any claimed Out-of-Pocket Expense may constitute grounds for Contracting Officer's denial of reimbursement.

(d) Purchaser shall make reasonable efforts to minimize its Out-of-Pocket Expenses.

BT8.36 Termination for Market Change. a) In the event of delay or interruption under BT8.33, exceeding 90 days, and Contract has not been modified to include replacement timber, this contract may be terminated upon election and written notice by Purchaser, if (i) a rate redetermination for market change under BT3.33 shows that the appraised weighted average Indicated Advertised Rate of all Included Timber remaining immediately prior to the delay or interruption has been reduced through a market change by an amount equal to or more than the the weighted average Current Contract Rate, or (ii) the appraised value of the remaining timber is insufficient to cover the adjusted base rates as determined under BT3.33.

(b) Prior to termination under this Subsection, Purchaser shall complete all obligations on areas not affected by the delay or interruption.

(c) Damages caused by termination of contract under this Subsection will be limited to Out-of-Pocket Expenses.

BT8.4 Performance by Other than Purchaser. The acquisition or assumption by another party, under an agreement with Purchaser, of any right or obligation of Purchaser under this contract shall be ineffective as to Forest Service, until Forest Service has been notified of such agreement and Contracting Officer has given written approval. In no case shall such recognition or approval:

(a) Operate to relieve Purchaser of the responsibilities or liabilities Purchaser has assumed hereunder or

(b) Be given unless such other party:

(i) Is acceptable to Forest Service as a Purchaser of timber and assumes in writing all of the obligations to Forest Service under the terms of this contract as to the uncompleted portion thereof or

(ii) Acquires the rights in trust as security and subject to such conditions as may be necessary for the protection of the public interests.

BT8.5 Sale of Other Materials. Forest Service reserves the right to sell from Sale Area during the period of this contract any materials or products not subject to its terms, but shall not permit removal, possession, or use thereof that will materially interfere with Purchaser's Operations. Purchaser shall not be obligated to do any work made necessary by the action of others.

BT8.6 Provisions Required by Statute.

BT8.61 Covenant against Contingent Fees.

Purchaser warrants that no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial agencies maintained by Purchaser for the purpose of securing business. For breach or violation of this warranty, Forest Service shall have the right to annul this contract without liability or to require Purchaser to pay, in addition to the contract price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

BT8.62 Officials Not to Benefit. No member of Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, unless it is made with a corporation for its general benefit (18 USC 431, 433).

BT8.63 Nondiscrimination in Employment. If the total value of this contract is in excess of \$10,000, Purchaser agrees during its performance as follows:

(a) Purchaser will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. Purchaser will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Purchaser agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Forest Service setting forth the provisions of this Subsection.

(b) Purchaser will, in all solicitations or advertisements for employees placed by or on behalf of Purchaser, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) Purchaser will send to each labor union or representative of workers with which Purchaser has a collective bargaining agreement or other contract or under-

standing, a notice to be provided by Forest Service, advising the labor union or worker's representative of Purchaser's commitments under this Subsection, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) Purchaser shall comply with all provisions of Executive Order No. 11246, as amended by Executive Order No. 11375 and Executive Order No. 12086, and the rules, regulations, and relevant orders of the Secretary of Labor.

(e) Purchaser will furnish all information and reports required by Executive Order No. 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to books, records, and accounts by Forest Service and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In event of Purchaser's noncompliance with this Subsection or with any of such rules, regulations, or orders, this contract may be terminated or suspended, in whole or in part, and Purchaser may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246, as amended, and such other sanctions may be imposed and remedies invoked, as provided in Executive Order or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) Purchaser will include the provisions of paragraphs (a) through (f) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246, as amended, so that such provisions will be binding upon each Subcontractor or vendor. Purchaser will take such action with respect to any subcontract or purchase order as Forest Service may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event Purchaser becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by Forest Service, Purchaser may request the United States to enter into such litigation to protect the interests of the United States.

BT8.64 Debarment and Suspension Certification. Pursuant to 7 CFR Part 3017, Purchaser shall obtain certifications from its Subcontractors regarding debarment, suspension, ineligibility, and voluntary exclusion, including additional Subcontractors obtained after award of this contract. "Subcontractors" are participants in lower tier covered transactions.

Purchaser may rely upon a certification of a prospective Subcontractor that it is not proposed for debarment under 48 CFR 9.4, debarred, suspended, ineligible, or voluntarily excluded from participating in covered transactions or timber sales, unless Purchaser knows that the certification is erroneous.

Purchaser shall keep the certifications of its Subcontractors on file until timber sale Termination Date and any extensions thereof, and will provide a copy at the written request of Contracting Officer. Nothing contained in the foregoing shall be construed to require

establishment of a system of records in order to render in good faith the certification required by this Subsection. The knowledge and information of Purchaser is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

If Purchaser knowingly enters into a timber sale transaction with a person who is proposed for debarment under 48 CFR 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in covered transactions or timber sales, in addition to other remedies available to the Government, Forest Service may pursue available remedies, including suspension and/or debarment.

The Subcontractor for a timber sale shall complete a "Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion." An example of this certification is shown following the instructions for page 101 of this contract.

BT8.65 Contract Consistency With Other Laws. The contract shall govern if State and local environmental quality laws conflict with or preclude performance of contractual requirements.

BT9.0—PERFORMANCE AND SETTLEMENT

BT9.1 Performance Bond. As a further guarantee of the faithful performance of the provisions of this contract, Purchaser delivers herewith and agrees to maintain a surety bond in the dollar amount stated in AT14, unless the amount is adjusted as provided in BT9.11 or BT9.13. In lieu of surety bond, Purchaser may deposit into a Federal Depository, as directed by Forest Service under BT4.21, and maintain therein, cash in the dollar amount stated in AT14 or negotiable securities of the United States having market value at time of deposit of not less than the dollar amount stated in AT14.

Any adjustment or extension of time for completion of this contract beyond 1 year may be granted only with the consent of surety on bond or delivery of a new bond. Should the sureties on the bond delivered herewith, or any bond delivered hereafter in connection with this contract, become unsatisfactory to Forest Service, Purchaser shall, within 30 days of receipt of demand, furnish a new bond with surety satisfactory to Forest Service.

BT9.11 Bond Reduction. Upon Purchaser's written request, Contracting Officer shall redetermine the amount of Purchaser's performance bond to an amount not less than Purchaser's remaining obligations, including the value of Included Timber remaining on Sale Area, plus the estimated cost of uncompleted work required of Purchaser and any unpaid billings due on the timber sale. Contracting Officer shall provide written notice of the redetermined amount to Purchaser and to Purchaser's surety. Similarly, Contracting Officer shall report to Purchaser in writing the amount of deposited cash or deposited securities required thereafter, if such deposits exist in lieu of a surety bond.

As soon as security for the performance of this contract or the settlement of Claims incident thereto is no longer necessary, appropriate notice shall be given to

surety or deposits that may have been made in lieu of surety bond shall be returned to Purchaser, subject to the conditions in BT9.5.

BT9.12 Letters of Credit. Notwithstanding the provisions of BT9.1, approved letters of credit may be used in lieu of a surety bond for performance bond purposes. Such letters of credit shall be subject to approval by Contracting Officer.

BT9.13 Temporary Bond Reduction. When, under BT8.33, Contracting Officer orders a delay or interruption of Purchaser's Operations for more than 30 days when scheduled operations would be occurring but for the order, the performance bond amount required shall be temporarily reduced upon the written request of Purchaser or at the discretion of Contracting Officer. For the period of the delay or interruption, the performance bond may be reduced to an amount not less than the estimated cost of uncompleted work required of Purchaser and any unpaid billings due on the timber sale.

Upon Purchaser's receipt of written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Purchaser shall restore the performance bond to the full amount shown in AT14 within 15 days. Purchaser shall not resume contract operations until the performance bond amount is fully restored.

BT9.2 Disputes. This contract is subject to the Contract Disputes Act of 1978 (41 USC 601, *et seq.*). Except as provided in the Contract Disputes Act of 1978, all disputes arising under or relating to this contract shall be resolved in accordance with this Section.

As used herein, "Claim" means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of contract terms, or other relief, arising under or relating to this contract. A voucher, invoice, or request for payment that is not in dispute when submitted is not a Claim. However, where such submission is subsequently not acted upon in a reasonable time, or disputed either as to liability or amount, it may be converted to a Claim. A Claim by Purchaser shall be made in writing and submitted to Contracting Officer for decision. A Claim by the Government against Purchaser shall be subject to a decision by Contracting Officer.

For Purchaser Claims of more than \$100,000, Purchaser shall submit with the Claim a certification that the Claim is made in good faith; the supporting data are accurate and complete to the best of Purchaser's knowledge and belief; and the amount requested accurately reflects the contract adjustment for which Purchaser believes the Government is liable. Purchaser, if an individual, shall execute the certification. When Purchaser is not an individual, the certification shall be executed by a senior company official in charge at Purchaser's plant or location involved or by an officer or general partner of Purchaser having overall responsibility for the conduct of Purchaser's affairs.

For Purchaser Claims of \$100,000 or less, Contracting Officer must render a decision within 60 days. For Purchaser Claims in excess of \$100,000, Contracting Of-

ficer must decide the Claim within 60 days or notify Purchaser of the date when the decision will be made.

Contracting Officer's decision shall be final unless Purchaser appeals or files a suit.

The authority of Contracting Officer does not extend to Claims or disputes that by statute or regulation other agencies are expressly authorized to decide.

Interest, at the Prompt Payment Rate established by the Secretary of the Treasury, on the amount found due on Purchaser's Claim shall be paid from the date the Claim is received by Contracting Officer until the date of the payment.

Except as the parties may otherwise agree, pending final resolution of a Claim of Purchaser arising under the contract, Purchaser shall proceed diligently with the performance of the contract in accordance with Contracting Officer's decision.

BT9.21 Time Limits for Submission of Claim.

Failure by Purchaser to submit a Claim within established time limits shall relinquish the United States from any and all obligations whatsoever arising under the contract or portions thereof. Purchaser shall file such Claim within the following time limits:

(a) When Purchaser constructs Specified Road, Purchaser must file any Claim not later than 60 days after receipt of Forest Service written notification of acceptance;

(b) When Forest Service constructs Specified Road, Purchaser must file any Claim not later than 60 days after receipt of Forest Service written notification authorizing use of road;

(c) For Payment Units and cutting units, Purchaser must file any Claim not later than 60 days after receipt of Forest Service written notification that Payment Unit has been accepted; and

(d) In all other cases, Purchaser must file any Claim not later than 60 days after receipt of Contracting Officer written notification that timber sale is closed.

BT9.22 Contract Documents. All contract documents are intended to be consistent with each other. In case of discrepancy, the following is the order of precedence:

- (a) Special Provisions (CT)
- (b) Sale Area Map
- (c) Specific Conditions (AT) and Schedule of Items
- (d) Standard Provisions (BT)
- (e) Special project specifications
- (f) Plans, such as slash, erosion control, and dust abatement
- (g) Agreements between Purchaser and Forest Service, as authorized under the contract
- (h) Plans:
 - (i) Figured dimensions over scaled dimensions
 - (ii) Large scale Plans over small scale Plans
- (i) Standard specifications
- (j) Lists and/or tables in Plans over any conflicting notations on Plans
- (k) Shop Drawings

BT9.3 Breach. In event Purchaser breaches any of the material provisions of this contract, Forest Service

shall give Purchaser notice of such breach and, allowing reasonable time for remedy of such breach and of Forest Service's election to suspend, may give notice to suspend all or any part of Purchaser's Operations. Such notice of breach and notice to suspend Purchaser's Operations shall be written, except oral notices may be given if such breach constitutes an immediate threat to human life or a threat of immediate and irreparable damage to National Forest resources. Notwithstanding Section BT6.1, such oral suspension notice may be given to Purchaser's work supervisor or, in work supervisor's absence, to those performing the operation. An oral suspension notice shall be promptly followed by telephone notice and a written explanation from Forest Service to Purchaser.

Suspension under this Section shall not entitle Purchaser to any remedies arising under BT8.33.

Immediately upon oral or written suspension, Forest Service representative shall notify Contracting Officer of the suspension and related circumstances. Contracting Officer shall promptly review the suspension to determine if the suspension should be continued or lifted. Such suspension shall be lifted as early as conditions permit.

Upon receipt of oral or written notice of such breach, Purchaser shall remedy the breach as follows:

(a) If remedying such breach requires on-the-ground action by Purchaser, Purchaser shall have 30 practicable operating days during Normal Operating Season to remedy the breach, except under emergency conditions when action should not be delayed to prevent major damage or

(b) If such breach does not require on-the-ground action by Purchaser, such breach shall be remedied within 30 days.

BT9.31 Termination for Breach. Contracting Officer, with the concurrence of the Regional Forester, may terminate this contract for breach in the event Purchaser:

(a) Is convicted for violation of criminal statutes, civil standards, or any other offense indicating a lack of business integrity or honesty that seriously and directly affects the responsibility of Purchaser; including, but not limited to:

(i) Theft, forgery, bribery, embezzlement, falsification or destruction of records, making false statements, or receiving stolen property, any of which occurred in connection with obtaining, attempting to obtain, selling, trading, or processing public timber;

(ii) Fraud, criminal offenses, or violation of Federal or State antitrust laws, any of which occurred in connection with obtaining, attempting to obtain, or performing a public contract or subcontract; or

(iii) Threatening, resisting, intimidating, or interfering with Forest Officers engaged in, or on account of, the performance of their official duties involving the protection, improvement, or administration of National Forest lands;

(b) Is convicted for violation of criminal statutes or civil standards, orders, permits, or other regulations for environmental protection issued by a Federal agency, State agency, or political subdivision thereof in the conduct of operations hereunder on National Forest lands, pursuant to BT6.01;

(c) Has engaged in a pattern of activity that demonstrates flagrant disregard for the terms of this contract, such as, but not limited to, repeated suspensions for breach pursuant to BT9.3, causing undesignated timber meeting Utilization Standards to be unnecessarily damaged or negligently or willfully cut, or causing other serious environmental degradation or resource damage;

(d) Fails to comply with contract provisions related to nondiscrimination in employment; or

(e) Fails to remedy a breach of contract within time limits stated in BT9.3.

Damages due the United States for termination under this Subsection shall be determined pursuant to BT9.4.

BT9.4 Damages for Failure to Cut or Termination for Breach. (a) In event of Purchaser's failure to cut designated timber on portions of Sale Area by Termination Date or termination for breach under BT9.31, Forest Service shall appraise remaining Included Timber, unless termination is under BT8.22 or BT8.34. Such appraisal shall be made with the standard Forest Service method in use at time of termination.

(b) If the sale is resold, damages due shall be the amount by which Current Contract Value, plus costs described in paragraph (d) of this Section, exceeds the resale value at new Bid Rates.

(c) If the contract is not reoffered or there are no responsive bids on the reoffered contract, damages due shall be the amount by which Current Contract Value exceeds the value determined by appraisal, plus costs described in paragraph (d) of this Section.

(d) If applicable, the following costs shall be included in damages:

(i) The cost of resale or reoffering, including, but not limited to, salary costs, document preparation and duplication costs, mailing costs, and timber sale advertisement costs.

(ii) If Purchaser has failed to cut individual trees in the portions of Sale Area cut over and there is no resale of such individual trees, Purchaser shall pay Forest Service for cost of felling and removal or otherwise eliminating such uncut trees, except for occasional trees not cut for reasons stated in BT6.4.

(iii) The Government's loss caused by the delay in receipt of stumpage payments. Such loss will be measured by interest at the Current Value of Funds Rate established by the Secretary of the Treasury, on the unpaid contract value at Termination Date. Interest will be charged for the total number of months, or portions thereof, from Termination Date until midpoint of the contract resale period, less any time in excess of 1 year needed to make the resale.

(iv) Any increase in reforestation costs, including site preparation, seeding, and planting caused by Purchaser's failure to harvest Included Timber by Termination Date.

BT9.5 Settlement. If obligations of Purchaser have not been fully discharged by Termination Date, any money advanced or deposited hereunder shall be retained and applied toward unfulfilled obligations of Purchaser without prejudice to any other rights or remedies of Forest Service. Such funds may be treated as cooperative deposits under BT4.218 for uncompleted work 30 days after receipt of written notice from Contracting Officer to Purchaser of work to be done and Purchaser's failure to deny the obligation or to do the work.

BT9.6 Contract Closure. Contracting Officer shall give appropriate written notice to Purchaser when Purchaser has complied with the terms of this contract. Purchaser shall be paid refunds due from Timber Sale Account under BT4.24 and excess cooperative deposits under BT4.218.

DIVISION CT

Special Provisions

In accordance with AT19, the Sections, Subsections, and Items therein listed are attached and made a part hereof. The material is indexed by the numbering system used in Division BT. The numbers after the CT (that identifies material in this Division) indicates the Part, Section, Subsection, or Item of Division BT that is being supplemented or modified by each particular provision included in this Division.

CT2.11# - TIMBER SUBJECT TO AGREEMENT. (6/72) In addition, there is within Sale Area an unestimated quantity of:

<u>Species</u>	<u>Product</u>
<u>Combined Softwood</u>	<u>Sawtimber</u>
<u>Other Softwood</u>	<u>Non-Saw</u>

that shall be Included Timber upon written agreement.

CT2.21# - UTILIZATION AND REMOVAL OF NON-SAWTIMBER PRODUCTS. (8/2006)

Notwithstanding BT2.2, Purchaser is required to pay for, cut, and remove the Non-Sawtimber Products of Included Timber listed in AT2 and those Non-Sawtimber Products listed in the following table, unless otherwise agreed.

If Purchaser can sufficiently demonstrate that no market exists within the normal delivery distance for specific Non-Sawtimber Products, Forest Service and Purchaser may agree to alternate removal requirements of such Non-Sawtimber Products as specified in the alternate removal agreement. See Agreement Example.

The agreement for alternate removal requirements shall be executed prior to removing any timber from the Unit(s) included in the agreement. Alternate removal requirements shall apply only to whole units and not to portions of units. All material meeting alternate removal specifications shall be cut and moved to locations designated in the agreement.

Volumes of material with alternate removal requirements will be determined from the cruise report for the sale.

Purchaser will be charged for the following:

- a) Stumpage value at current contract rates of the alternatively removed product;
- b) Plus the cost of other work required by the Forest Service to dispose of alternatively removed material;
- c) Plus the difference between the appraised transportation cost of the non-sawtimber material involved and the appraised transportation cost of the alternative;
- d) Minus any work required to be completed by the Purchaser associated with alternate removal requirements.

Charges will be debited to the Purchaser's timber sale account.

Upon acceptance of the alternative removal requirements, the affected Unit(s) will be removed from the Sale Area under BT6.36.

Title to material included in the alternate removal agreement shall remain with the Forest Service.

SPECIFICATIONS PURSUANT TO CT2.21# - UTILIZATION AND REMOVAL OF NON-SAWTIMBER PRODUCTS. (8/2006)

<u>Unit/Subdivision</u>	<u>Products to be Removed</u>
<u>N/A</u>	1. All limbs and tops that are attached after skidding to whole trees and portions of trees meeting specifications for Non-Sawtimber Products. Limbwood from Sawtimber is considered Logging Slash and shall be treated under CT6.7#.
<u>21, 21 O, 955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, 979</u>	2. All tops that are attached after skidding to whole trees and portions of trees meeting specifications for Sawtimber products.

CT2.35# DESIGNATION OF TIMBER AND SUBDIVISION/PAYMENT UNIT BOUNDARIES
 (8/2007) Trees are designated for cutting under BT2.35# only if designated as shown in the Timber Designation table below. The boundaries of Subdivisions/Payment Units are designated as shown in the Boundary Designation table below. Trees used for boundary designation are not to be cut.

SPECIFICATIONS PURSUANT TO CT2.35# - DESIGNATION OF TIMBER AND SUBDIVISION/PAYMENT UNIT BOUNDARIES

Timber Designation Table

<u>Unit/ Subdivision/Area/ Payment Unit</u>	<u>Tree Paint Color</u>	<u>Designation or Specification</u>
<u>Sale Area</u>	<u>Blue or Green</u>	Roadside Hazard Tree. Notwithstanding BT2.32 all dead and unstable live trees which are leaning towards a road or are otherwise hazardous to a road, and are sufficiently tall to reach Purchaser's landings or the roadbed of National Forest System roads within Sale Area, shall be felled by Purchaser when Marked in the specified paint color above and below stump height by Forest Service in advance of felling any other timber in the vicinity. Pieces meeting Utilization Standards from such dead and unstable live trees shall be removed unless Purchaser is notified in writing that removal would cause unacceptable damage to areas requiring special protection such as residual timber, roads, administrative sites, streamside management zones, and areas identified on Sale Area Map or on the ground.
<u>21 & 21 O</u>	<u>Blue</u>	Individual Tree Mark. Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color.

<u>955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, & 979</u>	<u>White</u>	Leave Tree Mark. All live <coniferous trees> are designated for cutting unless Marked as leave trees. Leave trees are Marked above and below stump height with the specified paint color. Sale Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.
<u>N/A</u>	<u>N/A</u>	Salvage Area. In addition to Roadside Hazard Trees, other dead and dying timber standing or down that meets the size specification in AT2, may be designated for cutting in Salvage Areas shown on the Sale Area Map when Marked with the specified paint color in advance of felling other timber in the vicinity.
Sale Area	<u>White</u>	Wildlife Trees. Notwithstanding the designation for cutting under BT2.31, BT2.33, BT2.34, or BT2.35, trees which are identified by standard Forest Service metal wildlife tree sign or painted with the specified paint color on the uphill and downhill side, shall be left uncut. In event such trees are destroyed in Purchaser's Operations, Forest Service may designate alternate trees to be saved.
<u>21 & 21 O</u>		Designation by Spacing CT2.351#
<u>N/A</u>		Designation by Species and Diameter, CT2.352#
<u>N/A</u>		Designation by Damage Class, CT2.353#
<u>N/A</u>		Designation by Row Spacing, CT2.354#

Subdivision/Payment Unit Boundary Designation Table

Subdivision/Payment Unit	Boundary Paint Color	Boundary Designation
<u>21 & 21 O</u>	Orange	- <u>Boundary line trees are Marked at eye level with three (3) horizontal slash marks and a spot at ground level with the eye level marks facing into the interior of the subdivisions.</u> - <u>Yellow boundary posters with sale name and Subdivisions are stapled to boundary trees and face either inward, or outward at locations along the subdivision boundary.</u>
<u>955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, & 979</u>	<u>White</u>	- <u>Boundary line trees are Marked at eye level with three (3) horizontal slash marks and a spot at ground level with the eye level marks facing into the interior of the subdivisions.</u> - <u>Orange boundary posters with sale name and Subdivisions are stapled to boundary trees and face inward Subdivision corners.</u>

CT2.351# - DESIGNATION BY SPACING. (4/04) Within Payment Unit(s) 21 & 21 O, as shown on Sale Area Map, all live biomass size (between 3.0" dbh and 9.9" dbh) coniferous trees, except trees Marked with white or orange paint or described to be left uncut, that meet Utilization Standards and one or more of the following criteria are designated for cutting.

(a) The required spacing is a maximum average of 30 feet. The tree is within 15 feet of a live biomass size coniferous, or deciduous tree that has a larger stump diameter than it; and the larger tree is not designated for cutting.

(b) The tree is within 15 feet of a live coniferous tree greater than or equal to 11 inches stump diameter; and this tree is not designated for cutting.

(c) The tree is Marked with blue paint.

Distances are measured horizontal distance, outside bark stump height to outside bark stump height. Stump diameter is measured outside bark at stump height in a horizontal plane and is the average of a measurement across the short axis through the true center of the stump and a second measurement at right angles to the short axis.

All deciduous trees shall be left as leave trees, unless Marked with blue paint. No tree greater than or equal to 11 inches stump diameter shall be cut, unless Marked with blue paint. Cutting unit boundaries and other trees that shall be left uncut are Marked with white or orange paint.

Purchaser and Forest Service shall agree to skid trail location under BT6.422. Skid trails shall be no greater than 12 feet wide with a 100 foot spacing. Quantities of trees located in skid trails are not Included Timber under AT2.

CT4.211 - DOWNPAYMENT. (6/07) The downpayment amount shown in AT15 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to BT9.4, transferred to other timber sales, or refunded until (a) stumpage value representing 25 percent of the total bid value of the timber sale is shown on Timber Sale Account to have been cut, removed, and paid for, or (b) the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpayment, or (c) if 36 CFR 223.49(e) is applicable, the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpayment. For lump sum timber sales, the downpayment may be applied to payment for release of the single payment unit.

If Forest Service makes a determination that this contract should not have been included under increased downpayment requirements (36 CFR 223.49(e)), the downpayment shall be revised and applied in accordance with 36 CFR 223.49(f).

CT4.212 - TEMPORARY REDUCTION OF DOWNPAYMENT. (8/09) Notwithstanding BT4.211 or CT4.211, upon the Purchaser's written request Forest Service may temporarily reduce the downpayment when Purchaser's scheduled operations are delayed or interrupted for 30 or more consecutive days, or the contract term is extended for 30 or more consecutive days for any of the following reasons:

- (1) Forest Service requests or orders Purchaser to delay or interrupt scheduled operations for reasons other than breach;
- (2) Purchaser interrupts or delays scheduled operations to work on a sale designated by the Forest Service as in urgent need of harvesting; or
- (3) An adjustment of the contract term authorized upon a determination of substantial overriding public interest, including a market-related contract term addition, or an urgent removal contract term extension under 36 CFR 223.53.

When Purchaser is not cutting or removing timber under contract during a qualifying period of delay, interruption, or extension listed above the downpayment may be reduced to \$1000 or 2 percent of the downpayment amount stated in the contract, whichever is greater. The Purchaser must restore the downpayment to the full amount stated in the contract within 15 days from receipt of the bill for collection and written notice from the contracting officer that the basis for temporarily reducing the downpayment no longer exists. Purchaser shall not cut or remove timber on a contract where the downpayment has been temporarily reduced until the downpayment amount stated in the contract is fully restored.

CT5.11# - REQUIREMENTS OF RIGHTS-OF-WAY AND LAND USE AGREEMENTS. (5/2008) Contract requirements for Rights-of-Way and land use agreements are listed in the following table.

SPECIFICATIONS PURSUANT TO CT5.11# - REQUIREMENTS OF RIGHTS-OF-WAY AND LAND USE AGREEMENTS

<p><u>RIGHTS-OF-WAY CONSTRUCTION CLEARING:</u> Provisions of BT2.1 and BT2.2 notwithstanding, timber on listed rights-of-way is not Included Timber. Existing stumps grubbed and scattered within National Forest Boundary</p>			
<p><u>REQUIREMENTS OF RIGHTS-OF-WAY.</u> Purchaser's obligations under BT5.11 shall apply to roads or road segments listed below</p>			
<u>Road Number</u>	<u>Road Name</u>	<u>Termini</u>	<u>Grantor</u>
SPI-LA	N/A	End Temp Road to MP 0.34.	Sierra Pacific Ind.
Temp Road	N/A	Portion of the N.E.1/4S.E. 1/4,Section 28,T.25N. R.9E.	Ken Henrici and T.I.C.

ENCROACHMENT CONSTRUCTION N/A

REQUIREMENTS OF TEMPORARY LAND USE AGREEMENT: Purchaser's Operations and use of identified land listed below shall be limited by the related easement and stipulations unless Purchaser makes other arrangements which will not infringe on or adversely affect the grantees rights. The land use agreement is available in the offices of the Forest Supervisor and District Ranger.

Temporary Land Use Agreement

Cost share agreement reached in March 2010, paperwork pending.

Grantor

Sierra Pacific Ind.

Agreement #2 signed and dated 6/10/2010 and on file at Mt. Hough District Office. Direct inquiries to Elaine Vercruysse.

Ken Henrici and T.I.C.

SAMPLE

FSM 5460

SUPPLEMENT NO. 9

**SPI-PLUMAS ROAD RIGHT-OF-WAY
CONSTRUCTION AND USE AGREEMENT**

**SIERRA PACIFIC INDUSTRIES, SIERRA PACIFIC HOLDING COMPANY,
R H EMMERSON AND SON LLC - UNITED STATES OF AMERICA**

Left Side Fact Sheet

**Mt Hough Ranger District
Plumas County, California**

PLUMAS NATIONAL FOREST

**FACT SHEET FOR
SUPPLEMENT NO. 9 TO THE SPI-PLUMAS
RIGHT-OF-WAY CONSTRUCTION AND USE AGREEMENT.**

REVIEWED BY:

I have reviewed the facts and figures provided in this Fact Sheet and in the Proposed Supplement and certify that, to the best of my knowledge, these facts appear reasonable for the areas involved. The actions initiated by this Supplement conform to the management objectives for this area.



Engineering Representative
Plumas National Forest

3/8/2010

Dated

SAMPLE

**FACT SHEET FOR
SUPPLEMENT NO. 9 TO THE SPI-PLUMAS
RIGHT-OF-WAY CONSTRUCTION AND USE AGREEMENT**

I. AREA

This Supplement covers one area on the Mount Hough Ranger District on the Plumas National Forest.

Road Segments 1 through 8 are shown in COST SHARE (4) and NON-COST SHARE (4) ROW Plats for the Supplement areas shown below:

EXHIBIT	MERIDIAN	TOWNSHIP	RANGE	SECTION	ROAD NO.	ROAD SEG.	ROAD LENGTH MILES
A-1	MT DIABLO	T. 25 N.	R. 09 E.	28,33	25N46A	2	0.22
A-2	MT DIABLO	T. 25 N.	R. 09 E.	28	25N46A	3	0.20
A-3	MT DIABLO	T. 25 N.	R. 09 E.	33	25N09E33	2	0.01(NCSE)
A-4	MT DIABLO	T. 25 N.	R. 09 E.	33	25N09E33	4	0.04(NCSE)
A-5	MT DIABLO	T. 25 N.	R. 09 E.	28	25N12A-3	1	0.02(NCSE)
A-6	MT DIABLO	T. 25 N.	R. 09 E.	28	25N12A-5	2	0.08(NCSE)
B-1	MT DIABLO	T. 25 N.	R. 08 E.	10,15	26N18	1	1.98
B-2	MT DIABLO	T. 25 N.	R. 08 E.	10	26N18F	1	1.40

II. COOPERATING PARTIES.

This Supplement involves SIERRA PACIFIC INDUSTRIES (SPI) and THE UNITED STATES OF AMERICA (USA). No other parties shall be sharing in this Supplement.

III. ROADS TO BE COST SHARED.

- Road No. 25N46A-2, Wells Road was constructed by Cooperator's Predecessor, on Cooperator land, from South Property Line in the NE¼ NW¼ NE¼, Section 33, T25N, R09E, to the Junction with Road 25N09E33 in the SE¼ SW¼ SE¼, Section 28, T25N, R09E. Shown in **Green** on Exhibit A. This Segment is approximately 0.22 miles in length. The Government will receive a cost share easement. The Cooperator shall receive underlying land value and construction credit for this segment.
- Road No. 25N46A-3, Wells Road was constructed by Cooperator's Predecessor, on Cooperator land, from the Junction with Road 25N09E33-1 in the SE¼ SW¼ SE¼, Section 28, T25N, R09E, to the East Property Line in the NE¼ SW¼ SE¼, Section 28 T25N, R09E. Shown in **Blue** on Exhibit A. This Segment is approximately 0.21 miles in length. The Government will receive a cost share easement. The Cooperator shall receive underlying land value and construction credit for this segment.
- Road No. 25N0933-2, Governor Road was constructed by Unknown parties, on Government land, from Road 25N3309E-1 at the West Property Line in the NW¼ NE¼ NE¼, Section 33 T25N, R09E, to Road 25N3309E33-3 at the West Property Line of MS 6464 in the NW¼ NE¼ NE¼, Bounded by MS 6464, Section 33, T25N, R09E. Shown in **Orange** on Exhibit A This Segment is approximately 0.01 miles in length. The Cooperator will receive a non-cost share easement. The Government shall receive underlying land value credit for this segment.
- Road No. 25N0933-4, Governor Road was constructed by Unknown parties, on Government land, from Road 25N09E33-3 at the South Property Line, of Governor and Blue Point Lodes MS 6464, in the NW¼ NE¼ NE¼, Section 33 T25N, R09E, to the South Property Line of MS 6464 in the NW¼ NE¼ NE¼, Section 33, T25N, R09E. Shown in **Brown** on Exhibit A This Segment is approximately 0.04 miles in length. The Cooperator will receive a cost share easement. The Government shall receive underlying land value credit for this segment.

**FACT SHEET FOR
SUPPLEMENT NO. 9 TO THE SPI-PLUMAS
RIGHT-OF-WAY CONSTRUCTION AND USE AGREEMENT**

5. Road No. 25N12A-3, Blackhawk Spur Road was constructed by Cooperator's Predecessor, on Government land, from Road segment 25N12A-2 in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 28, T25N, R09E, to the South Property Line in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 28, T25N, R09E. Shown in **Black** on Exhibit A. This Segment is approximately 0.02 miles in length. The Cooperator will receive a non-cost share easement. The Government shall receive underlying land value credit for this segment.
6. Road No. 25N12A-5, Blackhawk Spur Road was constructed by Cooperator's Predecessor, on Government land, from the South Property Line in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Section 28, T25N, R09E, to the North property Line in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Section 28, T25N, R09E. Shown in **Dashed Black** on Exhibit A. This Segment is approximately 0.08 miles in length. The Cooperator will receive a non-cost share easement. The Government shall receive underlying land value for this segment.
7. Road No. 26N18, Greenville Road was constructed by Government, on Government land, from County Road 319 in the NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 15, T25N, R08E, to Greenville Road 26N18F in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 10, T25N, R08E. Shown in **Black** on Exhibit B. This Segment is approximately 1.98 miles in length. The Cooperator will receive a cost share easement. The Government shall receive underlying land value and Construction credit for this segment.
8. Road No. 26N18F, Greenville Road was constructed by Cooperator's Predecessor, on Government land, from Greenville Road 26N18 in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 10, T25N, R08E, to the North Property Line in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 16, T25N, R08E. Shown in **Dashed Blue** on Exhibit B. This Segment is approximately 1.40 miles in length. The Cooperator will receive Construction Credit and a cost share easement. The Government shall receive underlying land value for this segment.

IV. HISTORY OF EXISTING ROADS.

All roads included in this Supplement exist; the Government, Cooperator, or Unknown parties constructed the roads. There are eight (8) road segments, on five (5) roads that access Government and Cooperator land. The Government and Cooperator will receive Cost Share Easements on four (4) road segments and the Cooperator will receive Non-Cost Share Easements on four (4) segments. Both parties will receive underlying land value for their respective easements.

V. PLANS AND SPECIFICATIONS.

Plans and Specifications shall be located at the U.S. Forest Supervisors Office, Plumas National Forest and at the Cooperator's Office in Bartel, California.

Excess Cost Payment Agreement

- I. Cooperator and Government have executed supplement Number 9 to the above agreement. As a result of this Supplement, \$1,522 in excess cost is due to the Cooperator.
- II. It is agreed that the Cooperator shall recover its excess costs of \$1,522 due from Government for this Supplement No. 9 as follow:
 - 1. Cooperator shall add its excess cost of \$1,522 to the Cooperator balance of \$360,180 from Supplement No. 6A, leaving a Cooperator Excess of \$360,180 in this agreement.
 - 2. The current Excess of \$360,180 due the Cooperator shall be amortized in accordance with Section 6, Paragraph (d) of this agreement at the rates mutually agreed upon, as timber or other products from Government lands are transported over the roads constructed or reconstructed by the Cooperator.
- III. Government and Cooperator agree to keep each other informed of activities that affect the payment of these excess cost obligations.

For the Government:

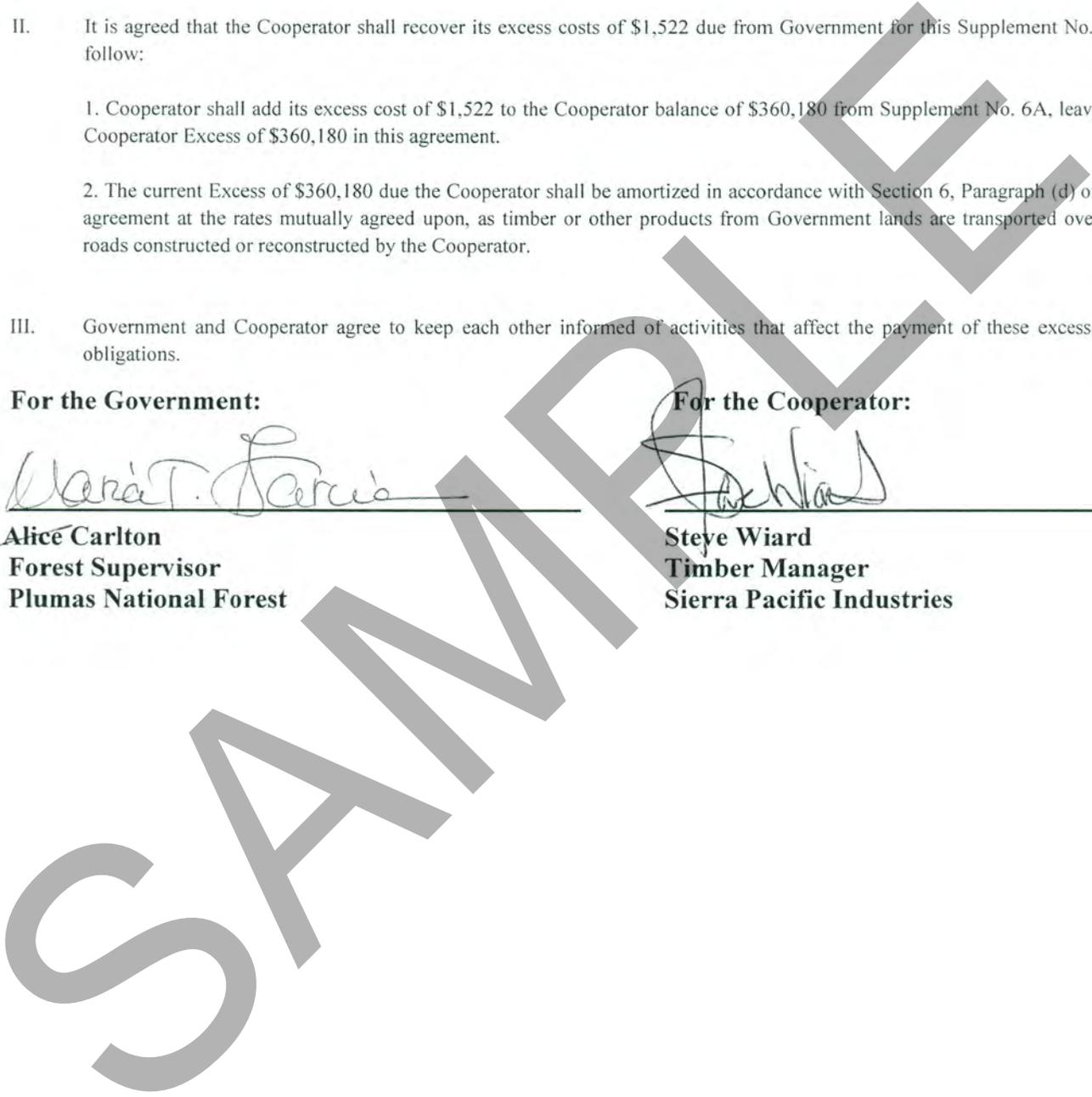
For the Cooperator:

Alice Carlton

Steve Wiard

ja **Alice Carlton**
Forest Supervisor
Plumas National Forest

Steve Wiard
Timber Manager
Sierra Pacific Industries



FSM 5460

SUPPLEMENT NO. 9

**SPI-PLUMAS ROAD RIGHT-OF-WAY
CONSTRUCTION AND USE AGREEMENT**

**SIERRA PACIFIC INDUSTRIES, SIERRA PACIFIC HOLDING COMPANY,
R H EMMERSON AND SON LLC - UNITED STATES OF AMERICA**

Right Side Cost Sheet

**Mt Hough Ranger District
Plumas County, California**

PLUMAS NATIONAL FOREST

SUPPLEMENT NO. 9 TO THE SPI PLUMAS ROAD RIGHT-OF-WAY CONSTRUCTION AND USE AGREEMENT

WHEREAS, SIERRA PACIFIC INDUSTRIES, hereinafter referred to as “Cooperator” and the UNITED STATES OF AMERICA, by and through the Regional Forester, Forest Service, Department of Agriculture, hereinafter referred to as “Government”, on the first day of July, 1994, entered into a Road Right of Way Construction and Use Agreement, hereinafter referred to as “Agreement”, providing for construction and use of roads within the SPI-PLUMAS Agreement Area within and adjacent to the Plumas National Forest in Butte and Plumas Counties, State of California, and

WHEREAS, said Agreement provides that a supplement thereto will be executed to cover any jointly financed roads, and

WHEREAS, the parties have now determined that the roads hereinafter described are to be jointly financed roads,

NOW, THEREFORE, in accordance with the provisions of said agreement, the parties agree as follows:

1. IDENTIFICATION OF ROADS.

The roads to be jointly financed are as follow:

1. Road No. 25N46A-2, Wells Road was constructed by Cooperator’s Predecessor, on Cooperator land, from South Property Line in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 33, T25N, R09E, to the Junction with Road 25N09E33 in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 28, T25N, R09E. Shown in **Green** on Exhibit A. This Segment is approximately 0.22 miles in length. The Government will receive a cost share easement. The Cooperator shall receive underlying land value and construction credit for this segment.
2. Road No. 25N46A-3, Wells Road was constructed by Cooperator’s Predecessor, on Cooperator land, from the Junction with Road 25N09E33-1 in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 28, T25N, R09E, to the East Property Line in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 28 T25N, R09E. Shown in **Blue** on Exhibit A. This Segment is approximately 0.21 miles in length. The Government will receive a cost share easement. The Cooperator shall receive underlying land value and construction credit for this segment.
3. Road No. 25N0933-2, Governor Road was constructed by Unknown parties, on Government land, from Road 25N3309E-1 at the West Property Line in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 33 T25N, R09E, to Road 25N3309E33-3 at the West Property Line of MS 6464 in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Bounded by MS 6464, Section 33, T25N, R09E. Shown in **Orange** on Exhibit A This Segment is approximately 0.01 miles in length. The Cooperator will receive a non-cost share easement. The Government shall receive underlying land value credit for this segment.
4. Road No. 25N0933-4, Governor Road was constructed by Unknown parties, on Government land, from Road 25N09E33-3 at the South Property Line, of Governor and Blue Point Lodes MS 6464, in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 33 T25N, R09E, to the South Property Line of MS 6464 in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 33, T25N, R09E. Shown in **Brown** on Exhibit A This Segment is approximately 0.04 miles in length. The Cooperator will receive a cost share easement. The Government shall receive underlying land value credit for this segment.

**FACT SHEET FOR
SUPPLEMENT NO. 9 TO THE SPI-PLUMAS
RIGHT-OF-WAY CONSTRUCTION AND USE AGREEMENT**

5. Road No. 25N12A-3, Blackhawk Spur Road was constructed by Cooperator's Predecessor, on Government land, from Road segment 25N12A-2 in the SE¼ SW¼ SW¼, Section 28, T25N, R09E, to the South Property Line in the SE¼ SW¼ SW¼, Section 28, T25N, R09E. Shown in **Black** on Exhibit A. This Segment is approximately 0.02 miles in length. The Cooperator will receive a non-cost share easement. The Government shall receive underlying land value credit for this segment.

6. Road No. 25N12A-5, Blackhawk Spur Road was constructed by Cooperator's Predecessor, on Government land, from the South Property Line in the SW¼ SE¼ SW¼, Section 28, T25N, R09E, to the North property Line in the SW¼ SE¼ SW¼, Section 28, T25N, R09E. Shown in **Dashed Black** on Exhibit A. This Segment is approximately 0.08 miles in length. The Cooperator will receive a non-cost share easement. The Government shall receive underlying land value for this segment.

7. Road No. 26N18, Greenville Road was constructed by Government, on Government land, from County Road 319 in the NE¼ SE¼, Section 15, T25N, R08E, to Greenville Road 26N18F in the SE¼ SE¼ SE¼, Section 10, T25N, R08E. Shown in **Black** on Exhibit B. This Segment is approximately 1.98 miles in length. The Cooperator will receive a cost share easement. The Government shall receive underlying land value and Construction credit for this segment.

8. Road No. 26N18F, Greenville Road was constructed by Government, on Government land, from Greenville Road 26N18 in the SE¼ SE¼ SE¼, Section 10, T25N, R08E, to the North Property Line in the NE¼ NE¼ NE¼, Section 16, T25N, R08E. Shown in **Dashed Blue** on Exhibit B. This Segment is approximately 1.40 miles in length. The Cooperator will receive a cost share easement. The Government shall receive underlying land value and Construction credit for this segment.

2. PLANS AND SPECIFICATIONS

Plans and Specifications shall be located at the U.S. Forest Supervisors Office, Plumas National Forest and at the Cooperator's Office in Bartel, California.

3. CONSTRUCTION PROGRAM AND AGREED COSTS:

All costs involved are based on GOVERNMENT UNDERLYING LAND VALUE COSTS.

SEGMENT	USA \$	SPI \$	TOTAL \$	RD. NO.	SEG	USA CONST	SPI CONST	SURFACE	COST/ MILE
1	\$0	\$8,393	\$8,393	25N46A-2	2	0.00	0.00	NATIVE	\$35,000
2	\$0	\$7,630	\$7,630	25N46A-3	3	0.00	0.00	NATIVE	\$35,000
3	\$32	\$0	\$32	25N09E33	2	0.00	0.00	NATIVE	\$35,000
4	\$126	\$0	\$126	25N09E33	4	0.00	0.00	NATIVE	\$35,000
5	\$63	\$0	\$63	25N12A	3	0.00	0.00	NATIVE	\$35,000
6	\$252	\$0	\$252	25N09E28	5	0.00	0.00	NATIVE	\$35,000
7	\$115,137	\$0	\$115,137	26N18	1	0.00	0.00	AGGREGATE	\$35,000
8	\$4,410	\$0	\$4,410	26N18F	1	0.00	0.00	NATIVE	\$35,000
MGMT	\$0	\$8,200	\$8,200						
ROW	\$0	\$2,225	\$2,225						
TOTALS	\$120,020	\$26,448	\$146,468						

**SUPPLEMENT NO. 9 TO THE SPI-PLUMAS ROAD
RIGHT-OF-WAY CONSTRUCTION AND USE AGREEMENT**

4. BASIS OF COST SHARING

The parties agree that costs in this Supplement will be shared in proportion to the suitable and unsuitable land in the ownership tributary to each road segment.

ROAD NUMBER	USA COSTS	SPI COSTS	AGREED COSTS	USA %	USA SHARE	SPI %	SPI SHARE	EXCESS USA	EXCESS SPI
25N46A-2	\$0	\$8,393	\$8,393	81.2%	\$6,813	18.8%	\$1,580	(6,813)	6,813
25N46A-3	\$0	\$7,630	\$7,630	85.3%	\$6,505	14.7%	\$1,125	(6,505)	6,505
25N09E33-2	\$32	\$0	\$32	0.0%	\$0	100.0%	\$32	32	(32)
25N09E33-4	\$126	\$0	\$126	0.0%	\$0	100.0%	\$126	126	(126)
25N12A-3	\$63	\$0	\$63	0.0%	\$0	100.0%	\$63	63	(63)
25N12A-5	\$252	\$0	\$252	0.0%	\$0	100.0%	\$252	252	(252)
26N18-1	\$115,137	\$0	\$115,137	84.7%	\$97,529	15.3%	\$17,608	17,608	(17,608)
26N18F-1	\$4,410	\$0	\$4,410	45.6%	\$2,012	54.4%	\$2,398	2,398	(2,398)
M G M T.	\$0	\$8,200	\$8,200	64.2%	\$5,264	35.8%	\$2,936	(5,264)	5,264
R O W P L A T S	\$0	\$2,225	\$2,225	16.9%	\$375	83.1%	\$1,850	(375)	375
T O T A L S	\$120,020	\$26,448	\$146,468	80.9%	\$118,498	19.1%	\$27,970	\$1,522	(\$1,522)

5. METHOD OF PAYMENT

Unless amortized by other credits, it is intended that the Government shall recover any Government excess cost incurred under this supplement according to Section 6 of this agreement at the rates mutually agreed upon, as timber or other products from Cooperators lands are transported over the roads constructed or reconstructed by the Government.

6. CONTINUED EFFECTIVENESS OF AGREEMENT

Except as otherwise specifically agreed herein, all terms, provisions, and agreements of the aforesaid Agreement shall be and continue in full force and effect.

IN WITNESS WHEREOF, The parties hereto have caused this 9th Supplement to be properly executed by their authorized representatives on this 29 day of, March, 2010.

SIERRA PACIFIC INDUSTRIES

by Daniel J. Tomaszewski
DANIEL J. TOMASCHESKI
Vice President Resources

UNITED STATES OF AMERICA

by George Kulick
George Kulick
Director, Engineering
P.S.W. Region, Forest Service
Department of Agriculture

FSM 5460

SUPPLEMENT NO. 9

SPI-PLUMAS ROAD RIGHT-OF-WAY
CONSTRUCTION AND USE AGREEMENT

SIERRA PACIFIC INDUSTRIES, SIERRA PACIFIC HOLDING COMPANY,
R H EMMERSON AND SON LLC - UNITED STATES OF AMERICA

Road Segment Location Maps

And

Tributary Area Maps

Mt Hough Ranger District

Plumas County, California

PLUMAS NATIONAL FOREST

EXHIBIT "A" ROAD LOCATION MAP - SIERRA PACIFIC - PLUMAS NF SUPPLEMENT NO. 9

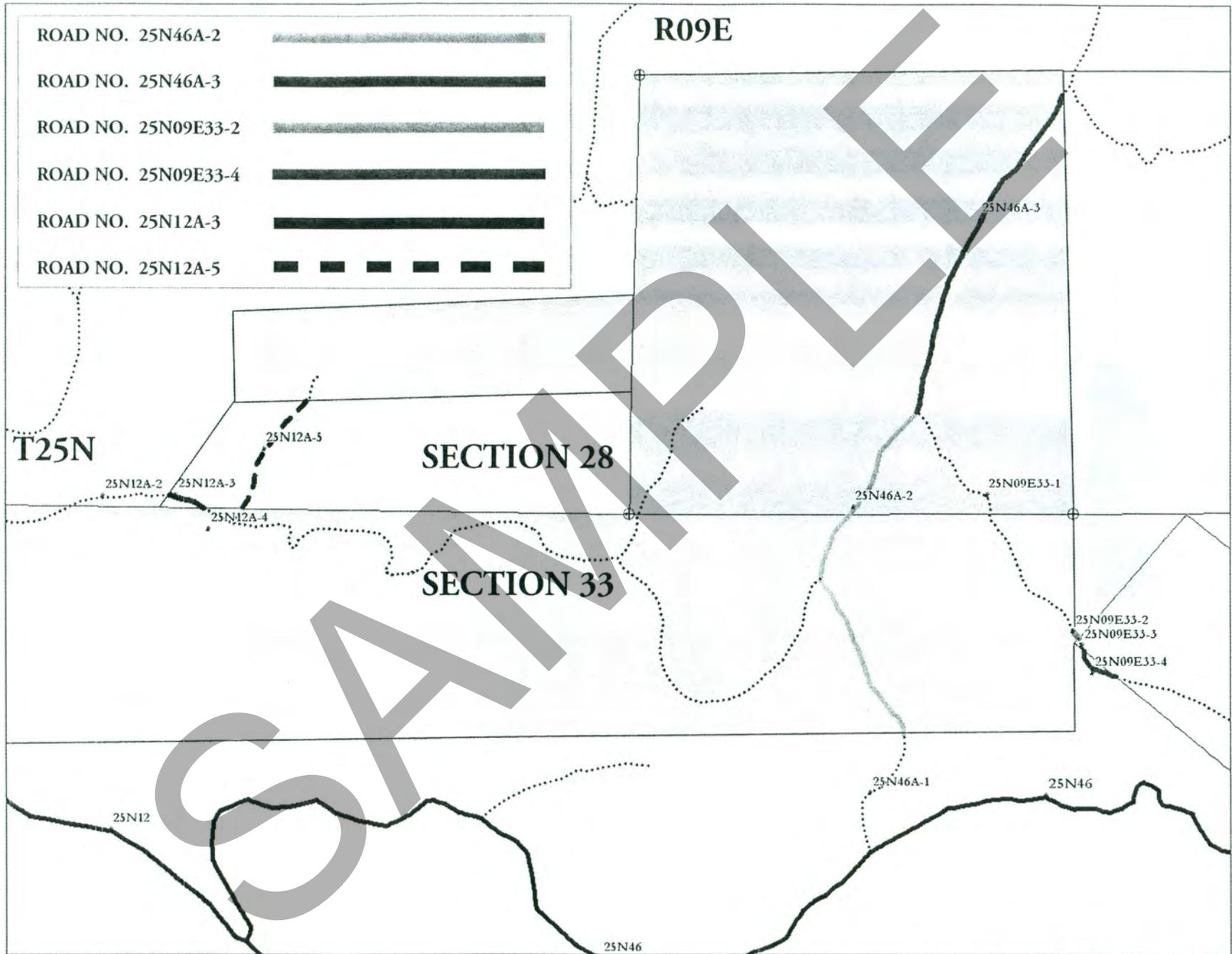
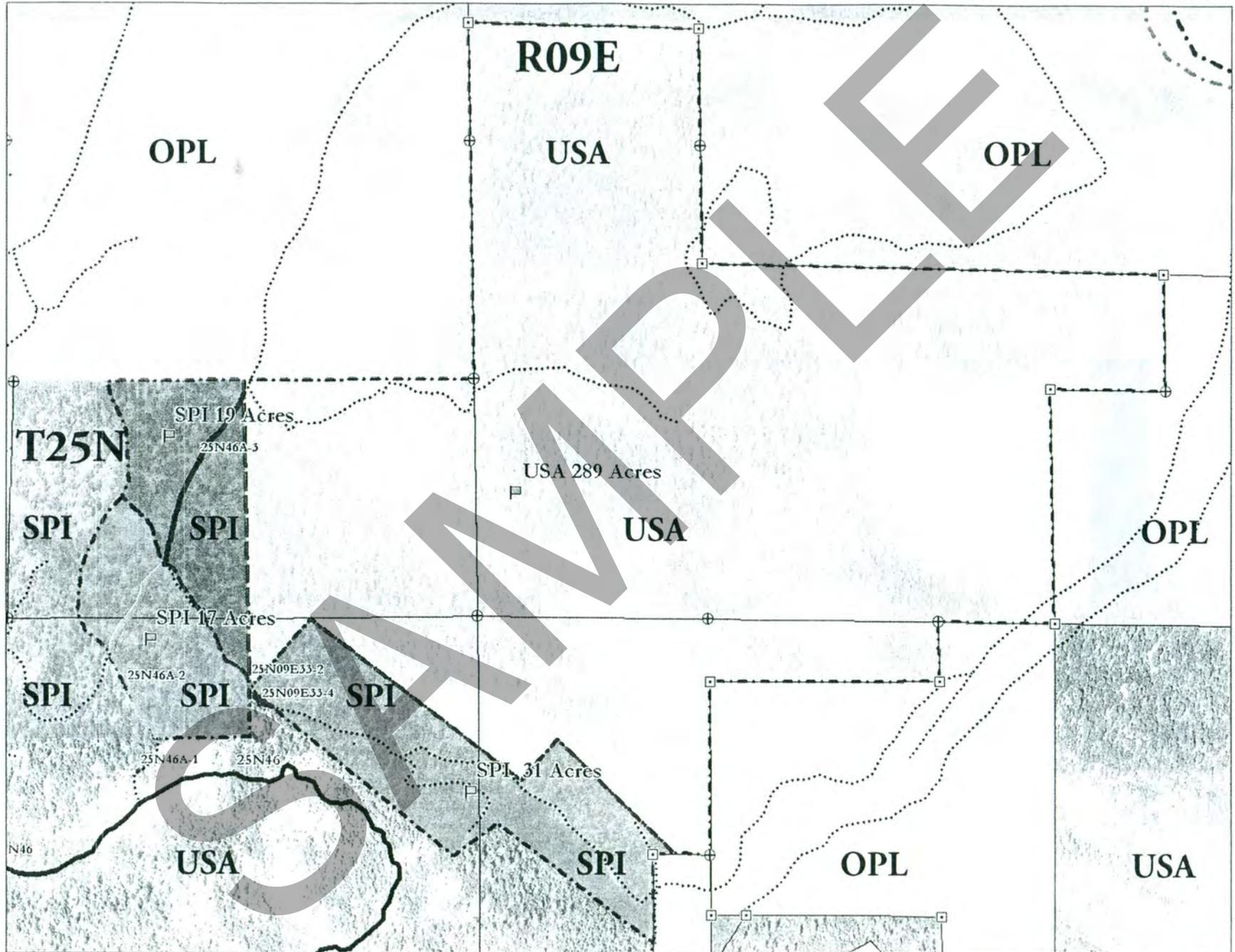


EXHIBIT "A" TRIBUTARY AREA MAP - SIERRA PACIFIC - PLUMAS NF SUPPLEMENT NO.9



UNITED STATES GOVERNMENT LANDS
SIERRA PACIFIC INDUSTRIES LANDS
OTHER PRIVATE PARTY LANDS

MN (14.7° E)

0 200 400 600 800 1000 1200 1400 ft

ROAD LICENSE AGREEMENT
Plumas National Forest

Ken Henrici and T.I.C., hereinafter referred to as "Licensor's," do hereby grant unto the UNITED STATES OF AMERICA and its assigns, hereinafter referred to as "Licensee," a license for the maintenance, and use of a road, hereinafter referred to as "right-of-way", over the following described parcel of land, County of Plumas, State of California:

Portion of the
N.E. ¼ S.E. ¼, Section 28, T.25N. R.9 E.

The location of the right-of-way is shown on the location map attached as Exhibit A. The road use requirements are described in the Supplemental Maintenance Agreement attached as Exhibit B.

The width of said right-of-way shall be that of the existing road. The purpose of this license agreement is to provide temporary access to National Forest land and to facilitate the removal of timber from a timber sale currently referred to as the Butterfly Project.

The license shall begin with the date hereof and end December 31, 2012.

The Licensee agrees to require that the Purchaser of the timber from the Butterfly Project area shall, prior to the exercise of any rights under this License Agreement, provide to the Licensor, a certificate of insurance evidencing the following:

- Workers' Compensation Insurance with minimum limits of no less than \$1,000,000;
- Commercial General Liability (CGL) insurance shall be maintained with minimum limits of \$1,000,000 each occurrence; \$2,000,000 General Aggregate; and \$1,000,000 Products/Completed Operations Aggregate. CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 or equivalent and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract). Such CGL insurance shall name and include **Henrici and T.I.C.**, and all subsidiaries and affiliates of both, as Additional Insureds using ISO additional insured endorsement CG 20 10 11 85 or its equivalent; and
- Commercial Automobile Liability (CAL) insurance shall be maintained with minimum limits of \$1,000,000 per accident. CAL insurance shall include coverage for any owned, non-owned, leased or hired vehicle written on an insurance industry standard form (CA 00 01) or equivalent.
- Loggers' Broad Form Property Damage (LGPD) insurance, with minimum limits of \$1,000,000 each occurrence. Such LGPD insurance shall name and include, and all subsidiaries and affiliates of both as Additional **Henrici and T.I.C.**, Insureds using ISO additional insured endorsement CG 20 10 11 85 or its equivalent.

- Purchaser of the Butterfly Project will pay a use rate of \$2.00/mbf (\$1.00/ccf) based on actual saw-log volume when using segment of temporary road with total value paid within 30 days of completion of haul.
- Complete logging operations and haul by December 31, 2012.

The Licensee is liable for bodily injury and property damages caused by the tortuous acts of its officers and employees acting within the course and scope of their employment in accordance with the provisions of the Federal Tort Claims Act (28 U.S.C. SS 1346(b), 2671-2680).

Title to all timber on said right-of-way shall remain in Licensor. Licensee agrees that any timber cut in the reconstruction of the road by itself, its timber Purchaser, or permittees, shall, unless otherwise agreed to by Licensor, be minimal, be cut into logs of standard length and shall be decked at convenient points along the right-of-way for disposal by the Licensor. Licensee shall notify Licensor of timber species, and amounts of timber to be cut prior to cutting.

IN WITNESS WHEREOF, the above-named parties have hereunto subscribed their names to the License Agreement this 10 day of JUNE, 2010.

Ken Henrici

By: *Ken Henrici*

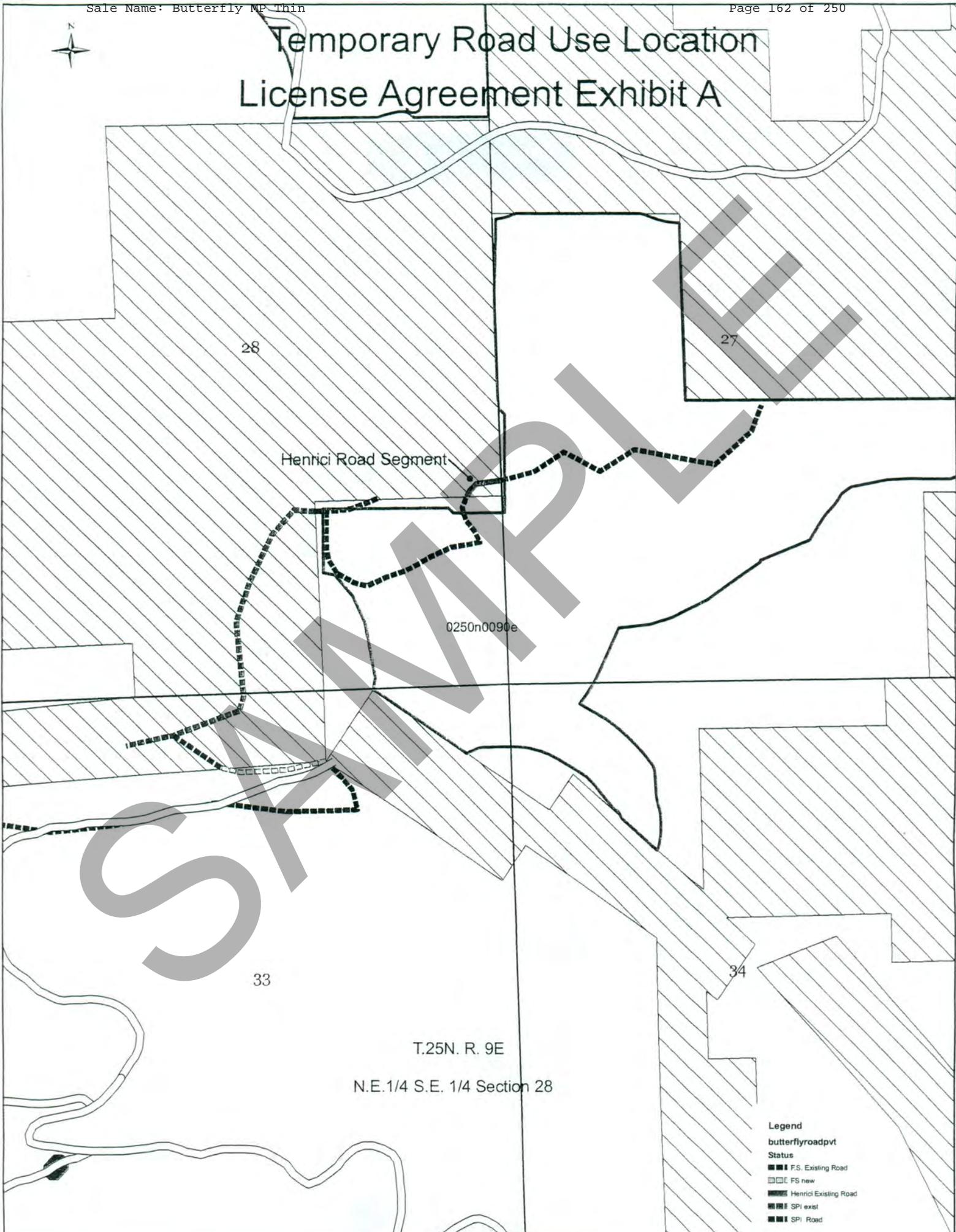
PLUMAS NATIONAL FOREST

By: *Lauren Carlton*

Lauren Carlton
 ALICE B. CARLTON
 Plumas National Forest Supervisor



Temporary Road Use Location License Agreement Exhibit A



28

27

Henrici Road Segment

0250n0090e

33

34

T.25N. R. 9E

N.E. 1/4 S.E. 1/4 Section 28

Legend

butterflyroadpvt

Status

▣ F.S. Existing Road

▣ F.S. new

▣ Henrici Existing Road

▣ SPI exist

▣ SPI Road

EXHIBIT B Supplemental Road Maintenance Agreement License Agreement with Henrici and T.I.C.

ROAD CONDITION DESCRIPTION:

This agreement is for the temporary use of the road location described and located on Exhibit A. The road and the current condition are as follows: All construction requirements are temporary road construction items.

The segment of road which contours the slope of the NE1/4 SE ¼ of Section 28, T. 25N. R9E referred to as the un-named road.

ROAD MAINTENANCE PLAN:

The road included in this agreement will be maintained in accordance with the following requirements. The specifications for these requirements are noted in APPLICABLE MAINTENANCE SPECIFICATIONS

Seg.	Road	Termini		Miles	Applicable Pre-haul Road Maintenance Specifications								
		From	To		801	802	803	805	806	807	808	809	810
	Un-named	MP 0.0	MP 0.1	.11			X						

Seg.	Road	Termini		Miles	Applicable During-haul Road Maintenance Specifications								
		From	To		801	802	803	805	806	807	808	809	810
	Un-named	MP 0.0	MP .1	.11			X		X				

Seg.	Road	Termini		Miles	Applicable Post-haul Road Maintenance Specifications								
		From	To		801	802	803	805	806	807	808	809	810
	Un-named	MP 0.0	MP .1	.11			X						

APPLICABLE MAINTENANCE SPECIFICATIONS

SPECIFICATION T-801 SLIDE AND SLUMP REPAIR

DESCRIPTION

1.1 Slide removal is the removal from Roadway and disposal of any material, such as soil, rock, and vegetation that cannot be routinely handled by a motor grader during Ditch Cleaning, T-802, and Surface Blading, T-803 Operations. Slump repair is the filling of depressions or washouts in Roadway which cannot be routinely filled by a motor grader during Surface Blading, T-803 Operations. Slide removal and slump repair includes excavation, loading, hauling, placing, and compacting of waste or replacement material and the development of disposal or borrow areas.

REQUIREMENTS

3.1 Slide material, including soil, rock and vegetative matter which encroaches into the Roadway, shall be removed. The slope which generated the slide material shall be reshaped during the removal of the slide material with the excavation and loading equipment. Slide material deposited on the fill slope and below the Traveled Way will not be removed unless needed for slope stability or to protect adjacent resources.

Surface and Base Courses shall not be excavated during slide removal operations.

Slide material which cannot be used for other beneficial purposes shall be disposed of at agreed to disposal sites on National Forest Land. Material placed in disposal sites will not require compaction unless compaction is required.

3.2 When filling slumps or washouts, material shall be moved from agreed locations or borrow sites on National Forest land, placed in layers, and compacted by operating the hauling and spreading equipment uniformly over the full width of each layer. Existing aggregate surfacing shall be salvaged when practical and relaid after depressions have been filled. Damaged aggregate base, aggregate surfacing, and bituminous pavement shall be repaired under Specification T-804 Surfacing Repair. The repaired areas of the slump shall conform to the cross section which existed prior to the slump and shall blend with the adjacent undisturbed Traveled Way.

3.3 The maximum volume of Purchaser responsibility for slide and slump repair is ___ C.Y. Greater volumes of slide and slump repair not qualifying as Catastrophic Damage are Forest Service responsibility.

T-802 DITCH CLEANING

DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all slough material from roadway ditches to provide a free-draining waterway.

REQUIREMENTS

3.1 Ditch cleaning shall be repeated during the year as often as necessary to facilitate proper drainage.

3.2 All slough material or other debris which might obstruct water flow in the roadway ditch shall be removed. Material removed from the ditch, if suitable, may be blended into existing native road surface or Shoulder or placed in designated Berms in conjunction with Surface Blading T-803 operations.

Material removed from ditches that is not by agreement blended into existing roads or placed in Berms shall be loaded and hauled to the disposal site on Forest lands.

3.3 Roadway backslope or Berm shall not be undercut.

T-803 SURFACE BLADING

DESCRIPTION

1.1 Surface blading is keeping a native or aggregate Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the crown, inslope or outslope of the Traveled Way, Turnouts, and Shoulder, repairing Berms; blending approach road intersections; and cleaning bridge decks, Drainage Dips, and Lead-off Ditches.

REQUIREMENTS

3.1 Surface blading shall be performed before, during, and after Purchaser's use as often as necessary to facilitate traffic and proper drainage.

3.2 The surface blading shall preserve the existing cross section. Surface irregularities shall be eliminated and the surface left in a free draining state and to a smoothness needed to facilitate traffic. Surface material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to prevent the loss of surface material and to provide for a thorough mixing of the material being worked.

3.3 Water, taken from Water Sources DESIGNATED ON EXHIBIT A AND THE CONTRACT ROAD USE AND MAINTENANCE MAP, shall be applied during blading if sufficient moisture is not present to cut, mix, or compact the surface material.

3.4 On native surfaced roads, Material generated from backslope sloughing and ditch cleaning may be blended with the surface material being worked. On aggregate surfaced roads this Material shall not be blended with Surface or Base Course material unless agreed otherwise.

3.5 Roadway backslopes or Berms shall not be undercut nor shall new Berms be established unless agreed otherwise. Berms shall be repaired by placing Material as needed to restore the Berm to reasonably blend with existing line, grade, and cross section.

3.6 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to reasonably blend with existing line, grade, and cross section.

3.7 Intersecting roads shall be bladed for a distance of 50 feet to assure proper blending of the two riding surfaces.

3.8 Rocks or other material remaining on the Traveled Way after the final pass that are larger than 4 inches in diameter or are larger than the maximum size of imported surfacing shall be removed from the Traveled Way. The oversized material shall be disposed of by sidecasting unless agreed to otherwise and shown ON THE CONTRACT ROAD USE AND MAINTENANCE MAP. Sidecasting into streams, lakes or water courses will not be permitted.

3.9 Material resulting from work under this specification shall not remain on or in structures, such as Culverts, overside drains, cattleguards, ditches, Drainage Dips, and the like.

3.10 Material resulting from work under this specification plus any accumulated debris shall be removed from bridge decks and the deck drains opened.

T-805 DRAINAGE STRUCTURES

DESCRIPTION

1.1 This work consists of maintaining Drainage Structures and related items such as inlet and outlet channels, existing riprap, trash racks and drop inlets.

MATERIALS

2.1 All materials used in the maintenance of Drainage Structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 Drainage Structures and related items shall be cleared of all foreign material which has been deposited above the bottom of the structure and all vegetative growth which interferes with the flow pattern. Material removed that cannot be incorporated into maintenance work shall be hauled to a disposal site on National Forest land and designated by the Forest Service.

3.2 If outlet or inlet riprap was installed by Purchaser as a construction item or existed prior to Purchaser's haul, it shall be maintained in good condition including the replacement of riprap if necessary to previous line, grade, and cross section.

3.3 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the Drainage Structure.

T-806 DUST ABATEMENT

DESCRIPTION

1.1 This work shall consist of preparing Traveled Way and furnishing and applying materials to abate dust.

MATERIALS

2.1 The roads requiring dust abatement, type of dust abatement material to be used, the rates of application, and frequency of applications will be SHOWN ON THE DUST ABATEMENT PLAN. The Dust Abatement Plan may be changed by written agreement.

2.2 Water

Water sources: approved locations are SHOWN ON EXHIBIT A AND ON THE CONTRACT ROAD USE AND MAINTENANCE MAP.

2.3 Dust abatement materials, other than water shall not be used except by agreement with the Licensor and the Forest Service.

DUST ABATEMENT PLAN

MATERIAL TYPE	WATER
ROAD SEGMENTS	All
INITIAL APPLICATION RATE	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U. During hauling operations, complete dust abatement once a day before hauling.
SUBSEQUENT APPLICATION RATE & FREQUENCY	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U. During hauling operations, complete dust abatement every 70 MBF hauled or as required to maintain complete dust abatement.

Notes: T.U. = Traffic Unit - Pickup or automobile (1 way) = 1 T.U.

Semi Truck (2 way) = 15 T.U.

Complete Dust Abatement = Surface is firm, compacted and free of dust.

T-807 ROADWAY VEGETATION

DESCRIPTION

1.1 This work includes removal of brush and trees from within the Roadway limits.

REQUIREMENTS

3.1 Vegetative matter within the Roadway which impedes vehicular travel or interferes with road maintenance operations, such as surface blading, ditch and culvert cleaning, shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the Roadside in locations where the Traveled Way or sight distances will not be impaired.

3.2 Vegetative matter removed from the Roadway shall be removed to Forest lands and treated by the specified method SHOWN ON THE ROAD USE AND MAINTENANCE MAP and as required by contract provisions.

T-808 MISCELLANEOUS STRUCTURES

DESCRIPTION

1.1 Maintenance of miscellaneous structures includes cattleguards, gates, and other similar structures that have been previously installed to insure safe and efficient operation of the road.

MATERIALS

2.1 Any materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to the material in the structure being maintained.

REQUIREMENTS

- 3.1 **Cattleguards.** Loose rails shall be welded or bolted back in place. Excess material carried into the cattleguard shall be removed when drainage is blocked or when it reaches 6 inches from the bottom of the cattleguard frame. Drainage into and from the cattleguard shall be kept open.
- 3.2 **Gates.** Gates shall be kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly. Brush and debris shall be removed from within the swinging radius.

T-809 WATERBARS

DESCRIPTION

1.1 This work consists of installing or removing Waterbars in the Roadbed.

REQUIREMENTS

- 3.1 Waterbars shall be installed on roads discussed in this SUPPLEMENT AGREEMENT in accordance with the ATTACHED DRAWING. All material excavated shall be used in the installation of the Waterbar. Bermed material shall be compacted by operating heavy equipment over the length and width of the Berm.
- 3.2 Waterbars shall be removed on roads SHOWN ON ROAD MAINTENANCE PLAN by blading the Berm into the adjacent depression to form a smooth transition along the Traveled Way. The length and width of the fill material shall be compacted by the equipment performing the work.
- 3.3 Waterbars may be required to be installed between seasons of use and then removed when haul is resumed. Waterbar installation may also be required when use of a road has been completed.

SPECIFICATION T-810 BARRIERS

DESCRIPTION

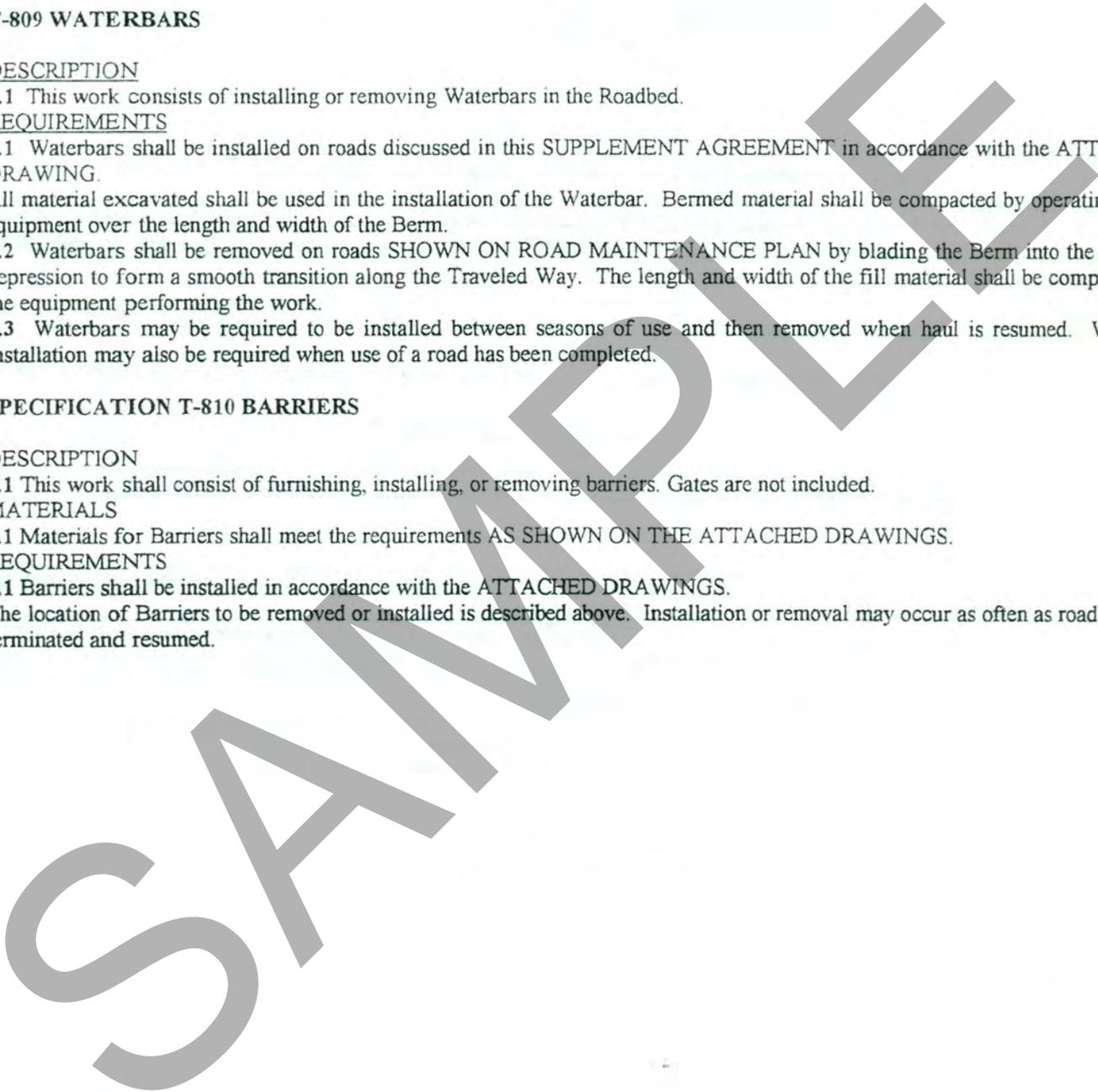
1.1 This work shall consist of furnishing, installing, or removing barriers. Gates are not included.

MATERIALS

2.1 Materials for Barriers shall meet the requirements AS SHOWN ON THE ATTACHED DRAWINGS.

REQUIREMENTS

- 3.1 Barriers shall be installed in accordance with the ATTACHED DRAWINGS. The location of Barriers to be removed or installed is described above. Installation or removal may occur as often as road use is terminated and resumed.



CT5.12# - USE OF ROADS BY PURCHASER. (6/99) Purchaser's use of existing roads identified on Sale Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

<u>Code</u>	<u>Use Limitations</u>
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Purchaser's use of roads coded R, A, or W shall be in accordance with the following restrictions:

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
<u>N/A</u>	<u>Planned For Prohibited Hauling (SPI)</u>	<u>0 Mi.</u>	<u>0.81 Mi.</u>	<u>X</u>	<u>Hauling Prohibited, unless alternate agreement is made with Sierra Pacific Industries</u>
<u>25N12</u>	<u>Blackhawk</u>	<u>0 Mi.</u>	<u>2.13 Mi.</u>	<u>U</u>	<u>Unsuitable for Hauling Prior to Reconstruction</u>
<u>25N46</u>	<u>Wells</u>	<u>0 Mi.</u>	<u>0.56 Mi.</u>	<u>U</u>	<u>Unsuitable for Hauling Prior to Reconstruction</u>

CT5.125# - SHARE COST ROAD LIABILITY INSURANCE. (8/2006) Purchaser is authorized to use cooperative roads constructed under provisions of (Name **Sierra Pacific Industries**), Cooperator, and Forest Service, and subsequent easements, supplements, and agreements thereto, available for inspection at the Forest Supervisor's Office, **Quincy**, California, and subject to the following liability insurance requirements.

Purchaser shall provide a satisfactory certificate of insurance covering Purchaser's and all subcontractor's operations on cost share roads referred to above.

Purchaser shall present the certificate of insurance to Forest Service prior to use of cost share roads.

Insurance shall be of the following form and limits:

Comprehensive Automobile Bodily Injury/Property Damage Liability Insurance covering all owned, leased, hired and non-owned automobiles.

Minimum limits: \$1,000,000 per person bodily injury or death
 \$1,000,000 per occurrence bodily injury or death
 and \$1,000,000 per occurrence property damage or a
combined
 single amount of \$1,000,000

In addition to above, Purchaser and Purchaser's assigns shall carry the following limits of insurance for the purpose of covering fire suppression expense, property damage to timber land due to fire, and property damage to non-owned automobiles and equipment due to fire.

Comprehensive General Liability Bodily Injury/Property Damage Insurance for minimum limits of:

\$1,000,000 per person bodily injury or death
 \$1,000,000 per occurrence bodily injury or death
 and \$1,000,000 per occurrence property damage or a
combined
 single amount of \$1,000,000

Such Comprehensive General Liability policy shall include an endorsement covering fire suppression expense, property damage to timber land due to fire, and property damage to non-owned automobiles and equipment due to fire. Said endorsement shall have minimum property damage limits of \$1,000,000 and be designated separately on the Certificate of Insurance.

The Certificate of Insurance shall require insurance carrier to notify Cooperator by mail ten (10) days prior to cancellation or expiration of above coverage. The Certificate of Insurance shall also name **N/A** as additional insured solely as respects operations conducted by or on behalf of the Purchaser involving use of the cost shared roads referred to above.

CT5.213# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES. (7/01) Purchaser shall make a cash deposit for engineering services (preconstruction and construction) provided by Forest Service for reconstruction of forest development transportation facilities necessary to accommodate Purchaser's use under this contract, pursuant to Public Law 88-657, 78 Stat. 1089, 16 USC 532-537.

The total amount to be deposited by Purchaser for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is \$17,240.64. Purchaser shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue as indicated on the initial bill for collection, pursuant to BT4.4.

The amount of the required deposit will be shown as an associated charge on Purchaser's Timber Sale Account. Forest Service shall retain any unexpended deposit for reconstruction related engineering services.

The deposit for reconstruction related engineering services shall be commensurate with project need and Purchaser's road use. Forest Service shall complete reconstruction related engineering services on the following schedule unless a different completion schedule is agreed in writing:

Road or Facility No.	Termini		Engineering Services Completion Date
	From	To	
25N46	MP 0.0	MP 0.6	8/10
25N12	MP 0.83	MP 0.87	8/10
25N12	MP 1.56	MP 1.58	8/10

Reconstruction related engineering services may consist of some or all of the engineering work and expense of: preparing, setting out, controlling, inspecting, and measuring the reconstruction of a forest development transportation facility.

Reconstruction related engineering services may consist of some or all of the engineering work and expense of: preparing, setting out, controlling, inspecting, and measuring the reconstruction of a National Forest system road.

CT5.221# - MATERIAL SOURCES. (7/01) Sources of local materials are designated on Drawings and Sale Area Map. Forest Service assumes responsibility for the quality and quantity of material in designated sources. Purchaser shall determine the equipment and work required to produce the specified product, including the selection of acceptable material that is reasonably available in the source that meets specifications. The designation of source includes the rights of Purchaser to use certain area(s) for plant site, stockpiles, and haul roads.

Should the designated source, due to causes beyond the control of Purchaser, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with BT5.253.

When Purchaser elects not to use designated sources, Purchaser shall furnish the specified product with no adjustment in unit rates, except when

weight/volume relationship differences or haul distance between designated source material and Purchaser furnished source material is not to the disadvantage of Forest Service. Quality testing shall be the responsibility of Purchaser. Test results shall be furnished to Forest Service.

When Purchaser elects not to use designated sources and Schedule of Items lists pit development separately, cost allowance will be reduced under BT5.253 when Forest Service determines the work will not be required.

When materials are subject to a weight measurement, the specific gravity or weight/volume relationship used as a basis for determination of estimated quantities shall be:

Source I Riprap 1 C.Y.=1.5 TONS Source II _____, and Source III _____.

Purchaser may, when agreed in writing, use on the project such suitable stone, gravel, and sand, or other material found in the excavation, and will earn a cost allowance for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Purchaser shall replace, without additional cost allowance, sufficient suitable materials to complete the portion of the work, which was originally contemplated to be constructed with such material. Purchaser shall not excavate or remove any material, except that which is within the excavation limits, without written authorization from Forest Service.

When material is appraised from non-National Forest designated sources, owner charges for the material in terms of unit cost for royalties, purchase of raw materials, or finished products shall be as follows until 1/_____:

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
Riprap	Commercial	Joy Engineering	TON	\$78.00	22.5	\$1,755

Should quantity vary from that estimated, payment to owners shall be for units actually obtained. Purchaser shall make arrangements with owner(s) for measurement and payment for royalties, purchase of raw materials, or finished products, as shown above.

Materials produced or processed from National Forest lands in excess of the quantities required for performance of this contract are the property of Forest Service, unless prior written agreement has been obtained to use excess material on other National Forest sales. Forest Service is not obligated to reimburse Purchaser for the cost of their production.

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, approved by Forest Service, may be used for storage purposes and for the placing of Purchaser's plant equipment. All storage sites provided by Forest Service shall be restored at Purchaser's expense. Purchaser shall be responsible for

making arrangements for storage on other than Forest Service administered lands.

When the construction of the portion of the project for which Temporary Roads used for hauling materials is completed, all such Temporary Roads shall be restored as nearly as practicable to their original ground profile, unless otherwise agreed in writing.

SAMPLE

CT5.31# - ROAD MAINTENANCE REQUIREMENTS. (7/01) Purchaser shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

TABLE A - ROAD MAINTENANCE REQUIREMENTS SUMMARY

Seg .	Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications										
		From	To		801	802	803	804	805	806	807	808	809	810	811
1	25N12	PC 420	MP 2.1	2.1											
2	25N46	25N12	MP 0.6	0.6											
3	SPI- LA	0.0	MP 0.3	0.3	P		P	P						P	

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Seg .	Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications										
		From	To		801	802	803	804	805	806	807	808	809	810	811
1	25N12	PC 420	MP 2.1	2.1			P	P		P					
2	25N46	25N12	MP 0.6	0.6			P	P		P					
3	SPI-LA	0.0	MP 0.3	0.3			P	P		P					

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Seg .	Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications										
		From	To		801	802	803	804	805	806	807	808	809	810	811
1	25N12	PC 420	MP 2.1	2.1		P	P	P							
2	25N46	25N12	MP 0.6	0.6		P	P	P							
3	SPI-LA	0.0	MP 0.3	0.3			P	P						P	

P = Purchaser Performance Item D = Deposit to Forest Service D3 = Deposit to Third Party

The maximum volume of Purchaser responsibility for slide and slump repair for all roads is 30 C.Y.

The Purchaser's share of the estimated quantity of surface repair material for native and aggregate surfaced roads is 0.5 C.Y. / CCF / Mi.

The Purchaser's share of the estimated quantity of bituminous surface repair material for bituminous surfaced roads is 0.1 Ton / CCF / Mi.

TABLE B - DUST ABATEMENT PLAN

MATERIAL TYPE	WATER	MAGNESIUM CHLORIDE
ROAD SEGMENTS	All	Same as water
INITIAL APPLICATION RATE	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U.	Same as water
	During hauling operations, complete dust abatement once a day before hauling.	During hauling operations, complete dust abatement before hauling at 0.5 Gal./S.Y.
SUBSEQUENT APPLICATION RATE AND FREQUENCY	During Purchaser's operations other than hauling, complete dust abatement after 40 accumulated T.U.	Same as water
	During hauling operations, complete dust abatement every 350 tons hauled or as required to maintain complete dust abatement.	During hauling operations, complete dust abatement with water as required. Every 35,000 tons hauled complete dust abatement at 0.5 Gal./S.Y.
PREPARATION METHOD	N/A	Method 1
WEIGHT VOLUME CONVERSION FACTOR	N/A	182 Gal./S.Y.

Notes: T.U. = Traffic Units as referenced in commensurate share calculations.

Pickup or automobile (1 way) = 1 T.U.

Semi Truck (2 way) = 15 T.U.

Complete Dust Abatement = Surface is firm, compacted and free of dust.
Other dust palliatives may be used when agreed to by the Forest Service.

CT5.32# - ROAD MAINTENANCE DEPOSIT SCHEDULE. (7/01) Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Purchaser's performance of road maintenance, Purchaser shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Purchaser's commensurate use of each road listed in the Road Maintenance Plan in CT5.31#.

Purchaser and Forest Service may agree in writing on adjustment of such rates. If Purchaser uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Purchaser's use of such roads.

The Required Deposits for Forest Service work in lieu of Purchaser performance and for deferred maintenance is: \$N/A per N/A.

The following table lists who Purchaser will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The "Road Maintenance Agreement" is available for inspection at the Forest Supervisor's Office.

Deposit Made To	Rate	Unit of Measure
2/ <u>N/A</u>	<u>N/A</u>	<u>N/A</u>

CT5.35# - ROAD AND WATER SUPPLY USE. (5/2008) National Forest water supply locations, access, method of filling trucks, period of water availability and procedures designed to maintain water quality at each location shall be agreed in advance of use. Such use shall at no time reduce water supplies to the level that further use may be detrimental to aquatic resources or other established use. Waterholes and other improvements relating to said water supplies shall be put into condition, prior to expected seasonal periods of precipitation or runoff, to avoid resource damage.

Damage to resources at such locations caused by Purchaser's Operations, other than fire suppression activities, shall be repaired by Purchaser in a timely and agreed manner to the extent practicable to restore and prevent further resource damage.

Unless otherwise agreed, Purchaser's use of roads and other water supply requirements shall conform to the following table.

SPECIFICATIONS PURSUANT TO C5.35# - REQUIREMENTS OF ROAD AND WATER SUPPLY USE

<p>Load Limitations</p>	<p>Purchaser shall notify Forest Service in writing of the planned size and load distribution for equipment which exceeds the State of California Vehicle Code legal size and weight, and the National Forest System roads to be used. Such notice may be part of plan of operation under B6.311. Within 15 days after receipt of the written notice Forest Service shall notify Purchaser in writing of any regulations or restrictions that may be needed to protect National Forest Transportation Facilities.</p> <p>A written permit shall be required for moving any vehicle which is in excess of the established legal size and weight which is not listed in the above plan, except as may be authorized in prior written agreements.</p>
<p>Existing Non-National Forest System Roads</p>	<p>Roads not shown on Sale Area Map may be used as Temporary Roads if there is agreement before use is started.</p>
<p>Snow Removal</p>	<p>If Purchaser removes snow from roads, such work shall be done with Forest Service approval and in a manner that will protect roads and adjacent resources.</p> <p>Snow berms shall be removed or placed to avoid accumulation of melt water on the road and prevent water concentration on erosive slopes or soils.</p> <p>Snow must not be removed to the road surface. A minimum <6> inch snow depth must be left to protect the roadway. If the road surface is damaged, Purchaser shall replace lost surface material and repair structures damaged in blading operations prior to hauling, unless climatic conditions prevent necessary work from being accomplished or as otherwise agreed in writing.</p> <p>Single lane roads shall be plowed full width including turnouts. In event double lane roads are not plowed to full width, warning signs shall be required and plowing shall be no less than single lane (12 feet) with intervisible turnouts.</p>

<p>Water Supply Deposits</p>	<p>If Purchaser utilizes the water site located <u>N/A</u>, for any listed activity, Purchaser shall make deposit with Forest Service for that activity at the time and in the amount shown in the Water Supply Deposit Schedule table below.</p> <p style="text-align: center;">WATER SUPPLY DEPOSIT SCHEDULE</p> <table border="1" data-bbox="418 468 1429 686"> <thead> <tr> <th>Activity</th> <th>Unit of Payment</th> <th>Unit Cost</th> <th>Total Cost</th> <th>Time of Payment</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Activity	Unit of Payment	Unit Cost	Total Cost	Time of Payment	N/A														
Activity	Unit of Payment	Unit Cost	Total Cost	Time of Payment																	
N/A																					
<p>Surface Replacement Deposits</p>	<p>Purchaser shall make Required Deposits for deferred surface replacement (16 U.S.C. 537) for use of existing surfaced roads. If applicable, such deposits shall be based upon the volume and distance hauled on the roads and at the applicable rates listed in the table below titled Surface Replacement Deposit Schedule. If Purchaser uses surfaced roads under jurisdiction of Forest Service other than those listed, Forest Service may establish applicable rates for such surfaced roads.</p> <p style="text-align: center;">SURFACE REPLACEMENT DEPOSIT SCHEDULE</p> <table border="1" data-bbox="418 1087 1429 1245"> <thead> <tr> <th>Road No.</th> <th>From</th> <th>To</th> <th>Miles</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>25N12</td> <td>MP 0.0</td> <td>MP 2.1</td> <td>2.1</td> <td>\$1.66/CCF</td> </tr> <tr> <td>25N46</td> <td>25N12</td> <td>MP 0.56</td> <td>0.56</td> <td>\$1.66/CCF</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Sale Area Average Rate: <u>\$1.66/CCF</u></p>	Road No.	From	To	Miles	Rate	25N12	MP 0.0	MP 2.1	2.1	\$1.66/CCF	25N46	25N12	MP 0.56	0.56	\$1.66/CCF					
Road No.	From	To	Miles	Rate																	
25N12	MP 0.0	MP 2.1	2.1	\$1.66/CCF																	
25N46	25N12	MP 0.56	0.56	\$1.66/CCF																	

CT6.24# - SITE SPECIFIC SPECIAL PROTECTION MEASURES. (4/04) Special protection measures needed to protect known areas identified on Sale Area Map or on the ground include:

Cultural Resource Protection Measures:

After Timber Sale award, a second Sale Area Map will be available to the purchaser, and will indicate locations of Cultural Resources that are to be avoided, and protected.

Wildlife and Botanical Protection Measures:

Within the Timber Sale boundary, there may be wildlife trees that are designated by brown signs with tan lettering and/or white paint above and below stump height. These trees are to be avoided, and protected.

Cave Resource Protection Measures:

None

CT6.314 - RELEASE OF PAYMENT UNITS. (8/2006) Except for Specified Road Payment Units, Forest Service shall not Release for Cutting more Payment Units than can be logged within 60 calendar days at Purchaser's normal rate of logging. Unless otherwise agreed in writing, upon completion of all contract requirements in a Payment Unit, additional Payment Units may be Released for Cutting.

CT6.315# - SALE OPERATIONS SCHEDULE. (8/2006) Unless otherwise agreed in writing, Purchaser's operations shall be performed in accordance with the following schedule:

SCHEDULE PURSUANT TO CT6.315# - SALE OPERATIONS SCHEDULE (8/2006)

Subdivision/ Area/Unit	Conditions of Operation	Purpose
<u>21, 21 O, 955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, & 979</u>	<u>Operations may occur when the upper 8 inches of soil is dry, based on the following field method; reach down and collect a small quantity of soil and try to mold it into a ball. If a ball is formed that holds together under repeated tosses, the soil is too wet for equipment operations. Winter operations may occur only when the ground is frozen to a depth of over 5 inches, or over 8 inches of packed snow.</u>	<u>Protection of Soil</u>
<u>Sale Area</u>	<u>Tillage of landings, temporary roads, and skid trail approaches to landings at slopes <25% (to a distance of 200 feet) will be required prior to close of unit/subdivision. To achieve the</u>	<u>Restoration of Disturbed Soil Areas</u>

	<u>best results and prevent additional soil damage, a winged subsoiler should be used. A drawing with design specifications is included below. (Exhibit A)</u>	
<u>21, 21 O, 955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, & 979</u>	<u>Directional felling and endlining are required to remove timber from slopes greater than 35%</u>	<u>Special Soil Protection Measure</u>
<u>Sale Area</u>	<u>Purchaser will pay use rate of \$2.00/MBF based on actual sawlog volume to be hauled over the property owned by Ken Henrici and T.I.C. Payment will be made within 30 days of completion of haul. Timber Subject to Agreement is also subject this use rate if purchaser agrees to purchase those units.</u>	<u>Condition of License Agreement</u>
<u>Sale Area</u>	<u>Purchaser will consult Sierra Pacific Industries prior to any temporary road reconstruction or construction, road maintenance, or hauling.</u>	<u>Condition of License Agreement</u>
<u>Sale Area</u>	<u>Mechanized equipment cannot operate within <u>Equipment Exclusion Zones of streams or wetlands. Notwithstanding protection provided by boundary location, the areas adjacent to wetlands may have buffer zones delineated by blue/white "candy stripe" flagging. Mechanized equipment may only enter buffer zones in the most direct manner to cut and remove designated timber. Any crossings of these areas are to be at right angles to flow, and with prior coordination between purchaser, SA and specialists. A table has been attached to show the protective measures needed if previously undelineated streams/wetlands are encountered, or if flagging has deteriorated. (Exhibit B)</u></u>	<u>Protection of Streams/Wetlands</u>

Exhibits Pursuant to CT6.315# - Sale Operations Schedule (8/2006)

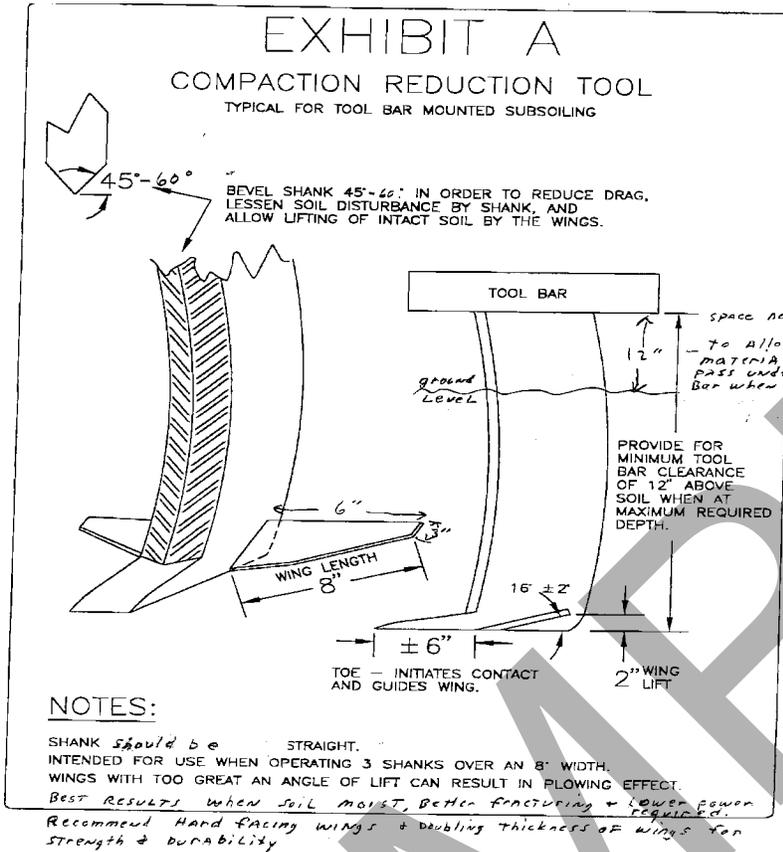


Exhibit B

Stream/Wetland Type	Equipment Exclusion Zone			Total Buffer Width
	Slope Perpendicular To Channel			
	0 - 15 %	15 - 25 %	> 25 %	
Perennial, fish bearing	50 ft	75 ft	150 ft	150 ft
Perennial, not fish bearing	25 ft	50 ft	75 ft	75 ft
Intermittent	12.5 ft	25 ft	50 ft	50 ft
Ephemeral	12.5 ft	25 ft	50 ft	50 ft

Distances shown are measured out both directions from streambank. For example, there is an ephemeral stream within a unit; a 100 ft buffer would be applied along the streamcourse, fifty feet to either side of the scoured streambed. There is an 18% slope down from the cutting area to the streambed. No equipment can enter the 25 feet Equipment Exclusion Zone on either side of the streambed. Limited equipment use would be allowed in the remaining 25 feet of the buffer.

CT6.331 - LOG TRUCKING. (8/2006) To promote safe operations on National Forest roads and on Specified Roads, loads shall be safely secured before trucks move from the landing or loading location.

CT6.37 - SUBSTITUTE METHODS. (8/2006) Notwithstanding other provisions herein, for minor changes such as changes in logging systems for areas smaller than 5 acres, Purchaser and Forest Service may agree in writing that use of substitute methods or equipment will achieve Forest Service objectives under this contract and may be used in lieu of those specified for Purchaser's Operations.

CT6.41# - FELLING, BUCKING, AND LIMBING. (8/2007) Unless otherwise agreed in writing, Purchaser's felling, bucking, and limbing operations shall be conducted as specified in the table below.

SPECIFICATIONS AND TREATMENTS PURSUANT TO CT6.41# - FELLING, BUCKING AND LIMBING

Treatment Method and Applicable Map Symbol	Felling, Bucking and Limbing Specifications
Limbing	Outside of construction clearings, Clearcutting Units and regeneration units, unless otherwise provided by BT6.414, Purchaser shall, prior to skidding/yarding operations, cut exposed limbs from products which are to be skidded/yarded. Such limbing of stems shall be done to a top diameter of approximately <N/A> inches, at which point the top shall be cut from the remainder of the stem.
No Lop "No Lop"	Within units or subdivisions designated NO LOP on Sale Area Map, trees shall be skidded/yarded to agreed landing locations prior to lopping.
Whole Tree Yarding "Whole"	Notwithstanding the requirements above, within units or subdivisions designated "Whole" on Sale Area Map, trees smaller than < 24 > inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping. Trees larger than or equal to < 24 > inches DBH shall be bucked into two or more pieces with the butt portion being no longer than < 41 > feet prior to skidding/yarding. The butt log <shall> be limbed prior to skidding/yarding.
Directional Felling "DF"	Within areas designated DF on Sale Area Map, Included Timber shall be directionally felled away from < <u>improvements, streamcourses, and control areas</u> > with the use of specialized equipment. Such directional felling shall not be required when in the faller's judgment it is unsafe to do so, and shall be left standing.

<p>Treatment of Stumps "TS"</p>	<p>Within areas shown on Sale Area Map, Purchaser shall treat stumps of all live < <u>N/A</u> > trees equal to or greater than < <u>N/A</u> > inches stump diameter, (measured inside bark) unless otherwise agreed in writing. Treatment shall be with a borate compound registered by EPA in the State of California for prevention of annosus root disease.</p> <p>Treatment shall consist of removal of sawdust and other loose debris from the cut surface of the stump and application of a thin layer of the borate compound uniformly over the entire cut surface, including exposed wood surfaces on the stump sides, at the rate specified on the product label. Any surface irregularities on the stump preventing application of a uniform layer of borate compound shall be cut level prior to treatment. Unless waived in writing, Purchaser shall also apply an approved colorant mixed with the borate compound to insure complete coverage. Treatment should be done as soon as possible but shall be completed no later than < <u>N/A</u> > hours after felling, otherwise stumps shall be re-cut and treated.</p> <p>Purchaser shall not apply borate compound during heavy rain fall or when such precipitation rate is predicted within < <u>N/A</u> > hours of application to cause borate compound to be flushed off the stump and become ineffective, in that case treatment shall be reapplied. Application shall be completed within 24 hours of the precipitation having ceased. Borate compound also shall not be applied to stumps located within < <u>N/A</u> > feet of live streamcourses and meadows/wetlands shown on Sale Area Map and/or < <u>N/A</u> > feet of sensitive plant location boundaries as flagged on the ground.</p> <p>Purchaser shall provide the borate compound and colorant and apply it in compliance with the State of California laws and regulations pertaining to pesticides and pest control operations. Borate compound storage shall be located such that any spillage will not contaminate water. All spills shall be promptly cleaned up and spilled material disposed of according to the product label. All spills occurring in water or over < <u>N/A</u> > pounds shall be reported to Forest Service within < <u>N/A</u> > hours.</p> <p>Purchaser shall submit at the end of each month a "Monthly Summary of Pesticide Use Reports" to the appropriate County Agricultural Commissioner with a copy to the District Ranger.</p>
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<p>Maximum Log Length</p>	<p>Cut trees shall be bucked prior to skidding so that resulting logs shall not exceed the maximum log length including trim allowance shown in following table:</p> <table border="1" data-bbox="573 331 1406 426"> <tr> <th data-bbox="573 331 954 380">Unit Number</th> <th data-bbox="954 331 1406 380">Maximum Log Length</th> </tr> <tr> <td data-bbox="573 380 954 426"><u>N/A</u></td> <td data-bbox="954 380 1406 426"><u>N/A</u></td> </tr> </table>		Unit Number	Maximum Log Length	<u>N/A</u>	<u>N/A</u>		
Unit Number	Maximum Log Length							
<u>N/A</u>	<u>N/A</u>							
<p>Minimum Stump Height</p>	<table border="1" data-bbox="573 520 1406 793"> <thead> <tr> <th data-bbox="573 520 857 596">Unit/Subdivision</th> <th data-bbox="857 520 1133 596">Minimum Stump Height (inches)</th> <th data-bbox="1133 520 1406 596">Purpose or Reason</th> </tr> </thead> <tbody> <tr> <td data-bbox="573 596 857 793"> <u>21, 21 0, 955,</u> <u>956, 957, 958,</u> <u>963, 965, 966,</u> <u>969, 971, 972,</u> <u>974, 975, 976,</u> <u>978, & 979</u> </td> <td data-bbox="857 596 1133 793" style="text-align: center;"> <u>3</u> </td> <td data-bbox="1133 596 1406 793" style="text-align: center;"> <u>Timber</u> <u>Accountability</u> </td> </tr> </tbody> </table>		Unit/Subdivision	Minimum Stump Height (inches)	Purpose or Reason	<u>21, 21 0, 955,</u> <u>956, 957, 958,</u> <u>963, 965, 966,</u> <u>969, 971, 972,</u> <u>974, 975, 976,</u> <u>978, & 979</u>	<u>3</u>	<u>Timber</u> <u>Accountability</u>
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CT6.42# - GROUND BASED SKIDDING. (8/2006) Unless otherwise agreed in writing, the method of skidding Included Timber shall be as shown on the Sale Area Map, by areas, with symbols defined in the following table:

Ground-Based Skidding Table - CT6.42#

Map Symbol	Requirements
TRAC	<p>Skid road pattern shall be agreed in advance of felling and main skid roads shall be flagged on the ground in advance of felling. Purchaser shall stage-log by felling and skidding Included Timber in two or more separate operations when necessary to prevent undue damage to the resources or residual stand. Needed tractor trails shall be constructed in advance of skidding.</p> <p>Products shall be end-lined as needed to protect resources or residual timber from unnecessary damage. The number of chokers shall be limited as necessary to avoid unnecessary damage to resources or residual timber. By agreement, tractors may be used to separate products to prevent stain.</p>
SUSP	Products shall be skidded with leading end clear of ground.
SPACE	Skid roads will average <u>100</u> feet from center to center, except where converging.
ENDL	Endlining shall not be required for distances in excess of <u>150</u> feet uphill, and <u>150</u> feet downhill.
MAX	Tractors used for skidding outside Clearcutting Units, regeneration units or other authorized clearings, shall be of the type (rubber-tired or track-laying) shown on the Sale Area Map and shall not exceed the overall width designated on Sale Area Map.
MH	<p>Purchaser shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least <u>N/A</u> feet for bunching trees, capable of severing, lowering and placing trees up to <u>N/A</u> inches diameter at stump height on the ground prior to skidding. Such equipment must be capable of operating on slopes up to <u>N/A</u> %.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage.</p> <p>Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of BT6.41 - Felling and Bucking, C(T)6.41# - Felling, Bucking, and Limbing Requirements and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.</p>
CTL	Included Timber shall be felled, limbed and bucked by a self-propelled mechanical harvester capable of producing finished sawlogs or chippable boles. Limbs of Included Timber shall be placed evenly in the machinery skid trail prior to product removal. The harvester shall be an all-wheel drive machine with at least 3 axles and a processing head mounted on a boom having a minimum-operating radius of 20 feet.

	<p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources or residual timber from unnecessary damage.</p> <p>All Products shall be removed by an all-wheel drive forwarder with at least 3 axles capable of self-loading and unloading. The forwarder shall carry all products free of the ground during removal. The loading crane shall have a minimum-operating radius of 15 feet. Log landings and transfer points shall be agreed in advance of harvesting.</p> <p>Included Timber exceeding the harvester's capability may be felled by conventional chainsaw methods, forwarded to nearest skid trail and processed into a finished Product with harvester or chainsaw, consistent with the requirements BT6.61 - Meadow Protection, BT6.41 - Felling and Bucking, CT6.41# - Felling, Bucking, and Limbing and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.</p>
<p>PB</p>	<p>Purchaser shall cut Included Timber and move trees to pre-approved skyline corridors to facilitate skyline yarding using equipment with a boom having an operating radius of at least <u>N/A</u> feet for bunching trees, capable of severing, lowering and placing trees up to <u>N/A</u> inches diameter at stump height on the ground prior to yarding. Such equipment must be capable of operating on slopes up to <u>N/A</u> %. Bundles shall not exceed yarder capability or cause unnecessary damage to residual stand.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage. Such trees shall be felled away from the corridor in a manner that minimizes residual stand damage during yarding.</p> <p>Included Timber exceeding the feller's capability may be felled by conventional chainsaw methods</p>
<p>HCTL</p>	<p>Included Timber shall be felled, limbed and bucked by a self-propelled mechanical harvester capable of producing finished sawlogs or chippable boles. Such equipment must be capable of operating on slopes up to <u>N/H</u> %. The harvester shall be an all-wheel drive machine with at least 3 axles, or track mounted, and a processing head mounted on a boom having a minimum-operating radius of 20 feet.</p> <p>Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources or residual timber from unnecessary damage.</p> <p>Included Timber exceeding the harvester's capability may be felled by conventional chainsaw methods</p>

CT6.5 - STREAMCOURSE PROTECTION. (8/2006) Unless otherwise agreed in writing, wheel or track laying equipment shall not operate within "Buffer Strips" except as necessary for fire suppression activities. "Buffer Strips" are areas marked on the ground or are within the distances identified on the Sale Area Map measured from the apparent high water mark of streamcourses. Boundaries of Buffer Strips may be modified by agreement in writing to meet unforeseen operating conditions.

Culverts, bridges, or other suitable structures shall be required on skid roads and trails only at points where it is necessary to protect Stream courses. The type of crossing structures, method of installation and removal shall be determined by agreement. Purchaser in accordance with CT6.6 - Erosion Prevention and Control, shall remove such structures and associated fills.

Damage to Stream course or Buffer Strips caused by unauthorized Purchaser's Operations shall be repaired by Purchaser in a timely and agreed manner to the extent practical as determined by Forest Service to restore and prevent further damage to Stream courses.

CT6.6# - EROSION PREVENTION AND CONTROL. (5/2008) Erosion prevention and control work, including Streamcourse protection, required by CT6.5 and BT6.6 shall be completed within 15 calendar days after skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Purchaser's Operations due to causes beyond Purchaser's control. Such on the ground designation shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground. After September 15 and as long thereafter as operations continue the work shall be done as promptly as practicable. Damage resulting from Purchaser's Operations due to failure to perform required work shall be repaired by Purchaser.

Notwithstanding other provisions in this contract and unless otherwise agreed in writing, any hay, straw, or mulch used in this contract shall be State of California certified weed free.

Additional erosion control requirements of this contract are listed in the following table.

SPECIFICATIONS PURSUANT TO CT6.6# - EROSION PREVENTION AND CONTROL.

Vegetative Soil Stabilization Where soil has been disturbed by Purchaser's Operations and the establishment of vegetation is needed to minimize erosion, Purchaser shall take appropriate measures normally used to establish an adequate cover of grass or other vegetation acceptable to Forest Service or take other agreed stabilization measures. Forest Service shall designate on the ground such disturbed areas annually as logging and Temporary Road construction are completed.

Forest Service upon request shall provide advice as to soil preparation and the application of suitable seed mixtures, mulch and fertilizer and the

timing of such work. In no event shall Purchaser be required to treat more acres than that shown in the legend of Sale Area Map.

Purchaser shall use the type of native seed mixtures, mulch, and fertilizer as listed below:

Seed Mix	Pounds/Acre	Type of Mulch	Fertilizer
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Special Erosion Prevention Measures Purchaser shall give adequate treatment by spreading slash or wood chips or by agreement giving other treatment to portion of tractor roads, skid trails, landings, cable yarding corridors, tractor-end lined corridors and Temporary Road fills where necessary to supplement other erosion prevention measures required elsewhere in this contract. In no event shall Purchaser be required to treat more acres than that shown in the legend of Sale Area Map. The specific locations to be treated shall be designated on the ground by Forest Service. These special erosion prevention measures are to be done within the same date and time periods as stated above.

Soil Scarification. In addition to meeting the requirements of BT6.63 and BT6.64, Purchaser shall scarify the following areas; unless otherwise agreed:

- (a) Traveled Way of National Forest System roads used by Purchaser and listed in the legend of Sale Area Map.
- (b) Roadbeds of any Temporary Roads used for log hauling by Purchaser.
- (c) Landings or portions thereof located outside Roadbed limits of National Forest System roads not designated for scarification.

Scarification shall be to a depth of 6 inches, with intervals between striations not to exceed 12 inches, unless otherwise agreed.

Backblading Within recreation development sites and public use areas designated on Sale Area Map, Purchaser shall, at Forest Service request, backblade skid trails in lieu of cross ditching.

Tillage In addition to meeting the requirements of BT6.64, unless otherwise agreed in writing, tillage shall be required on the areas listed in the following table.

Tillage shall be accomplished by equipment that will lift and fracture the soil by vertical and lateral shattering, leaving soil loosened through the full width and depth of the compacted layer with the topsoil remaining substantially in place rather than being inverted.

Tillage depth is shown in the following table. Agreement in writing may be made to a lesser depth if rocks or other limiting site conditions are encountered.

Tillage shall be limited to periods when soil dryness will result in crumbled soil, avoiding the formation of large clods. Purchaser and Forest Service shall agree in writing on the timing of completion of such work to coordinate with desirable soil moisture conditions.

Areas to Till	Tillage Depth (Inches)	Maximum Acres to Treat
Landings	<u>16</u>	<u>2</u>
Main Skid Roads and Tractor Roads designated by Forest Service	<u>16</u>	<u>1</u>
Temporary Roads	<u>16</u>	<u>1</u>

CT6.7# - SLASH TREATMENT. (8/2006) Purchaser shall pile, scatter, yard, construct firelines or otherwise treat slash defined in specifications below, within designated areas. Work required of Purchaser shall be in accordance with the following slash plan and specifications, and the Sale Area Map.

All vegetative debris associated with construction of Specified Roads such as unutilized timber, brush and grubbed stumps is Construction Slash. Measures to be taken by Purchaser for treatment of Construction Slash are set forth in the attached road construction specifications and in the attached slash treatment specifications.

Vegetative debris larger than 1 inch in diameter outside bark and 3 feet long resulting from Purchaser's Operations, other than Construction Slash, is Logging Slash. Measures to be taken by Purchaser for treatment of Logging Slash are set forth below unless otherwise agreed in writing.

Forest Service and Purchaser shall jointly develop a schedule for completion of slash treatment on the various portions of Sale Area prior to Purchaser's Operations.

Removing may be substituted for treatment of any other specified method.

By agreement in writing, certain slash may be left for fuelwood. When the specified treatment is by a combination of methods, Logging Slash not treated by one of the methods shall be treated by the other(s).

See the slash treatment specification table below.

SPECIFICATIONS PURSUANT TO CT6.7# - SLASH TREATMENT (8/2006)

Specified slash treatment methods shall be shown on Sale Area Map or listed in the following tables by the following symbols:

Slash Treatment Methods

<u>Symbol</u>	<u>Method</u>	<u>Definition</u>
Buck-L	"Bucking Large Logging Slash"	Tops and limbs over 4 inches diameter outside bark (d.o.b.), not to be otherwise treated, shall be bucked into lengths not to exceed 6 feet, unless agreed otherwise.
Buck-P	"Bucking and Piling"	Logging Slash smaller than < <u>N/A</u> > inches and larger than 4 inches in large end d.o.b. shall be bucked into lengths not to exceed < <u>N/A</u> > feet and left in place. Logging Slash 4 inches and smaller in large end d.o.b. shall be hand Piled within Required Disposal Strip for Forest Service disposal.
Bury	"Burying"	Logging Slash shall be buried where agreed in borrow areas, pits, trenches, or other locations reasonably near the area of origin. Logging Slash shall be matted down in layers and shall be covered with at least 2 feet of rock and soil so that the final surface is sloped to drain and relatively smooth.
Chip	"Chipping"	Chippable Logging Slash up to 4 inches in d.o.b. shall be processed through a chipping machine. Chips shall be scattered to a loose depth not exceeding 6 inches.
Deck	"Decking" large material	Logging Slash < <u>N/A</u> > inches or larger in large end d.o.b. and < <u>N/A</u> > feet or more in length shall be Decked for disposal by Forest Service by piling pieces parallel to each other.
Mach	"Machine Piling"	Concentrations of Logging Slash, excluding scattered individual pieces, shall be Machine Piled by tractor equipped with brush rake for disposal by Forest Service.
Pile	"Piling" small material	Logging Slash smaller than < <u>N/A</u> > inches in large end d.o.b. and < <u>N/A</u> > feet long shall be hand Piled for disposal by Forest Service.
Remove	"Removing"	Logging Slash shall be moved or hauled to

locations shown on Sale Area Map and designated on the ground where it shall be piled for disposal by Forest Service.

Scat 18" "Scattering"
Scat 30"

Logging Slash shall be scattered to reduce slash concentrations with slash being generally left within 18 or 30 inches of the ground as shown on Sale Area Map. Logging Slash shall be scattered into openings away from and without unnecessary damage to residual trees. All scattered logs shall be limbed, placed away from trees and positioned so they will not roll. When Scattering is specified, another method may be used by agreement.

Stack "Stacking" small material

Logging Slash < N/A > inches or smaller in large end d.o.b. and < N/A > feet or more in length shall be stacked for disposal by Forest Service by piling pieces parallel to each other.

View "Visible Slash Treatment"

Designated on Sale Area Map with boundaries posted on the ground are < N/A > with distance limitations for visible slash treatment. Within such units and the area of visible Logging Slash adjacent thereto, Logging Slash shall be treated by Purchaser. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these means unless a method is specified or prohibited on Sale Area Map. Logging Slash not readily treated by the selected or specified method shall be removed to designated areas or treated as agreed.

YUMD "Yarding Unutilized Material-Decking"

All unutilized material developed by Purchaser's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized material shall be Yarded to landings and Decked. Where this is impractical, or other reasons, other locations shall be agreed upon.

Unit	Large End d.o.b. (in)	Length (feet)
<u>N/A</u>		

YUME "Yarding Unutilized Material-Exterior Boundary"

All unutilized material developed by Purchaser's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized material shall be yarded to locations a minimum of 50 feet slope

distance within the exterior boundaries of such units and positioned so the yarded material will not roll.

Unit	Large End d.o.b. (in)	Length (feet)
N/A		

YUML "Yarding Unutilized Material-Landing"

All unutilized material developed by Purchaser's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized shall be yarded to locations within 100 feet slope distance of landing. Where this is impractical, or other reasons, other locations shall be agreed upon.

Unit	Large End d.o.b. (in)	Length (feet)
N/A		

YUMR "Yarding Unutilized Material-Removal"

All unutilized material developed by Purchaser's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized shall be removed to locations shown on Sale Area Map and designated on the ground, or other agreed locations, and Decked.

Unit	Large End d.o.b. (in)	Length (feet)
N/A		

Cover "Covering Piles"

All piles shall be covered with a durable waterproof covering as approved by Forest Service. The material shall be at least six feet in width. Piles shall not be less than fifty percent covered, with the covering extending not less than half way down all sides. Pieces of burnable material shall be placed on top of the durable waterproof covering to keep the covering from blowing off the pile.

Fell "Damaged Small Tress"

Unless treated under other provisions, all trees smaller than the minimum d.b.h. in AT2, over 5 feet in height, and damaged beyond recovery by Purchaser's Operations shall be felled. Such trees shall be limbed to a stem diameter outside bark of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and shall be bucked into lengths not exceeding 20 feet.

Fire-L "Firelines"

Shown on Sale Area Map and to be flagged on ground after logging by Forest Service are firelines to be constructed by Purchaser unless otherwise agreed in writing. Purchaser shall construct not more than < N/A > chains of fireline by hand and not more than < N/A > chains of fireline by tractor.

Firelines constructed by hand shall be cleared of all vegetative debris larger than one inch in d.o.b. and three feet long. The width of firelines shall be at least < N/A > feet, except across the top of cutting units where the width shall be at least < N/A > feet. At least < N/A > feet shall be scraped to mineral soil. In areas where there is potential for burning material to roll, the fireline shall be constructed in a trenched manner on the downhill side.

Tractor lines shall be cleared of all vegetative debris, larger than one inch in diameter and three feet long, to a width of at least < N/A > feet, with at least < N/A > feet to mineral soil. No slash, brush, or other vegetative debris shall be buried in or under berms created in the construction of firelines. All limbs overhanging into the fireline, shall be removed to a minimum height of 8 feet.

Firelines shall be completed on each unit in accordance with B6.311 unless otherwise agreed in writing.

In subdivisions < N/A > and shown on Sale Area Map, Logging Slash shall be scattered within < N/A > feet slope distance of the inside edge of firelines.

Fuel-B "Fuelbreaks"

Shown on Sale Area Map, with boundaries designated on the ground, are "Fuelbreaks" of varying width. Within such Fuelbreaks all Logging slash and Construction slash shall be treated by Purchaser. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these methods unless a method is specified or prohibited on Sale Area Map. Slash larger than treatment size requirements of selected or specified methods shall be scattered outside Fuelbreak, or treated as agreed.

PILING SPECIFICATIONS. All piles shall be reasonably compact and free of soil to facilitate burning and shall be constructed of such size and at such distance from trees so that burning shall not result in unnecessary damage to residual timber. Such Logging Slash shall be bucked into lengths not exceeding ten feet prior to piling. Maximum width of tractor, with brush rake attached, shall not exceed <144> inches. Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed <25> percent. Piles shall be located a distance of at least twice their height in feet from the outer edge of tree crowns or snags. Piles shall be no less than four feet in height or greater than <15> feet in height. Material extending three feet or more outside the edge of a pile shall be trimmed. An eight foot fuelbreak shall be cleared of all but fine material around each Machine Pile and an 18 inch wide fireline shall be cleared to mineral soil around the outer ring of the fuelbreak. For hand piles, Purchaser shall construct a fireline cleared to mineral soil and at least 3 feet wide around each pile. In areas where there is a potential for burning material to roll, firelines, including those for Machine Piles, shall be trenched on the downhill side of each pile to adequately prevent material from crossing firelines. Trenches shall be constructed by hand unless otherwise agreed.

UNIT AND SUBDIVISION SLASH TREATMENT SPECIFICATIONS.

Subdivision or Unit No	SLASH TREATMENT	
Subdivision or Unit No	Specified Method	Prohibited Method
<u>21, 21 O, 955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, & 979</u>	<u>Fell</u> <u>Scat 18"</u>	<u>N/A</u>

LANDINGS AND DISPOSAL SITES. Unutilized logs accumulated at landings and disposal sites shall be Decked by Purchaser for disposal by Forest Service. The maximum height of decks is shown in the following table. Other slash accumulated at landings and disposal sites shall be kept separate from unutilized logs and treated by the method shown in the following table.

Subdivision or Unit No.	SLASH TREATMENT		
Subdivision or Unit No.	Specified Method	Maximum Height of Decks	
<u>21, 21 O, 955, 956, 957, 958, 963, 965, 966, 969, 971, 972, 974, 975, 976, 978, & 979</u>	<u>Mach & Cover</u>	<u>15'</u>	
<u>Landings</u>	<u>N/A</u>	<u>N/A</u>	
<u>Disposal Sites</u>	<u>N/A</u>	<u>N/A</u>	

TREATMENT ALONG PERMANENT ROADS Permanent roads that require roadside slash treatment are listed in the attached table and shown on Sale Area Map. All Logging and Construction Slash within Required Disposal Strips shall be

treated by Purchaser. "Required Disposal Strips" are those areas adjacent to permanent roads where slash treatment is required for resource objectives. The width of Required Disposal Strips is shown in the attached table and is measured in slope distance from Roadbed edges of permanent roads. By agreement, in Clearcutting Units and regeneration units slash from Required Disposal Strips may be treated with other Logging Slash. By agreement the location of Required Disposal Strips may be adjusted from side to side without materially changing the total work required.

Slash treatment in Required Disposal Strips shall be accomplished without affecting the proper functioning of channels leading to and from drainage structures.

Logging Slash larger than treatment size requirements of the specified method shall either be Scattered outside Required Disposal Strip, within Required Disposal Strip or Decked at agreed locations as shown in the attached table.

//////			SLASH TREATMENT	
Road No.	Subdivision and/ or Unit No. or Road Juncitons (From To)	Width of Required Disposal Strip	Specified Method	Slash Larger Than Treatment Size Requirements of Specified Method
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

TREATMENT ALONG TEMPORARY ROADS. Outside of Clearcutting Units or regeneration units, all trees felled or pushed over and trees damaged beyond recovery by Temporary Road construction shall be felled, limbed to a stem d.o.b. of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and stem shall be bucked into lengths not exceeding <20> feet. Such slash shall be Scattered free of soil to reduce concentrations unless treatment is required by another specified method.

ADDITIONAL SLASH TREATMENT REQUIREMENTS. Within areas shown on Sale Area Map, Purchaser shall perform work according to the specifications in the attached Table, unless otherwise agreed in writing.

Subdivision, Payment Units, Roads and or Road Segments	Additional Slash Treatment Requirements
<u>N/A</u>	Yard all stem material to a top d.o.b. of 1 inch, from timber designated for cutting, with the following exception: broken portions of logs and tops less than 4 feet in length need not be yarded. Broken ends of merchantable logs shall not be bucked off in the units. Slash and Substandard Material accumulated at the landings shall be Decked or Machined Piled, in

	<p>accordance with specifications above.</p> <p>Material accumulated at landings shall be considered as Timber Subject to Agreement under CT2.11#, described as Substandard Material and may be removed and paid for at Purchaser's option.</p>
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ASSISTANCE IN SLASH BURNING. If Forest Service requests, Purchaser shall furnish equipment and equipment operators to assist in preparation for slash burning at agreed times prior to the normal slash burning season in the area.

Purchaser shall furnish equipment and equipment operators for burning and mop-up when requested. The amount and kind of equipment requested shall be that normally used in slash treatment work and reasonably available under the existing equipment organization of Purchaser. Forest Service shall reimburse Purchaser for such work at rates common in the area or at previously agreed rates.

CT 6.8-2# - MEASURING OPTION 2. (8/2006) Timber quantity estimates in AT2 were made as described in the Forest Service Handbook FSH 2409.12, Timber Cruising Handbook, available for inspection in the offices of the Forest Supervisor and District Ranger. When Trees are marked after date of sale advertisement, or when volume is added pursuant to BT2.13, BT2.131, BT2.132, BT2.133, BT2.134, BT2.14, BT2.37, BT2.4, CT2.134, CT2.135, CT2.371, or other authorization hereunder, each tree that is less than 25 inches in diameter breast height (DBH) and has less than 25% visible defect shall have its volume determined from the following table.

Trees greater than or equal to 25 inches DBH; trees with more than 25% defect; or trees from species or diameter groups shown as "N/A" in the table below shall be measured using procedures in FSH 2409.12 and shall use the "R5 Cubic Foot Volume Tables to a Utilization Top", 9/97.

Butterfly MP Thin Timber Sale
Tree Volume (based on original cruise tree data)
(Volume in 100 Cubic Feet - CCF)

PP, SP		WF, RF		DF		IC	
DBH	Volume	DBH	Volume	DBH	Volume	DBH	Volume
10 in.	<u>0.0737</u>	10 in.	<u>0.0395</u>	10 in.	<u>0.0897</u>	10 in.	<u>0.0426</u>
11 in.	<u>0.1094</u>	11 in.	<u>0.0966</u>	11 in.	<u>0.1284</u>	11 in.	<u>0.0651</u>
12 in.	<u>0.1488</u>	12 in.	<u>0.1537</u>	12 in.	<u>0.1701</u>	12 in.	<u>0.0907</u>
13 in.	<u>0.1918</u>	13 in.	<u>0.2109</u>	13 in.	<u>0.2148</u>	13 in.	<u>0.1193</u>
14 in.	<u>0.2385</u>	14 in.	<u>0.2680</u>	14 in.	<u>0.2625</u>	14 in.	<u>0.1509</u>
15 in.	<u>0.2888</u>	15 in.	<u>0.3252</u>	15 in.	<u>0.3131</u>	15 in.	<u>0.1857</u>
16 in.	<u>0.3428</u>	16 in.	<u>0.3823</u>	16 in.	<u>0.3667</u>	16 in.	<u>0.2234</u>
17 in.	<u>0.4005</u>	17 in.	<u>0.4394</u>	17 in.	<u>0.4232</u>	17 in.	<u>0.2642</u>
18 in.	<u>0.4618</u>	18 in.	<u>0.4966</u>	18 in.	<u>0.4828</u>	18 in.	<u>0.3081</u>
19 in.	<u>0.5267</u>	19 in.	<u>0.5537</u>	19 in.	<u>0.5453</u>	19 in.	<u>0.3550</u>
20 in.	<u>0.5953</u>	20 in.	<u>0.6109</u>	20 in.	<u>0.6107</u>	20 in.	<u>0.4050</u>
21 in.	<u>0.6676</u>	21 in.	<u>0.6680</u>	21 in.	<u>0.6791</u>	21 in.	<u>0.4580</u>
22 in.	<u>0.7436</u>	22 in.	<u>0.7251</u>	22 in.	<u>0.7505</u>	22 in.	<u>0.5141</u>
23 in.	<u>0.8231</u>	23 in.	<u>0.7823</u>	23 in.	<u>0.8249</u>	23 in.	<u>0.5732</u>
24 in.	<u>0.9064</u>	24 in.	<u>0.8394</u>	24 in.	<u>0.9022</u>	24 in.	<u>0.6353</u>

CT6.83 - ACCOUNTABILITY. (8/2006) Forest Service and Purchaser shall agree upon the haul route(s) prior to use. All products removed from Sale Area shall be transported over the designated route of haul.

Purchaser shall:

(a) Require truck drivers to sign form R5-2400-242, product removal permit, assure permit is attached to the load prior to removal from the Sale Area and while in transit to load destination.

(b) Assign a competent individual at the landing to record the following information for each load on the product removal permit provided by Forest Service:

1. Date and time load is punched out with a paper punch or equivalent
2. Truck ID or license number
3. Load destination

Used books of product removal permits (stub portion) shall be returned to the Forest Service at least weekly, unless otherwise agreed.

(c) Require truck drivers to stop for transportation inspections, if requested by Forest Service, when products are in transit from Sale Area to Purchaser's processing facility(s).

(d) Inform truck drivers of the designated route(s) of haul, the agreed upon location(s) for transportation inspections, the method of alerting drivers of an impending stop, and the fact that loads may be inspected at other locations where it is safe and possible to do so.

(e) Require truck drivers to assure the product removal permit is secured to each load of product (including chip vans, dump trucks or other container used for removing material) on the front lower corner of the drivers side of the load. Staple product removal permits to a log or attached piece of wood or other suitable material. Product removal permit shall remain attached to log until manufactured into products or if chips, until load has been unloaded. After logs are processed or load of chips unloaded the product removal permit shall be either destroyed or otherwise rendered unusable, unless otherwise agreed.

CT7.2# - SPECIFIED FIRE PRECAUTIONS. (8/2006) Upon request of Forest Service, Purchaser shall permit and assist in periodic testing and inspection of required fire equipment. Purchaser shall certify compliance with specific fire precautionary measures in the fire plan required by BT7.1, before beginning operations during Fire Precautionary Period and shall update such certification when operations change. Specific equipment requirements and fire precautionary measures are shown in the following table:

Specific Equipment Requirements and Fire Precautionary Measures Table -
CT7.2# Table

Version 8/2006

a. Fire Tools and Equipment

Purchaser shall meet minimum requirements of Sections 4427 and 4428 of the California Public Resources Code (C.P.R.C.). Fire tools kept at each operating landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Purchaser's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source.

Where cable yarding is used, Purchaser shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump within 10 feet of each tail and corner block.

Trucks, tractors, pickups and other similar mobile equipment shall be equipped with and carry at all times a size 0 or larger shovel with an overall length of not less than 46 inches and a 2-1/2 pound axe or larger with an overall length of not less than 28 inches.

b. Fire Extinguishers

Purchaser shall equip each internal combustion yarder, fuel truck, and loader with a fire extinguisher for oil and grease fires (4-A:60-B:C).

Purchaser shall equip each mechanized harvesting machine with hydraulic systems, powered by an internal combustion engine (chipper, feller/buncher, harvester, forwarder, hot saws, stroke delimeter, etc), except tractors and skidders, with at least two 4-A:60-B:C fire extinguishers or equivalent. In addition, concentrations of wood dust and debris shall be removed from such equipment daily. Additional extinguishers and sizes may be required at landings in accordance with CT7.22#.

c. Spark Arresters

Purchaser shall equip each operating tractor and any other internal combustion engine with a spark arrester, except for motor vehicles equipped with a maintained muffler as defined in C.P.R.C. Section 4442 or tractors with exhaust-operated turbochargers. Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the National Wildlife Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be maintained in good operating condition.

d. Power Saws

Each power saw shall be equipped with a spark arrester approved according to C.P.R.C. Section 4442 or 4443 and shall be maintained in effective working order. One fire extinguisher meeting specifications of C.P.R.C. Section 4431 shall be kept with each operating power saw. A size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can but not more than 300 feet from each power saw when used off cleared landing areas.

e. Fire Supervisor and Fire Patrolperson

Purchaser shall designate in the fire plan required by BT7.1 and furnish on Sale Area during operating hours a qualified fire supervisor authorized to act on behalf of Purchaser in fire prevention and suppression matters.

Purchaser shall furnish a qualified fire patrolperson each operating day when Project Activity Level B or higher is in effect. When on duty, sole responsibility of patrolperson shall be to patrol the operation for prevention and detection of fires, take suppression action where necessary and notify the Forest Service as required by CT7.22#.

By agreement, one patrolperson may provide patrol on this and adjacent projects or sales. No patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

f. Seasonal Permits

Purchaser shall obtain written permits from Forest Service before allowing attended warming fires, burning, or blasting, subject to CT7.22# - Emergency Precautions. In addition, Purchaser shall obtain necessary Explosives Permits as required by California Health and Safety Code, Section 12101.

g. Blasting

Purchaser shall use electric caps only unless otherwise agreed in writing. When blasting is necessary in slash areas, a watchperson equipped with a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump shall remain in the immediate area for an hour after blasting has been completed.

h. Time of Snag Felling

Unless the felling of dead trees would interfere with the felling, skidding or yarding of green timber or be a safety hazard, or be prevented under CT7.22# - Emergency Precautions, required felling of dead trees shall be concurrent with the felling of live timber. There shall be reasonably timely felling of dead trees to facilitate utilization and protection from fire.

i. Clearing of Fuels

Purchaser shall clear away, and keep clear, fuels and logging debris as follows:

Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law:	10 feet slope radius
Tail or corner haulback blocks:	5 feet slope radius
Lines near, between or above blocks:	Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material

j. Oil Filters and Glass Jugs.

Purchaser shall remove from National Forest lands oily rags and used oil filters and shall prohibit use of glass bottles and jugs in Purchaser's Operations.

k. Smoking.

Any smoking shall be done while sitting in an area at least 3 feet in diameter, cleared of flammable materials. Burning tobacco and matches shall be extinguished before they are properly disposed of.

l. Reporting Fires.

As soon as feasible but no later than 15 minutes after initial discovery - Purchaser shall notify Forest Service of any fires on Sale Area or along roads used by Purchaser.

m. Tank Truck

Purchaser shall meet minimum requirements of Section 4430 of the California Public Resources Code (C.P.R.C.). Purchaser shall provide a water tank truck or trailer on or in proximity to Sale Area during Purchaser's Operations hereunder during Fire Precautionary Period unless otherwise agreed. When Project Activity Level B or higher is in effect, a tank truck or trailer shall be on or immediately adjacent to each active landing unless otherwise excepted when hot saw technology is being used. See CT7.22# for specific contract requirements.

The tank shall contain at least 300 gallons of water available for fire suppression. A water sprinkling tank truck will meet this requirement if provision is made to insure that the minimum of 300 gallons is available for fire suppression at all times. Ample power and hitch shall be readily available for promptly and safely moving tank over roads serving Sale Area. Tank truck or trailer shall be equipped with following:

- (1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Sale Area using a 5/16 inch orifice in the Forester One Inch In-Line Gauge test kit. Pump shall meet or exceed the pressure value in the following table for nearest temperature and elevation:

T e m p e r a t u r e	Sea L e v e l	1000 F e e t		200 0 F e e t		3000 F e e t		4000 F e e t		5000 F e e t		6000 F e e t		7000 F e e t		8000 F e e t		9000 F e e t		1000 0 F e e t		
		17	23	17	23	16	23	16	22	16	22	15	22	15	22	15	21	14	21	14	21	13
55	17	23	17	23	16	23	16	22	16	22	15	22	15	22	15	21	14	21	14	21	13	21
70	17	23	17	23	16	22	16	22	15	22	15	22	15	21	14	21	14	21	13	21	13	20
85	17	23	16	23	16	22	15	22	15	22	15	21	14	21	14	21	14	21	13	20	13	20
100	16	23	16	23	15	22	15	22	15	22	14	21	14	21	14	21	13	20	13	20	13	20
	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G
	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P
	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M	I	M

The pump outlet shall be equipped with 1-1/2 inch National Standard Fire Hose thread. A bypass or pressure relief valve shall be provided for other than centrifugal pumps.

- (2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than approximately 50 feet, when measured to the

extreme ends of the couplings. Hose shall have reusable compression wedge type 1-inch brass or lightweight couplings (aluminum or plastic). One end of hose shall be equipped with a coupling female section and the other end with a coupling male section. The hose shall, with the nozzle closed, be capable of withstanding 200 PSI pump pressure without leaking, distortions, slipping of couplings, or other failures.

- (3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

	G.P.M.	Horizontal Range
Straight Stream	10	38 feet
Fog Spray	6 - 20	N/A

- (4) Sufficient fuel to run pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

When Purchaser is using Hot Saw Technology, an additional 500 feet of not less than one (1) inch outside diameter serviceable hard rubber poly or rubber lined or fiber jacket rubber lined (FJRL) hose shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above. Synthetic hose may be used by agreement.

n.
Communications. Purchaser shall furnish a serviceable telephone, radio-telephone or radio system connecting each operating side with Purchaser's headquarters. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between Purchaser's headquarters (or agreed to alternative) and Forest Service via commercial or Forest Service telephone. The communications system shall be operable during Purchaser's Operations in Fire Precautionary Period described in AT9 and during the time fire patrolperson service is required. A radio-equipped fire patrolperson vehicle will satisfy this requirement if in operation during the time required except during PAL levels "D" and "Ev". See CT7.22# for other communication requirements when operating on "D" and "Ev" days with hot saw technology. A CB is not acceptable communication because FCC Regulations prohibit commercial use.

o. Skyline Tank Unit

When all or part of Included Timber will be yarded by a long span (over 1,500 feet) skyline, Purchaser shall provide at each active skyline landing a suitable tank trailer or tank unit which can be lifted and transported by the skyline carriage. The unit shall meet the same requirements as specified for the water tank trailer.

p. Helicopter Yarding Fire Precautions

Purchaser shall provide and maintain fire and helicopter fueling equipment as follows:

(1). The fire tool box required under this provision shall be equipped for attachment to helicopter long line so that it may be hauled to needed locations. Such attachment device shall not interfere with access to fire tools. The fire tool box shall be located at the helicopter service landing ready for immediate dispatch unless otherwise agreed.

(2). An external helibucket readily attachable to the helicopter, with a capacity of at least 500 gallons, and having a remote control door mechanism adequate for rapid dropping of water. The helibucket shall be located at the helicopter service landing and shall be filled with water ready for immediate dispatch unless otherwise agreed.

(3). Stationary fuel tanks, if used, shall be securely bedded on skids or frame to prevent rolling or tipping and shall be adequately diked with dirt or other agreed to containment methods to prevent fuel spillage or leakage from spreading beyond the diked area.

(4). For protection of fuel servicing operations, fire extinguishers which have the following ratings based on the open hose discharge capacity, i.e., "broken hose," of the aircraft fueling system:

(a) Where said capacity does not exceed 200 gallons per minute, at least one approved extinguisher having a minimum rating of 20-B;

(b) Where said capacity is in excess of 200 gallons per minute, but not over 350 gallons per minute, one approved extinguisher having a minimum rating of 80-B;

(c) Where said capacity is in excess of 350 gallons per minute, two approved extinguishers, each having a minimum rating of 80-B.

Extinguishers of over 50 pounds gross weight shall be of wheeled type or be mounted on carts to provide mobility and ease of handling.

CT7.22# - EMERGENCY PRECAUTIONS. (8/2006) Purchaser's Operations shall conform to the limitations or requirements in the Project Activity Levels (PAL) table below.

Unless otherwise agreed in writing, Project Activity Level applicable to this project shall be for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Sale Area Map legend.

The Forest Service, in its sole discretion, may change the predicted activity level if the current fire suppression situation, weather and vegetation conditions warrant additional restriction of activities. Purchaser shall obtain the predicted Project Activity Level from the appropriate Ranger District headquarters before starting work each day. If practicable, Forest Service will determine the following day's activity level by 6:00 PM local time. If predictions made after 6:00 PM are significantly different than originally estimated, Forest Service will inform Purchaser when changes in restrictions or industrial precautions are indicated.

The following definitions shall apply to these Project Activity Levels:

Cable Yarding Systems: A yarding system that takes logs from the stump area to a landing using an overhead system of winch-driven cables to which logs are attached with chokers or grapples.

Hot Saw Technology: A harvesting system that employs a high-speed (>1100 rpm) rotation felling heads (i.e., full rotation lateral tilt head).

Sunset: The time that sunset is reported in the local newspaper for that day.

Except for Project Activity Level days "Ev after 1:00 PM local time" and "E", Forest Service may issue substitute precautions(s) of the requirements below. Such agreements under BT7.21 shall prescribe measures to be taken by Purchaser to reduce risk of ignition and/or spread of fire.

Forest Service may change the Project Activity Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Project Activity Levels and/or requirements when such changes are necessary for the protection of the National Forest. When sent to Purchaser, the revised Project Activity Levels will supersede the levels below.

PROJECT ACTIVITY LEVEL - CT7.22# - EMERGENCY PRECAUTIONS

Table version 8/2006

PROJECT ACTIVITY LEVEL

Level	Project Activity Requirements
A	<p>Minimum required by CT7.22#</p> <ol style="list-style-type: none"> 1. PAL levels are cumulative, Ev level would include all preceding PAL requirements.
B	<ol style="list-style-type: none"> 1. A fire patrolperson is required for mechanical operations from cessation of operations until 2 hours after operations cease or sunset, which ever occurs first. 2. Tank truck or trailer shall be on or adjacent to each active landing. 3. When hot saw technology is being used, the tank truck or trailer

	<p>(B2 above) may serve dual purpose as active landing tank truck provided it shall be kept readily available for use as follows:</p> <ul style="list-style-type: none"> a. Within one quarter mile of the operating hot saw technology; and b. Within 10 minutes of the active landing; and c. Effective communications exist between hot saw technology and active landing. <p>Otherwise, there shall be a tank truck or trailer at both the active landing and within one quarter mile of the operating hot saw technology.</p> <p>4. (Additional restrictions specified by the forest.)</p>
<p>C</p>	<p>1. The following operations are prohibited from 1:00 PM until 8:00 PM local time:</p> <ul style="list-style-type: none"> a. Blasting <p>2. Operations using hot saw technology are prohibited between 1:00 PM and sunset local time. Hot saw technology operations may continue if Purchaser provides a portable fire suppression system capable of extinguishing a 20-foot by 20-foot wild land fire within five (5) minutes of discovery. The following equipment will meet the requirements above:</p> <ul style="list-style-type: none"> a. Compressed Air Foam System with minimum requirements of 20 gallons stored energy, 100 feet of 1 inch hose and adjustable 1 inch nozzle, minimum discharge range of 60 feet and 1 spare air cylinder; or b. All terrain tank truck or equivalent capable of traveling throughout the cutting unit, containing not less than 300 gallons of water and complies with all tank truck requirements of CT7.2#. All terrain tank truck or equivalent may serve dual purpose as active landing tank truck provided: <ul style="list-style-type: none"> 1) Tank truck or equivalent shall be kept readily available to extinguish a fire within 5 minutes of discovery of the operating hot saw technology, 2) Tank truck or equivalent shall be no further than 10 minutes travel time to the active landing, 3) A 4-A:80-B:C extinguisher is maintained at the landing fire tool box and, 4) Effective communications exist between the hot saw technology, active landing and all terrain tank truck or equivalent. <p>Otherwise there shall be a tank truck at the active landing and an all terrain tank truck or equivalent with the hot saw technology.</p> <p>3. (Additional restrictions specified by the forest.)</p>

<p>D</p>	<p>1. The following restrictions apply:</p> <ol style="list-style-type: none"> a. No blasting after 10:00 AM b. Welding or cutting of metal only by special permit c. No Burning without a permit <p>2. The following activities may not operate after 1:00 PM local time unless fire patrolperson(s) walks all areas operated that day once per hour until sunset local time and has the capability of notifying the designated Forest Service Dispatch Center within fifteen (15) minutes of discovery of a fire:</p> <ol style="list-style-type: none"> a. Track-laying equipment b. Chipping outside of landings and roadbeds c. Equipment using Hot Saw Technology d. Chainsaw operations outside of landings and roadbeds e. Tree felling operations f. Ripping roads and landings g. Mastication h. Cable-yarding employing motorized carriages. <p>3. (Additional restrictions specified by the forest.)</p>
<p>Ev</p>	<p>1. The following operations are prohibited:</p> <ol style="list-style-type: none"> a. Blasting b. Welding or cutting metal c. Burning <p>2. Following activities may operate when fire patrolperson walks from 9:00 AM until local sunset all areas once per hour that were mechanically operated that day.</p> <p>A. Activities that may operate all day:</p> <ol style="list-style-type: none"> 1. Hauling and loading of logs decked at approved landings. 2. Hauling and loading of chips piled at approved landings. 3. Equipment servicing at approved sites. 4. Roads: Dust abatement or rock aggregate installation (do not include pit or quarry development) 5. Chainsaw or stroke delimeter operation associated with loading at approved landing sites. <p>B. All other Operations are permitted until 1:00 PM local time subject to the following:</p> <ol style="list-style-type: none"> 1. When hot saw technology is being used a tractor or other equipment with blade capable of constructing fire line, shall be on standby and immediately available. Tractor will have effective

	<p>communications with hot saw technology and be within one quarter mile of hot saw technology to quickly reach and effectively attack a fire start.</p> <p>C. (Additional restrictions specified by the forest.)</p>
E	<p>The following activities may operate subject to B1. and B2.</p> <ol style="list-style-type: none"> 1. Hauling and loading of logs decked at approved landings. 2. Hauling and loading of chips piled at approved landings. 3. Equipment at approved sites may be serviced. 4. Roads: Dust abatement or rock aggregate installation (does not include pit development). 5. Chainsaw operation associated with loading at approved landings.

CT8.66# - USE OF TIMBER. (4/04) (a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, *et seq.*).

(b) Except for **NONE** determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Purchaser or any person as defined in the Act (16 USC 620e).

(c) Timber in the following form will be considered unprocessed:

(i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;

(ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and

(iii) Aspen or other pulpwood bolts exceeding 100 inches in length.

(d) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.

(e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Purchaser shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Purchaser or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Purchaser shall require each buyer, exchangee, or recipient to execute an acceptable agreement that will:

(i) Identify the Federal origin of the timber;

(ii) Specify domestic processing for the timber involved;

(iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;

(iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and

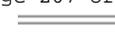
(v) Otherwise comply with the requirements of the Act (16 USC 620d).

(g) No later than 10 days following the execution of any such agreement between Purchaser and another party, Purchaser shall furnish to Forest Service a copy of each such agreement. Purchaser shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.

(h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.

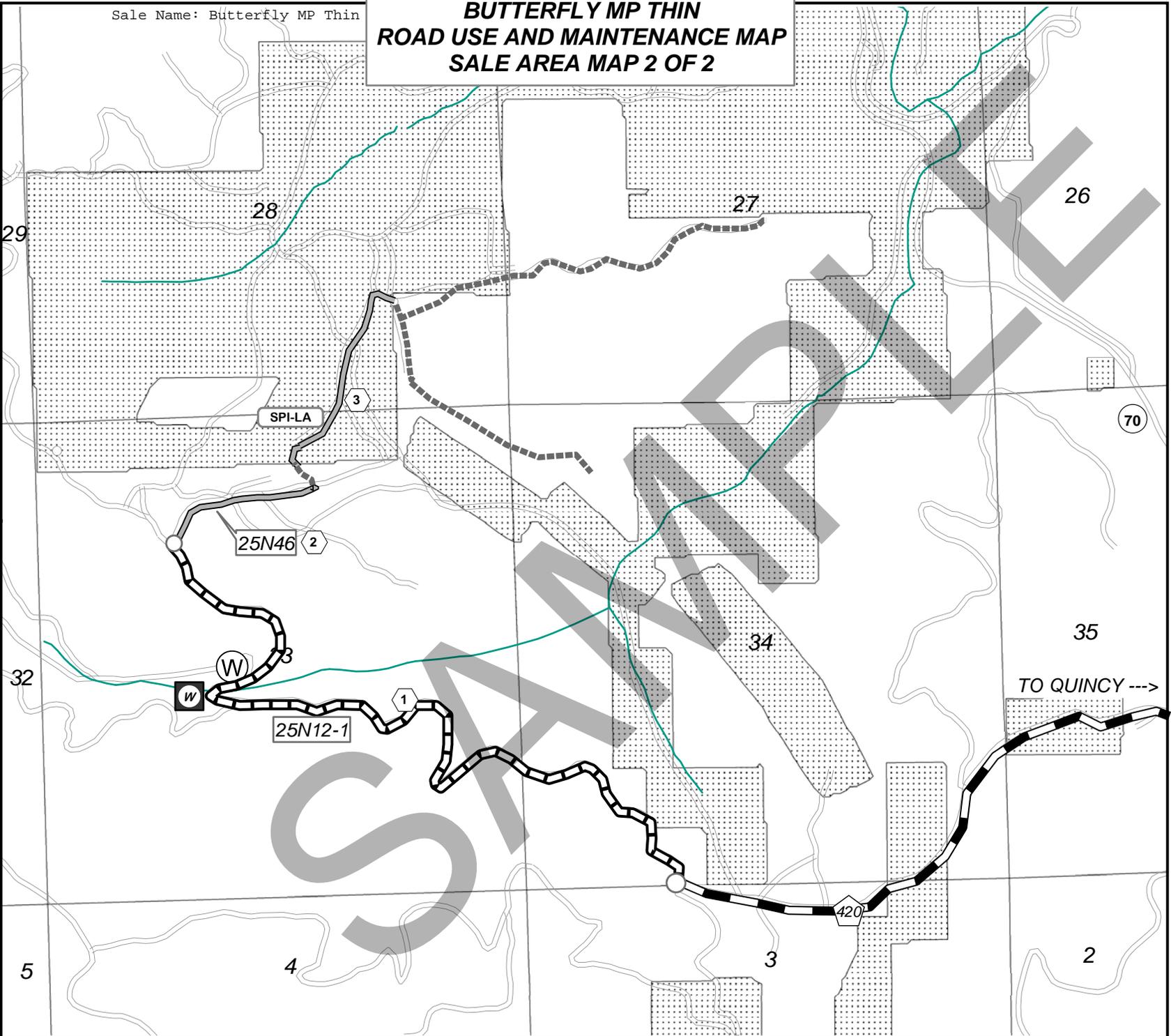
(i) For breach of this Subsection, Forest Service may terminate this contract and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Subsection, Forest Service will not be liable for any Claim submitted by Purchaser relating to the termination.

LEGEND

-  EXISTING
TRANSPO. ROAD
-  TEMP. ROADS
EARTH
-  HAUL ROADS
EARTH
-  HAUL ROADS
GRAVEL
-  HAUL ROADS
PAVED
-  ROAD TERMINI
-  FOREST SERVICE
ROAD NUMBER
-  COUNTY ROAD
-  STATE HIGHWAY
-  HAUL ROAD
SEGMENT
-  SEGMENT TERMINI
-  PRIVATE
PROPERTY
-  PLUMAS
NATIONAL FOREST
-  WATER
SOURCE
-  DISPOSAL
SITE

**BUTTERFLY MP THIN
ROAD USE AND MAINTENANCE MAP
SALE AREA MAP 2 OF 2**

Sale Name: Butterfly MP Thin



T 25 N
T 24 N

FOREST SERVICE SPECIFICATIONS
FOR
CONSTRUCTION OF ROADS AND BRIDGES (1985)
SPECIFICATION LIST

PROJECT BUTTERFLY MP THIN TIMBER SALE ROAD NUMBER ALL

SECTION	TITLE	LATEST REVISION DATE
100-149	GENERAL SPECIFICATIONS	1985
SPS-104	MAINTENANCE FOR TRAFFIC	3/98
SPS-106	MEASUREMENT AND PAYMENT	9/89
172	CONSTRUCTION STAKING, L LINE OFFSET	1985
SPS-172	CONSTRUCTION STAKING, L LINE OFFSET	3/85
201	CLEARING AND GRUBBING	1985
SPS-201	CLEARING AND GRUBBING	9/89
203	EXCAVATION AND EMBANKMENT	1985
SPS-203	EXCAVATION AND EMBANKMENT	9/89
304	AGGREGATE BASE OR SURFACE COURSE	1985
306	RECONDITIONING EXISTING ROAD	1985
603	METAL PIPE	1985
SPS-603	METAL PIPE	9/98

SECTION 104 - MAINTENANCE FOR TRAFFIC

104.01 ROADS TO BE CONSTRUCTED. Delete the first sentence of the first paragraph and substitute the following:

An existing road, while undergoing improvement or use by the Contractor, shall be kept open to all traffic and maintained by the Contractor in such condition that traffic will be adequately accommodated in accordance with the following:

All emergency traffic shall be adequately accommodated at all times.

The road shall be kept open to all traffic after work hours and on weekends with no delays longer than 2 hours during work hours.

Contractor shall abate dust to promote safe use of road and to prevent excessive loss of road material. Contractor may choose the material used in dust abatement. When anything other than water is to be used, such material must be approved in writing by the Engineer.

104.02 USE OF ROADS BY CONTRACTOR. Delete the entire subsection and substitute the following:

The contractor is authorized to use Forest Service roads for all activities necessary for completion of this contract subject to the following limitations and authorizations:

All road maintenance activities must be approved by the Engineer.

Contractor shall be required to maintain roads in a satisfactory condition commensurate with the particular use requirements generated under this contract. Performance by the contractor of this road maintenance work may be required prior to, during, or after each period of use.

Contractor shall abate dust to promote safe use of road and to prevent excessive loss of road material. Contractor may choose the material used in dust abatement. When anything other than water is to be used, such material must be approved in writing by the Engineer.

Contractors use of roads shall not cause damage to the roads or National Forest resources and shall safely accommodate all traffic.

SPECIAL PROJECT SPECIFICATION

SECTION 106 - MEASUREMENT AND PAYMENT is revised as follows:

106.02 METHOD OF MEASUREMENT. Delete the sixth paragraph and substitute the following:

For aggregates weighed for payment, scale weights of material shall be adjusted to deduct the daily average moisture content in excess of 2 percent over optimum moisture. The daily average moisture content will be determined in accordance with AASHTO T-255, from not less than three representative samples of aggregate taken at random intervals each day that aggregate is being weighed.

106.03 UNITS OF MEASUREMENT. Delete (a) (2) and substitute the following:

(2) Material in Place or Stockpile. The quantity will be computed using the average end area method or prismoidal formula.

Add "in the horizontal plan" to pay item (f) Station.

106.05 PRICE ADJUSTMENT FOR OUT OF SPECIFICATION BITUMINOUS MATERIALS. Delete the sixth paragraph and substitute the following:

The schedule of price adjustments shall not apply to the following tests:

<u>Test</u>	<u>AASHTO Test Method</u>
Saybolt Furol Viscosity	T-72
Spot Test	T-102
Particle Charge	T-59
Ductility	T-51
Tag, Flash Point	T-79

Bituminous material failing to meet specifications for these tests shall be removed and replaced.

SECTION 172 - CONSTRUCTION STAKING, OFFSET L-LINE

172.01 WORK

This specification covers the work which shall be performed in providing a construction staking survey consisting of slope stakes, clearing limits, staking of structures and referencing. This work includes all labor, equipment, instruments, materials, transportation, and other incidentals necessary to complete the construction staking in accordance with these specifications and acceptable engineering practice.

MATERIALS

172.02 MATERIALS FURNISHED BY FOREST SERVICE

Drawings will be furnished by Forest Service.

Original survey notes are available from Forest Service.

Construction staking information or data such as offsets, ground, grade, template and slope information will be furnished by Forest Service.

172.03 MATERIALS FURNISHED BY CONTRACTOR

Materials used for this project shall be of the type shown on the exhibits and shall be of a quality normally used in the profession. All books shall be standard engineers field books. Pencils shall be 2H or harder.

SURVEY REQUIREMENTS

172.04 RE-ESTABLISHING PRELIMINARY LINE

P-line stakes that are missing shall be replaced before the slope stakes are set. Survey methods shall be used that meet an accuracy of 1:100.

The centerline shall be established by offsets from the P-line when noted in the slope stake notes and/or drawings. The offsets shall be measured along the course of the original cross section. Accuracy shall be 1:50.

172.05 SLOPE STAKES

The designed cut and fill slopes, roadbed width (including width needed for ditches, berms, turnouts, etc.) and profile grades as shown on drawings and/or contained in slope stakes notes, shall be defined on the ground by establishing slope stakes where required. Slope stakes may be established by any of the standard methods so long as they are set to an accuracy of within one foot horizontally and one foot vertically of their calculated positions. Any changes or corrections shall be noted on the slope stake note printouts.

Slope stakes shall be established for cut and RP stakes unless otherwise shown on the drawings.

All gradeouts shall be staked.

All stakes shall be marked as shown on Figure 1.

All C.M.P. stations shall be recorded in standard Engineering Field Books.

Slope stake note format shall be as shown on Figure 2.

Clearing limits for each station as defined in the slope stake notes shall be established for both cut and fill slopes and shall be marked as shown on Figure 1 and on the drawings.

172.07 CULVERT STAKING

Stakes shall reference the invert elevation of the culvert inlet and outlet and shall be located outside the clearing limits. Culverts shall be staked as shown on Figure 3. Catch basins and drop inlets shall be staked as shown on Figure 4.

172.08 REFERENCING

Reference stakes shall be established as shown on the various figures.

172.09 ERRORS

Any error found that would change the final design or exceed the accuracy limits specified shall be promptly reported to the Forest Service. Remedial action will then be taken by the Forest Service within two weeks. Work on the section in question shall not be resumed until approval to do so is received.

172.10 FIELD NOTES

All notes shall be kept in a neat and legible manner and shall become the property of the Forest Service upon acceptance of the survey.

METHOD OF MEASUREMENT

172.11

Measurement will be by the mile of centerline established and approved to the nearest .01 miles.

BASIS OF PAYMENT

172.12

The accepted quantities will be paid for at the contract unit price shown in the Schedule of Items. This payment shall be full compensation for all work in the section.

Payment will be made under:

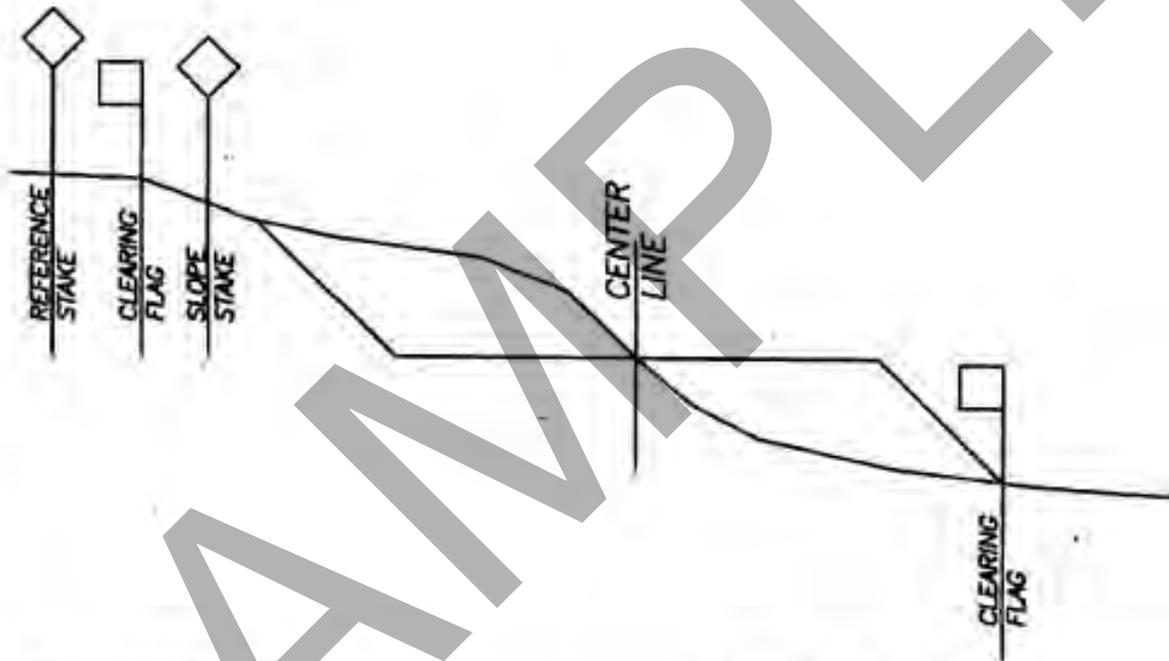
Pay Item

Pay Unit

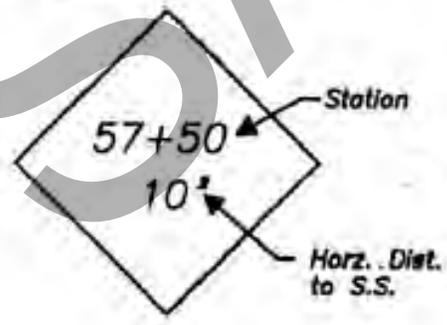
172(01) Construction Staking Mile

Figure 1. Typical Staking

1. All stakes except P-line stakes shall face toward centerline.
2. Slope stakes shall be 4" orange plastic tags on 1/8" wire rod. Station number shall be written on back.
3. RP's shall be 6"x6" white plastic tags on 1/8" wire rod.
4. Plastic tags shall be a minimum of 0.015 inch thickness. Suitable painted wood stakes may be substituted.
5. Clearing limits shall be marked with orange and white flagging or orange and white wire flags.
6. Additional intervisible clearing flags shall be tied on vegetation when needed.



REFERENCE STAKE



SLOPE STAKE

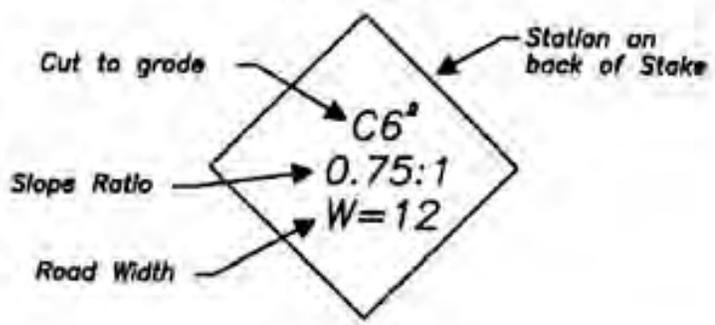


Figure 2. Slope Stake Note Format

- A P-line station
- B Cut or fill at centerline.
- C Horizontal offset of P-line.
- D Vertical distance from grade to designed catchpoint.
- E Slope distance from Preliminary Line to designed catchpoint.
- F Slope distance from Preliminary Line to clearing limits.
- G Slope stake information to be recorded if staked catchpoint differs from designed catchpoint.
- H Reference point information is to be recorded for each station.

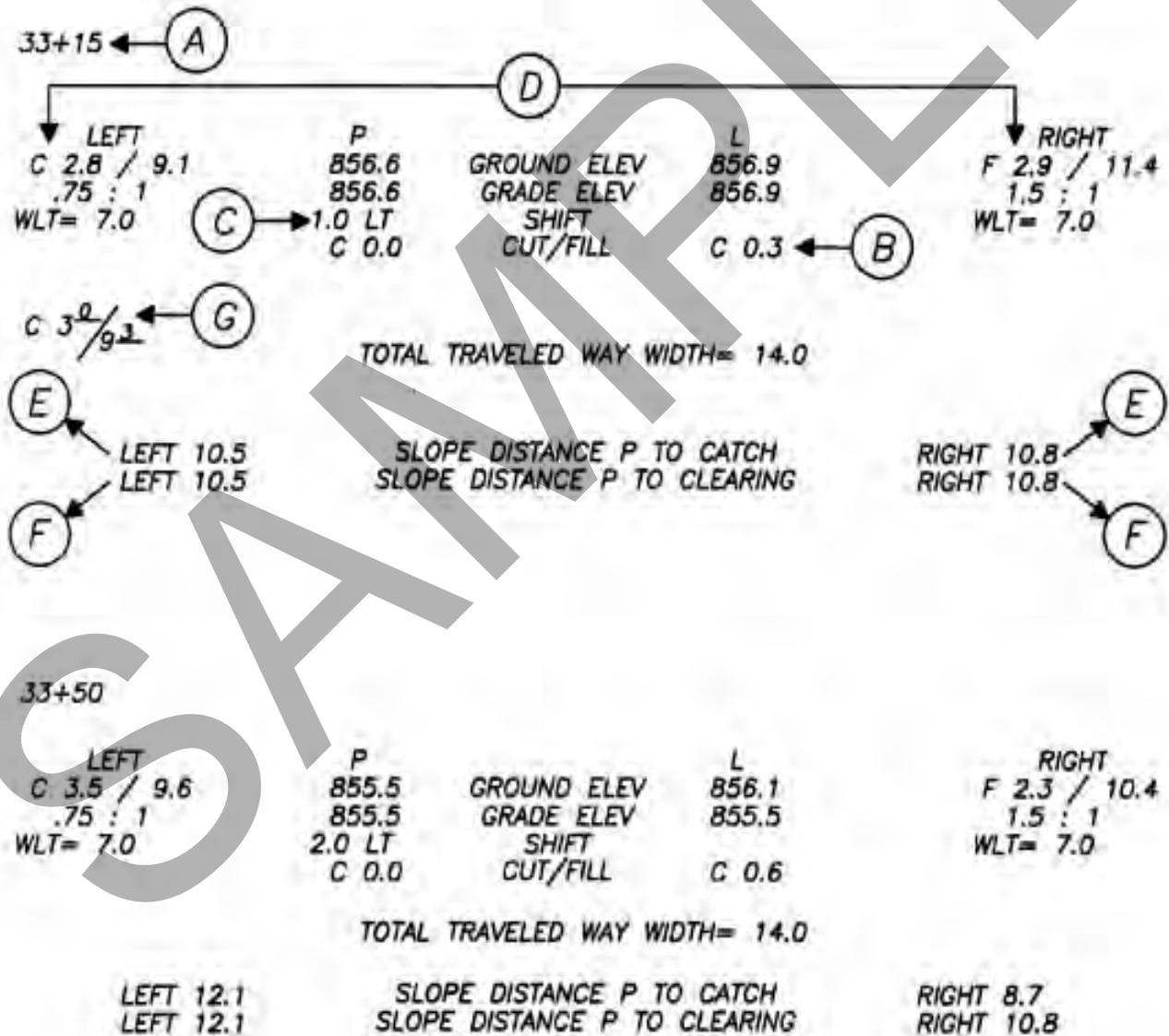


Figure 3. Typical Culvert Staking

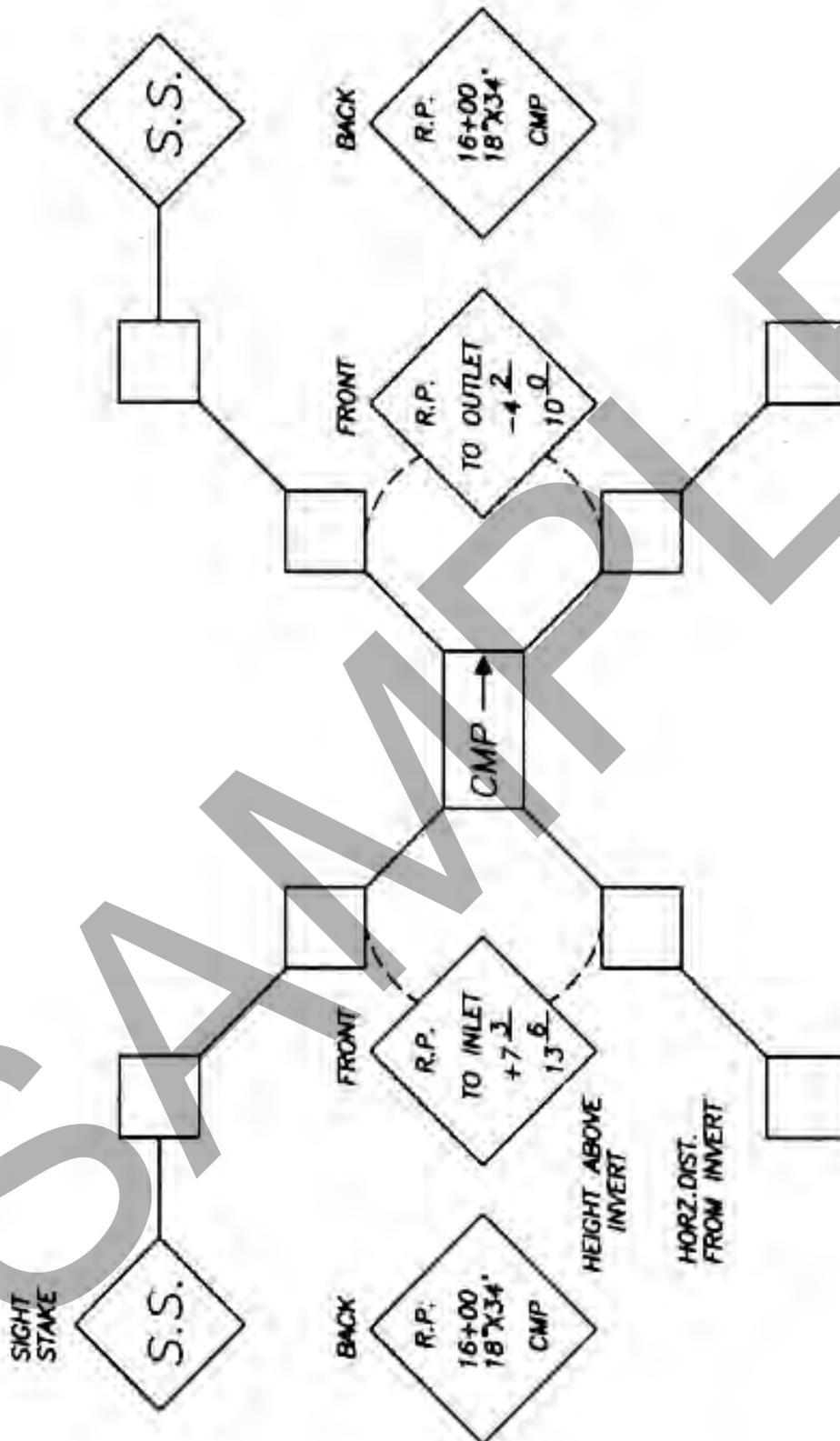
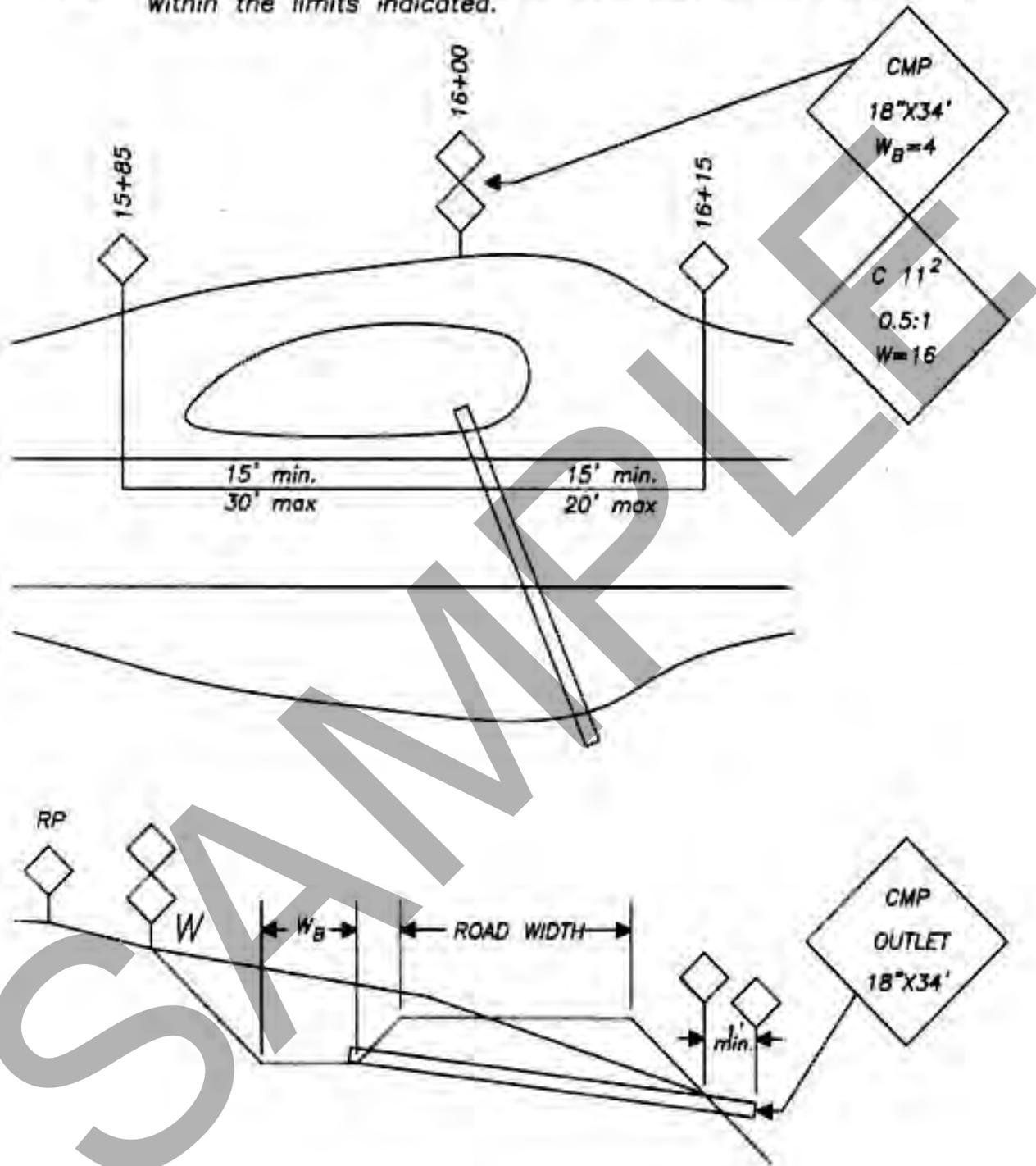


Figure 4. Typical Catch Basin and Drop Inlet Staking

NOTE: Slope Stakes are to be set on each side of the culvert inlet within the limits indicated.



SECTION 201 - CLEARING AND GRUBBING

201.02 CLEARING AND GRUBBING. Add to the first paragraph:

(c) Within the clearing limits, but beyond the roadway, stable trees up to 6 inches in diameter, and other vegetation less than 3 feet in height, that do not interfere with sight distance or slope stability.

Delete the fourth paragraph and substitute:

Hazard trees which are outside of the clearing limits, marked on the ground, shall be felled and disposed of as SHOWN IN THE SCHEDULE OF ITEMS.

201.03 Timber meeting utilization standards is defined as follows:

Species	Length (Feet)	<u>Minimum Piece Specifications</u>		
		Net Scale (Bd. Ft.)	Diameter Inside Bark at Small End (Inches)	Net Scale in Percent of Gross Scale
All Conifers	10	10	4	25

Felling shall be done to minimize breakage and damage to residual timber, using saws or shears.

Stump heights shall not exceed 12 inches on the side adjacent to the highest ground. Occasional stumps of greater height shall be acceptable when necessary for safe and efficient logging of right-of-way timber.

Bucking shall permit removal of all minimum pieces defined above. The contractor shall buck out cull material when necessary to produce pieces meeting utilization standards. Such bucked out material shall not contain more than 25 percent sound wood. If necessary to assess extent of defect, the contractor shall make sample saw cuts or wedges. Sound wood timber shall be determined in accordance with National Forest Log Scaling Handbook, FSH 2409.11, May 1985 edition as amended, and R-5 supplements thereto.

The volume of timber meeting utilization standards is estimated to be 1 thousand board feet (MBF) net scale. The volume is based on the Scribner Decimal C log rule.

201.05 SLASH TREATMENT under (b) Specific Methods delete (4) Scattering and substitute the following:

(4) Scattering. Construction slash shall be scattered outside the clearing limits without damaging trees. All logs shall be limbed. Stumps shall be scattered out of view from the road or scattered the slope distance as SHOWN ON THE DRAWINGS measured from the edge of roadbed, whichever is less. Logs and stumps shall be placed away from trees, positioned so they will not roll, and not be placed on top of one another. Other construction slash shall be limbed and scattered to reduce slash concentrations.

Under (b) Specific Method (8) Decking Unmerchantable Material delete the first sentence and substitute the following:

Logs not meeting utilization standards in Subsection 201.03 that are more than 8 inches in diameter and 10 feet or more in length which are suitable for use as firewood shall be decked in areas SHOWN ON THE DRAWINGS.

Under (b) Specific Method (9) Disposal in Cutting Units delete "at least 50 feet" from the second sentence.

SECTION 203 - EXCAVATION AND EMBANKMENT

203.10 FINISHING SLOPES. Delete the second paragraph.

203.15 EMBANKMENT PLACING METHODS. In the first sentence under Method 4, Controlled Compaction, delete "12 inches (loose measure) and compacted," and substitute: "a thickness that can be accommodated by the compaction equipment, or as SHOWN ON THE DRAWINGS, and compacted."

203.16 CONSTRUCTION TOLERANCES. Add the following to the Tolerance Class Chart:

Roadbed width (feet)	<u>K</u> <u>+ 2</u>
Subgrade elevation (feet)	<u>+/- 0.5</u>
Centerline Alignment (feet)	<u>+/- 1</u>
Slopes, excavation and embankment (percent slope)	<u>+/-10</u>

Add the following at the end of the section:

Deviations in grade or alignment will not be permitted at bridge ends or other structures which control roadbed location or grade. Deviations which have an adverse effect on designed or existing drainage will not be permitted.

Subgrade elevation tolerance for Dips shall be 'A'.

SPECIAL PROJECT SPECIFICATION

SECTION 603 - METAL PIPE:

603.03 EXCAVATION. Add the following paragraph:

Prior to the start of construction, the contractor shall submit to the Engineer for approval a stream diversion and sediment control plan for culvert installations in all live streams.

603.06 JOINING PIPES. Add to the last sentence of the first paragraph:

"...,or as otherwise SHOWN ON THE DRAWINGS."

603.10. METHOD. Delete the second paragraph and substitute:

Except where otherwise SHOWN ON THE DRAWINGS, excavation for pipe installation will be considered incidental to the work of installing metal pipe, and will not be measured or paid for separately.

SAMPLE

SECTION 625 - SEEDING AND MULCHING is revised as follows:

625.01 Add "binder," after "mulch," in the first sentence.

625.03 SEEDING SEASON. Add the following:

"Seeding shall begin no earlier than October 1 and shall be completed no later than November 1, Seeding shall not begin until areas designated for seeding have been approved by the Forest Service".

625.04 SOIL PREPARATION. Add the following before the first sentence:

Areas to be seeded are SHOWN ON THE DRAWINGS.

Add the following:

"All areas with a slope ratio 1:1 and flatter which have been disturbed during the construction operations, except the roadbed, shall be treated."

625.05 APPLICATION METHODS FOR SEED, FERTILIZER, AND LIMESTONE.

In the first line delete "Material may be placed by the following methods:" and substitute the following:

"Material shall be placed by the method(s) shown in the SCHEDULE OF ITEMS."

Add the following under all methods:

Seed. Seed shall be "Native Plumas Mix", a mix of native species seed collected on the Plumas N.F. in the following pounds per acre:

Native Plumas Mix

<u>Species</u>	<u>Pounds per acre</u>
Deschampsia elongata	3.0
Vulpia microstachys	2.0
Lotus purshianus	2.0
Bromus carinatus (Quincy and Plumas Brome mix)	5.5
Elymus glaucus (Blue Wildrye)	5.5
Poa secunda	2.0
Mycorrhizal Innoculum	20.0
Weed free straw	20 bales/acre

This seed mix may be from any source that certifies it was collected on the Plumas N.F., such as Conservaseed, PO Box 455, RioVista CA 94571 (916)775-1676.

Application rate: 20 pounds/acre seed, 20 pound/acre innoculum.

Application rates are in terms of Pure Live Seed (P.L.S.) and seed mixes shall be adjusted accordingly to reflect the seed purity and germination.

Add the following under (a) Hydraulic Method: If seed and wood cellulose mulch are applied in a single operation, the seed application rate shall be doubled.

Add the following under (b) Dry Method: If seed and straw or hay are applied in a single operation, the seed application rate shall be tripled.

625.06 APPLICATION OF MULCH. Add the following under all methods:

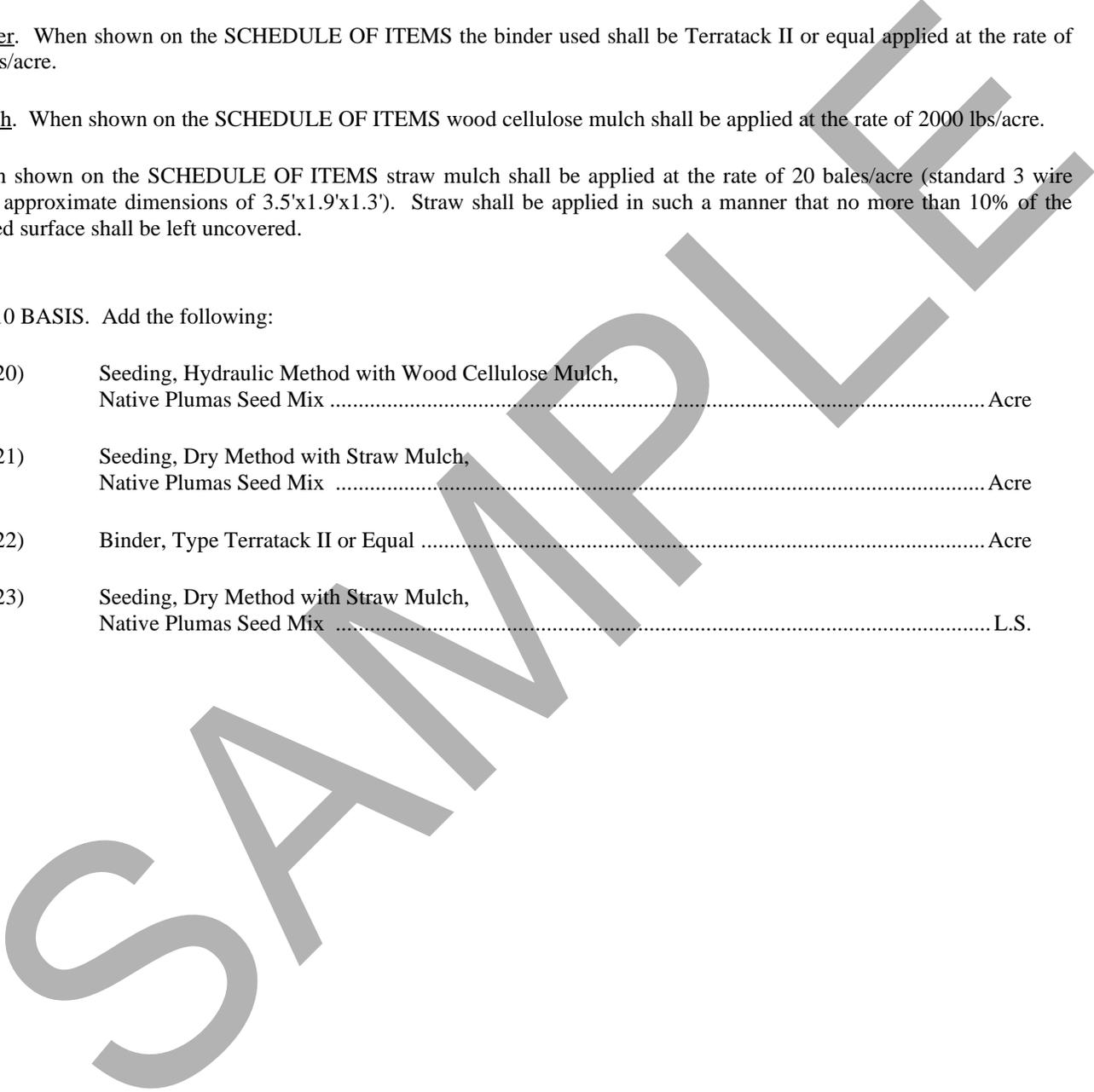
Binder. When shown on the SCHEDULE OF ITEMS the binder used shall be Terratack II or equal applied at the rate of 90 lbs/acre.

Mulch. When shown on the SCHEDULE OF ITEMS wood cellulose mulch shall be applied at the rate of 2000 lbs/acre.

When shown on the SCHEDULE OF ITEMS straw mulch shall be applied at the rate of 20 bales/acre (standard 3 wire bale, approximate dimensions of 3.5'x1.9'x1.3'). Straw shall be applied in such a manner that no more than 10% of the treated surface shall be left uncovered.

625.10 BASIS. Add the following:

625(20)	Seeding, Hydraulic Method with Wood Cellulose Mulch, Native Plumas Seed Mix	Acre
625(21)	Seeding, Dry Method with Straw Mulch, Native Plumas Seed Mix	Acre
625(22)	Binder, Type Terratack II or Equal	Acre
625(23)	Seeding, Dry Method with Straw Mulch, Native Plumas Seed Mix	L.S.



SECTION 703 - AGGREGATES

703.06 AGGREGATE FOR BASE OR SURFACE COURSES.

Item (d) Crushed Aggregate:

Change the title from "Crushed Aggregate" to "Crushed Aggregate for Surface Course". Delete "base or" in the first line of the first paragraph, and in the titles of Tables 703-3 and 703-4, and eliminate the entire column of figures and words, titled "Base" under "Requirement" in Table 703-3. In the last item of Table 703-3, "Sand Equivalent", delete "(Alternative Method Number 2)".

Delete "50 percent" in the first and fourth line of the third paragraph and substitute "75 percent".

Add at the end of Subsection 703.06:

(e) Crushed Aggregate for Base Course. Crushed aggregate for base course shall be crushed stone, slag or gravel, and shall be free of organic matter and other deleterious substances.

Crushed aggregate for base course shall meet the following quality requirements:

Resistance (R-Value), AASHTO T 190	78 Minimum
Sand Equivalent, AASHTO T 176.....	25 Minimum
Durability Index, Coarse and Fine, AASHTO T 210	35 Minimum

Crushed aggregate for base course shall meet the requirements of Table 703-4A below, for the grading shown in the SCHEDULE OF ITEMS.

Table 703-4A.--Crushed aggregate grading requirements for base course

<u>Sieve</u>	Percent Passing (AASHTO T 11 and T 22)	
	Grading 1 <u>1 1/2" Max.</u>	Grading 2 <u>3/4" Max.</u>
2 inch	100	-
1 1/2 inch	90-100	-
1 inch	-	100
3/4 inch	50-85	90-100
No. 4	25-45	35-60
No. 30	10-25	10-30
No. 200	2-9	2-9

SECTION 713 - ROADSIDE IMPROVEMENT MATERIALS is revised as follows:

713.03 Add the following:

Fertilizer shall be 16-20-0 mixture.

713.04 SEED. Add the following to the second sentence of the first paragraph:

except that Table I of Federal Specification JJJ-S 181 shall be modified as follows:

QUALITY REQUIREMENTS FOR AGRICULTURE SEEDS

Name of Seed DOMESTIC (Generic)	Minimum Percent Pure Seed	Minimum Percent Germination and Hard Seed	Maximum Percent Weed Seed
All Species	85	70	1.0

"If seeds are acquired from sources outside of the State of California they must pass inspection of the State of California. Seeds acquired outside the County of intended use must conform to rules and regulations of the Agricultural Departments of said County."

Certification of compliance, to State and County requirements shall be furnished to the Engineer prior to application of the seed.

TABLE C - MAINTENANCE T-800 SPECIFICATIONS

<u>Specification No.</u>	<u>Specification Title</u>
T-800	Definitions
T-801	Slide and Slump Repair
T-802	Ditch Cleaning
T-803	Surface Blading
T-804	Surfacing Repair
T-805	Drainage Structures
T-806	Dust Abatement
T-807	Roadway Vegetation
T-808	Miscellaneous Structures
T-809	Waterbars
T-810	Barriers
T-811	Surface Treatment

SPECIFICATION T-800 DEFINITIONS

Wherever the following terms or pronouns are used in Specifications T-801 through T-809, the intent and meaning shall be interpreted as follows:

800-1.1 - Agreement. Maintenance projects require a mutually acceptable method to resolve the problems which arise when incompatible situations arise between drawings and specifications and actual conditions on the ground to allow orderly and satisfactory progress of the maintenance.

These specifications have been developed in anticipation of those problem areas and have provided that such changes will be by agreement.

It is intended that drawings and specifications will govern unless "on-the-ground" conditions warrant otherwise, when specifications call for "agreement", "agreed", or "approval" such agreement or approval shall be promptly confirmed in writing.

800-1.2 - Annual Road Maintenance Plan. A plan prepared by various users of one or several roads. The plan is an agreement on maintenance responsibilities to be performed for the coming year.

800-1.3 - Base Course. Material used to reinforce subgrade or, as shown on drawings, placed on subgrade to distribute wheel loads.

800-1.4 - Berm. Curb or dike constructed to prevent roadway run-off water from discharging onto embankment slope.

800-1.5 - Borrow. Select material taken from designated borrow sites.

800-1.6 - Crown, Inslope and Outslope. The cross slope of the traveled way to aid in drainage and traffic maneuverability.

800-1.7 - Culverts. A conduit or passageway under a road, trail or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the traveled way.

800-1.8 - Drainage Dip. A dip in the traveled way which intercepts surface runoff and diverts the water off the traveled way. A drainage dip does not block the movement of traffic.

800-1.9 - Drainage Structures. Manufactured structures which control the runoff of water from the roadway including culverts, overside drains, aprons, flumes, downdrains, downpipes, and the like.

800-1.10 - Dust Abatement Plan. A table which lists the road, dust palliative, application rates and estimated number of subsequent applications

800-1.11 - Lead-off Ditches. A ditch used to transmit water from a drainage structure or drainage dip outlet to the natural drainage area.

800-1.12 - Material. Any substances specified for use in the performance of the work.

SPECIFICATION T-800 DEFINITIONS

800-1.13 - Prehaul Maintenance. Road maintenance work which the Purchaser determines must be accomplished to maintain the roads to a satisfactory condition commensurate with the Purchaser's use, provided Purchaser's Operations do not damage improvements under 24.2 or National Forest resources and hauling can be done safely. This work will be shown in the Annual Road Maintenance Plan as provided in 24.3.

Prehaul maintenance work the Purchaser elects to perform will be in compliance with the Road Maintenance T-Specifications.

800-1.14 - Roadbed. The portion of a road between the intersection of subgrade and sideslopes, excluding that portion of the ditch below subgrade.

800-1.15 - Road Maintenance Plan. A table which shows applicable road maintenance specifications to be performed by Purchaser on specific roads.

800-1.16 - Roadside. A general term denoting the area adjoining the outer edge of the roadway.

800-1.17 - Roadway. The portion of a road within the limits of excavation and embankment.

800-1.18 - Shoulder. That portion of roadway contiguous with traveled way for accommodation of stopped vehicles, for emergency use, and lateral support of base and surface course, if any.

800-1.19 - Slide. A concentrated deposit of materials from above or on backslope extending onto the traveled way or shoulders, whether caused by mass land movements or accumulated raveling.

800-1.20 - Slough. Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the traveled way so as to block passage of traffic.

800-1.21 - Slump. A localized portion of the roadbed which has slipped or otherwise become lower than that of the adjacent roadbed and constitutes a hazard to traffic.

800-1.22 - Special Project Specifications. Specifications which detail conditions and requirements peculiar to the individual project.

800-1.23 - Subgrade. Top surface of roadbed upon which base course or surface course is constructed. For roads without base course or surface course, that portion of roadbed prepared as the finished wearing surface.

800-1.24 - Surface Course. The material placed on base course or subgrade primarily to resist abrasion and the effects of climate. Surface course may be referred to as surfacing.

800-1.25 - Surface Treatment Plan. A table which lists the roads and surface treatments to be applied.

800-1.26 - Traveled Way. That portion of roadway, excluding shoulders, used for the movement of vehicles.

800-1.27 - Turnouts. That portion of the traveled way constructed as additional width on single lane roads to allow for safe passing of vehicles.

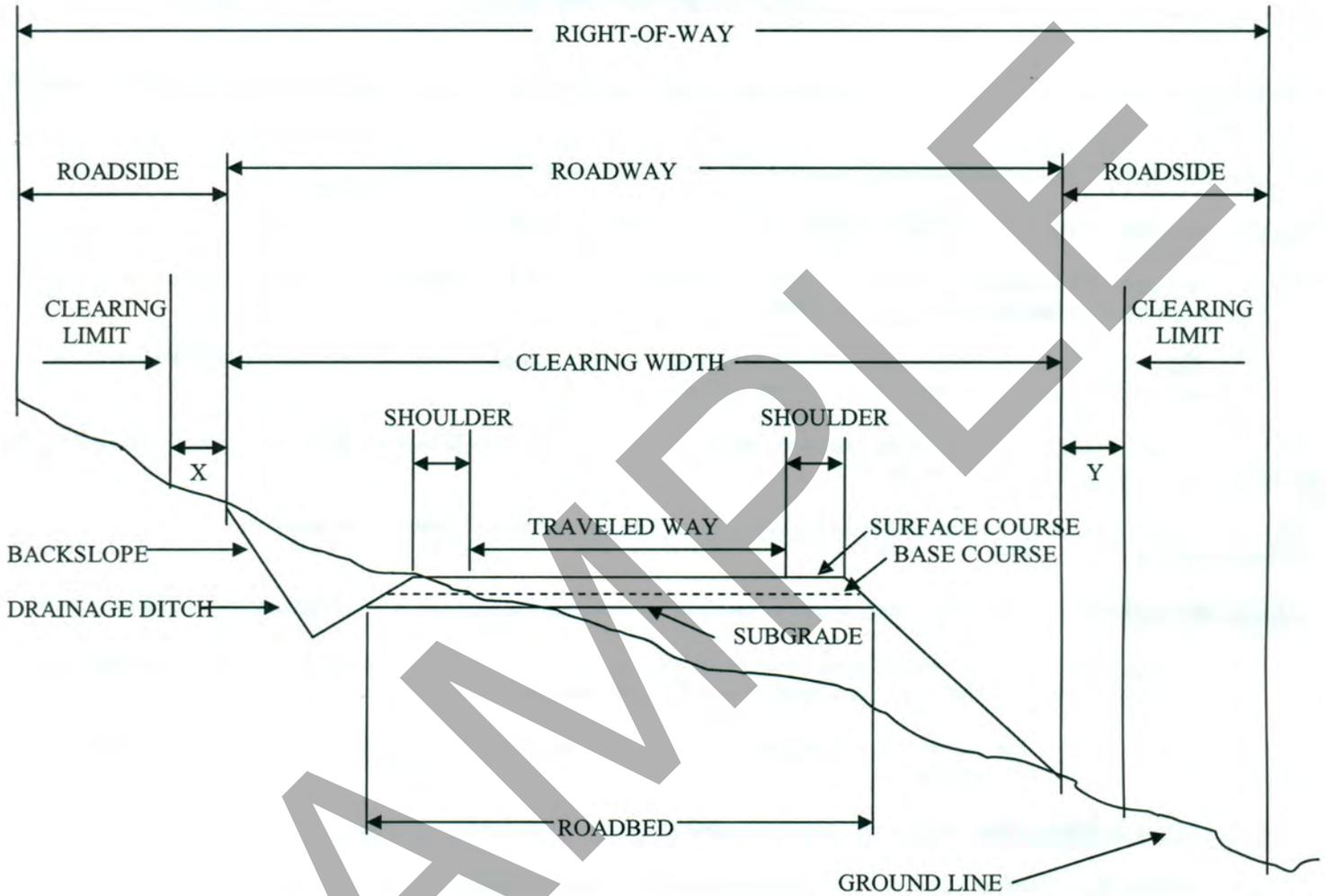
800-1.28 - Water Source. A place designated on the Road Maintenance Map for acquiring water for road maintenance purposes.

800-1.29 - Waterbar. A dip in the roadbed which intercepts surface runoff and diverts the water off the roadway. A waterbar is not designed to be traversable by logging trucks.

SAMPLE

SPECIFICATION T-800 DEFINITIONS

FIGURE 800-2 ILLUSTRATION OF ROAD STRUCTURE TERMS



NOTE: X & Y Denote Clearing Limits Outside of Roadway

SPECIFICATION T-801 SLIDE AND SLUMP REPAIR

DESCRIPTION

1.1 Slide removal is the removal from Roadway and disposal of any material, such as soil, rock, and vegetation that cannot be routinely handled by a motor grader during Ditch Cleaning, T-802, and Surface Blading, T-803 Operations.

Slump repair is the filling of depressions or washouts in Roadway which cannot be routinely filled by a motor grader during Surface Blading, T-803 Operations.

Slide removal and slump repair includes excavation, loading, hauling, placing, and compacting of waste or replacement material and the development of disposal or borrow areas.

REQUIREMENTS

3.1 Slide material, including soil, rock and vegetative matter which encroaches into the Roadway, shall be removed. The slope which generated the slide material shall be reshaped during the removal of the slide material with the excavation and loading equipment. Slide material deposited on the fill slope and below the Traveled Way will not be removed unless needed for slope stability or to protect adjacent resources.

Surface and Base Courses shall not be excavated during slide removal operations.

Slide material which cannot be used for other beneficial purposes shall be disposed of at disposal sites SHOWN ON THE SALE AREA MAP. Material placed in disposal sites will not require compaction unless compaction is SHOWN ON THE ROAD MAINTENANCE PLAN.

3.2 When filling slumps or washouts, material shall be moved from agreed locations or borrow sites SHOWN ON SALE AREA MAP, placed in layers, and compacted by operating the hauling and spreading equipment uniformly over the full width of each layer.

Existing aggregate surfacing shall be salvaged when practical and relaid after depressions have been filled.

Damaged aggregate base, aggregate surfacing, and bituminous pavement shall be repaired under Specification T-804 Surfacing Repair.

The repaired areas of the slump shall conform to the cross section which existed prior to the slump and shall blend with the adjacent undisturbed Traveled Way.

3.3 The maximum volume of Purchaser responsibility for slide and slump repair is SHOWN ON ROAD MAINTENANCE PLAN. Greater volumes of slide and slump repair not qualifying as Catastrophic Damage are Forest Service responsibility.

SPECIFICATION T-802 DITCH CLEANING

DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all slough material from roadway ditches to provide a free-draining waterway.

REQUIREMENTS

3.1 Ditch cleaning shall be repeated during the year as often as necessary to facilitate proper drainage.

3.2 All slough material or other debris which might obstruct water flow in the roadway ditch shall be removed. Material removed from the ditch, if suitable, may be blended into existing native road surface or Shoulder or placed in designated Berms in conjunction with Surface Blading T-803 operations.

Material removed from ditches that is not by agreement blended into existing roads or placed in Berms shall be loaded and hauled to the disposal site SHOWN ON THE SALE AREA MAP.

3.3 Roadway backslope or Berm shall not be undercut.



SPECIFICATION T-803 SURFACE BLADING

DESCRIPTION

1.1 Surface blading is keeping a native or aggregate Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the crown, inslope or outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning bridge decks, Drainage Dips, and Lead-off Ditches.

REQUIREMENTS

3.1 Surface blading shall be performed before, during, and after Purchaser's use as often as necessary to facilitate traffic and proper drainage.

3.2 The surface blading shall preserve the existing cross section. Surface irregularities shall be eliminated and the surface left in a free draining state and to a smoothness needed to facilitate traffic. Surface material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to prevent the loss of surface material and to provide for a thorough mixing of the material being worked.

3.3 Water, taken from Water Sources DESIGNATED ON THE SALE AREA MAP, shall be applied during blading if sufficient moisture is not present to cut, mix, or compact the surface material.

3.4 On native surfaced roads, Material generated from backslope sloughing and ditch cleaning may be blended with the surface material being worked. On aggregate surfaced roads this Material shall not be blended with Surface or Base Course material unless agreed otherwise.

3.5 Roadway backslopes or Berms shall not be undercut nor shall new Berms be established unless agreed otherwise. Berms shall be repaired by placing Material as needed to restore the Berm to reasonably blend with existing line, grade, and cross section.

3.6 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to reasonably blend with existing line, grade, and cross section.

3.7 Intersecting roads shall be bladed for a distance of 50 feet to assure proper blending of the two riding surfaces.

3.8 Rocks or other material remaining on the Traveled Way after the final pass that are larger than 4 inches in diameter or are larger than the maximum size of imported surfacing shall be removed from the Traveled Way. The oversized material shall be disposed of by sidecasting unless SHOWN OTHERWISE ON THE SALE AREA MAP. Sidecasting into streams, lakes or water courses will not be permitted.

3.9 Material resulting from work under this specification shall not remain on or in structures, such as Culverts, overside drains, cattleguards, ditches, Drainage Dips, and the like.

3.10 Material resulting from work under this specification plus any accumulated debris shall be removed from bridge decks and the deck drains opened.

T-803-1

(5/83)

SPECIFICATION T-804 SURFACING REPAIR

DESCRIPTION

1.1 Surfacing repair is repairing potholes or small, soft areas in the Traveled Way. It includes area preparation and furnishing and placing all necessary materials, and other work necessary to repair the surface.

MATERIAL

2.1 Material used in the repair of soft areas on aggregate or native surfaced roads may be acquired from approved commercial sources, Forest Service borrow areas SHOWN ON SALE AREA MAP or borrow sources agreed to. The quality and quantity of the imported Material used in the repair will be limited to that needed to provide a stable Traveled Way for hauling and to minimize damage to the road and adjacent resources. The quantity of imported surface repair material used in the appraisal estimate will be SHOWN ON THE ROAD MAINTENANCE PLAN. However, the magnitude of the work may vary depending on Purchaser's hauling schedule and ground conditions.

2.2 Material used in the repair of bituminous pavements may be acquired from local commercial sources. If a mixing table is required, the location shall be approved by the Forest Service. The bituminous mixture to be used by the Purchaser shall be approved by the Forest Service. The Purchaser's share of the quantity of bituminous mixture used in the appraisal estimate will be SHOWN ON THE ROAD MAINTENANCE PLAN. However, Purchaser's share of the work may vary depending on Purchaser's hauling schedule, ground conditions, other traffic, etc.

REQUIREMENTS

3.1 Work under this specification shall be performed in a timely manner to reduce further deterioration of the Traveled Way.

3.2 Soft spots on aggregate or native surfaces shall be repaired by placing the imported surface course on top of the soft spot. Layers of imported material shall be placed until a firm surface is produced.

3.3 Bituminous Pavement Repairs

The areas to receive bituminous pavement repairs will be marked on the road surface by the Forest Service just prior to Purchaser performing the work.

3.4 Potholes (deep patch)

Surface course and base course materials shall be excavated to a depth necessary to reach firm, suitable material. The minimum depth of excavation shall be two inches and the maximum depth of excavation shall be to the top of the Subgrade.

The edges of the prepared hole shall be extended to form a vertical face in unfractured asphalt surfacing. The prepared hole shall generally be circular or rectangular in shape, dry, and cleaned of all loose material.

Prepared potholes shall be patched or barricaded immediately.

The faces of the prepared hole shall be tacked with a slow-setting emulsified asphalt.

The bituminous mixture shall be placed in layers not exceeding a compacted depth of two inches. Each layer shall be compacted thoroughly with hand or mechanical tampers or rollers. Compaction shall not be done with equipment wheels.

Upon completion, the compacted patch in the pothole shall be flush, with a tolerance or approximately one-fourth inch to one-half inch above the level of the adjacent pavement.

3.5 Skin Patches

Prior to skin patching, potholes shall be patched, and the surface shall be cleaned of loose and deleterious material. Apply a tack coat with a slow-setting emulsified asphalt at the rate of 0.1 gallons per square yard.

SAMPLE

SPECIFICATION T-804 SURFACING REPAIR

Bituminous mixture shall be distributed uniformly with feathered edges in layers not to exceed two inches compacted depth. When multiple layers are ordered, joints shall be offset at least six inches between layers.

Each layer shall be compacted by two passes with a 7-10 ton steel roller or comparable vibratory roller.

3.6 Asphalt Berm

Damaged segments of Berm shall be removed and the exposed ends beveled at approximately forty-five degrees from vertical. The Berm foundation shall be cleaned and patched as necessary. The foundation and joining surfaces shall be coated with a slow-setting emulsified asphalt. Asphalt mix shall be placed and compacted to conform with the shape and alignment of the undamaged segment.

3.7 Disposal

All materials removed from potholes, patches, and Berms shall be disposed of at disposal sites SHOWN ON THE SALE AREA MAP.

SPECIFICATION T-805 DRAINAGE STRUCTURES

DESCRIPTION

1.1 This work consists of maintaining Drainage Structures and related items such as inlet and outlet channels, existing riprap, trash racks and drop inlets.

MATERIALS

2.1 All materials used in the maintenance of Drainage Structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 Drainage Structures and related items shall be cleared of all foreign material which has been deposited above the bottom of the structure and all vegetative growth which interferes with the flow pattern. Material removed that cannot be incorporated into maintenance work shall be hauled to a disposal site SHOWN ON THE SALE AREA MAP.

3.2 If outlet or inlet riprap was installed by Purchaser as a construction item or existed prior to Purchaser's haul, it shall be maintained in good condition including the replacement of riprap if necessary to previous line, grade, and cross section.

3.3 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the Drainage Structure.

SPECIFICATION T-806 DUST ABATEMENT

DESCRIPTION

1.1 This work shall consist of preparing Traveled Way and furnishing and applying materials to abate dust.

MATERIALS

2.1 The roads requiring dust abatement, type of dust abatement material to be used, the rates of application, and frequency of applications will be SHOWN ON THE DUST ABATEMENT PLAN. The Dust Abatement Plan may be changed by written agreement.

2.2 Water

Water sources: approved locations are SHOWN ON SALE AREA MAP.

2.3 Dust abatement materials shall meet the requirements of the following Subsections of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects or ATTACHED SPECIAL PROJECT SPECIFICATIONS.

Bituminous Materials

	Liquid Asphalts.	702.02
	Bituminous Dust Palliatives.	725.02
	Application Temperatures	702.04
703.13	Blotter Material.	
	Lignin Sulfonate.	725.20
	Application Temperature.	306.04(b)
	Water, for diluting.	306.04(b)
	Magnesium Chloride.	725.02
	Application Temperature.	725.01

2.4 Testing of Materials

Certification and sampling of bituminous materials lignin sulfonate, and magnesium chloride shall be in accordance with Subsection 105.04, 5-725.03, and 5-730.03, respectively, of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects.

REQUIREMENTS

3.1 General

Dust abatement materials shall be applied to the road surface as necessary to control road surface loss, provide for road user safety, and minimize damage to adjacent resources.

3.2 Compaction

When the methods listed below specify compaction, Traveled Way shall be compacted by an 8 to 10 ton pneumatic, steel-wheeled or equivalent vibrating roller making 2 passes over the full Traveled Way and Shoulder width, unless compaction is not required on the DUST ABATEMENT PLAN.

SAMPLE

SPECIFICATION T-806 DUST ABATEMENT

3.3 Preparation to Dust Abatement Materials Other Than Water.

The following applies to all methods of preparation:

Bituminous residue shall be scarified and pulverized to produce loosened material not exceeding 4 inches in greatest dimension.

Traveled Way shall be bladed in accordance with T-803.

Prior to applying DO-6BA, DO-6PA, or DO-8 the top 2 inches of Traveled Way shall contain not less than 80 percent nor more than 120 percent of optimum moisture as determined by AASHTO T-99, Method C. Prior to applying other bituminous material Traveled Way shall have a moisture content between 1 and 3 percent. If surface dusting prevents the bituminous material from penetrating, a light application of water shall be applied just prior to applying the bituminous material.

Lignin Sulfonate and magnesium chloride shall be applied when the top 1 inch of Traveled Way contains not less than 3 percent moisture nor more than 120 percent of optimum moisture as determined by AASHTO T-99, Method C.

Moisture content will be determined in accordance with AASHTO T-217 OR T-239.

One or more of the following methods shall be used as specified in the DUST ABATEMENT PLAN.

Method 1. Compact Traveled Way and apply the dust abatement material.

Method 2. Develop a layer of loose material approximately one inch in depth for the full width of Traveled Way. Apply the dust abatement material to this loose material and compact after penetration. If traffic makes maintenance of the loose material difficult, one inch of the material may be bladed into a windrow along the shoulder. The specified moisture content shall be maintained in the windrow and the top one inch of Traveled Way. The windrow shall be bladed to a uniform depth across Traveled Way just prior to applying the dust abatement material. When the dust abatement material has penetrated, Traveled Way shall be compacted.

Method 3. Blade one inch of material from Traveled Way into a windrow along the Shoulder. Maintain the specified moisture content in the windrow and the top inch of Traveled Way. Apply half the dust abatement material. When the dust abatement material has penetrated, the windrow shall be bladed to a uniform depth across dust abatement Traveled Way, and the remaining dust abatement material shall be applied. Traveled Way shall be compacted.

Method 4. Develop a layer of loose material approximately 2 inches in depth for the full width of Traveled Way. Apply half the dust abatement material to the loose material. Blade the top 2 inches into a windrow along the Shoulder. Apply the remaining dust abatement material to Traveled Way and the Berm. Spread the Berm evenly across Traveled Way and compact.

3.4 Preparation for Dust Abatement with Water

Traveled Way shall be prepared in accordance with Specification T-803 Surface Blading when required.

3.5 Application Tolerance

Dust abatement materials other than water shall be applied within 0.05 gallons per square yard of the rate specified.

3.6 Mixing Requirements

DO-6BA, DO-6PA, and DO-8 shall be thoroughly circulated in the distributor within one hour of application.

SAMPLE

SPECIFICATION T-806 DUST ABATEMENT

3.7 Weather Limitations

Dust abatement materials shall not be applied when it is raining.

Bituminous material shall be applied when the surface temperature of Traveled Way is 50 degrees Fahrenheit or higher.

Lignin sulfonate and magnesium chloride shall be applied when the atmospheric temperature is 40 degrees Fahrenheit or higher.

3.8 Blotter Material

Blotter material shall be spread in a sufficient quantity to prevent tire pickup.

SAMPLE

SPECIFICATION T-807 ROADWAY VEGETATION

DESCRIPTION

1.1 This work includes removal of brush and trees from within the Roadway limits.

REQUIREMENTS

3.1 Vegetative matter within the Roadway which impedes vehicular travel or interferes with road maintenance operations, such as surface blading, ditch and culvert cleaning, shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the Roadside in locations where the Traveled Way or sight distances will not be impaired.

3.2 Vegetative matter removed from the Roadway shall be treated by the specified method SHOWN ON THE SALE AREA MAP and as required by contract provisions.

SAMPLE

SPECIFICATION T-808 MISCELLANEOUS STRUCTURES

DESCRIPTION

1.1 Maintenance of miscellaneous structures includes cattleguards, gates, and other similar structures that have been previously installed to insure safe and efficient operation of the road.

MATERIALS

2.1 Any materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to the material in the structure being maintained.

REQUIREMENTS

3.1 Cattleguards. Loose rails shall be welded or bolted back in place.

Excess material carried into the cattleguard shall be removed when drainage is blocked or when it reaches 6 inches from the bottom of the cattleguard frame. Drainage into and from the cattleguard shall be kept open.

3.2 Gates. Gates shall be kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly.

Brush and debris shall be removed from within the swinging radius.

SPECIFICATION T-809 WATERBARS

DESCRIPTION

1.1 This work consists of installing or removing Waterbars in the Roadbed.

REQUIREMENTS

3.1 Waterbars shall be installed on roads SHOWN ON THE ROAD MAINTENANCE PLAN in accordance with the ATTACHED DRAWING AND AT LOCATIONS DESIGNATED or STAKED ON THE GROUND.

All material excavated shall be used in the installation of the Waterbar. Bermed material shall be compacted by operating heavy equipment over the length and width of the Berm.

3.2 Waterbars shall be removed on roads SHOWN ON ROAD MAINTENANCE PLAN by blading the Berm into the adjacent depression to form a smooth transition along the Traveled Way. The length and width of the fill material shall be compacted by the equipment performing the work.

3.3 Waterbars may be required to be installed between seasons of use and then removed when haul is resumed. Waterbar installation may also be required when use of a road has been completed.

SPECIFICATION T-810 BARRIERS

DESCRIPTION

1.1 This work shall consist of furnishing, installing, or removing barriers. Gates are not included.

MATERIALS

2.1 Materials for Barriers shall meet the requirements AS SHOWN ON THE ATTACHED DRAWINGS.

REQUIREMENTS

3.1 Barriers shall be installed in accordance with the ATTACHED DRAWINGS.

The location of Barriers to be removed or installed is SHOWN ON THE SALE AREA MAP. Installation or removal may occur as often as road use is terminated and resumed.

SAMPLE

SPECIFICATION T-811 SURFACE TREATMENT

DESCRIPTION

1.1 This work shall consist of applying a chip seal, sand seal, or fog seal to the Traveled Way.

Chip seals may consist of single or double applications of bituminous material and cover aggregate.

MATERIALS

2.1 The roads requiring Surface Treatment, the type of seal coat to be applied, the rate of application, and type and grade of bituminous material, and the rate of application and grading of cover aggregate will be SHOWN ON THE SURFACE TREATMENT PLAN (C5.4).

2.2 Emulsions used for fog seals shall be diluted with an equal amount of water and shall be applied at the diluted application rate SHOWN ON THE SURFACE TREATMENT PLAN (C5.4).

2.3 Seal coat materials shall meet the requirements of the following Sub-sections of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects or ATTACHED SPECIAL PROJECT SPECIFICATIONS:

Bituminous Materials

Asphalt Cement.....	702.01
Liquid Asphalts.....	702.02
Emulsified Asphalt.....	702.03
Application Temperatures.....	702.05

Cover Aggregate.....	703.12
Blotter Material.....	703.13
Water for Diluting.....	712.01

2.4 The cover aggregate shall be surface damp at the time of application when using emulsified asphalt and dry when using an asphalt cement or liquid asphalt. Excess water on the aggregate surface will not be permitted.

3.1 Traffic

Traffic shall be maintained in accordance with C6.33.

3.2 Weather Limitations

Fog seal and chip seal shall not be applied when the weather is foggy or rainy.

Seal coats requiring cover aggregate shall not be applied when the temperature of the surface being treated is below 70 degrees Fahrenheit in the shade.

Fog seal coats shall not be applied when the surface temperature is below 40 degrees Fahrenheit in the shade.

3.3 Equipment

The following equipment or its equivalent shall be used:

A distributor truck equipped to spread the material uniformly at the designated rate, within the temperature range specified and within 0.04 gallons per square yard of the rate specified. The distributor shall be equipped with a thermometer and a hand hose with spray

A rotary power broom and/or blower.

When cover aggregates are applied: a pneumatic tire roller, 8 ton minimum weight with all tires equally inflated to a pressure of at least 90 pounds per square inch. Rollers shall be equipped with devices for applying water to the tires.

SAMPLE

SPECIFICATION T-811 SURFACE TREATMENT

Self-propelled aggregate spreader supported by at least four wheels equipped with pneumatic tires on two axles, situated so that at no time will the tires contact the uncovered bituminous materials. The aggregate spreader shall be equipped with positive controls so that the required amount of materials will be deposited uniformly over the full width.

Trucks with spreading attachments shall not be used.

3.4 Preparation of surface

Immediately before applying the bituminous material, the surface to be sealed shall be cleaned of all foreign and loose material.

3.5 Application of bituminous material

Bituminous material shall be applied in an uniform, continuous spread. The distributor shall be moving forward at proper application speed, at the time the spray bar is opened. Skipped areas or deficiencies shall be corrected prior to the application of cover aggregate.

The spread of bituminous material shall not be more than 6 inches wider than the width to be covered by the cover aggregate. Operations shall not proceed if the bituminous material is allowed to cool, set up, dry, or otherwise impair retention of cover aggregate.

Fog seal shall be allowed to penetrate and dry before traffic is permitted on the sealed portion.

The surfaces of structures and trees adjacent to the area being treated shall be protected to prevent their being spattered or marred.

3.6 Application of Cover Aggregate and Blotter

Immediately following the application of the bituminous material, cover aggregate shall be spread at the specified rate. Joints between adjacent applications of cover aggregate shall be approximately in the center of two-lane roads.

The aggregate spreader shall not be operated at speeds which cause the aggregate to roll over after striking the bituminous material. The cut-off of aggregate shall be complete, and any excess aggregate shall be removed from the surface prior to resuming operations. Immediately after the cover aggregate has been spread, any piles, ridges, and uneven distribution shall be corrected.

Cover aggregates may be applied by hand in areas inaccessible to spreading equipment.

Rolling shall begin immediately after spreading the cover aggregate and shall consist of a minimum of two complete coverages.

The second treatment of a double chip seal shall not be applied until at least 24 hours after completion of a first treatment, when an emulsion or asphalt cement is used. If a medium cure liquid asphalt is used, 48 hours shall be allowed between applications. Prior to the second treatment, any loose cover aggregate remaining on the surface after the first treatment

shall be removed in such a manner that the cover aggregate set in the bituminous material will not be displaced.

After rolling, traffic shall be controlled to a maximum speed of 15 miles per hour for a period of 4 hours.

The day following the final application of cover aggregate, any concentrations of loose cover aggregate shall be redistributed without disturbing the embedded aggregate. Four days after the final application of cover aggregate, all excess cover aggregate shall be removed. During this period, any bituminous material that comes to the surface shall be covered with additional cover aggregate or approved blotter material.

3.7 Blotter material for fog seals shall be spread in sufficient quantity to prevent tire pickup.

SAMPLE

SPECIAL PROJECT SPECIFICATION

SECTION 725 LIGNIN SULFONATE

725.01 LIGNIN SULFONATE. Lignin Sulfonate shall be the residue produced by the acid-sulfite pulping of wood. The base cation shall be ammonium, calcium or sodium. The lignin sulfonate shall be supplied as a water solution.

The lignin sulfonate shall be miscible with an equal volume of water. The undiluted material shall meet the following requirements:

- pH (AASHTO T 200) 4.5 minimum
- Viscosity at 77 degrees F (AASHTO T 202) 20.0 poise maximum
- Total Solids (TAPPI T 629-M53) 48 percent minimum

The solids shall meet the following requirements:

- Lignin Sulfonate 50 percent minimum
- Reducing Sugars 25 percent maximum

725.02 TEMPERATURE. The temperature of the material from the time it is loaded until it is applied on the road shall not exceed 140 degrees Fahrenheit. The temperature of the material at application shall be between 40 and 140 degrees Fahrenheit.

725.03 CERTIFICATION. When each load of Lignin Sulfonate is delivered, the Contractor shall furnish the Engineer with a completed Certificate of Compliance conforming to the format below (see Figure 725-1). A separate Certificate of Compliance will not be required if the Bill of Lading contains the required information.

FIGURE 725-1 (sample)

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination _____

Date _____ Net Weight _____

Identification (Truck No., Car No., Etc.) _____

Based Cation _____ Brand Name _____

This shipment of Lignin Sulfonate identified above and covered by this Certificate of Compliance, complies with Forest Service Standard Specifications as modified by Special Project Specifications applicable to this project.

Producer _____

Signed _____
Producers Representative

SPECIAL PROJECT SPECIFICATION

SECTION 730 MAGNESIUM CHLORIDE

730.01 MAGNESIUM CHLORIDE. Magnesium Chloride shall be a brine consisting of water and Magnesium Chloride. The chemical analysis* shall meet the following requirements:

<u>Chemical</u>	<u>Percent by Weight of Brine</u>
Magnesium	7.0 Minimum
Chloride	20.0 Minimum
Sulfate	4.3 Maximum
Nitrate	5.0 Maximum

The pH shall be between 4.5 and 10.0. The solids shall be at least 30 percent by weight of the brine.

730.02 TEMPERATURE. The temperature of the material shall be 40 degrees Fahrenheit or above when it is applied.

730.03 CERTIFICATION. When each load of Magnesium Chloride is delivered, the Contractor shall furnish the Engineer with a completed Certificate of Compliance conforming to the format as shown in Figure 730-1. a separate copy of test procedures* are available upon request from USDA Forest Service, Pleasant Hill Engineering Center, 2245 Morello Avenue, Pleasant Hill, CA 94523.

FIGURE 30-1 (sample)

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination _____

Date _____ Net Weight _____

Identification (Truck No., Car No., Etc.) _____

Based Cation _____ Brand Name _____

This shipment of Magnesium Chloride identified above and covered by this Certificate of Compliance, complies with Forest Service Standard Specifications as modified by Special Project Specifications applicable to this project.

Producer _____

Signed _____
Producers Representative