U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE **TIMBER SALE CONTRACT** (Applicable to Sales to be Scaled after Felling)		**Name of Purchaser**	
National Forest Shasta-Trinity	**Ranger District** Mccloud	**Region** Pacific S-West	**Contract Number**
Sale Name Duke Multiproduct Re-Offer		**Award Date**	**Termination Date** 12/31/2014

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: A - Specific Conditions, B - Standard Provisions, and C - Special Provisions, together with Sale Area Map, Plans and specifications for developments (if any), and such attachments as may be provided for in Division C. 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 C - 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

_____
(Name)

_____
(Title)

_____
(Address)

_____
(Purchaser) 2/

_____
(Name)

By: _____

_____
(Address)

_____
(Title)

_____
(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 B - Standard Provisions issued June 2006.

A1 - Location and Area, applicable to B1.1

This Sale Area of 3265 acres more or less is located in:

T.40 N., R.1 W., S ections 8, 9, 10, 14, 15, 16, 17, 21, 22, 23 and 27.

A2 - Volume Estimate and Utilization Standards, applicable to B2.1, B2.2, B2.4, and B6.4

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
Combined Softwood	Sawtimber	45,174.00	Ton	10.0	1	10	6.0	12
Combined Softwood	Non-Saw	13,160.00	Ton	4.0	1	6	N/A	N/A
Timber Subject to Agreement under C2.11#								
Cull Logs Combined	Cull Logs	unestimated	Ton	10.0	1	10	6.0	16
Total Quantity		58,334.00	Ton					

A3- Timber Designations, applicable to B2.3; acres are approximate:

	Number	Acres
Clearcutting Units (B2.31)		
Specified Road Clearing (B2.32)		
Overstory Removal Units (B2.33)		
Understory Removal Units (B2.34)		
Individual Trees (B2.35)		1,290
Incompletely Marked Timber (B2.36)		

A4 - Timber Payment Rates, applicable to B3.1 and B4.0

A4a - For Species and Products to be Paid for at Rates Escalated under B3.2

Not Applicable

A4b - For Species and Products to be Paid for at Flat Rates

Species	Product	Unit of Measure	Rates per Unit of Measure				
			Base $	Advertised $	Bid Premium $	Bid (Flat) $	Required Deposits Slash Disposal $
Combined Softwood	Sawtimber	Ton	2.80	11.57			.83
Combined Softwood	Non-Saw	Ton	.20	1.14			.83
Timber Subject to Agreement under C2.11#							
Cull Logs Combined	Cull Logs	Ton	.20	.20			

For purposes of convenience in collection and bookkeeping, Bid Rates stated in A4 include payment of deposits for sale area betterment required pursuant to 16 USC 576b. Such deposits are not included as Required Deposits defined hereunder.

The following definitions are established for the terms used in A4:

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 B3.31, B3.32, or B3.33.

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 A7, 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 B3.31, B3.32, and B3.33.

Bid Rates are the rates bid by Purchaser (exclusive of Required Deposits for slash disposal, road maintenance, and contract scaling) 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 A4a is the Tentative Rate that is subject to quarterly adjustment under B3.2; for species and products in A4b, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Purchaser may be required to pay for slash disposal (16 USC 490), road maintenance (16 USC 537), and contract scaling (1994 Appropriations Act). 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 C5.32#; and contract scaling deposits, if any, are given in C6.816#.

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 B3.2.

A5 - Indices Used in Quarterly Adjustment, applicable to B3.2

Not Applicable

A6 - High Stumps, applicable to B6.412

Species	Product	Maximum Stump Height (inches)
All	All	12

A7 - Specified Roads, applicable to B5.2

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	Appro. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking 1/
40N53Y	COON ROD ROAD (R) (segment 0 to .9)	Single Lane - 5 mph	.9 / 1.45	3 08/24/2010	FS	FS	FS AC
43N19	MILITARY PASS ROAD (R) (segment 0 to 4.2)	Single Lane - 5 mph	4.2 / 6.76	1-3 08/24/2010	FS	FS	FS AC
40N50Y	SOUTH SINK ROAD (R) (segment 0 to 1.6)	Single Lane - 5 mph	1.6 / 2.57	1-4 08/24/2010	FS	FS	FS AC
40N10X	WEST ASH ROAD (R) (segment 0 to 1.1)	Single Lane - 5 mph	1.1 / 1.77	1-3 08/24/2010	FS	FS	FS AC

1/ Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to B5.212.

A8 - Forest Service Engineering Completion Schedule, applicable to B5.21

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

A9 - Scaling Instructions and Specifications, applicable to B6.8

Name and Date of Governing Instructions: NATIONAL FOREST CUBIC SCALING HANDBOOK, FSH 2409.11A, AS AMENDED. CUBIC TAPER 4 AS AUTHORIZED BY REGIONAL FORESTER 2/2001.

Scaling Specifications					
Species	Product	Maximum Scaling Length (feet)	Trim Allowance		
			Diameter Range (inches)	Length Range (feet)	Trim Allowance (inches)
All	*All*	*20*	*ALL*	*ALL*	*6*

A10 - Scaling Services, applicable to B6.81

Species	Product	Unit of Measure	Site and Geographic Location	Method	Standard Estimated Cost per Unit $
All	All	Ton	Travelers Travel Plaza 895 East Vista Drive Weed, CA.	Total (100%) Weight Scale	9.00

A11 - Minimum Scaling Volumes, applicable to B6.81

Minimum volume for Continuous Scaling Services in two-week period 0 Ton per scaler

Minimum volume for Intermittent Scaling Services 0 Ton on a MONTH basis

A12 - Fire Precautionary Period, applicable to B7.2

May 01 to December 01 , inclusive

A13 - Purchaser Responsibility to Furnish Crews and Equipment for:

Initial Fire Supression, applicable to B7.3

Within 25 road miles

Fire Suppression Reinforcement, applicable to B7.312 and B 7.313

Within 100 road miles

A14 - Purchaser's Obligation per Operations Fire, applicable to B7.41

Maximum Amount: $ $13,100.00

A15 - Termination Date, applicable to B8.2

December 31, 2014

A16 - Normal Operating Season, applicable to B6.31, B6.66, B8.21 and B9.3

First Period: April 01 to October 31 , inclusive

Second Period: _____ to _____ , inclusive

A17 - Performance Bond Amount, applicable to B9.1

_____

A18 - Downpayment, applicable to B4.211

Downpayment Amount: _____

A19 - Periodic Payment Amount, applicable to B4.213

	Periodic Payment Determination Date	Amount
Initial Payment:	May 24, 2013	_____
Additional Payment:	May 24, 2014	_____

A20 - Market-Related Contract Term Addition Producer Price Index, applicable to B8.212

Index Name: Softwood Lumber **Index Number:** 0811

A21 - Inapplicable Standard Provisions

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

B4.211	DOWNPAYMENT
B8.212	MARKET-RELATED CONTRACT TERM ADDITION

A22 - List of Special Provisions

The following listed special provisions are attached to and made a part of this contract as Division C. 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.)

C2.11#	TIMBER SUBJECT TO AGREEMENT (02/1971)
C2.21#	UTILIZATION, REMOVAL, AND AMOUNT PAYABLE FOR NON-SAWTIMBER (05/2008)
C2.35#	DESIGNATION OF TIMBER AND SUBDIVISION/PAYMENT UNIT BOUNDARIES (08/2007)
C2.352#	DESIGNATION BY SPECIES AND DIAMETER (04/2004)
C4.211	DOWNPAYMENT (06/2007)
C4.212	TEMPORARY REDUCTION OF DOWNPAYMENT (08/2009)
C5.12#	USE OF ROADS BY PURCHASER (06/1999)
C5.125#	SHARE COST ROAD LIABILITY INSURANCE (08/2006)
C5.13#	ROAD COMPLETION DATE (04/2004)
C5.213#	DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (04/2004)
C5.31#	ROAD MAINTENANCE REQUIREMENTS (07/2001)
C5.32#	ROAD MAINTENANCE DEPOSIT SCHEDULE (07/2001)
C5.35#	ROAD AND WATER SUPPLY USE (05/2008)
C6.24#	SITE SPECIFIC PROTECTION MEASURES (04/2004)
C6.315#	SALE OPERATIONS SCHEDULE (08/2006)
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C6.37	SUBSTITUTE METHODS (08/2006)
C6.41#	FELLING, BUCKING, AND LIMBING (08/2007)
C6.42#	GROUND BASED SKIDDING (08/2006)
C6.5	STREAMCOURSE PROTECTION (08/2006)
C6.6#	EROSION PREVENTION AND CONTROL (05/2008)
C6.7#	SLASH TREATMENT (08/2006)
C6.816#	SCALING DEPOSITS (04/2004)
C6.849	PRODUCT ACCOUNTABILITY (08/2006)
C7.2#	SPECIFIED FIRE PRECAUTIONS (08/2006)
C7.22#	EMERGENCY PRECAUTIONS (08/2006)
C8.212	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)
C8.66# (Option 1)	USE OF TIMBER (04/2004)

UNITED STATES DEPARTMENT OF AGRICULTURE
Forest Service

TIMBER SALE CONTRACT
DIVISION B

June 2006
(Date of Issue)

STANDARD PROVISIONS FOR SCALED TIMBER SALES

(Applicable to Timber Sales to be Scaled after Felling)

This Division is organized into Parts, Sections, Subsections, and Items. These are numbered in accordance with the following scheme: Part B1.0, Section B1.1, Subsection B1.11, and Item B1.111. 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 A. Wherever appropriate, Specific Conditions established in Division A are cited by reference number. The listing of Sections, Subsections, or Items of this Division in A21 has the effect of striking or deleting them from Division B. A22 lists Special Provisions that comprise Division C. Where appropriate, references to Special Provisions are made by citing the applicable reference numbers.

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B1.0—SALE AREA

B1.1 Sale Area Map. The boundaries of "Sale Area" and any subdivision 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 A1. Subdivisions may be revised and additional ones may be established only by written agreement. Subdivisions or cutting units may be eliminated from Sale Area under conditions described in B6.36. Catastrophically Damaged areas may be removed from Sale Area under B8.32.

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

(a) Identified claims limiting Purchaser's rights under B1.2;

(b) Subdivisions defined in B2.3 where timber is to be Marked after date of timber sale advertisement;

(c) Boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units under B2.3;

(d) Diameter limits for Overstory Removal Units and Understory Removal Units under B2.33 and B2.34;

(e) Areas where leave trees are Marked to be left uncut under B2.35;

(f) Specified Roads listed in A7;

(g) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items under C5.221;

(h) Roads where log hauling or use is prohibited or restricted under B5.12;

(i) Roads and trails to be kept open under B6.22;

(j) Improvements to be protected under B6.22;

(k) Locations of known wildlife or plant habitat and cave resources to be protected under B6.24;

(l) Locations of areas known to be infested with specific invasive species of concern under B6.35;

(m) Maximum stump heights when more than one height is listed by areas in A6 under B6.412;

(n) Skidding or yarding methods specified under B6.42;

(o) Streamcourses to be protected under B6.5;

(p) Locations of meadows requiring protection under B6.61;

(q) Locations of wetlands requiring protection under B6.62;

(r) Locations of temporary roads to be kept open under B6.631; and

(s) Other features required by Division B or C.

B1.2 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.

B2.0—TIMBER SPECIFICATIONS

B2.1 Included Timber. "Included Timber" consists of:

B2.11 Standard Timber. Live and dead trees and portions thereof that meet Utilization Standards under B2.2 and are designated for cutting under B2.3.

B2.12 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.

B2.13 Damaged Timber.

B2.131 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.

B2.132 Negligent or Willful Damage. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Purchaser, if included by Contracting Officer.

B2.133 Damage by Catastrophe. As provided under B8.32, 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 volume stated in A2 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.

B2.134 Minor Damage by Natural Causes. Undesignated trees within Sale Area and meeting Utilization Standards, in amounts less than specified in B2.133, that become insect infested, windthrown, suffer serious damage, or die, as designated by agreement.

B2.14 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 B2.3 but that are cut through mistake by Purchaser, when included by Contracting Officer.

B2.15 Construction Timber. Trees to be used for construction under B5.1.

B2.16 Other Material. Species or products not listed in A2, upon written approval of Contracting Officer under B3.41.

B2.2 Utilization and Removal of Included Timber. "Utilization Standards" for trees and minimum pieces are stated in A2. To meet minimum tree specifications, trees must equal or exceed tree diameters listed in A2 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 and present for Scaling all pieces that:

(a) Meet minimum piece standards in A2 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.

B2.3 Timber Designations. Timber designated for cutting shall be confined to Sale Area, except as provided in B2.131, B2.14, B2.15, B2.32, and B5.1. Sale Area Map indicates subdivisions, if any, where Marking under B2.35 is to be done after timber sale advertisement, except for construction clearing under B2.32, minor changes under B2.37, 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. The number of units and approximate acreage of timber designations are stated in A3.

B2.31 Clearcutting Units. All trees that meet Utilization Standards within "Clearcutting Units" are designated for cutting.

B2.32 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 B5.2.

B2.33 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.

B2.34 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.

B2.35 Individual Trees. All trees to be cut, other than in the units described in B2.31, B2.32, B2.33, and B2.34, 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.

B2.36 Incompletely Marked Timber. Trees within incompletely Marked subdivisions shown on Sale Area Map at time of timber sale advertisement shall be designated in accordance with C2.36. 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.

B2.37 Minor 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.

B2.4 Volume Estimate. The estimated volumes of timber by species designated for cutting under B2.3 and expected to be cut under Utilization Standards are listed in A2. If Sale Area Map indicates that there are incompletely Marked subdivisions, the objective of Forest Service shall be to designate for cutting in such subdivisions sufficient timber so that Sale Area shall yield the approximate estimated volume by species or species groups stated in A2. However, the estimated volumes stated in A2 are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract.

Volume adjustments shall not be made under this Section after there is modification for Catastrophic Damage under B8.32.

B2.41 Adjustment for Volume Deficit. If Sale Area Map indicates that there are incompletely Marked subdivisions and if Contracting Officer determines that a deficit in the estimated volume will cause the volume cut to be less than 90 percent of the total estimate shown in A2, 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 volumes by species listed in A2. Any such additional designation shall be consistent with land and resource management plans.

B2.42 Adjustment for Excess Volume. If Sale Area Map indicates that there are incompletely Marked subdivisions and if Contracting Officer determines that the volume cut will be more than 120 percent of the total estimated volume listed in A2, 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 volumes by species listed in A2. Such adjustments in volumes 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 B1.1 and B2.3.

If the timber designated for cutting is not reduced by such adjustments to less than 120 percent of the total es-

timated quantity listed in A2, Purchaser, after cutting 120 percent of the total estimated volume listed in A2, may elect to have Sale Area reduced to eliminate the remaining Included Timber. However, where felling operations have been started, units of minimum practical size shall be retained in Sale Area.

B3.0—RATES OF PAYMENT

B3.1 Current Contract Rates. Included Timber that is removed by Purchaser and presented for Scaling in the product form stated in A2 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 B3.2. Flat Rates and Tentative Rates shall be those listed in A4, unless superseded by rates redetermined under B3.3 or established for Contract Term Extension. In addition, Required Deposits shall be made as listed in A4, C5.32, and C6.816, or established under B3.3 or B8.23.

In the event Termination Date is adjusted under B8.21 or B8.212, Current Contract Rates shall be continued in the same manner as immediately prior to the adjustment period.

Notwithstanding B8.23, Current Contract Rates for timber cut and removed from Sale Area that remains unscaled after Termination Date, as adjusted or extended, shall be Current Contract Rates in effect on Termination Date.

"Current Contract Value" is the sum of the products of Current Contract Rates and estimated remaining unscaled volumes by species of Included Timber meeting Utilization Standards.

B3.2 Escalation Procedure. Tentative Rates for those species and products listed in A4a are subject to quarterly escalation in accordance with the following procedures: The calendar quarter index average for each price index described in A5 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 A4a shall be the basis for quarterly escalation. To arrive at Current Contract Rates for timber Scaled 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 B8.23 for the extension period.

B3.21 Unavailable Index. If an index described in A5 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 A5 for a 12-month period prior to its becoming unavailable using the quarterly adjustment procedure outlined in B3.2. 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.

B3.3 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 B3.31, B3.32, and B3.33.

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 A4, except for reduction under B3.31, B3.32, or B3.33. Required Deposits shall be redetermined. Redetermined Specified Road construction cost is subject to the limitations of B5.26.

B3.31 Rate Redetermination for Environmental Modification. In the event of a contract modification under B8.33 or partial termination under B8.34, 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 B3.2, and Required Deposits shall be considered established under B3.1 for timber Scaled subsequent to the contract revision.

B3.32 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 B8.32. Potential Included Timber is any that would be added under B8.32.

Tentative Rates and Flat Rates in effect at the time of catastrophe shall be adjusted by said differences to be-

come the redetermined rates for the purpose of a contract modification under B8.32. 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 B8.32, redetermined rates and Required Deposits shall be considered established under B3.1 for timber Scaled 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.

B3.33 Rate Redetermination for Market Change. In the event of delay or interruption, exceeding 90 days, under B8.33, 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 B3.31, using remaining volumes.

Tentative Rates and Flat Rates in effect at the time of delay or interruption or established pursuant to B3.31 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 B3.1 for timber Scaled subsequent to the delay or interruption.

B3.34 Emergency Rate Redetermination. Forest Service shall redetermine rates if, upon Purchaser's application, Forest Service determies 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 A20 has declined by 25 percent. Rates shall be redetermined under B3.3 and shall be considered established under B3.1 for timber Scaled subsequent to Purchaser's application. This Subsection shall not apply during Contract Term Extension.

B3.4 Other Payment Rates.

B3.41 Material Not in A2. Incidental amounts of products or portions of trees of species listed in A2 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 A2 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.

When any material suitable for use in a product form included in A2 is removed in another product form, the rates of payment shall be not less than but approximately equivalent to Current Contract Rates and Required Deposits.

B3.42 Timber Cut Through Mistake. Undesignated timber meeting Utilization Standards, cut by Purchaser through mistake and included by Contracting Officer under B2.14, shall be removed and paid for at Current Contract Rates and Required Deposits, unless such material is not listed in A2. In such event, Contracting Officer, in accord with standard Forest Service methods, shall establish rates to be paid.

B3.43 Designated Timber Cut But Not Removed. Standard timber shall be removed, as provided in B2.2, prior to acceptance of subdivision for completion of logging under B6.36. There shall be no charge when:

(a) The leaving of incidental material is justified under existing conditions, including those under B6.4, or

(b) Cut timber is left by option or requirement, as under B2.31, B2.32, and B6.4.

B3.44 Undesignated Timber Damaged Without Negligence. Undesignated timber meeting Utilization Standards, damaged without negligence by Purchaser and designated by Forest Service under B2.131, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits.

B3.45 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 B2.132, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits that are in addition to liquidated damages under B3.46.

If such timber is of a species or size not listed in A2 or is of a quality different from designated timber, Contracting Officer shall establish payment rates in accord with standard Forest Service methods.

B3.46 Liquidated Damages. Unnecessary damage to or negligent or willful cutting of undesignated timber, as described in B3.45, 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.

B3.47 Defect Caused by Abnormal Delay. Scaling deductions made for rot, check, or other defect resulting from abnormal delay in Scaling caused by Purchaser shall be recorded separately and charged to Tim-

ber Sale Account at Current Contract Rates and applicable deposits.

B4.0—PAYMENTS

B4.1 Amount Payable for Timber. Current Contract Rates and Required Deposits in effect when the timber is Scaled shall be applied to the Scaled volume to determine the amount Purchaser shall pay.

B4.2 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, road maintenance, and contract scaling at Required Deposit rates;

(c) Cooperative work at rates established by specific agreement under B4.218; and

(d) Other charges provided in this contract.

Cash deposits shall be recorded currently in such account.

Charges for timber cut shall be made when Forest Service prepares and furnishes to Purchaser periodic statements of volume and value of timber cut and Scaled. Charges subject to escalation under B3.2 shall be made initially on the basis stated in B4.214 and shall be adjusted at the end of each calendar quarter, as provided in B3.2.

B4.21 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.

B4.211 Downpayment. The downpayment amount shown in A18 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to B9.4, transferred to other timber sales, or refunded until stumpage value representing 25 percent of the total bid value of the timber sale has been charged and paid for, or if 36 CFR 223.49(e) is applicable, the estimated value of the unscaled timber is equal to or less than the amount of the downpayment.

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).

B4.212 Advance Deposits. Purchaser agrees to make cash deposits in advance of cutting to meet charges under B4.2.

Forest Service billings for advance cash deposits shall be in such amounts that Timber Sale Account will maintain an unobligated balance equal to the applicable charges for timber that Forest Service estimates will be cut in not less than 30 days and not more than 60 days. This advance cash deposit may be reduced to a smaller amount by the terms of B4.211, B4.213, B4.215, and/or B4.217. Except for amounts required pursuant to B4.211, B4.213, and B4.217, Purchaser shall not be required to make advance deposits above those required under this Item.

When the credit balance in Timber Sale Account is less than the amount due for timber estimated to be cut in 10 days, Contracting Officer will suspend all or any part of Purchaser's Operations until payment or acceptable payment guarantee is received.

B4.213 Periodic Payment Schedule. Purchaser shall make periodic payments for stumpage value, as shown in A19.

In the event Purchaser has not paid the amount(s) stated in A19 as stumpage for volume 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 B4.212.

Except for Contract Term Extension under B8.23, periodic payment determination date(s) that have not been reached shall be adjusted one day for each additional day of contract time granted.

B4.214 Deposits for Charges Subject to Escalation. Deposits requested to cover estimated charges for timber subject to escalation under B3.2 shall be based upon Current Contract Rates and related deposits in effect during previous calendar quarter.

B4.215 Deposits When Payment Guaranteed. To the extent payment guarantee is provided under B4.3, requirements for advance cash deposits under B4.212 shall be waived for the value of timber on Sale Area that is cut, but not removed, and for the value of products removed from Sale Area for not more than a monthly billing period, subject to the provisions of B4.4.

B4.216 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.

B4.217 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 B4.213 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 B4.21, 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 the volume that is covered by such deposits has been Scaled.

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).

B4.218 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.

B4.22 Temporary Reduction of Downpayment. When, under B8.33, 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 A18, 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 A18 within 15 days after the date the bill for collection is issued, subject to the provisions of B4.4. Purchaser shall not resume contract operations until the downpayment amount is fully restored.

B4.23 Refund of Excess Cash. If at any time the credit balance of Timber Sale Account exceeds the charges for timber 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 B4.211, B4.213, or B4.217. 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. After a refund for a shutdown, deposits shall be made to meet the requirements of B4.212 before additional timber may be cut.

B4.24 Refund after Scaling Completed. Any cash deposit, in excess of that required to meet charges under B4.2, shall be refunded or transferred within 15 days of Purchaser's request after Scaling is completed, except for amounts estimated to be required under B9.5.

B4.3 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 B9.1.

B4.31 Blanket Bond. If Purchaser furnishes an acceptable bond, or deposits securities, in accordance with B4.3, 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.

B4.32 Letters of Credit for Payment Bond. Notwithstanding the provisions of B4.3, Purchaser may use letters of credit in lieu of a surety bond for payment bond purposes when approved by Contracting Officer.

B4.4 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, road maintenance, and contract Scaling deposits;

(ii) Cooperative work at rates established by specific agreement under B4.218;

(iii) Damages pursuant to B9.4;

(iv) Road use fees;

(v) Restoration of downpayment pursuant to B4.22;

(vi) Periodic payments pursuant to B4.213;

(vii) Extension Deposits pursuant to B4.217; 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 B9.3. 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.

B5.0—TRANSPORTATION FACILITIES

B5.1 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 B5.2. Unless otherwise provided herein, construction may be progressive during this contract. Maintenance shall be governed by B5.3. 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.

B5.11 Requirements of Rights-of-Way. Purchaser's road construction and use of rights-of-way identified in attached list or C5.11 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.

B5.12 Use of Roads by Purchaser. Except as provided herein, Purchaser is authorized to use existing National Forest system roads and Specified Roads listed in A7, 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 A7, 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 A7 as an alternate facility under B5.26.

C5.12 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.

B5.2 Specified Roads. "Specified Roads" are roads, including related transportation facilities and appurtenances, shown on Sale Area Map and listed in A7. 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 A7 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 B5.212, B5.25, B5.26, or C5.215, A7 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 B5.25.

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.

B5.21 Engineering. Forest Service completed survey and design for Specified Roads prior to timber sale advertisement, unless otherwise shown in A8 or Purchaser survey and design are specified in A7. 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 A8. 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) A7 to show Purchaser's performance responsibility.

(b) The Schedule of Items to include costs of survey and design, as provided under B5.24, and adjust Timber Sale Account, as provided in B5.25. 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.

B5.211 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 A7 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 B5.253.

B5.212 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 B4.218.

When A7 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) A7 to show Purchaser's performance responsibility.

(b) The Schedule of Items to include costs of construction staking, as provided under B5.24, and adjust Timber Sale Account, as provided in B5.25. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

B5.22 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.

B5.23 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.

B5.24 Estimated Cost. Estimated costs by construction phases for Specified Roads listed in A7 are stated by segments in the Schedule of Items. Such estimated costs are subject to adjustment under B3.3, B5.2, B5.21, B5.212, B5.25, and B5.26. 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.

B5.25 Construction Cost Adjustment. Contracting Officer, as provided in B5.21, B5.212, B5.251, B5.252, and B5.253, 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.

B5.251 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 B5.252 or B5.253. 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 A7, 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.

B5.252 Physical Change. (a) Forest Service shall adjust the Specified Road construction cost if, prior to acceptance under B6.36, 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.

B5.253 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 B5.251, 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.

B5.26 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 A7. 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 B3.3, such allowed costs shall be the redetermined estimated costs of facilities listed in the original Schedule of Items that Purchaser does not construct.

B5.27 Temporary Credit for Unamortized Specified Road Construction Cost. When, under B8.33, 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 owing 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.

B5.3 Road Maintenance. Purchaser shall maintain roads, commensurate with Purchaser's use, in accordance with Road Maintenance Requirements in C5.31 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 B6.31.

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 C5.31, Forest Service shall determine Purchaser's commensurate share of road maintenance and revise road maintenance deposits in C5.32.

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.

B5.4 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 C5.4, 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.

B6.0—OPERATIONS

B6.1 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 B6.31.

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.

B6.11 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.

B6.2 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.

B6.21 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 B9.5 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.

B6.22 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 C6.22.

B6.221 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.

B6.222 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.

B6.23 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 perpetuative 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.

B6.24 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 B5.1 or B6.422. 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 B6.6. Additional special protection measures needed to protect such known areas are identified in C6.24.

(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 B8.33.

(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 B8.33.

(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.

B6.3 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 system 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.

B6.31 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, Scaling, and road construction, including construction staking under B5.212 and material delivery under B5.22. Upon reasonable notice to Forest Service, such schedule shall be subject to modifications necessitated by weather, markets, or other unpredictable circumstances.

Subject to B6.6 and when the requirements of B6.66 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 A16 of any year.

B6.311 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 B6.31. 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.

B6.312 Plan of Operations for Road Construction. Annually, prior to start of construction, Purchaser shall submit a supplement to the Plan of Opera-

tions 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.

B6.32 Protection of Residual Trees. Purchaser's Operations shall not unnecessarily damage young growth or other trees to be reserved.

B6.33 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.

B6.34 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 rags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.

B6.341 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.

B6.342 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.

B6.35 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 B8.33.

(c) Nothing contained in this Section 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 B8.33.

(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.

B6.36 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 subdivision of Sale Area (such as logging, slash disposal, erosion control, or snag felling); or

(c) All contract requirements on a subdivision of Sale Area.

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 subdivision of Sale Area or cutting unit identified on Sale Area Map, subdivision or cutting unit shall be eliminated from Sale Area on written notice of either party to this contract.

B6.361 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.

B6.4 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 B2.2, prior to acceptance of subdivision for completion of logging under B6.36. 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 C6.4 provisions set forth requirements to meet special or unusual logging conditions:

B6.41 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 A2.

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 scale in percentage of gross scale, or based on the merchantability factor, whichever is stated in A2. If necessary to assess extent of defect, Purchaser shall make sample saw cuts or wedges.

B6.411 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.

B6.412 Stump Heights. Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in A6, 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 A6 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in A6 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.

B6.413 Bucking Lengths. Trees shall be bucked in various lengths to obtain the greatest utilization of material meeting Utilization Standards.

B6.414 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.

B6.42 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.

B6.421 Rigging. Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

B6.422 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.

B6.423 Skidding on Roads. Products may be skidded on permanent roads authorized for hauling under B5.12 only by prior written agreement.

B6.424 Arches and Dozer Blades. Unless otherwise specified in C6.424, 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.

B6.5 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.

B6.6 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 B4.218.

B6.61 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 B5.1 or B6.422. 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.

B6.62 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 B5.1 or B6.422. Additional measures needed to protect such areas are provided in C6.62.

B6.63 Temporary Roads. As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, Purchaser shall employ such measures as outsloping, 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, outslope 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.

B6.631 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 B6.63, 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.

B6.64 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.

B6.65 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.

B6.66 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.

B6.67 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 B4.218, 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.

B6.7 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 C6.7 and are in addition to Required Deposits for slash disposal.

B6.8 Scaling. "Scaling," as used herein, involves:

(a) Various volume determination methods, such as log rule, sampling, measuring, linear measuring, counting, weighing, or another method or combination of methods;

(b) Various sites, such as truck Scaling stations, rollways, weighing stations, woods landings, water Scaling stations, or other sites; and

(c) Various geographic locations.

B6.81 Scaling Services. Scaling services shall be performed by Forest Service personnel or parties under contract to Forest Service, except that weighing services may be performed by personnel or parties approved by Forest Service. Scaling shall be provided in accordance with the instructions and specifications in A9. Scalers shall be currently certified to perform accurate Scaling services. The Scaling services provided shall be selected exclusively by Forest Service.

Scaling services may be Continuous, Intermittent, or Extended. "Continuous Scaling Services" is Scaling at one site five (5) 8-hour shifts a week, exclusive of Sundays and Federal holidays. "Intermittent Scaling Services" are non-continuous Scaling services. "Extended Scaling Services" are Scaling services exceeding Continuous Scaling Services and may include Sundays and designated Federal holidays.

Upon written request of Purchaser and approval of Contracting Officer, Forest Service may provide other services, such as but not limited to grading, tagging, or marking of Scaled logs.

B6.811 Scaling Location. Forest Service shall provide Scaling services at the Scaling site(s) shown in A10. The Scaling site(s) shown in A10 normally will be a non-exclusive site where more than one National Forest timber sale Purchaser may be served.

Purchaser may request, in writing, an alternate Scaling site, such as at a private mill yard, private truck ramp, or a privately operated log transfer facility. Contracting Officer may approve an alternate Scaling site, when Contracting Officer determines that Scaling conditions at an

alternate site are acceptable. Such conditions shall include at a minimum:

(a) Scaler safety and comfort,

(b) Product accountability and security,

(c) Facilities and practices conducive to accurate and independent Scaling, and

(d) The ability to provide for remote check Scaling.

Upon approval of an alternate Scaling site, Forest Service and Purchaser shall enter into a written memorandum of agreement governing Scaling at that alternate location. Purchaser agrees that Forest Service personnel or persons under contract with Forest Service shall perform Scaling services at an alternative Scaling site. In no instance shall Purchaser or employees of Purchaser perform Scaling services.

B6.812 Scaling Adjustments. Forest Service shall check the accuracy of the Scaling performed on National Forest logs. Scaling will be satisfactory if performed within the accuracy standards stated in governing instructions identified in A9. In the event Forest Service check Scale(s) shows a variance in net Scale in excess of the allowable variance, an adjustment to volume reported Scaled may be made by Forest Service.

Such adjustment will be based on the difference between Forest Service check Scale(s) and original Scale for sale volume Scaled within the adjustment period. The volume to which this difference will be applied will be:

(a) One-half of the volume Scaled between the last satisfactory check Scale and the first unsatisfactory check Scale or, if a period of 120 days or more occurs without Scaling National Forest timber for stumpage, the adjustment will be applied to 100 percent of the volume Scaled after this period and

(b) 100 percent of the volume Scaled between unsatisfactory check Scales and

(c) One-half of the volume Scaled between the last unsatisfactory check Scale and the next satisfactory check Scale, or if no satisfactory check Scale is completed and a period of 120 days or more occurs without Scaling of National Forest timber for stumpage, the adjustment will be applied to 100 percent of the volume Scaled since the last unsatisfactory check Scale.

Adjustments may increase or decrease the original Scaled volume. Adjustments will be applied to Timber Sale Account to correct charges for Included Timber, plus deposits, Scaled during the adjustment period.

B6.813 Delayed or Interrupted Scaling Services. In the event Scaling services are delayed or interrupted, Purchaser shall discontinue hauling. Purchaser agrees that in the event such a delay or interruption occurs for reasons not caused by Purchaser, its sole and exclusive remedy shall be:

(a) Contract Term Adjustment and

(b) Out-of-Pocket Expenses incurred as a direct result of the delay or interruption of Scaling services under this Item.

Purchaser further agrees that no logs will be presented for Scaling outside agreed upon Scaling services schedule.

B6.814 Weighing Services. Weighing services for stumpage payment purposes may be provided by either public or privately owned and operated weighing facilities. A “Weighing Services Agreement,” approved by the Forest Supervisor, must be executed at each weighing facility providing weighing services.

Scales used to weigh National Forest products for payment purposes must be a currently certified scale in accordance with State law and be capable of weighing the entire load of logs in a single operation. The weighing of less than the entire load or weighing two loads at once is prohibited. Unless otherwise agreed, the minimum sized weighing facility shall be a 60-ton capacity scale with a 10 foot by 70 foot platform or larger. The weighmaster must work in a position where it is possible to verify that the truck wheels are on or off the scales.

Weighing facilities shall meet the following minimum requirements:

(a) Be an electronic design,

(b) Use electronic load cells or have a fully enclosed and sealed weigh-beam,

(c) Have digital weight meters sealed with a seal approved by the State,

(d) Have a zero interlocking device on the printer,

(e) Have an automatic zero-setting mechanism,

(f) Have an automatic motion-detecting device,

(g) Be shielded against radio or electromagnetic interference, and

(h) Have a date and time stamp and gross and tare weights that print electronically with each weighing. Contracting Officer may waive electronic printing for public or third party weighing facilities.

Purchaser shall bear all charges or fees for weighing services.

B6.82 Presentation for Scaling. Purchaser shall present products so that they may be Scaled in an economical and safe manner. If prior to Scaling, Included Timber is to be mixed with other timber, Purchaser shall, prior to mixing, provide for distinguishing, by means approved by Forest Service, each product included in this contract.

Trees or pieces presented for Scaling that have not been bucked to separate material meeting minimum piece standards from material not meeting minimum piece standards due to diameter, shall be Scaled as though such bucking had been done.

Deductions made for rot, check, or other defects resulting from abnormal delay in Scaling caused by Purchaser shall be recorded separately and charged to Timber Sale Account under B3.47.

Any timber that has been removed from Sale Area during the period of this contract, but remains unscaled after Termination Date, shall be Scaled at the earliest reasonable date.

B6.83 Scaling Other Products. The Scaled volume of material presented for Scaling in forms other than those stated in A2, when appropriate, shall be converted to the A2 unit of measure by the application of standard converting factors and procedures in effect at the time the

sale was sold. Other converting factors may be used by written agreement.

B6.84 Accountability. When Scaling is performed away from Sale Area, products shall be accounted for in accordance with Forest Service written instructions or an Accountability Agreement between Forest Service and Purchaser and as follows:

(a) Purchaser shall plainly mark or otherwise identify products prior to hauling in accordance with B6.842;

(b) Forest Service shall issue removal receipts to Purchaser;

(c) Purchaser shall assign a competent individual at the landing to complete removal receipts and attach them to each load of products removed from Sale Area;

(d) Removal receipts shall be returned to Forest Service at periodic intervals;

(e) When products are in transit, the truck driver shall possess or display removal receipt and show it upon request as evidence of authority to move products;

(f) The scaler's portion of removal receipt shall be surrendered at point of Scaling, the unloading point, or as requested by Forest Service; and

(g) Purchaser shall notify Forest Service of lost or off-loaded logs and their location within 12 hours of such loss.

Purchaser shall not place products in storage for deferred Scaling until an accountability system has been agreed to in writing for a stated period.

B6.841 Route of Haul. As part of the annual Operating Schedule, Purchaser shall furnish a map showing the route of haul over which unscaled products will be transported from Sale Area to the approved Scaling location. Such route of haul shall be the shortest, most economical haul route available between the points.

Upon advance written agreement, other routes may be approved. All unscaled products removed from Sale Area shall be transported over the designated routes of haul. Purchaser shall notify Forest Service when a load of products, after leaving Sale Area, will be delayed for more than 12 hours in reaching Scaling location.

Purchaser shall require truck drivers to stop, if requested by Forest Service, for the following reasons:

(a) For accountability checks when products are in transit from Sale Area to the designated Scaling location or

(b) For a remote check Scale when products are in transit after being truck Scaled at the designated Scaling location.

Purchaser and Forest Service shall agree to locations for accountability checks and remote check Scales in advance of haul. Such locations shall be established only in areas where it is safe to stop trucks.

Forest Service shall notify Purchaser of the methods to be used to alert truck drivers of an impending stop.

B6.842 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.

B6.85 Scaling Lost Products. The volume of lost products shall be determined by the best methods currently available, using data from the records for the period in which the loss occurred or the most applicable period if loss should occur substantially after cutting. In the absence of specific information indicating size or species of lost products, species distribution and volume for entire truckloads shall be assumed to be the same as the average volume Scaled per truck during the report period, and for individual products it shall be assumed that the volume and species were the average volume of the highest priced species Scaled during the report period.

B6.851 Scaling Lost Sample Loads. If Scaling is being done by sampling loads of logs, Purchaser shall present such sample loads for Scaling by Forest Service. If loads of logs selected to be sample Scaled are placed in the decks before they are Scaled, they will be considered as lost sample loads. It will be difficult, if not impossible, to determine the volume and species contained in such loads for payment purposes. Therefore, lost sample loads will be deemed to have a Scale volume and species composition equal to that of the highest value load Scaled during the sampling period, as established by Forest Service. If no sample loads were Scaled during the period, the Scale data for the high valued load will be taken from the most current preceding sampling period with Scale. Sample loads lost as a result of Forest Service actions shall be treated as non-Scaled loads.

B6.86 Scale Reports. Forest Service shall provide Purchaser a copy of Forest Service scaler's record, if requested in writing.

B6.9 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.

B7.0—FIRE PRECAUTIONS AND CONTROL

B7.1 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.

B7.2 Fire Precautions. Specific fire precautionary measures listed in C7.2 shall be applicable during Purchaser's Operations in "Fire Precautionary Period" described in A12. 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.

B7.21 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.

B7.22 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 C7.22. 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.

B7.3 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 A13.

B7.31 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:

B7.311 Suspend Operations. To suspend any or all of Purchaser's Operations.

B7.312 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 A13. 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.

B7.313 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 A13. Equipment shall be operated only by personnel approved by Purchaser, if so requested by Purchaser.

B7.4 Fire Suppression Costs. Purchaser's obligations for cost of fire suppression vary according to three classifications of fires as follows:

B7.41 Operations Fire. An "Operations Fire" is a fire caused by Purchaser's Operations other than a Negligent Fire.

Forest Service, except as provided in B7.3, shall use cooperative deposits under B4.218 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 A14. The cost of Purchaser's actions, supplies, and equipment on any such fire provided pursuant to B7.3, 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 A14, Forest Service shall reimburse Purchaser for the excess.

B7.42 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 B7.2 and B7.3 results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Purchaser.

B7.43 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 B7.3, or otherwise at the request of Forest Service, on any fire on Sale Area other than an Operations Fire or a Negligent Fire.

B7.5 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 B7.41 shall not be withheld pending settlement of any such claim or action based on State law.

B7.6 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.

B8.0—OTHER CONDITIONS

B8.1 Title and Liability.

B8.11 Title Passage. All right, title, and interest in and to any Included Timber shall remain in Forest Service until it has been cut, Scaled, 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 cut under cash deposit or payment guarantee under B4.3 shall be considered to have been paid for. Title to any Included Timber that has been cut, Scaled, 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.

B8.12 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 after removal of timber from Sale Area, but before Scaling, shall be borne by Purchaser at Current Contract Rates and Required Deposits. 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 B8.33.

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.

B8.2 Period of Contract. All obligations of Purchaser shall be discharged not later than "Termination Date" stated in A15, unless it is adjusted pursuant to B8.21 or B8.212 or extended pursuant to B8.23 or B8.32, 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.

B8.21 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 B6.31, 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 B4.4 or B9.3 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 B8.23, 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.

B8.211 Delay in Reconstruction of Processing Facilities. Notwithstanding the 12-month limitation in B8.21, 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.

B8.212 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 A20. 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.

B8.22 Termination for Catastrophe. In event of Catastrophic Damage, this contract may be modified under B8.32, following rate redetermination under B3.32, or terminated under this Subsection. Such termination shall not be considered a termination under B8.34.

B8.221 Termination by Purchaser. This contract shall be terminated, upon election and written notice by Purchaser, if Catastrophic Damage rate redetermination under B3.32 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.

B8.222 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 B8.32, within 30 days of receipt from Contracting Officer of contract modifications proposed to permit the harvest of the catastrophe-affected timber.

B8.23 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 B4.213, as of the original Termination Date, or as adjusted pursuant to B8.21 or B8.212, 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.

B8.231 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 volume in A2 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 B6.311, were constructed and accepted by Forest Service prior to the applicable road completion date shown in C5.13.

(c) Purchaser's Operations to date have been in reasonable compliance with contract terms and the approved Plan of Operations under B6.311.

(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 B4.213 has been made.

Contract Term Extension shall not become effective, unless payments required by B8.23 have been paid and the initial Extension Deposit required by B4.217 has been made by the effective date of any extension.

B8.3 Contract Modification. The conditions of this timber sale are completely set forth in this contract. Except as provided in B8.32 and B8.33, 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.

B8.31 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.

B8.32 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 B3.32 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.

B8.33 Contract Suspension and Modification.

(a) Contracting Officer may, by written order, delay or interrupt authorized operations under this contract or, notwithstanding B8.3, 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 B3.31. 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 B8.33(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.

B8.34 Contract Termination This contract may be terminated, in whole or in part, by Forest Service or Purchaser, as provided in Items B8.341 and B8.342, 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 B8.33(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.

B8.341 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 B8.33.

(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 B3.31 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 B3.31. 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.

B8.342 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 B8.33, or

(ii) in the event of an order modifying this Contract pursuant to B8.33, 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 B8.33 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 B3.31 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 B3.31. 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.

B8.35 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 B8.33 or B8.34. 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, lopping, 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.

B8.36 Termination for Market Change. (a) In the event of delay or interruption under B8.33, 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 B3.33 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 B3.33.

(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.

B8.4 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.

B8.5 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.

B8.6 Provisions Required by Statute.

B8.61 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.

B8.62 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).

B8.63 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 understanding, 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.

B8.64 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.

B8.65 Contract Consistency With Other Laws. The contract shall govern if State and local environmental quality laws conflict with or preclude performance of contractual requirements.

B9.0—PERFORMANCE AND SETTLEMENT

B9.1 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 A17, unless the amount is adjusted as provided in B9.11 or B9.13. In lieu of surety bond, Purchaser may deposit into a Federal Depository, as directed by Forest Service under B4.21, and maintain therein, cash in the dollar amount stated in A17 or negotiable securities of the United States having market value at time of deposit of not less than the dollar amount stated in A17.

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.

B9.11 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 B9.5.

B9.12 Letters of Credit. Notwithstanding the provisions of B9.1, 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.

B9.13 Temporary Bond Reduction. When, under B8.33, 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 A17 within 15 days. Purchaser shall not resume contract operations until the performance bond amount is fully restored.

B9.2 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 Officer 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.

B9.21 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 subdivisions or cutting units, Purchaser must file any Claim not later than 60 days after receipt of Forest Service written notification that subdivision or cutting 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.

B9.22 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 (C)

(b) Sale Area Map

(c) Specific Conditions (A) and Schedule of Items

(d) Standard Provisions (B)

(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

B9.3 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 B6.1, 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 B8.33.

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.

B9.31 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 B6.01;

(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 B9.3, causing undesignated timber meeting Utilization Standards to be unnecessarily dam-

aged 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 B9.3.

Damages due the United States for termination under this Subsection shall be determined pursuant to B9.4.

B9.4 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 B9.31, Forest Service shall appraise remaining Included Timber, unless termination is under B8.22 or B8.34. 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 B6.4.

(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.

B9.5 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 B4.218 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.

B9.6 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 B4.24 and excess cooperative deposits under B4.218.

DIVISION C

Special Provisions

In accordance with A21, 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 B. The numbers after the C (that identifies material in this Division) indicates the Part, Section, Subsection, or Item of Division B that is being supplemented or modified by each particular provision included in this Division.

C2.11# - TIMBER SUBJECT TO AGREEMENT *(02/1971)*

In addition, there is within Sale Area an unestimated quantity of:

Species	Product
Cull Logs Combined	**Cull Logs**

that shall be Included Timber upon written agreement.

C2.21# - UTILIZATION, REMOVAL, AND AMOUNT PAYABLE FOR NON-SAWTIMBER *(05/2008)*

Notwithstanding B2.2, Purchaser is required to pay for, cut, and remove the Non-Sawtimber Products of Included Timber listed in A2 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 B6.36.

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

See Table A

C2.21# – UTILIZATION, REMOVAL, AND AMOUNT PAYABLE FOR NON-SAWTIMBER

Subdivision /Unit	**Products to be Removed**
All Units	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 C6.7#.
N/A	2.
All Units	**Amount Payable for Non-Sawtimber Products.**

Notwithstanding B4.0, Purchaser shall make payment for Non-Sawtimber Products prior to the start of felling any Included Timber. The amount payable has been computed by applying Bid Rates and Required Deposits to the estimated quantities listed in A2 for Non-Sawtimber Products and Payment Schedule A, attached hereto. Estimated quantities are final and are not subject to adjustment.

Payment Schedule

Subdivision	Product Item	Unit of Measure	Estimated Quantity	Payment at Bid Rates	Payment of Deposits	Total Payments
All Units	Nonsaw	TON	13,160			

C2.35# - DESIGNATION OF TIMBER AND SUBDIVISION/PAYMENT UNIT BOUNDARIES *(08/2007)*

Trees are designated for cutting under B2.35# 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.

See Table A

C2.35# - DESIGNATION OF TIMBER AND SUBDIVISION/PAYMENT UNIT BOUNDARIES

Timber Designation Table

Unit/ Subdivision/Area/ Payment Unit	Tree Paint Color	Designation or Specification
Cutting Units: 2, 5, 25, 30, 67, 68, 213, 402, 403, 405, 406, 409, 416, 417, 426, 427, 448, 451, 454, 463, 2901, and 3003	BLUE	Individual Tree Mark. Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color.
Cutting Units: 308, 407, and 445	ORANGE	Leave Tree Mark. All live 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.
N/A		Wildlife Trees. Notwithstanding the designation for cutting under B2.3l, B2.33, B2.34,or B2.35, 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.
N/A		Designation by Spacing C2.351#
Cutting Units: 5, 25, 30, 67, 68, 213, 402, 403, 405, 409, 416, 417, 426, 427, 448, 451, 463, 2901, and 3003		Designation by Species and Diameter, C2.352#
N/A		Designation by Damage Class, C2.353#
N/A		Designation by Row Spacing, C2.354#

Subdivision/Payment Unit Boundary Designation Table

Subdivision/Payment Unit	Boundary Paint Color	Boundary Designation
All Units	Orange	Unit boundaries are designated with three orange vertical paint stripes, two buttmarks, blue flagging and yellow tags indicating sale name and unit number. System roads are also used as boundaries as shown on Sale Area Map.

C2.352# - DESIGNATION BY SPECIES AND DIAMETER *(04/2004)*

Trees that meet Utilization Standards are designated for cutting, as shown on the Tree Designation Table and Sale Area Map, except trees Marked with **ORANGE** paint or described to be left uncut.

See Tree Designation Table.

Additional trees to be cut, if any, are Marked with **BLUE** paint.

All **Live White Fir, Sugar Pine and Douglas Fir** shall be left as leave trees, unless Marked with **BLUE** paint. Leave **Live Ponderosa Pine and Incense Cedar** trees of the designated cut species, **5** inches stump diameter or greater, to avoid leave tree spacing greater than **20** feet. Cutting unit boundaries and other trees that shall be left uncut are Marked with **ORANGE** 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 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.

Purchaser and Forest Service shall agree to skid trail location under B6.422. Skid trails shall be no greater than **12** feet wide with a **75** foot spacing.

C2.352# Tree Designation Table

Subdivision(s) or Cutting Unit(s)	Designated Species 1/	More than Stump Diameter (inches) 2/	Less than Stump Diameter (inches) 2/
Cutting Units: 5,25,30,67,68,213, 402,403,405,409, 416,417, 426,427, 448,451,463,2901, and 3003	IC, KP, LP, and PP	5	12

C4.211 - DOWNPAYMENT *(06/2007)*

The downpayment amount shown in A18 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to B9.4, transferred to other timber sales, or refunded until (a) stumpage value representing 25 percent of the total bid value of the timber sale has been charged and paid for, or (b) the estimated value of the unscaled timber is equal to or less than the amount of the downpayment, or (c) if 36 CFR 223.49(e) is applicable, the estimated value of the unscaled timber is equal to or less than the amount of the downpayment.

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).

C4.212 - TEMPORARY REDUCTION OF DOWNPAYMENT *(08/2009)*

Notwithstanding B4.211 or C4.211, 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 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.

C5.12# - USE OF ROADS BY PURCHASER *(06/1999)*

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:

Code	Use Limitations
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 the 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:

See Restricted Road List Table.

C5.12# Restricted Road List

Road Number	Termini		Map Legend	Description of Restrictions
	From	To		
41N06	40N50Y	NORTH	R	Restricted use without written Forest Service Approval
40N50Y	40N54Y	40N67Y	R	“
40N41	41N06	WEST	R	“
40N55Y	43N19	40N12	R	“
40N78Y	40N53Y	UNIT 409	R	“
40N10X	UNIT 426	40N67Y	R	“
40N54	43N19	WEST	R	“
40N12	40N09X	EAST	R	“
FA 13	40N12	EAST	R	“
40N93	43N19	SOUTH	R	“
40N50Y	40N12	NORTH	R	“
FA 19	FA13	NORTH	R	“
40N69Y	43N19	WEST	R	“
40N67Y	43N19	40N10X	R	“
43N19	40N10X	UNIT 30	R	“
40N78Y	43N19	40N55Y	R	“
40N09X	40N50Y	UNIT 406	R	“
40N14	41N06	EAST	R	“

C5.125# - SHARE COST ROAD LIABILITY INSURANCE *(08/2006)*

Purchaser is authorized to use cooperative roads constructed under provisions of **Three Counties Road Right of Way Agreement, as amended to Sierra Pacific Industries Shasta-Trinity Agreement** , Cooperator, and Forest Service, and subsequent easements, supplements, and agreements thereto, available for inspection at the Forest Supervisor's Office, **Redding** , 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:	**$1,000,000.00**	**per person bodily injury or death**
	$1,000,000.00	**per occurrence bodily injury or death**
and	**$1,000,000.00**	**per occurrence property damage or a**
combined single limit of	**$1,000,000.00**	

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:

	$1,000,000.00	**per person bodily injury or death**
	$1,000,000.00	**per occurrence bodily injury or death**
and	**$1,000,000.00**	**per occurrence property damage or a**
combined single limit of	**$1,000,000.00**	

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 **1,000,000.00** 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 **The Cooperator "Sierra Pacific Industries"** as additionally insured solely as respects operations conducted by or on behalf of the Purchaser involving use of the cost shared roads referred to above.

C5.13# - ROAD COMPLETION DATE *(04/2004)*

Construction of Specified Roads shall be completed no later than **10/15/2011** ; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station From	Station To	Completion Date
N/A				

Completion date is binding on the party that constructs road, whether Purchaser or Forest Service. Contracting Officer shall modify the completion date in writing to conform to the approved Plan of Operations under B6.311 at the request of Purchaser.

When Purchaser elects Forest Service construction of Specified Roads shown in sale advertisement, Forest Service may adjust construction completion date when road construction is delayed or interrupted for causes that qualify for an adjustment of the completion date of Forest Service's road construction contract. When qualifying delays or interruptions of road construction occur, Forest Service shall evaluate such occurrences and document any findings. The current status of any adjustment shall be available to Purchaser on request. Promptly after the end of Normal Operating Season in which qualifying days occur, Forest Service shall give Purchaser written notice of (a) number of qualifying days claimed, and (b) new construction completion dates. After all road construction is complete, Forest Service shall grant Contract Term Adjustment. Such adjustment shall be limited to road completion date delays that occurred during Normal Operating Season.

If Forest Service is responsible for road construction and the actual date of road completion is 1 year or more after the completion date stated above, Purchaser may request a rate redetermination under B3.3 for remaining volume. Such request must be made within 30 days of notification that road construction has been completed. Upon receipt of such request, Forest Service shall redetermine rates using standard methods in effect on the completion date of road construction. Rates to be established shall apply to all timber removed from Sale Area after the effective date of the rate redetermination.

Forest Service shall in no way be responsible for any delay or damage caused by road contractor in performing the road construction, except such delay as may be the fault or negligence of Forest Service.

When Purchaser constructs Specified Roads and requests Contract Term Adjustment, completion dates shall be adjusted by number of days that qualify for such adjustment, provided such qualifying days occur before specified construction completion date. When Purchaser desires to construct an alternate facility under B5.26, Forest Service and Purchaser shall agree, in writing, on a construction completion date for alternate facility. Contract Term Adjustment as noted above will apply. Completion date shall be adjusted where a Design Change or physical changes necessitate a modification of Specified Road construction work that increases the scope or magnitude of the required work.

If Purchaser fails to complete construction of any or all Specified Roads by applicable completion date, as adjusted, Contract Term Extension shall not be granted.

As used in this Subsection, construction of a road is completed when:

(a) Purchaser constructs Specified Roads and Forest Service furnishes Purchaser with written notice of acceptance under B6.36 or

(b) Forest Service constructs road and furnishes Purchaser with written notice authorizing use of road.

Notwithstanding B5.1, Purchaser shall not use a road that Purchaser has elected for Forest Service to construct, until construction is completed and Forest Service furnishes Purchaser with written notice authorizing use of road.

C5.213# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES *(04/2004)*

Purchaser shall make a cash deposit for engineering services (preconstruction and construction) provided by Forest Service for reconstruction of National Forest system roads necessary to accommodate Purchaser's use under this contract, pursuant to 16 USC 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 $ **$20,000.00** . 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 indicated on the initial bill for collection, pursuant to B4.4.

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 From**	**To**	**Engineering Services Completion Date**
Road-40N10X	**0**	**1.1**	**08/15/2010**
Road-40N50Y	**0**	**1.6**	**08/15/2010**
Road-40N53Y	**0**	**.9**	**08/15/2010**
Road-43N19	**0**	**4.2**	**08/15/2010**

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.

C5.31# - ROAD MAINTENANCE REQUIREMENTS *(07/2001)*

Purchaser shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

See Contract Road Maintenance Requirements Summary Table.

C5.31# Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications									
	From	To		801	802	803	804	805	806	807	808	809	810
41N06	HWY 89	40N50Y	3.00			P							
40N50Y.1	41N06	40N54Y	0.40			P							
40N54Y	40N50Y	MP 0.6	0.60			P							
40N54YA	40N54Y	MP 0.2	0.20			P							
40N54YB	40N54Y	MP 0.1	0.10			P							
43N19.1	HWY 89	40N10X	2.80			P							
40N57Y	43N19	MP 0.60	0.60			P							
40N57YA	40N57Y	MP 0.25	0.25			P							
40N10X	43N19	MP 1.1	1.10			P							
43N19.2	FA13	MP 2.8	2.80			P							
43N19F	43N19	MP 0.3	0.30			P							
40N78Y.1	40N55Y	40N50Y	0.30			P							
40N50Y.2	40N12	40N67Y	1.50			P							
40N50YA	40N50Y	MP 0.4	0.40			P							
40N78Y.2	40N53Y	40N12	0.30			P							
40N67Y	40N50Y	40N10X	0.30			P							
40N12	FA13	40N09X	2.20			P							
40N53Y	40N12	40N50Y	0.90			P							
40N09X	40N12	MP 0.2	0.20			P							
FA13	HWY 89	40N12	7.20										

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

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications									
	From	To		801	802	803	804	805	806	807	808	809	810
41N06	HWY 89	40N50Y	3.00						P				
40N50Y.1	41N06	40N54Y	0.40						P				
40N54Y	40N50Y	MP 0.6	0.60						P				
40N54YA	40N54Y	MP 0.2	0.20						P				
40N54YB	40N54Y	MP 0.1	0.10						P				
43N19.1	HWY 89	40N10X	2.80						P				
40N57Y	43N19	MP 0.60	0.60						P				
40N57YA	40N57Y	MP 0.25	0.25						P				
40N10X	43N19	MP 1.1	1.10						P				
43N19.2	FA13	MP 2.8	2.80						P				
43N19F	43N19	MP 0.3	0.30						P				
40N78Y.1	40N55Y	40N50Y	0.30						P				
40N50Y.2	40N12	40N67Y	1.50						P				
40N50YA	40N50Y	MP 0.4	0.40						P				
40N78Y.2	40N53Y	40N12	0.30						P				
40N67Y	40N50Y	40N10X	0.30						P				
40N12	FA13	40N09X	2.20						P				
40N53Y	40N12	40N50Y	0.90						P				
40N09X	40N12	MP 0.2	0.20						P				
FA13	HWY 89	40N12	7.20										

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

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications									
	From	To		801	802	803	804	805	806	807	808	809	810
41N06	HWY 89	40N50Y	3.00			P							
40N50Y.1	41N06	40N54Y	0.40			P							
40N54Y	40N50Y	MP 0.6	0.60			P							
40N54YA	40N54Y	MP 0.2	0.20			P							
40N54YB	40N54Y	MP 0.1	0.10			P							
43N19.1	HWY 89	40N10X	2.80			P							
40N57Y	43N19	MP 0.60	0.60			P							
40N57YA	40N57Y	MP 0.25	0.25			P							
40N10X	43N19	MP 1.1	1.10			P							
43N19.2	FA13	MP 2.8	2.80			P							
43N19F	43N19	MP 0.3	0.30			P							
40N78Y.1	40N55Y	40N50Y	0.30			P							
40N50Y.2	40N12	40N67Y	1.50			P							
40N50YA	40N50Y	MP 0.4	0.40			P							
40N78Y.2	40N53Y	40N12	0.30			P							
40N67Y	40N50Y	40N10X	0.30			P							
40N12	FA13	40N09X	2.20			P							
40N53Y	40N12	40N50Y	0.90			P							
40N09X	40N12	MP 0.2	0.20			P							
FA13	HWY 89	40N12	7.20										

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

C5.32# - ROAD MAINTENANCE DEPOSIT SCHEDULE *(07/2001)*

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 C5.31#.

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:_____ per **Ton** .

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
Forest Service	**$.15**	**Ton**

C5.35# - ROAD AND WATER SUPPLY USE *(05/2008)*

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.

See Table A

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

Load Limitations	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 l5 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. 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.
Existing Non-National Forest System Roads	Roads not shown on Sale Area Map may be used as Temporary Roads if there is agreement before use is started.
Snow Removal	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. 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. Snow must not be removed to the road surface. A minimum 2 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. 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.

Water Supply Deposits

If Purchaser utilizes the water site located **Trout Creek Overhead Fill; T.42N, R.1E, Section 32**, 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.

WATER SUPPLY DEPOSIT SCHEDULE

Activity	Unit of Payment	Unit Cost	Total Cost	Time of Payment
Dust Abatement	Load	$5.00	Calculated per actual load	Advance Deposits Due 15 days from billing

Surface Replacement Deposits

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.

SURFACE REPLACEMENT DEPOSIT SCHEDULE

Road No.	From	To	Miles	Rate
40N06	HWY 89	40N50Y	3.00	.02/Ton
40N12	FA13	40N09X	2.20	.12/Ton

Sale Area Average Rate: $_0.14/ Ton

Use of roads outside the normal operating season is by written agreement only and rates may be tripled.

C6.24# - SITE SPECIFIC PROTECTION MEASURES *(04/2004)*

Special protection measures needed to protect known areas identified on Sale Area Map or on the ground include:

Cultural Resource Protection Measures:
CA - X: Linear Cultural Resource sites are shown on the Sale Area map and the Cultural Resource Working Map; Linear resources are identified on the ground with yellow and black striped flagging on both sides. White carsonite markers may or may not demarcate the centerlines. No timber shall be removed from within the flag lines of these sites. Trees may not be felled into the flagged site boundaries. Skidding across these sites shall be allowed only at predesignated breech point locations and by written agreement.

CA - Y: Individual features (poles or trees) associated with an historic utility line are shown on the Cultural Resource Working Map. Features are flagged as Small Areas or as Single Features. Areas are flagged with yellow and black striped flagging, blue flagging, orange paint, and posted with "Tractor Prohibited" signs around the perimeter of the features. Single features are flagged with yellow and black striped flagging tied around the pole or bole of the tree. Trees are painted with double orange bands at DBH and two orange marks on opposite sides of the stump. No operations are allowed inside the flag line or behind the "Tractor Prohibited" signs and single resources (individual trees or poles) are to be avoided.

Wildlife and Botanical Protection Measures: **Unit #2 has PSW test plots that are flagged with red and black striped flagging and posted with "Tractor Prohibited" signs. No operations are allowed inside the flagline or behind the "Tractor Prohibited" signs.**

Cave Resource Protection Measures: **No known protection measures at this time.**

C6.315# - SALE OPERATIONS SCHEDULE *(08/2006)*

Unless otherwise agreed in writing, Purchaser's Operations shall be performed in accordance with the following schedule:

See Table A

C6.315# - SALE OPERATIONS SCHEDULE TABLE A (8/2006)

Subdivision/ Area/Unit	**Conditions of Operation**	**Purpose**
Cutting Units: 308, 407, 445	All designated timber within these units shall be removed prior to September 30, 2011 and before designated timber within any other units.	To assure the best recovery possible of timber in these units containing diseased and insect infestation.
Sale Area	Unless otherwise agreed in writing, Purchaser shall deck separately Sawtimber and Non-Saw products prior to the removal of products from the landing. Product decks shall be removed from the Sale Area in separate operations with all Sawtimber removed from each landing prior to the removal of Non-Saw products. Forest Service shall inspect and approve utilization and removal of Sawtimber prior to the initiation of Non-Saw product removal on a landing-by-landing basis.	To provide accountability for the two different products with different pricing.
Sale Area	All Non-Saw products shall be removed from each landing within 90 days of completion of Sawtimber products removal, unless otherwise agreed to in writing.	Reduce the risks of infestation from slash breeding insects.
Sale Area	Limited Operating Period – Operations are limited to the period of July 11 through February 14 beginning July of 2012. The LOP may be lifted based upon completion of wildlife surveys and Forest Service approval.	Wildlife Protection of Northern Spotted Owl.

C6.331 - LOG TRUCKING *(08/2006)*

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.

C6.37 - SUBSTITUTE METHODS *(08/2006)*

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.

C6.41# - FELLING, BUCKING, AND LIMBING *(08/2007)*

Unless otherwise agreed in writing, Purchaser's felling, bucking, and limbing operations shall be conducted as specified in the table below.

See Table A

C6.41# - 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 B6.414, 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 21 inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping. Trees larger than or equal to 21 inches DBH shall be bucked into two or more pieces with the butt portion being no longer than 40 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 control areas, private land, protected imporovements, paved roads, and streamcourses 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.

Treatment of Stumps "TS"	Within areas shown on Sale Area Map, Purchaser shall treat stumps of all live conifer trees equal to or greater than 14 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. 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 4 hours after felling, otherwise stumps shall be re-cut and treated. Purchaser shall not apply borate compound during heavy rain fall or when such precipiation rate is predicted within 24 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 20 feet of live streamcourses and meadows/wetlands shown on Sale Area Map and/or 20 feet of sensitive plant location boundaries as flagged on the ground. 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 occuring in water or over 14 pounds shall be reported to Forest Service within 24 hours. 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.

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Maximum Log Length	***N/A***
Minimum Stump Height	

Unit/Subdivision	Minimum Stump Height (inches)	Purpose or Reason
All Units	**4**	**Accountablility**

C6.42# - GROUND BASED SKIDDING *(08/2006)*

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:

See Table A

C6.42# - Ground-Based Skidding Table

Map Symbol	Requirements
TRAC	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. 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.
SUSP	Products shall be skidded with leading end clear of ground.
SPACE	Skid roads will average 120 feet from center to center, except where converging.
ENDL	Endlining shall not be required for distances in excess of 30 feet uphill, and 50 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	Purchaser shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least 25 feet for bunching trees, capable of severing, lowering and placing trees up to 24 inches diameter at stump height on the ground prior to skidding. Such equipment must be capable of operating on slopes up to 35 %. Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage. Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of B6.41 - Felling and Bucking, C6.41# - Felling, Bucking, and Limbing Requirements and the above “TRAC”, “SUSP”, “SPACE”, “ENDL”, and “MAX” requirements.
CTL	N/A
PB	N/A
HCTL	N/A

C6.5 - STREAMCOURSE PROTECTION *(08/2006)*

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 C6.6 - 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.

C6.6# - EROSION PREVENTION AND CONTROL *(05/2008)*

Erosion prevention and control work, including Streamcourse protection, required by C6.5 and B6.6 shall be completed within l5 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.

See Table A

C6.6# - 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
N/A			

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 B6.63 and B6.64, 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 l2 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 B6.64, 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		
Main Skid Roads and Tractor Roads designated by Forest Service		
Temporary Roads		

C6.7# - SLASH TREATMENT *(08/2006)*

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.

See Table A.

C6.7# - 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

Symbol	Method	Definition
Buck-L	"Bucking Large Logging Slash"	N/A
Buck-P	"Bucking and Piling"	N/A
Bury	"Burying"	N/A
Chip	"Chipping"	N/A
Deck	"Decking" large material	N/A
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	N/A
Remove	"Removing"	N/A
Scat 18" Scat 30"	"Scattering"	N/A
Stack	"Stacking" small material	N/A
View	"Visible Slash Treatment"	N/A
YUMD	"Yarding Unutilized Material-Decking"	N/A
YUME	"Yarding Unutilized Material-Exterior Boundary"	N/A
YUML	"Yarding Unutilized Material-Landing"	N/A
YUMR	"Yarding Unutilized Material-Removal"	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"	N/A
Fire-L	"Firelines"	N/A

Fuel-B "Fuelbreaks" N/A

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 120 inches. Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed 35 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 16 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.

	SLASH TREATMENT	
Subdivision or Unit No	***Specified Method***	***Prohibited Method***
308, 407, and 445	MACH, COVER	N/A

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.

		SLASH TREATMENT	
	Subdivision or Unit No.	***Specified Method***	***Maximum Height of Decks***
Landings	***SALE AREA***	***MACHINE***	***16***
Disposal Sites	***N/A***	***N/A***	***N/A***

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***
N/A				

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 N/A 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
N/A	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 accordance with specifications above. Material accumulated at landings shall be considered as Timber Subject to Agreement under C2.11#, described as Substandard Material and may be removed and paid for at Purchaser's option.

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.

C6.816# - SCALING DEPOSITS *(04/2004)*

In the event Forest Service enters into contracts with another party to provide Scaling services, Purchaser shall make Required Deposits in cash to Forest Service for such contract Scaling services at the following rates:

See Scaling Deposits Schedule Table.

The standard rate applies Monday through Friday between 6 a.m. and 8 p.m. The holiday rate applies on Federal holidays. The overtime rate applies at all other times.

Such deposits shall be paid in advance of Scaling. By written notice, Forest Service may adjust such rates to reflect redetermined costs. By agreement, and pursuant to Purchaser's Plan of Operations and annual Operating Schedule, deposits for Scaling services may be paid in total or be based on the estimated amount to be Scaled in not less than 30 days and not more than 60 days, unless production exceeds haul estimates. Purchaser's failure to make advanced deposits when due shall be a breach of contract under B9.3. Refunds after Scaling is completed shall be made pursuant to B4.24.

C6.816# Scaling Deposits Schedule

	Rate per Load for Scaling Services under A10		
Type of Service:	**Standard**	**Overtime**	**Holiday**
Yard Scaled Loads			
Truck Scaled Loads			
Non-Scale Loads			
Weighing Services	$9.00	$13.50	$18.00
Load Count			

C6.849 - PRODUCT ACCOUNTABILITY *(08/2006)*

Unscaled products from Included Timber shall not be hauled or presented for scaling on Sundays, Holidays, or after normal scaling hours at the designated scaling location without the written approval of the Contracting Officer.

C7.2# - SPECIFIED FIRE PRECAUTIONS *(08/2006)*

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 B7.1, 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:

See Table A

C7.2# - Specific Equipment Requirements and Fire Precautionary Measures 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 delimber, 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 C7.22#.
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 Wildfire 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 B7.1 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 C7.22#.

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 C7.22# – 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 C7.22# - 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 C7.22# 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:

Temp	Sea Level		1000 Feet		2000 Feet		3000 Feet		4000 Feet		5000 Feet		6000 Feet		7000 Feet		8000 Feet		9000 Feet		10000 Feet	
55	179	23	174	23	169	23	165	22	161	22	157	22	153	22	150	21	146	21	142	21	139	21
70	175	23	171	23	166	22	162	22	158	22	154	22	150	21	147	21	143	21	139	21	136	20
85	171	23	168	23	163	22	159	22	155	22	151	21	147	21	144	21	140	21	136	20	133	20
100	168	23	164	23	159	22	155	22	152	22	148	21	144	21	141	21	137	20	133	20	131	20
	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM

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 A-12 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 C7.22# 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.

C7.22# - EMERGENCY PRECAUTIONS *(08/2006)*

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 B7.21 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.

See Table A

C7.22# - EMERGENCY PRECAUTIONS

Table version 8/2006

PROJECT ACTIVITY LEVEL

Level	***Project Activity Requirements***
A	Minimum required by C7.2# 1. PAL levels are cumulative, Ev level would include all preceding PAL requirements.
B	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 (B2 above) may serve dual purpose as active landing tank truck provided it shall be kept readily available for use as follows: 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. 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. 4. (Additional restrictions specified by the forest.)
C	1. The following operations are prohibited from 1:00 PM until 8:00 PM local time: a. Blasting 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: 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

	Page 173 A complies with all tank truck requirements of C7.2#. All terrain tank truck or equivalent may serve dual purpose as active landing tank truck provided: 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. Otherwise there shall be a tank truck at the active landing and an all terrain tank truck or equivalent with the hot saw technology. 3. (Additional restrictions specified by the forest.)
D	1. The following restrictions apply: a. No blasting after 10:00 AM b. Welding or cutting of metal only by special permit c. No Burning without a permit 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: 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. 3. (Additional restrictions specified by the forest.)

Ev	Page 173 B 1. The following operations are prohibited: a. Blasting b. Welding or cutting metal c. Burning 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. A. Activities that may operate all day: 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 (does not include pit or quarry development) 5. Chainsaw or stroke delimber operation associated with loading at approved landing sites. B. All other Operations are permitted until 1:00 PM local time subject to the following: 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 communications with hot saw technology and be within one quarter mile of hot saw technology to quickly reach and effectively attack a fire start. C. (Additional restrictions specified by the forest.)
E	The following activities may operate subject to B1. and B2. 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.

C8.212 - MARKET-RELATED CONTRACT TERM ADDITION *(11/2008)*

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 A20. 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, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Purchaser's written request for a market-related contract term addition before the expiration of this contract.

No more than 3 years shall be added to a contract's term by market-related contract term addition unless the following conditions are met:

(i) The sale was awarded after December 31, 2006; and

(ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

For each qualifying quarter meeting the criteria in paragraphs (i) and (ii) of this provision, the Forest Service will, upon the Purchaser's written request, add an additional 3 months during the normal operating season to the contract, except no single 3-month addition shall extend the term of a contract by more than 1 year.

In no event shall a revised contract term 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 may result from delay.

C8.66# (Option 1) - USE OF TIMBER *(04/2004)*

(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 Section, Forest Service may terminate this contract and take such other ac-tion as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Section, Forest Service will not be liable for any Claim submitted by Purchaser relating to the termination.

Duke Multiproduct Re-Offer
Dust Abatement Plan (T-806) (7/01)

Road Segment	Material Type or Grade	Application Rate Initial	Application Rate Subsequent	Frequency of Subsequent Application	Prep. Method	Wt. Vol. Conversion Factor
41N06	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N50Y.1	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N54Y	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N54YA	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N54YB	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
43N19.1	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N57Y	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N57YA	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N10X	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
43N19.2	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
43N19F	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N78Y.1	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N50Y.2	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N50YA	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N78Y.2	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N67Y	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N12	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N53Y	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
40N09X	WATER	N/A	N/A	*SEE BELOW	**SEE BELOW	N/A
FA13	N/A	N/A	N/A	N/A	N/A	N/A

* AS OFTEN AS NEEDED TO PREVENT DUSTING OR THE LOOSING OF SURFACE MATERIAL.

**PREPARATION METHOD FOR WATER - PREPARATION SHALL BE IN ACCORDANCE WITH SPECIFICATION T-806 DUST ABATEMENT.

Road Maintenance T-Specifications

for

Timber Sale Contracts

To be used with Timber Sale Contract Form 2400-6/6T, C/CT5.4

Applicable T-Spec.	No.	Specification Title
X	T-800	Definitions
	T-801	Slide and Slump Repair
	T-802	Ditch Cleaning
X	T-803	Surface Blading
	T-804	Surfacing Repair
	T-805	Drainage Structures
X	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-811, 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 runoff 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 Inslope, 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.

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 B6.22 or National Forest resources and hauling can be done safely. This work will be shown in the Annual Road Maintenance Plan as provided in C/CT5.31.

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 ravelling.

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.

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 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 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.

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 Dust Abatement Plan (C/CT5.31). The Dust Abatement Plan may be changed by written Agreement.

2.2 Water. The locations of Water Sources are shown on Sale Area Map.

2.3 Dust abatement Materials shall meet the requirements of the following subsections of Forest Service Specifications for Construction of Roads and Bridges or attached Special Project Specifications.

Emulsified Asphalt	702
Blotter Material	703.12
Magnesium or Calcium Chloride Brine	723.01
Calcium Chloride Flake	723.02
Lignin Sulfonate	723.03

2.4 Testing of Materials. Certification and sampling of bituminous Materials lignin sulfonate, and magnesium chloride shall be in accordance with subsections 105.04 or 723.04 of Forest Service Specifications for Construction of Roads and Bridges.

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 (C/CT5.31.

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 (CT5.31).

Method 1. Compact Traveled Way and apply the dust abatement Material.

Method 2. Develop a layer of loose Material approximately 1 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, 1 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 1 inch of Traveled Way. The windrow shall be bladed to a uniform Material. When the dust abatement Material has penetrated, Traveled Way shall be compacted.

Method 3. Blade 1 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 1 hour of application.

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.

DUKE MULTIPRODUCT REOFFER

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A7 – Specified Roads, applicable to B5.2

Name and Date of Governing Road Specifications: Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03(2003) english

Project		Design/Traffic/Mtc Class	Approx. Length *(km.)*	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Const. Staking 1/
	Reconstruction						
40N10X	West Ash Road	S-5/2/C	1.8	8/2010	FS	FS	FS-AC
40N50Y	South Sink Road	S-5/2/C	2.6	8/2010	FS	FS	FS-AC
40N53Y	Coon Rod Road	S-5/2/C	1.5	8/2010	FS	FS	FS-AC
43N19	Military Pass Road	S-5/2/C	6.8	8/2010	FS	FS	FS-AC

1/ Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to B5.212.

A8 – Forest Service Engineering Completion Schedule, applicable to B5.21

Road No.	Road Name	Type of Work	Completion Date
	ALL ROADS		8/15/2010

A9 – Scaling Instructions and Specifications, applicable to B6.8

Name and Date of Governing Instructions: _____

Scaling Specifications					
		Maximum Scaling Length *(feet)*	Trim Allowance		
Species	Product		Diameter Range *(inches)*	Length Range *(feet)*	Trim Allowance *(inches)*

DUKE MULTIPRODUCT REOFFER

C-Provisions List

C5.12	USE OF ROADS BY PURCHASER (6/99)
C5.123	LOAD LIMITATIONS (9/2004)
C5.124	EXISTING TEMPORARY ROADS (9/2004)
C5.125	SHARE COST ROAD LIABILITY INSURANCE (9/2004) **TO BE COMPLETED BY TIMBER**
C5.13	ROAD COMPLETION DATE (4/2004)
	Assume a start of July 11th and a 90 day construction, completion will be October 15th
C5.2	SPECIFIED ROADS (12/00)
C5.213	DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (4/2004) **$20,000**
C5.31	ROAD MAINTENANCE REQUIREMENTS (7/2001) **PROVIDED BY OTHERS**
C5.32	ROAD MAINTENANCE DEPOSIT SCHEDULE (7/2001) **PROVIDED BY OTHERS**
C5.34	SNOW REMOVAL (9/2004)
C5.35	SURFACE REPLACEMENT DEPOSITS (9/2004) **PROVIDED BY OTHERS**
C5.36	WATER SUPPLY DEVELOPMENT (9/2004)

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Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_02_17_2005

101.01 Meaning of Terms.

Add the following:

Delete all references in FP-03 to Transportation Acquisition Regulations (TAR).

101.03_nat_us_02_17_2005

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

.

Add the following to (b) SI Symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_02_22_2005

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the "purchaser".

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse

public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--"Equitable adjustment," as used in the Federal Acquisition Regulations, or "construction cost adjustment," as used in the Timber Sale Contract, as applicable.

Change--"Change" means "change order" as used in the Federal Acquisition Regulations, or "design change" as used in the Timber Sale Contract.

Design Quantity-- "Design quantity" is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges.* Under these FP specifications this term is replaced by the term "Contract Quantities".

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

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

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

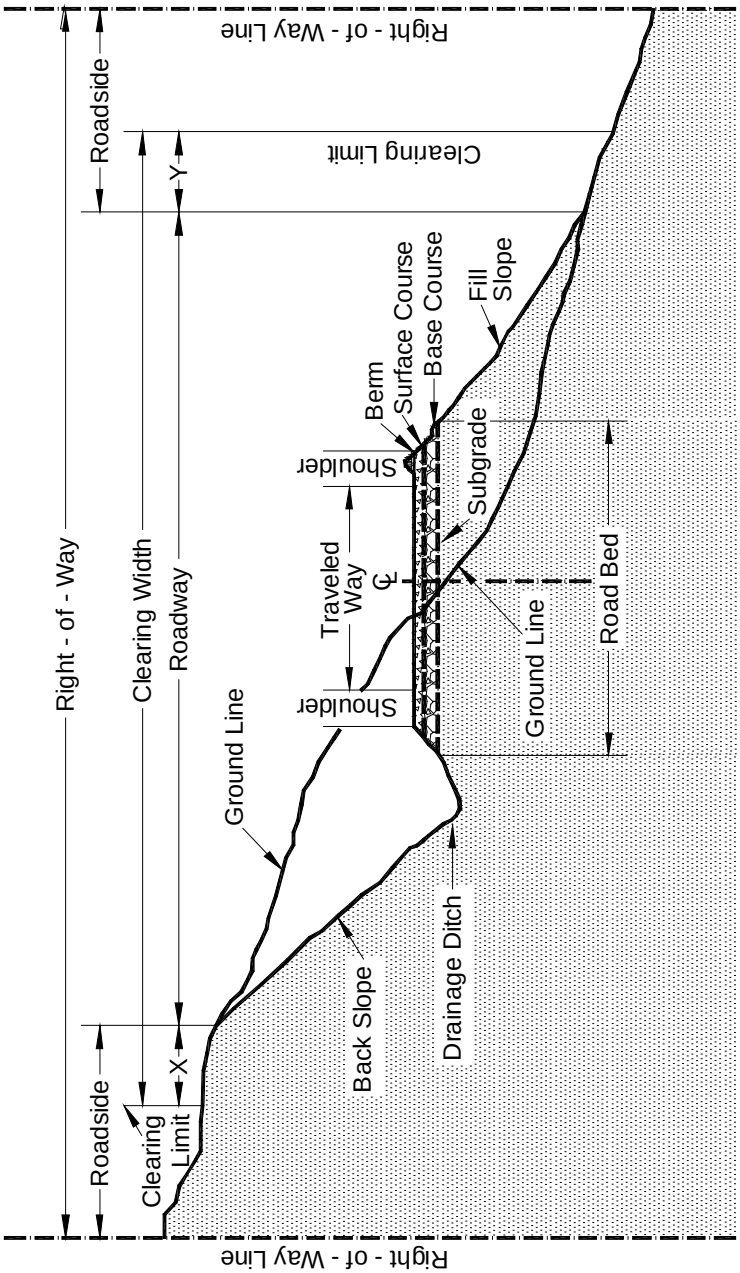
Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.
Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



Note: Shapes and dimensions will vary to fit local conditions.
See drawings for typical sections.
X and Y denote clearing outside of roadway.

102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_02_17_2005

Deletions

Delete sections 104.01, 104.02, and 104.04.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

105 - Control of Material

105.02_nat_us_05_11_2004

105.02 Material Sources.

105.02(a) Government Provided Sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.01_nat_us_03_29_2005

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

Follow the requirements of FAR Clause 52.246-12 Inspection of Construction.

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

(a) Disputing Government test results. **If the accuracy of Government test results is disputed, promptly inform the Government. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:**

(1) Sampling method;
(2) Number of samples;
(3) Sample transport;
(4) Test procedures;
(5) Testing laboratories;
(6) Reporting;
(7) Estimated time and costs; and
(8) Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The Government will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) Alternatives to removing and replacing non-conforming work. As an alternative to removal and replacement, the Contractor may submit a written request to:

(1) Have the work accepted at a reduced price; or

(2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service

life, value of material or work, quality, aesthetics, and other tangible engineering basis. The Government will determine disposition of the nonconforming work.

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_04_27_2005

107.06 Contractor's Responsibility for Work.

Delete the following:
"except as provided in Subsection 106.07".

107.09_nat_us_05_11_2004

107.09 Legal Relationship of the Parties.

Delete the entire subsection:

107.10_nat_us_02_23_2005

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the Government of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the Government and in a manner that complies with Federal, state, and local laws and regulations.

107.10_05_us_07_27_2005

107.02 Protection and Restoration of Property and Landscape

Add the following:
Meet the requirements chapters 10, 11, and 12.2 in their entirety of "Water Quality Management for National Forest System Lands in California Best Management Practices" dated September 2000

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.
109.07 Eliminated Work.
109.08 Progress Payments.
109.09 Final Payment.

109.02_nat_us_02_23_2005

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

"(b) Cubic yard" to "**(c) Cubic yard".**

109.02 Measurement Terms and Definitions.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

151 - Mobilization

151.01_0114_us_08_04_2005

151.01 Description

Add the following:

This work consists of washing and treating construction equipment and vehicles necessary for equipment transport to remove seeds, plants, and plant fragments before the equipment is used on Forest Service lands.

Wash the sides, tops, and undercarriages of all construction equipment. Remove all seeds, plants, plant fragments, dirt, and debris from the construction equipment. Only equipment inspected by the Forest Service will be allowed to operate within the project area. All subsequent move-ins of equipment to the project area will be treated in the same manner as the initial move-in. This requirement does not apply to cars, pickup trucks, and other vehicles that regularly travel between the construction site and areas off the National Forest.

Equipment will be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment, components or the need for specialized inspection tools is not required.

Notify the Government in writing at least 24 hours before moving any construction equipment onto the national forest. Notification will include an agreed upon location where the equipment will be available for inspection by the Forest Service. Inspection will be required after every cleaning.

Use methods of cleaning and locations for cleaning approved by the C.O.

For work at a commercial washing facility, use an approved facility.

New infestations of noxious weeds of concern to Forest Service and identified by either Contractor or Forest Service, on the Project Area or on the haul route, will be promptly reported to the other party. Contractor and Forest Service will agree on treatment methods to reduce or stop the spread of noxious weeds when new infestations are found. A current list of noxious weeds of concern to Forest Service is available at each Forest Service office.

151.02 Measurement

Add the following:

Clean equipment prior to moving onto this project. The initial cleaning will not be included in the measurement for payment. Payment under this item will only be made if subsequent cleanings are ordered by the Government. Measurement shall be on an "each" basis, meaning one complete cleaning of all equipment required for this contract. Subsequent cleanings necessitated by the Contractor's actions but not directed by the Government will not be included in the measurement for payment.

151.03_0116_us_03_30_2005

151.03

Add the following to the first paragraph:

Include all costs associated with the cleaning of equipment in the unit bid price for Mobilization:

Add the following to the beginning of paragraph (a).

If applicable,

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

157 - Soil Erosion Control

157.03_0510_us_01_20_2005

157.03 General.

Delete the first two paragraphs and add the following:

Submit an Erosion Control Plan detailing permanent and temporary control measures to minimize erosion and sedimentation during and after construction according to the contract specifications, contract permits, Section 107, and this Section. Contract permits amend the requirements of this Section. Do not modify the type, size, or location of any control or practice without approval. Submit the erosion control plan proposal at least 7 days before operations begin to the Government for approval.

Reflect in the erosion control plan special concerns and measures necessary to protect resources and government improvements. Include:

1. The construction activities and sequence of implementation relating to specific erosion control measures.

2. The location and type of permanent controls to be implemented during construction.

3. The location and type of temporary controls to be implemented during construction.

4. For work in stream channels with running water a detailed dewatering plan.

5. For work in stream channels without flowing water describe level of ground and vegetative disturbance and measures to reduce potential sediment delivery.

6. Describe what monitoring will take place.

Add to the third paragraph:

Upon completion of construction at the site, all temporary dewatering materials and equipment are to be removed from Government property.

157.08 Water Crossings.

Add the following:

At any channel crossing where there is running water dewater by rerouting water flow around the site before and during excavation and embankment operations.

201 - Clearing and Grubbing

201.10_0111_us_05_16_2005

201.01 Description

Replace with the following

This work consists of clearing and grubbing within clearing limits and other designated areas.

201.04 Clearing.

Add the following:

(e) Trim branches of remaining trees or shrubs to give a clear height of 14 feet above the roadbed unless otherwise indicated. Trim tree limbs as near flush with the trunk as practicable.

(f) Remove brush from log decks. Deck logs so that logs are piled parallel to one another; can be removed by standard log loading equipment; will not damage standing trees; will not interfere with drainage, and will not roll. Keep logs in log decks free of brush and soil.

201.06 Disposal.

Delete the first sentence of this subsection and substitute the following:

Slash Treatment. Use or treat construction slash larger than 3” in diameter and 3’ in length by one or more of the following methods, as DESIGNATED IN THE SCHEDULE OF ITEMS:

(1) Windrowing construction slash.

(2) Windrowing large material.

(3) Windrowing and covering.

(4) Scattering.

(5) Burying.

(6) Chipping or grinding.

(7) Piling and burning.

(8) Decking unmerchantable material.

(9) Placement in cutting units.

(10) Removal.

(11) Piling.

(12) Placing slash on embankment slopes.

(13) Debris mat.

203 - Removal of Structures and Obstructions

203.05 Disposing of Material.

Add the following:

(e) Windrowing Construction Slash. Place construction slash outside the roadway in neat, compacted windrows approximately parallel to and along the toeline of embankment slopes. Do not permit the top of the windrows to extend above subgrade. Use construction equipment to matt down all material in a windrow to form a compact and uniform pile. Construct breaks of at least 15 feet at least every 200 feet in a windrow. Do not place windrows against trees. Obtain approval for pioneer roads. A pioneer road may be constructed to provide an area for placement of windrows, provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.

(f) Scattering. Scatter construction slash outside the clearing limits without damaging trees. Limb all logs. Place logs and stumps away from trees, positioned so they will not roll, and are not on top of one another. Limb and scatter other construction slash to reduce slash concentrations.

(g) Chipping or Grinding. Use an approved chipping machine to grind slash and stumps greater than 3 inches in diameter and longer than 3 feet. Deposit chips or ground woody material on embankment slopes or outside the roadway to a loose depth less than 6 inches. Minor amounts of chips or ground woody material may be permitted within the roadway if they are thoroughly mixed with soil and do not form a layer.

(h) Debris Mat. Use tree limbs, tops, cull logs, split stumps, wood chunks, and other debris to form a mat upon which construction equipment is operated. Place stumps upside down and blend stumps into the mat.

(i) Decking Firewood Material. Remove brush from decks. Limb and deck logs that do not meet Utilization Standards according to Subsection 201.04 as directed by the Government. Cut logs to lengths less than 30 feet. Ensure that logs stacks are stable and free of brush and soil.

(j) Removal to designated locations. Remove construction slash to designated locations.

(k) Piling. Pile construction slash in designated areas. Place and construct piles so that if the piles are burned, the burning will not damage remaining trees. Keep piles free of dirt from stumps. Cut unmerchantable logs into lengths of less than 20 feet.

(l) Placing Slash on Embankment Slopes. Place construction slash on completed embankment slopes to reduce soil erosion. Place construction slash as flat as practicable on the completed slope. Do not place slash closer than 2 feet below subgrade. Priority for use of available slash is for: (1) through fills; (2) insides of curves; and (3) ditch relief outlets.

(m) Hydrological Sensitive Placement. Where required use this method in combination with other designated methods to dispose of material to reduce erosion and to aid in re-vegetation:

1. Place windrow segments on contours, wrap in type I geotextile.
2. Place logs as log erosion barriers on contours. Place logs so that 80% of their length is on the ground surface.
3. Scatter slash on bare or disturbed areas within or outside the clearing limits as directed.
4. Scatter chips or ground woody material on bare or disturbed areas within or outside the clearing limits as directed.

Place stumps in swales or on sites to form planting pockets. Place windrow segments on contours, wrap in type I geotextile.

204 - Excavation and Embankment

204.00_01_us_10_11_2006

Delete Section 204 in its entirety and replace with the following.

Description

204.01 This work consists of excavating material, constructing embankments and drainage excavation. This includes furnishing, hauling, stockpiling, placing, disposing, sloping, shaping, compacting, and finishing earthen and rocky material.

204.02 Definitions.

(a) Excavation. Excavation consists of the following:

(1) Roadway excavation. All material excavated from within the right-of-way or easement areas, except subexcavation covered in (2) below and structure excavation covered in Sections 208 and 209. Roadway excavation includes all material encountered regardless of its nature or characteristics.

(2) Subexcavation. Material excavated from below subgrade elevation in cut sections or from below the original groundline in embankment sections. Subexcavation does not include the work required by Subsections 204.05, 204.06(b), and 204.06(c).

(3) Borrow excavation. Material used for embankment construction that is obtained from outside the roadway prism. Borrow excavation includes unclassified borrow, select borrow, and select topping.

(b) Embankment construction. Embankment construction consists of placing and compacting roadway or borrow excavation. This work includes:

(1) Preparing foundation for embankment;
(2) Constructing roadway embankments;
(3) Benching for side-hill embankments;
(4) Constructing dikes, ramps, mounds, and berms; and
(5) Backfilling subexcavated areas, holes, pits, and other depressions.

(c) Conserved topsoil. Excavated material conserved from the roadway excavation and embankment foundation areas that is suitable for growth of grass, cover crops, or native vegetation.

(d) Waste. Excess and unsuitable roadway excavation and subexcavation that cannot be used.

Material

204.03 Conform to the following Subsections:

Backfill material	704.03
Select borrow	704.07
Select topping	704.08
Topping	704.05
Unclassified borrow	704.06
Water	725.01

Construction Requirements

204.04 Preparation for Roadway Excavation and Embankment Construction. Clear the area of vegetation and obstructions according to Sections 201 and 203.

204.05 Reserved.

204.06 Roadway Excavation. Excavate as follows:

(a) General. Do not disturb material and vegetation outside the construction limits.

Incorporate only suitable material into embankments. Replace any shortage of suitable material caused by premature disposal of roadway excavation

At the end of each day's operations, shape to drain and compact the work area to a uniform cross-section. Eliminate all ruts and low spots that could hold water.

Retrieve material deposited outside of the clearing limits as directed by the Government.

(b) Rock cuts. Blast rock according to Section 205. Excavate rock cuts to 6 inches below subgrade within the roadbed limits. Backfill to subgrade with topping or with other suitable material. Compact the material according to Subsection 204.11 When blasting rock, use blasting methods according to Subsection 205.08.

(c) Earth cuts. Scarify earth cuts to 6 inches below subgrade within the roadbed limits. Compact the scarified material according to Subsection 204.11.

(d) Pioneer Roads. Road pioneering, slash disposal, and grubbing of stumps may proceed concurrently with excavation. Conduct excavation and placement operations so material to be treated under Section 201 will not be incorporated into the roadway unless specified in the slash treatment method. Maintain drainage during pioneering operations.

Remove snow and ice in advance of the work and deposit beyond the roadway limits in a manner that will not waste material or generate sediment. Do not incorporate snow and ice into embankments. Place snow or ice in a manner to prevent resource damage.

(e) Drainage Excavation. Drainage excavation includes construction of all ditches, minor channel changes, drainage dips, catchbasins, surface water deflectors, and other minor drainage structures. Compact by Method (f) unless otherwise shown on the plans. Excavate on a uniform grade between control points.

204.07 Subexcavation. Excavate material to the limits as designated. Take cross-sections according to Section 152. Prevent unsuitable material from becoming mixed with the backfill. Dispose of unsuitable material according to Subsection 204.14. Backfill the subexcavation with topping, or other suitable material. Compact the material according to Subsection 204.11.

204.08 Borrow Excavation. Use all suitable roadway excavation in embankment construction. Do not use borrow excavation when it results in excess roadway excavation. Deduct excess borrow excavation from the appropriate borrow excavation quantity.

Obtain borrow source acceptance according to Subsection 105.02. Develop and restore borrow sources according to Subsection 105.03. Do not excavate beyond the established limits. When applicable, shape the borrow source to permit accurate measurements when excavation is complete.

204.09 Preparing Foundation for Embankment Construction. Prepare foundation for embankment construction as follows:

(a) Embankment less than 4 feet high over natural ground. Unless otherwise designated by the Government, remove topsoil. Break up the ground surface to a minimum depth of 6 inches by plowing or scarifying. Compact the ground surface according to Subsection 204.11.

(b) Embankments over an existing asphalt, concrete, or gravel road surface. Scarify gravel roads to a minimum depth of 6 inches. Scarify or pulverize asphalt and concrete roads to 6 inches below the pavement. Reduce all particles to a maximum size of 6 inches and produce a uniform material. Compact the surface according to Subsection 204.11.

(c) Embankment across ground not capable of supporting equipment. Dump successive loads of embankment material in a uniformly distributed layer to construct the lower portion of the embankment. Limit the layer thickness to the minimum depth necessary to support the equipment.

(d) Embankment on an existing slope steeper than 1V:3H. Cut horizontal benches in the existing slope to a sufficient width to accommodate placement and compaction operations and equipment. Bench the slope as the embankment is placed and compacted in layers. Begin each bench at the intersection of the original ground and the vertical cut of the previous bench.

204.10 Embankment Construction. Incorporate only suitable roadway excavation material into the embankment. When the supply of suitable roadway excavation is exhausted, furnish unclassified borrow to complete the embankment. Obtain written approval before beginning construction of embankments over 6 feet high at subgrade centerline. Construct embankments as follows:

(a) General. At the end of each day's operations, shape to drain and compact the embankment surface to a uniform cross-section. Eliminate all ruts and low spots that could hold water.

During all stages of construction, route and distribute hauling and leveling equipment over the width and length of each layer of material.

Compact embankment side slopes flatter than 1V:1.75H with a tamping type roller or by walking with a dozer. For slopes 1V:1.75H or steeper, compact the slopes as construction of the embankment progresses.

Where placing embankment on one side of abutments, wing walls, piers, or culvert headwalls, compact the material using methods that prevent excessive pressure against the structure.

Where placing embankment material on both sides of a concrete wall or box structure, conduct operations so compacted embankment material is at the same elevation on both sides of the structure.

Where structural pilings are placed in embankment locations, limit the maximum particle size to 4 inches.

(b) Embankment within the roadway prism. Place embankment material in horizontal layers not exceeding 12 inches in compacted thickness. Incorporate oversize boulders or rock fragments into the 12-inch layers by reducing them in size or placing them individually as required by (c) below. Compact each layer according to Subsection 204.11 before placing the next layer.

Material composed predominately of boulders or rock fragments too large for 12-inch layers may be placed in layers up to 24 inches thick. Incorporate oversize boulders or rock fragments into the 24-inch layer by reducing them in size or placing them individually according to (c) below. Place sufficient earth and smaller rocks to fill the voids. Compact each layer according to Subsection 204.11 before placing the next layer.

(c) Individual rock fragments and boulders. Place individual rock fragments and boulders greater than 24 inches in diameter as follows:

(1) Reduce rock to less than 48 inches in the largest dimension.

(2) Distribute rock within the embankment to prevent nesting.

(3) Place layers of embankment material around each rock to a depth not greater than that permitted by (b) above. Fill all the voids between rocks.

(4) Compact each layer according to Subsection 204.11 before placing the next layer.

(d) Embankment outside of roadway prism. Where placing embankment outside the staked roadway prism, place material in horizontal layers not exceeding 24 inches in compacted thickness. Compact each layer according to Subsection 204.11.

204.11 Compaction. Compact the embankment using one of the following methods as specified:

(a) <u>Compaction A.</u> Use AASHTO T 27 to determine the amount of material retained on a Number 4 sieve. If there is more than 80 percent retained on the No. 4 sieve use procedure (1). If there is 50 to 80 percent retained on the No. 4 sieve use procedure (2). If there is less than 50 percent retained on the No. 4 sieve use procedure (3).

(1) Adjust the moisture content to a level suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Use compression-type rollers at speeds less than 6 feet per second and vibratory rollers at speeds less than 3 feet per second. Compact each layer of material full width with one of the following and until there is no visible evidence of further consolidation.

(a) Four roller passes of a vibratory roller having a minimum dynamic force of 40,000 pounds impact per vibration and a minimum frequency of 1000 vibrations per minute.

(b) Eight roller passes of a 20-ton compression-type roller.

(c) Eight roller passes of a vibratory roller having a minimum dynamic force of 30,000 pounds impact per vibration and a minimum frequency of 1000 vibrations per minute.

Increase the compactive effort for layers deeper than 12 inches as follows:

- For each additional 6 inches or fraction thereof, increase the number of roller passes in (a) above by four passes.
- For each additional 6 inches or fraction thereof, increase the number of roller passes in (b) and (c) above, by eight passes.

(2) Use AASHTO T 99 to determine the optimum moisture content of the portion of the material passing a No. 4 sieve. Multiply this number by the percentage of material passing a No. 4 sieve, and add 2 percent to determine the optimum moisture content of the material. Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type rollers at speeds less than 6 feet per second and vibratory rollers at speeds less than 3 feet per second. Compact each layer of material full width according to (1) above.

(3) Classify the material according to AASHTO M 145. For material classified A-1 or A-2-4, determine the maximum density according to AASHTO T 180, method D. For other material classifications, determine the optimum moisture content and maximum density according to AASHTO T 99, method C.

Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type or vibratory rollers. Compact each layer of material full width to at least 95 percent of the maximum density. Determine the in-place

density and moisture content according to AASHTO T 310 or other approved test procedures. When required, use AASHTO T 224 to correct for coarse particles.

(b) **Compaction B.** Place material by end dumping to the minimum depth needed for operation of spreading equipment. Adjust the moisture content of the material to obtain a mass that will not visibly deflect under the load of the hauling and spreading equipment. Operate compaction equipment over the full width of each layer until there is no visible evidence of further consolidation or, if when a sheepsfoot roller is used, the roller "walks out" of the layer. Make at least three complete passes.

(c) **Compaction C.** Place material by end dumping to the minimum depth needed for operation of spreading equipment. Level and smooth each embankment layer before placing the next layers. Operate hauling and spreading equipment uniformly over the full width of each layer. Construct a solid embankment with adequate compaction by working smaller rock and fines in with the larger rocks to fill the voids, and by operating hauling and spreading equipment uniformly over the full width of each layer as the embankment is constructed.

(d) **Compaction D.** Hauling and Spreading Equipment. Adjust the moisture content to a level suitable for compaction. Compact the material by operating equipment over the full width of the roadway.

(e) **Compaction E**. Roller Compaction. Adjust the moisture content to a level suitable for compaction. Operate Rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:

(1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.

(2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, specifically designed to compact the material on which it is used.

(3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi.

(4) Sheepsfoot, tamping, or grid rollers capable of exerting a force of 250 lbs/inch of width of roller drum.

(f) **Compaction F.** Mechanical Tamper. Adjust the moisture content of the backfill material to a moisture content suitable for compaction. Compact each 6 inch layer with a minimum of three complete passes with a mechanical tamper.

204.12 Ditches. Slope, grade, and shape ditches. Remove all projecting roots, stumps, rock, or similar matter. Maintain all ditches in an open condition and free from leaves, sticks, and other debris.

Form furrow ditches by plowing or using other acceptable methods to produce a continuous furrow. Place all excavated material on the downhill side so the bottom of the ditch is approximately 18 inches below the crest of the loose material. Clean the ditch

using a hand shovel, ditcher, or other suitable method. Shape to provide drainage without overflow.

204.13 Sloping, Shaping, and Finishing. Complete slopes, ditches, culverts, riprap, and other underground minor structures before placing aggregate courses. Slope, shape, and finish as follows:

(a) Sloping. Leave all earth slopes with uniform roughened surfaces, except as described in (b) below, with no noticeable break as viewed from the road. Except in solid rock, round tops and bottoms of all slopes including the slopes of drainage ditches. Round material overlaying solid rock to the extent practical. Scale all rock slopes. Slope rounding is not required on tolerance class D though M roads.

If a slide or slipout occurs on a cut or embankment slope, remove or replace the material, and repair or restore all damage to the work. Bench or key the slope to stabilize the slide. Reshape the cut or embankment slope to an acceptable condition.

(b) Stepped slopes. Where required by the contract, construct steps on slopes of 1⅓V:1H to 1V:2H. Construct the steps approximately 18 inches high. Blend the steps into natural ground at the end of the cut. If the slope contains nonrippable rock outcrops, blend steps into the rock. Remove loose material found in transitional area. Except for removing large rocks that may fall, scaling stepped slopes is not required.

(c) Shaping. Shape the subgrade to a smooth surface and to the cross-section required. Shape slopes to gradually transition into slope adjustments without noticeable breaks. At the ends of cuts and at intersections of cuts and embankments, adjust slopes in the horizontal and vertical planes to blend into each other or into the natural ground.

(d) Finishing. Finish the roadbed to be smooth and uniform, and shaped to conform to the typical sections. Remove unsuitable material from the roadbed and replace it with suitable material. Finish roadbeds to the tolerance class shown in table 204-2.Ensure that the subgrade is visibly moist during shaping and dressing. Scarify to 6 inches below the bottom of low sections, holes, cracks, or depressions and bring back to grade with suitable material. Maintain proper ditch drainage.

For surfaced roads, remove all material larger than 6 inches from the top 6 inches of the roadbed.

For unsurfaced roads, use one of the following methods to finish the roadbed:

(1) **Method A**. Remove all material larger than 6 inches from the top 6 inches of the roadbed and replace with suitable material.

(2) **Method B**. Use a vibratory grid roller or approved equal with a minimum weight of 10 tons. Roll at least 5 full-width passes or until there is no visible evidence of further consolidation.

(3) **Method C**. For roads designated as Construction Tolerance Class K, L, or M, finish the roadbed by spreading the excavation. Eliminate rock berms.

204.14 Disposal of Unsuitable or Excess Material. Dispose of unsuitable or excess material at designated sites or legally off of the project.

When there is a pay item for waste, shape and compact the waste material in its final location. Do not mix clearing or other material not subject to payment with the waste material.

204.15 Acceptance. See Table 204-1 for sampling and testing requirements.

Material for embankment and conserved topsoil will be evaluated under Subsections 106.02 and 106.04.

Excavation and embankment construction will be evaluated under Subsections 106.02 and 106.04.

Clearing and removal of obstructions will be evaluated under Sections 201 and 203.

Measurement

204.16 Measure the Section 204 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

(a) Roadway excavation. Measure roadway excavation in its original position as follows:

(1) Include the following volumes in roadway excavation:

(a) Roadway prism excavation;

(b) Rock material excavated and removed from below subgrade in cut sections;

(c) Unsuitable material below subgrade and unsuitable material beneath embankment areas when a pay item for subexcavation is not shown in the bid schedule;

(d) Ditches, except furrow ditches measured under a separate bid item;

*(e)*Topsoil;

(f) Borrow material used in the work when a pay item for borrow is not shown in the bid schedule;

(g) Loose scattered rocks removed and placed as required within the roadway;

(h) Conserved material taken from stockpiles and used in Section 204 work; and

(i) Slide and slipout material not attributable to the Contractor's method of operation.

(2) Do not include the following in roadway excavation:

(a) Overburden and other spoil material from borrow sources;

(b) Overbreakage from the backslope in rock excavation;

(c) Water or other liquid material;

(d) Material used for purposes other than required;

(e) Roadbed material scarified in place and not removed;

(f) Material excavated when stepping cut slopes;

(g) Material excavated when rounding cut slopes;

(h) Preparing foundations for embankment construction;

(i) Material excavated when benching for embankments;

(j) Slide or slipout material attributable to the Contractor's method of operation;

(k) Conserved material taken from stockpiles constructed at the option of the Contractor; and

(l) Material excavated outside the established slope limits.

(3) When both roadway excavation and embankment construction pay items are shown in the bid schedule, measure the following as roadway excavation only:

(a) Unsuitable material below subgrade in cuts and unsuitable material beneath embankment areas when a pay item for subexcavation is not shown in the bid schedule;

(b) Slide and slipout material not attributable to the Contractor’s method of operations; and

(c) Drainage ditches, channel changes, and diversion ditches.

(b) Unclassified borrow, select borrow, and select topping. When measuring by the cubic yard measure in its original position. If borrow excavation is measured by the cubic yard in place, take initial cross-sections of the ground surface after stripping overburden. Upon completion of excavation and after the borrow source waste material is returned to the source, retake cross-sections before replacing the overburden.

Do not measure borrow excavation used in place of excess roadway excavation.

(c) Embankment construction. Measure embankment construction in its final position. Do not make deductions from the embankment construction quantity for the volume of minor structures.

(1) Include the following volumes in embankment construction:

(a) Roadway embankments;

(b) Material used to backfill subexcavated areas, holes, pits, and other depressions;

(c) Material used to restore obliterated roadbeds to original contours; and

(d) Material used for dikes, ramps, mounds, and berms.

(2) Do not include the following in embankment construction:

(a) Preparing foundations for embankment construction;

(b) Adjustments for subsidence or settlement of the embankment or of the foundation on which the embankment is placed; and

(c) Material used to round fill slopes.

(d) Rounding cut slopes. Measure rounding cut slopes horizontally along the centerline of the roadway if a pay item for slope rounding is included in the bid schedule. If a pay item for slope rounding is not included in the bid schedule slope rounding will be considered subsidiary to excavation.

(e) Waste. Measure waste by the cubic yard in its final position. Take initial cross-sections of the ground surface after stripping over burden. Upon completion of the waste placement, retake cross-sections before replacing overburden.

(f) Slope scaling. Measure slope scaling by the cubic yard in the hauling vehicle.

Payment

204.17 The accepted quantities will be paid at the contract price per unit of measurement for the Section 204 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Table 204-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Topping (704.05) & unclassified borrow (704.06)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type	Processed material before incorporating in work	Yes, when requested	Before using in work
		Moisture-density	—	AASHTO T 180, method D[1] or T 99, method C[1]	1 per soil type but not less than 1 per 13,000 yd^3	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	1 per 6000 yd^2 but not less than 1 per layer	In-place	—	Before placing next layer
Select borrow (704.07 & Select topping (704.08)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type but not less than 1 for each day of production	Processed material before incorporating in work	Yes, when requested	Before using in work
		Gradation	—	AASHTO T 27 & T 11	"	"	"	"
		Liquid limit	—	AASHTO T 89	"	"	"	"
		Moisture-density	—	AASHTO T 180, method D[1] or T 99, method C[1]	1 per soil type but not less than 1 per 13,000 yd^3	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	1 per 6000 yd^2 but not less than 1 per layer	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor

Table 204-1 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Earth embankment (204.11, Compaction A)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type	Source of Material	Yes, when requested	Before using in work
		Moisture-density	—	AASHTO T 180, method D[(1)] or T 99, method C[(1)]	1 per soil type but not less than 1 per 13,000 yd^3	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 but not less than 1 per layer	In-place	—	Before placing next layer
Top of subgrade (204.11 Compaction A)	Measured and tested for conformance (106.04)	Compaction	—	AASHTO T 310 or other approved procedures	1 per 2500 yd^2	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

Table 204-2
Construction Tolerances

	Tolerance Class [a]												
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**
Roadbed width (ft)	+0.5	+0.5	+1.0	+1.0	+1.0	+1.0	+1.5	+1.0	+2.0	+2.0	+2.0	+2.0	+2.0
Subgrade elevation (ft)	±0.1	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±2.0	±3.0	±2.0	±3.0	(c)
Centerline alignment (ft)	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±1.5	±2.0	±3.0	±3.0	±5.0	(c)
Slopes, excavation, and embankment (% slope[b])	±3	±5	±5	±5	±5	±5	±10	±10	±10	±10	±20	±20	±20

(a) Maximum allowable deviation from construction stakes and drawings.
(b) Maximum allowable deviation from staked slope measured from slope stakes or hinge points.
(c) Unless otherwise shown the centerline alignment and subgrade elevation, as built, have no horizontal curves with a radius of less than 80 feet, and no vertical curves with a curve length of less than 80 feet when the algebraic difference in the grade change is less than 10 percent, or a curve length of less than 100 feet when the algebraic difference of

212 - Linear Grading

212.00_nat_us_05_19_2005

Delete the entire specification and replace it with the following:

Description

212.01 This work consists of clearing and grubbing, excavation and embankment, and erosion control to construct roadways and associated features.

Construction Requirements

212.02 Clearing & Disposal. Protect construction stakes and construction control markers. Remove or treat all trees, snags, downed timber, brush, and stumps within the clearing limits.

Immediately remove slash deposited in stream courses.

Fell all dead trees that are outside the clearing limits and that lean toward the road and are tall enough to reach the roadbed.

Leave stump heights less than 12 inches or one-third of the stump diameter; whichever is greater, measured on the side adjacent to the highest ground. Leave felled trees outside the clearing limits in place, and treat them no further unless otherwise designated.

Do not cut vegetation less than 3 feet in height and less than 3 inches in diameter that is within the clearing limits but beyond the roadway and not in a decking area and that does not interfere with sight distance along the road.

Merchantable Timber

Deck all merchantable timber at approved locations according to 201.04(f).

Unmerchantable Timber and Large Construction Slash

Scatter construction slash outside the clearing limits without damaging trees. Limb all logs. Place logs and stumps away from trees, positioned so they will not roll, and are not on top of one another. Limb and scatter other construction slash to reduce slash concentrations.

212.03 Pioneering. Do not undercut the final back slope during pioneering operations. Deposit material inside the roadbed limits. Do not restrict drainage.

212.04 Grubbing. Within the clearing limits remove stumps with less than 6 inches of cover.

212.05 Excavation & Embankment. Construct the roadway to the required template. Protect backslopes from being undercut. Embankment may be placed by side casting and end dumping.

Locate and use borrow material, and remove and treat unsuitable or excess material.

Place rocks that are too large to be incorporated in the embankment outside the traveled way on the downhill side so that they will not roll, obstruct drainage, or hinder roadbed use and maintenance.

Leave slopes that are to be seeded in a roughened condition.

Use a crawler tractor with a dozer blade to shape and finish the roadbed. Provide for drainage of surface water, unless otherwise designated. Do not permit individual rocks in the roadbed to protrude more than 4 inches above the subgrade. A motor grader finish is not required.

Do not encroach on stream channels, wetlands, or extend beyond right-of-way or easement limits. Do not make alignment or profile grade adjustments that adversely affect drainage. Construct the roadbed within the following grading tolerances:

(a) Alignment (centerline). Alignment may be shifted a maximum of 10 feet left or right of the planned centerline. Curve radii may be reduced by up to 50 percent. Do not construct curves with radii less than 100 feet. Compound curves are permitted. Traveled way tolerance is (+) 2 feet unless otherwise designated.

(b) Profile grade. Profile grade may be shifted a maximum of 5 feet up or down from the plan elevation provided the new grade tangent does not vary more than 2 percent from the plan grade tangent. Connect revised forward and back grade tangents with a uniform vertical curve consistent with the design.

212.06 Drainage. Install culverts and other drainage structures according to Section 602 and Section 209.

212.07 Erosion Control. Install erosion control measures and seeding according to the drawings and Section 625.

212.08 Acceptance. Linear grading will be evaluated under Subsections 106.02 and 106.04.

Clearing and slash and timber treatment will be evaluated under Sections 201 and 203.

Measurement

212.09 Measure the Section 212 items listed in the bid schedule according to Subsection 109.02 and the following.

Do not measure changes in the clearing and grubbing quantity caused by alignment adjustments under Subsection 212.04.

Payment

212.10 The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 212 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

230 - Roadside Brushing

230.00_0114_us_08_04_2005

Description

230.01 Work. This work consists of removing all vegetative material including limbs, residual slash, live roadside brush, and small trees within the brushing limits designated on the plans.

Construction

230.02 Brushing. Cut all brush and small trees (6 inches diameter, or less, at the point of cut) inside the brushing limits and outside the roadbed no higher than 4 inches above ground level (6 inches for machine brushing). If rocks or other obstructions are encountered, cut no higher than 6 inches above the obstruction. Limb live trees with a diameter larger than 6 inches to provide a clear height of 14 feet above the road surface.

Cut all brush and trees located on the roadbed as nearly flush to the road surface as possible so stumps will not become a hazard to vehicle tires.

230.03 Windfalls. Limb windfalls lying within or across the brushing limits, cut off at the top of the existing cut slope or 5 feet from the shoulder on the fill slope. Dispose of windfall material as slash.

230.04 Road Junctions. Do not deposit brushing debris on the roadway of adjoining roads.

230.05 Slash Treatment.

(a) Remove from project. Recycle or dispose of material legally off the project. Furnish a statement documenting the nature and quantity of material processed or sold for recycling. Otherwise, furnish a signed copy of the disposal agreement before disposal begins.

(b) Burn. Obtain necessary burning permits. Furnish a copy of the burning permits before burning begins.

Burn using high intensity burning processes that produce few emissions. Examples include incinerators, high stacking, or pit and ditch burning with forced air supplements. Provide a competent watchperson during the burning operations.

When burning is complete, extinguish the fire so no smoldering debris remains. Dispose of unburned material according to (a) above.

(c) Bury. Bury debris in trenches or pits in approved areas within the right-of-way. Do not bury debris inside the roadway prism limits, beneath drainage ditches, or in any areas subject to free-flowing water.

Place debris in alternating layers of 4 feet of debris covered with 2 feet of earth material. Distribute stumps, logs, and other large pieces to form a dense mass and minimize air voids. Cover the top layer of buried debris with at least 1 foot of compacted earth. Grade and shape the area. Seed and mulch disposal areas on Government property according to Section 625.

(d) Hazardous material. Furnish a copy of all disposal permits. Dispose of material according to Federal, State, and local regulations.

(e) Windrowing Construction Slash. Place construction slash outside the roadway in neat, compacted windrows approximately parallel to and along the toeline of embankment slopes. Do not permit the top of the windrows to extend above subgrade. Use construction equipment to matt down all material in a windrow to form a compact and uniform pile. Construct breaks of at least 15 feet at least every 200 feet in a windrow. Do not place windrows against trees. Obtain approval for pioneer roads. A pioneer road may be constructed to provide an area for placement of windrows, provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.

(f) Scattering. Scatter construction slash outside the clearing limits without damaging trees. Limb all logs. Place logs and stumps away from trees, positioned so they will not roll, and are not on top of one another. Limb and scatter other construction slash to reduce slash concentrations.

(g) Chipping or Grinding. Use an approved chipping machine to grind slash and stumps greater than 3 inches in diameter and longer than 3 feet. Deposit chips or ground woody material on embankment slopes or outside the roadway to a loose depth less than 6 inches. Minor amounts of chips or ground woody material may be permitted within the roadway if they are thoroughly mixed with soil and do not form a layer.

(h) Debris Mat. Use tree limbs, tops, cull logs, split stumps, wood chunks, and other debris to form a mat upon which construction equipment is operated. Place stumps upside down and blend stumps into the mat.

(i) Decking Firewood Material. Remove brush from decks. Limb and deck logs that do not meet Utilization Standards according to Subsection 201.04 as directed by the Government. Cut logs to lengths less than 30 feet. Ensure that logs stacks are stable and free of brush and soil.

(j) Removal to designated locations. Remove construction slash to designated locations.

(k) Piling. Pile construction slash in designated areas. Place and construct piles so that if the piles are burned, the burning will not damage remaining trees. Keep piles free of dirt from stumps. Cut unmerchantable logs into lengths of less than 20 feet.

(l) Placing Slash on Embankment Slopes. Place construction slash on completed embankment slopes to reduce soil erosion. Place construction slash as flat as practicable on the completed slope. Do not place slash closer than 2 feet below subgrade. Priority for use of available slash is for: (1) through fills; (2) insides of curves; and (3) ditch relief outlets.

(m) Hydrological Sensitive Placement. Where required use this method in combination with other designated methods to dispose of material to reduce erosion and to aid in re-vegetation:

5. Place windrow segments on contours, wrap in type I geotextile.
6. Place logs as log erosion barriers on contours. Place logs so that 80% of their length is on the ground surface.
7. Scatter slash on bare or disturbed areas within or outside the clearing limits as directed.
8. Scatter chips or ground woody material on bare or disturbed areas within or outside the clearing limits as directed.

Place stumps in swales or on sites to form planting pockets. Place windrow segments on contours, wrap in type I geotextile.

230.06 Acceptance. Roadside brushing will be evaluated under Subsection 106.02.

Measurement

230.07 Method. Measure the Section 230 items listed in the bid schedule according to Subsection 109.02 and the following.

Linear measurements will be horizontal along the road centerline.

Quantities will be the number of miles (or stations) and fractions thereof along the road centerline.

Payment

230.08 Payment. The accepted quantities will be paid at the contract price per unit of measurement for the section 230 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this section. See Subsection 109.05.

301 - Untreated Aggregate Courses

301.00_05_us_07_27_2005

301.03 General.

Add the following:
Request approval in writing of the roadbed before placing aggregate.
If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at locations approved. Clear and grub stockpile sites according to Section 201.

301.04 Mixing and Spreading.

Delete the first two sentences of the first paragraph and add the following:
Adjust the moisture content to obtain a uniform mixture with a moisture content within 2 percent of the optimum moisture content. Spread the aggregate in a uniform layer, with no segregation of size, and to a loose depth that will provide the required compacted thickness.
When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.
Route and distribute hauling and leveling equipment over the width and length of each layer.

301.05 Compacting.

Delete the first and third paragraphs and add the following:
Compact the aggregate using one of the following methods as specified:
(a) Compaction Method A. Compact the aggregate by operating spreading and hauling equipment.
(b) Compaction Method C. Compact each layer of aggregate to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 99, method C or D.
(c) Compaction Method D. Compact each layer of aggregate to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.
For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in place density and moisture content according to AASHTO T 310 or other approved test procedures.

301.06 Surface Tolerance.

Add the following:
Thickness and Width requirements:
The maximum variation from the compacted specified thickness is ½ inch. The compacted thickness is not consistently above or below the specified thickness and the average thickness of 4 random measurements for any ½ mile of road segment is within + ¼ inch of the specified thickness.
The maximum variation from the specified width will not exceed +12 inches at any point. The compacted width is not consistently above the specified width and the average of any

four random measurements along any ½ mile of road segment is within +4 inches of the specified width.
301.08(b) Plasticity Index.
Add the following to the first sentence: “and under 703.05(c)(1)”.

301.08 Acceptance

Delete the second paragraph and add the following:
Aggregate gradation and surface course plasticity index will be evaluated under Subsection 106.04. Other aggregate quality properties will be evaluated under 106.02 and 106.04.

301.09 Measurement.

Delete the second and third paragraphs and add the following:

Table 301-1 Field Density Requirements.

Table 301-1: Delete laboratory and field density requirements for base, subbase, and surfacing and replace with the following:

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
NC ABC	Measured and tested conformance (Subsection 106.04)	Moisture Density						
		Method C-1	---	R-1 Marshall	“	“	“	Before using in work
		Method D	---	AASHTO T 180	“	“	“	“
		Method D-1	---	R-1 Marshall	“	“	“	“
		Compaction						
		Method C, C-1, D, D-1	---	AASHTO T 310 or other approved procedures	1 per 500 t	In-place	---	Before placing the next layer

Table 301-1: Add the following:

Table 301-1—Acceptance Sampling and Testing Requirements.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
NC ABC	Measured and tested conformance (Subsection 106.04)	Plastic Limit	-	AASHTO T 90	1 per each 1,000 T	From the windrow or roadbed after processing	Yes	4 Hours

Table 301-1—Acceptance Sampling and Testing Requirements.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate Width	Measured and tested conformance (Subsection 106.04)	Width	-	-	4 per each 0.5 mi	Roadbed after processing	-	4 Hours
Aggregate Thickness	Measured and tested conformance (Subsection 106.04)	Thickness	-	-	4 per each 0.5 mi	Roadbed after processing	-	4 Hours
Additive	Measured and tested conformance (Subsection 106.04)	Amount of Additive	-		1 per each 1,000 T	From the windrow or roadbed after processing	No	4 Hours

303 - Road Reconditioning

303.03_0114_us_08_04_2005

303.03 Ditch Reconditioning

Delete the last sentence and add the following:
Dispose of waste as shown on the plans.

303.04 Shoulder Reconditioning

Delete the last sentence and add the following:
Dispose of waste as shown on the plans.

303.05 Roadbed Reconditioning

Delete and add the following:
Repair soft and unstable areas according to Subsection 204.07. Remove all organic, deleterious material larger than 6 inches from the top 6 inches of subgrade. Dispose of waste as shown on the plans. Scarify and shape the traveled way and shoulders at locations and to the depth and width designated on the plans. Remove surface irregularities and shape to provide a uniform surface.
Dispose of rock larger than 4 inches brought to the surface during scarification in areas designated on the plans.
For portions of roads not requiring scarification, the roadbed may contain rocks larger than 4 inches provided they do not extend above the finished roadbed surface. Reduce in place or remove rock extending above the finished roadbed surface. Dispose of removed rock in areas designated on the plans.
Compact using the following method as specified:

(a) Compaction A. Operate equipment over the full width.

(b) Compaction B. Operate rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:

(1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.

(2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, specifically designed to compact the material on which it is used.

(3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi.

303.07 Roadway Reconditioning

Add the following:
Blade and shape the subgrade for both surfaced and unsurfaced roads when moisture content is suitable for compaction.

303.09 Acceptance

Delete the first sentence.

303.10 Measurement

Delete the first sentence of the third paragraph and replace with:
Measure roadbed reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, by the station, or by the square yard.

303.10_10_us_05_23_2005

303.10 Measurement

Modify the third paragraph as follows:

Measure road reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, station, foot, or square yard. Measure horizontally along centerline of roadway. Measure the square yard area on horizontal plane. Do not measure isolated areas less than 20 square yards.

602 - Culverts and Drains

602.03_nat_us_09_06_2005

602.03 General.

Add the following:

Ensure that the final installed alignment of all pipe allows no reverse grades, and does not permit horizontal and vertical alignments to vary from a straight line drawn from center of inlet to center of outlet by more than 2 percent of pipe center length or 1.0 feet, whichever is less.

703 - Aggregate

703.05_nat_us_12_07_2006

Delete 703.05 and replace with the following:

703.05 Subbase, Base, Surface Course, and Screened Aggregate.

(a) Subbase or base aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-2
(2) Liquid limit, AASHTO T 89	25 max.
(3) Plastic limit, AASHTO T 90	Nonplastic
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	50% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(b) Surface course aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-3
(2) Liquid limit, AASHTO T 89	35 max.
(3) Plastic Index, AASHTO T 90	
a) If the percent passing the No. 200 sieve is less than 12%	2 to 9
b) If the percent passing the No. 200 sieve is greater than 12%	Less than 2
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	75% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Do not furnish material that contains asbestos fibers.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(c) Screened aggregate – Furnish hard, durable particles or fragments of stone, slag, or gravel conforming the following:

(1) Gradtion	Table 703-16
(2) Plastic Index, AASHTO T 90	Less than 9
(3) Los Angeles abrasion, AASHTO T 96	55% max.
(4) Free from organic matter and lumps or balls of clay.	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary.

Delete Table 703-2 and replace with the following:

Table 703-2
Target Value Ranges for Subbase and Base Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)				
	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2½ inch	100				
2 inch	97 – 100	100	100		
1½ inch		97 – 100			
1 inch	65 – 79 (6)		80 – 100 (6)	100	
3/4 inch			64 – 94 (6)	86 – 100 (6)	100
1/2 inch	45 – 59 (7)				
3/8 inch			40 – 69 (6)	51 – 82 (6)	62 – 90 (6)
No. 4	28 – 42 (6)	40 – 60 (8)	31 – 54 (6)	36 – 64 (6)	36 – 74 (6)
No. 40	9 – 17 (4)			12 – 26 (4)	12 – 26 (4)
No. 200	4.0 – 8.0 (3)	4.0 – 12.0 (4)	4.0 –7.0 (3)	4.0 – 7.0 (3)	4.0 – 7.0 (3)

( ) The value in the parentheses is the allowable deviation (±) from the target values..

Delete Table 703-3 and replace with the following:

Table 703-3
Target Value Ranges for Surface Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)					
	Grading Designation					
	F	G	H	S	T	U
1 1/2 inch	100(			100		
1 inch	97-100	100		72 – 92 (6)	100	
3/4 inch	76-89 (6)	97 - 100	97 - 100			100
1/2 inch					71 – 91 (6)	
3/8 inch	56-68 (6)	70 – 80 (6)	80 – 92 (6)	51 – 71 (6)		71 – 90 (6)
No. 4	43-53 (7)	51 – 63 (7)	58 – 70 (7)	36 – 53 (7)	43 – 60 (7)	50 – 68 (7)
No. 8				26 – 40 (6)	30 – 46 (6)	34 – 51 (6)
No. 16	23-32 (6)	28 – 39 (6)	28 – 40 (6)			
No. 40	15-23 (5)	19 – 27 (5)	16 – 26 (5)	14 – 25 (5)	16 – 28 (5)	19 – 30 (5)
No. 200	10.0-16.0 (4)	10.0 – 16.0 (4)	9.0 – 14.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)

( ) The value in the parentheses is the allowable deviation (±) from the target values.
If the plasticity index (PI) is greater than 0, the TV range for the No. 200 sieve size is 8-12 (4).

Add Table 703-16:

Table 703-16

Gradation Requirements for Screened Aggregate

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)						
	Grading Designation						
	L	**M**	**N**	**O**	**P**	**Q**	**R**
6 inch	100	100					
4 inch			100	100			
3 inch					100	100	
2 inch							100
No. 4		15-45		15-45		15-45	

703.06_nat_us_03_02_2005

703.10(e) Flakiness Index.

Delete and replace with the following:

Flakiness Index, FLH T 508 30% max.

703.10(i) Adherent Coating.

Add the following:

Adherent coating on the aggregate, FLH T 512 0.5% max.

703.07_nat_us_03_02_2005

Table 703-2 Correction

Include the following substitution

In Table 703-2, delete the “436 – 74 (6)” percent by mass passing for grading E (base) No. 4 sieve size and substitute “36 – 74 (6).”

Cost Summary
DUKE MULTIPRODUCT REOFFER

Shasta McCloud Management Unit
RECONSTRUCTION

Road Number			Total Road Cost
40N10X*			$ 23,050.00
40N50Y			$8,800.00
40N53Y			$11,250.00
43N19			$390,500.00
Total Reconstruction			$ 433,600.00
Total			$ 433,600.00

Date Submitted:

9/24/2010

By: HQ Engineering

***** This road includes the cost for mobilization and erosion control

Schedule of Items

DUKE MULTIPRODUCT REOFFER

Shasta McCloud Management Unit

40N10X West Ash Road

Item No.	Desc.	Meas	Unit	Qty	Unit Price	Total
	Road Surface Reconstruction					
23001(a)	Roadside Brushing	DQ	MI	1.10	$3,000.00	$ 3,300.00
	Slash Treatment Methods for:					
	Tops & Limbs: F (Scattering)					
	Logs: (Deck)					
	Stumps: F (Scattering)					
	Utilization of Timber: (Deck)					
30301(a)	Road Reconditioning	CQ	MI	1.10	$ 2,500.00	$ 2,750.00
	Compaction B					
Subtotal - Road Surface Reconstruction						**$ 6,050.00**
15101	Mobilization	CQ	Job	1.00	$ 15,000.00	$ 15,000.00
15701	Soil Erosion Control	CQ	Job	1.00	$ 2,000.00	$ 2,000.00
Total Reconstruction 40N10X					**TOTAL**	**$ 23,050.00**

Schedule of Items						
DUKE MULTIPRODUCT REOFFER						
Shasta McCloud Management Unit						
40N50Y South Sink Road						
Item No.	**Desc.**	**Meas**	**Unit**	**Qty**	**Unit Price**	**Total**
	Road Surface Reconstruction					
23001(c)	Roadside Brushing	CQ	MI	1.60	$3,000.00	$ 4,800.00
	Slash Treatment Methods for:					
	Tops & Limbs: F (Scattering)					
	Logs: (Deck)					
	Stumps: F (Scattering)					
	Utilization of Timber: (Deck)					
30301(c)	Road Reconditioning	CQ	MI	1.60	$ 2,500.00	$ 4,000.00
	Compaction B					
Total Reconstruction 40N50Y					**TOTAL**	**$8,800.00**

Schedule of Items

DUKE MULTIPRODUCT REOFFER

Shasta McCloud Management Unit

40N53Y Coon Rod Road

Item No.	Desc.	Meas	Unit	Qty	Unit Price	Total
	Road Surface Reconstruction					
20101(a)	Clearing and Grubbing	CQ	MI	0.9	$ 10,000.00	$ 9,000.00
	Slash Treatment Methods for:					
	Tops & Limbs: 6 (Chipping or Grinding)					
	Logs: (Deck)					
	Stumps: 11 (Piling)					
	Utilization of Timber: (Deck)					
30301(d)	Road Reconditioning	CQ	MI	0.90	$2,500.00	$ 2,250.00
	Compaction B					
Total Reconstruction 40N53Y					**TOTAL**	**$ 11,250.00**

Schedule of Items

DUKE MULTIPRODUCT REOFFER

Shasta McCloud Management Unit

43N19 Military Pass Road

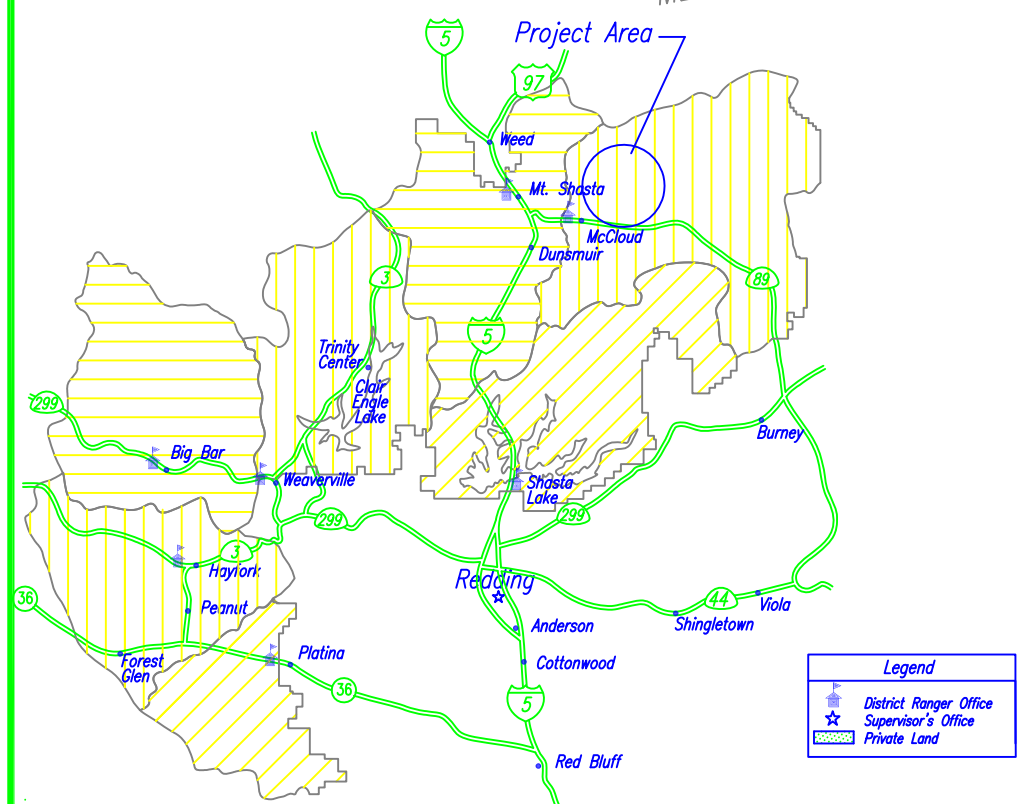
Item No.	Desc.	Meas	Unit	Qty	Unit Price	Total
	Road Surface Reconstruction					
30101	Untreated Aggregate Courses	CQ	TN	10000	$ 38.00	$ 380,000.00
	6 inch depth					
	SPS 703 Grading D					
	Compaction: Method C					
30301(e)	Road Reconditioning	CQ	MI	4.20	$2,500.00	$ 10,500.00
	Compaction B					
Total Reconstruction 43N19					**TOTAL**	**$ 390,500.00**

UNITED STATES DEPARTMENT OF AGRICULTURE
REGION FIVE
FOREST SERVICE

Duke Multiproduct Reoffer
Shasta-Trinity National Forest

RECONSTRUCTION

40N10X	WEST ASH	1.10 MILES
40N50Y	SOUTH SINK	1.60 MILES
40N53Y	COON ROD	0.90 MILES
43N19	MILITARY PASS	4.20 MILES



Shasta-Trinity National Forest
Scale: None

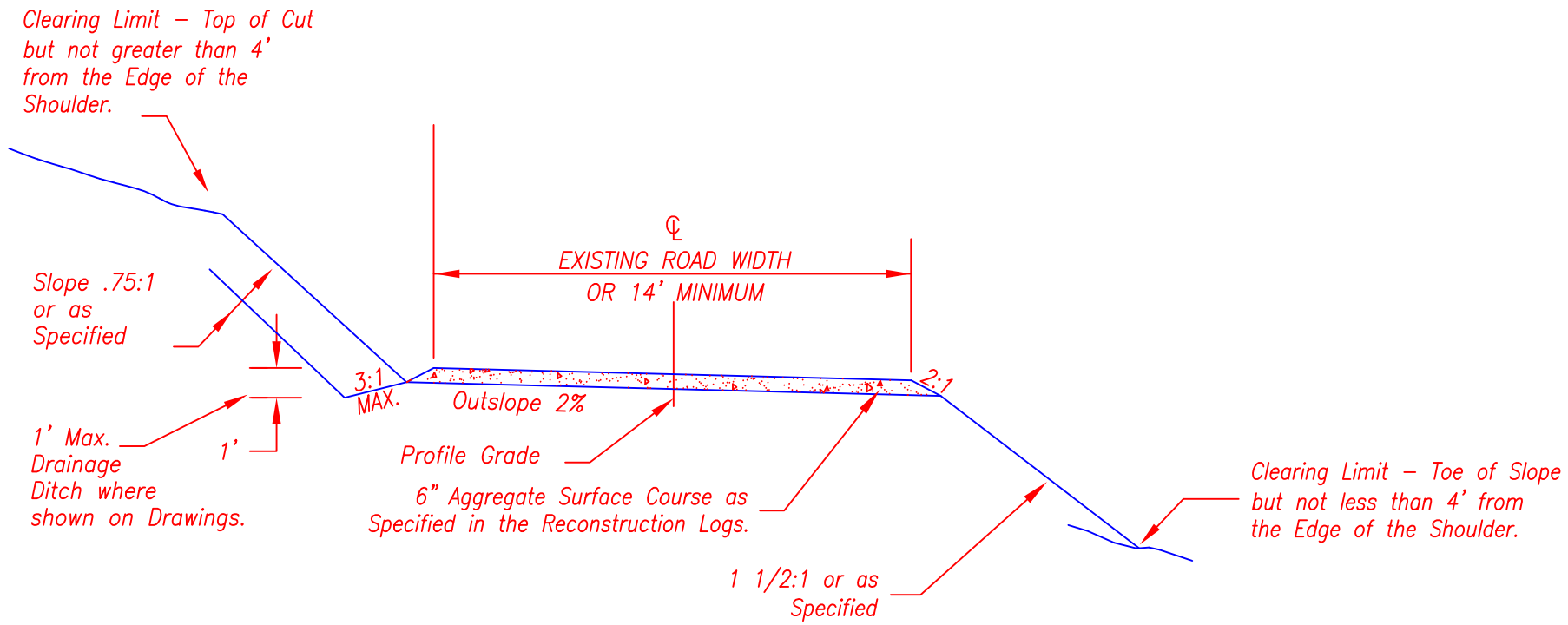
Index to Sheets

Sheet	Description
1	Title Sheet
2	Typical Roadway Section - Reconstruction
3	Roadside Brushing Limits

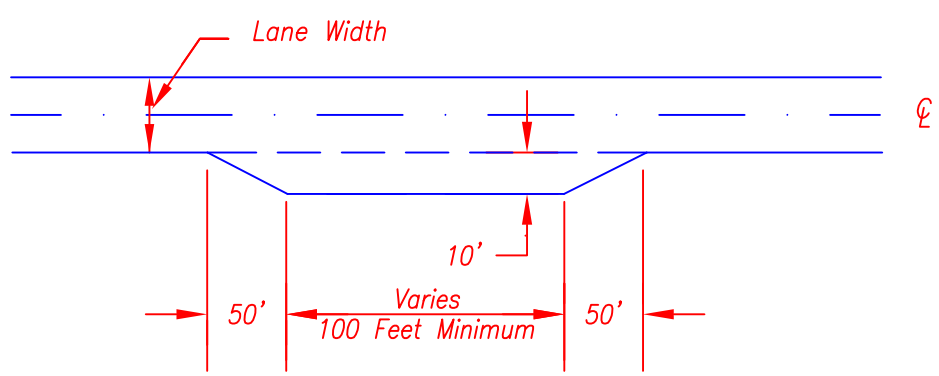
Drawn By:	Designed By:	Recommended By:		Approved By:	
G.RAND	G.RAND	Construction Engineer	Date	Forest Engineer	Date
		District Ranger	Date	Forest Supervisor	Date

Shasta McCloud Management Unit
Duke Multiproduct Reoffer

Print Date: 7/25/2005



TYPICAL SECTION



TURNOUT DETAIL

GENERAL NOTES

1. Road width shown on drawings are to subgrade and include, when applicable, curve widening, fill widening, and berm.

2. Reconstruct roadbed to existing road widths.

3. Roadbed shall be 2% Outsloped unless otherwise shown on the drawings. Percent slope shall be the same regardless of direction. Roadbed in ditched sections to be maintained to existing inslope.

4. Decking Areas as designated by the Government may be used for both merchantable and unmerchantable logs. Merchantable logs shall be piled separately.

5. Disposal shall be as designated in the Schedule of Items.

6. Clearing Limits at Culvert Sites shall be a Minimum of 10' Upstream at Inlet, 10' Downstream at Outlet and a Minimum Width of 5' each side of Culvert.

7. Aggregate Surface Course Placement as specified in the Reconstruction Logs.

USDA
FOREST
SERVICE

PACIFIC
SOUTHWEST
REGION
R5

NO.	DATE	REVISIONS

FOREST: SHASTA-TRINITY NATIONAL FOREST

PROJECT NAME: DUKE MULTIPRODUCT REOFFER

DRAWING NAME: TYPICAL ROADWAY SECTION RECONSTRUCTION

SHASTA McCLOUD
MANAGEMENT UNIT

McCloud Ranger District
P.O. Box 1620
McCloud, CA 96057
530.964.2184 A/E

PROJECT NUMBER

DESIGNED BY
G.RAND

DRAWN BY
G. RAND

CHECKED BY
T MOXNESS

CHECKED BY

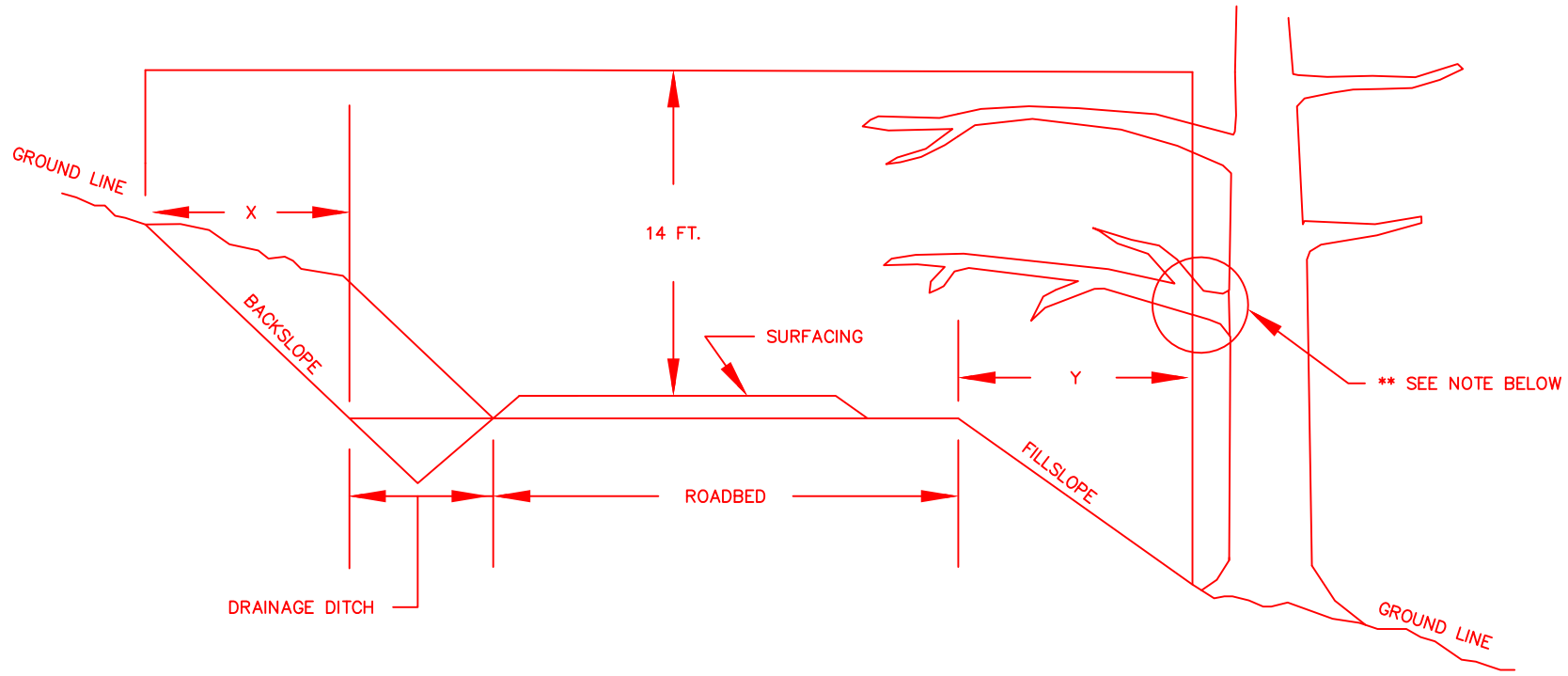
DATE
8.2010

SCALE
AS SHOWN

DRAWING

SHEET 2
OF 3

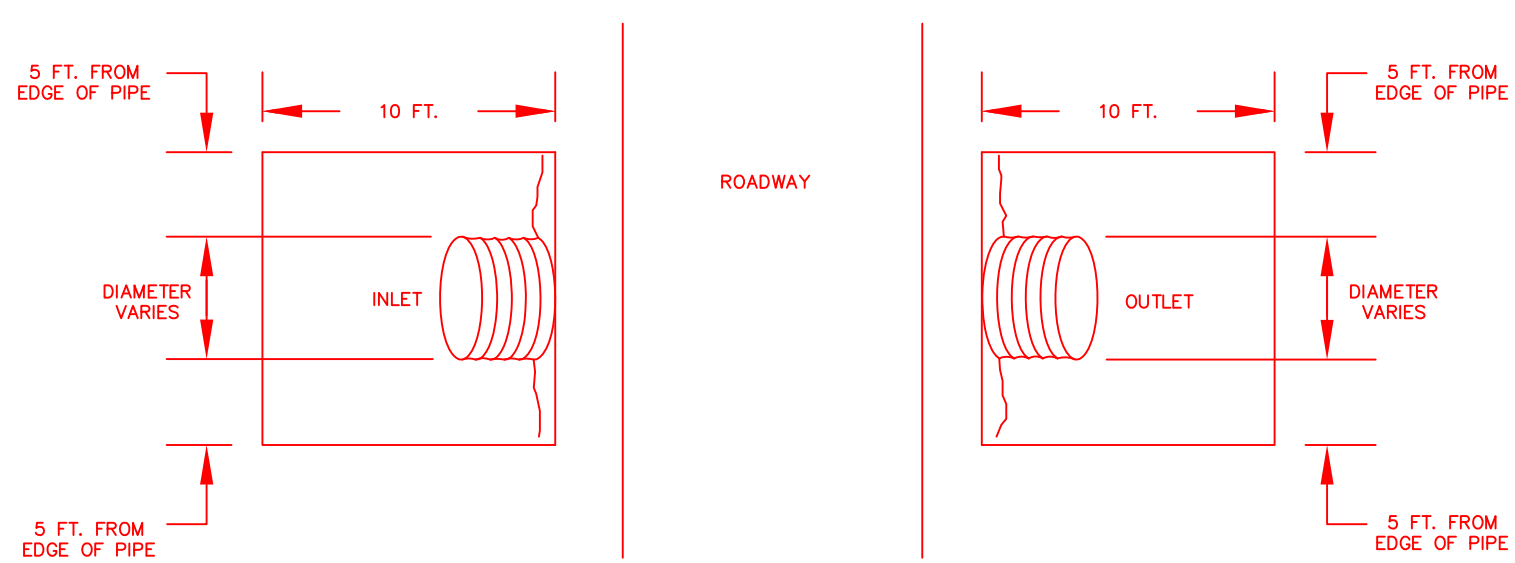
ROADSIDE CUTTING LIMITS



	TANGENTS AND OUTSIDE OF CURVES		INSIDE OF CURVES	
	X	Y	X	Y
MAX.	4 FT.	4 FT.	15 FT.	15 FT.
MIN.	4 FT.	4 FT.	4 FT.	4 FT.

** LIMBS WITHIN THE CUTTING LIMITS ON TREES WHICH FALL OUTSIDE THE CUTTING LIMITS SHALL BE CUT IN A CLEAN, STRAIGHT FASHION, FLUSH WITH THE TREES TRUNK EVEN IF IT REQUIRES GOING OUTSIDE THE CUTTING LIMITS.

CULVERT CUTTING LIMITS



USDA FOREST SERVICE

PACIFIC SOUTHWEST REGION R5

NO.	DATE	REVISIONS

FOREST: SHASTA-TRINITY NATIONAL FOREST

PROJECT NAME: DUKE MULTIPRODUCT REOFFER

DRAWING NAME: ROADSIDE BRUSHING LIMITS

SHASTA McCLOUD MANAGEMENT UNIT

McCloud Ranger District
P.O. Box 1620
McCloud, CA 96057
530.964.2184
A/E

PROJECT NUMBER

DESIGNED BY G.RAND

DRAWN BY G. RAND

CHECKED BY T MOXNESS

CHECKED BY

DATE 8.2010

SCALE AS SHOWN

DRAWING

SHEET 3 OF 3

DUKE MULTIPRODUCT REOFFER ROADS

RECONSTRUCTION and NEW CONSTRUCTION LOGS

TABLE OF CONTENTS

	RECONSTRUCTION		
ROAD NUMBER	ROAD NAME	LENGTH	PAGE
40N10X	WEST ASH ROAD	1.10	2
40N50Y	SOUTH SINK ROAD	1.60	2
40N53Y	COON ROD ROAD	0.90	2
43N19	MILITARY PASS ROAD	4.20	2
	Total Reconstruction	7.80	
	PICTURES		
ROAD NUMBER	ROAD NAME	LENGTH	PAGE
40N53Y	COON ROD ROAD	0.90	3-5

NOTE: Reconstruct only existing roadway in accordance to specification 303 and as shown on the typical section. Clear all vegetation in accordance to special project specification 230 and as shown on the typical section.

All removed CMPs will become the property of the contractor and will be removed from Government property.

It is assumed the Contractor will acquire all aggregate from the Redding area.

RECONSTRUCTION

40N10X, WEST ASH ROAD RECONSTRUCTION

1.10 MILES

0.00	INTERSECTION WITH 43N19, BEGIN RECONSTRUCTION
0.00-1.10	ROADSIDE BRUSHING AND ROAD RECONDITIONING
1.10	END RECONSTRUCTION

40N50Y, SOUTH SINK ROAD RECONSTRUCTION

1.60 MILES

0.00	INTERSECTION WITH 40N12, BEGIN RECONSTRUCTION
0.00-1.60	ROADSIDE BRUSHING AND ROAD RECONDITIONING
1.60	INTERSECTION WITH 40N67Y, END OF RECONSTRUCTION

40N53Y, COON ROD ROAD RECONSTRUCTION

0.90 MILES

0.00	INTERSECTION WITH 40N12, BEGIN RECONSTRUCTION
0.00-0.90	**CLEARING AND GRUBBING**** AND ROAD RECONDITIONING
0.90	INTERSECTION WITH 40N50Y, END RECONSTRUCTION

** Note: This road has thick brush and trees up to 8 inches that need to be removed. See Drawing, Sheet 4 for the typical clearing limits. See pages 4-6 for photos. Stumps will be piled in disposal sites designated by the Government.

43N19, MILITARY PASS ROAD RECONSTRUCTION

4.20 MILES

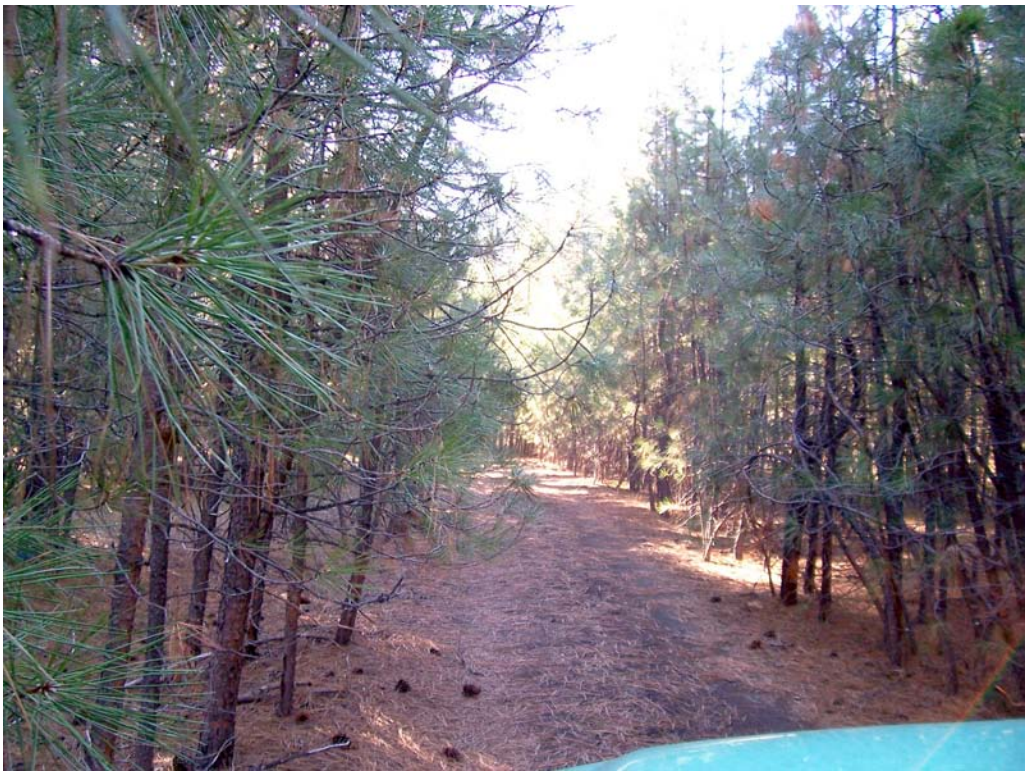
0.00	INTERSECTION WITH STATE HY 89, BEGIN RECONSTRUCTION
0.00-4.2	2.60 MILES OF ROAD RECONDITIONING. ALSO INCLUDES TURNOUTS.
0.00-4.20	PLACE 6-INCHES OF AGGREGATE SURFACE COURSE, EXISTING ROAD WIDTH, 14 FOOT MINIMUM. ALSO INCLUDES TURNOUTS.
4.20	END RECONSTRUCTION

Road 40N53Y Milepost 0.0

Road 40N53Y Milepost 0.01

Road 40N53Y Milepost 0.1

Road 40N53Y Milepost 0.4


Road 40N53Y Milepost 0.75