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

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

Species	Product
Douglas-fir	**Grn Bio Cv**

that shall be Included Timber upon written agreement.

C2.35# (OPTION 1) - INDIVIDUAL TREE DESIGNATION *(06/2008)*

All **trees meeting the attached designation description** which meet the minimum tree diameter stated in A2 are designated for cutting. Additional timber to be cut, if any, will be designated for cutting in accordance with B2.37.

Leave trees, Marked with **orange paint** , or identified by **the description in the attached table** are not to be cut, unless designated by the Forest Service.

C3.47# - ABNORMAL DELAY *(09/2004)*

Unless otherwise agreed, felled timber meeting Utilization Standards shall be removed by Purchaser pursuant to B2.2 and shall be presented for Scaling within the time period indicated in the following removal schedule. The number of days shown are consecutive calendar days.

Failure to remove and present such timber for Scaling within the required time limits will be considered abnormal delay, subject to B3.47.

See attached removal schedule.

DESCRIPTION PURSUANT TO C2.35# (OPTION 1) - INDIVIDUAL TREE DESIGNATION *(06/2008)*

Definitions and Requirements:

D x D: Designate by Description

D x D Stump Height: Measure at 4 inches above the ground on the uphill side of the tree. Minimum stump height left for inspection will be 4 inches.

D x D Diameter: Measure at the D x D specified stump height, outside the existing bark as is, with a diameter tape that is perpendicular to the bole of the tree. Trees with stumps missing all or part of their bark will be measured as presented. Measure to the nearest tenth of an inch.

D x D Spacing: Measured slope distance at 4.0 inches above the ground from the closest point between trees. This does not need to be measured on the uphill side of the tree.

Down Trees: a) A partial or entire tree lying on the ground with an attached root wad; b) a root sprung tree with broken and exposed roots showing above the ground (root sprung trees must remain identifiable as root sprung after logging).

All skyline corridors, temporary roads, and landing clearing limits shall be identified and approved per C6.42#, before this provision is implemented.

All Douglas-fir, True firs, Western hemlock, Incense cedar, and Western redcedar leave trees with a D x D diameter 8.0 inches or greater, all other coniferous species leave trees, and all hardwoods trees shall remain standing after logging is complete, except those removed for operational purposes, i.e.: guyline, landing, and corridor trees.

Standing or Down trees outside the Subdivision boundaries shall not be used to determine cut trees within the Subdivision.

Criteria for All Subdivisions

Standing, live Douglas-fir, True firs, Western hemlock, Incense cedar, and Western redcedar must have a D x D diameter of 8.0 inches or greater to qualify as a leave tree to cut other Douglas-fir, True firs, and Western hemlock trees.

All live conifer trees with a diameter greater than or equal to 26.1 inches, measured at stump height, shall remain standing after logging is complete in Subdivisions 6, 8, 11, and 16.

DESCRIPTION PURSUANT TO C2.35# (OPTION 1) - INDIVIDUAL TREE DESIGNATION *(06/2008)*

Designate by Description All Subdivisions:

Priority 1. Douglas-fir, Western hemlock, Western redcedar, Incense cedar, and True firs that are within the designated spacing distance (see chart below) of a live, blue "Boundary Cutting Unit" carded, orange painted boundary conifer or hardwood tree that is 8.0 inches stump diameter or larger are designated for cutting.

Priority 2. All coniferous trees, except Pines and Pacific Yew, not marked with orange paint above and below stump height, shall be cut if they are within 60.0 feet, at stump height, of a conifer or hardwood (DTR) tree painted with two complete bands of orange paint above stump height and at least one stump mark below stump height.

Priority 3. Douglas-fir, Western hemlock, Western redcedar, Incense cedar, and True firs shall be cut if they are within the DxD spacing distance, from the following table, of a live conifer tree painted with orange paint above and below stump height.

Priority 4. Douglas-fir, Western hemlock, Western redcedar, Incense cedar, and True fir trees shall be cut if they are within the DxD spacing distance of a live Douglas-fir, Western hemlock, True fir, or Incense cedar or Red cedar with a larger stump diameter. Trees outside of the boundary shall not be used to cut trees inside the boundary.

No Pine, Pacific Yew or hardwoods are designated for removal except as needed for normal harvest operations, i.e. yarding corridors, landings, roads, etc.

D x D Designated Spacing Distances:

Subdivision	DxD Spacing Distance
1, 2, 3, 4, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 21	21.0 feet

REMOVAL SCHEDULE PURSUANT TO C3.47# - ABNORMAL DELAY *(09/2004)*

Included Timber	Time Limits	
ALL	60	days after felling is started.
All timber decked during construction clearing.	60	days after felling on each Specified Road constructed by Purchaser is initiated.
Timber decked during road construction	60	days after Forest Service authorizes Purchaser to use roads pursuant to B5.2.

C4.21# (OPTION 1) - TRANSFER OF PURCHASER CREDIT *(07/2001)*

The amount of Purchaser Credit earned on National Forest lands which may be transferred to this contract is limited to_____and from other revested lands within the Forest boundary_____. This limit may be adjusted pursuant to B8.3. Any such adjustment shall be calculated in a manner consistent with the limit computation at time of sale.

Purchaser credit transferred to this contract from other contracts may be used to meet charges for timber subject to B4.2. Transfer of purchaser credit to or from Timber Sale Account shall be made monthly, or at longer intervals, as requested by Purchaser.

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.

C4.4 - PAYMENTS NOT RECEIVED *(08/2012)*

(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 specified in the bill for collection for, 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 specified in the bill for collection 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 specified 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 Current Value of Funds 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.

C5.1# (OPTION 1) - TEMPORARY ROAD AND LANDING CONSTRUCTION *(06/2008)*

In addition to the requirements of B5.1 and B6.63, Purchaser and Forest Service will agree to the design, construction, maintenance, closure, and obliteration of all Temporary Roads.

Construction of Temporary Roads in areas shown on Sale Area Map shall be in accordance with the attached plans or criteria.

Unless otherwise agreed, if Purchaser's Operations require more than **0** cubic **N/A** of rock for Temporary Roads, landings, or other temporary uses, such rock shall be obtained from commercial sources.

PLANS AND/OR CRITERIA PURSUANT TO C5.1# (OPTION 1) - TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008) **See table**

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.

PLANS AND CRITERIA PURSUANT TO C5.1# (OPTION1)-
TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008)

1. The Forest Service and Purchaser shall agree to temporary road and landing locations and clearing limits prior to construction.

2. Temporary roads shall be constructed/reconstructed during the dry season, approximately **June 1 to October 31**, and to a minimum width to accommodate logging equipment, and shall be located to minimize the number of trees cut, and minimize the extent of ground impacted by construction/reconstruction.

3. All trees to be cut by the purchaser shall be identified, and designated for cutting by the Forest Service, prior to cutting.

4. On native running surfaces, hauling shall be restricted to when dry conditions exist, approximately **June 1 to October 31.** If temporary roads and landings are to be used when wet conditions exist, enough rock surfacing shall be placed on the road and landing to prevent sedimentation, as agreed to by the Forest Service.

5. Weed free straw bales and/or other agreed upon erosion control devices shall be placed along the road, as needed, to prevent sediment from entering stream courses.

6. Clearing and grubbing debris shall be scattered in areas designated on the ground by the Forest Service.

7. At the end of each season, or if the temporary road is not being used for an extended period of wet weather, purchaser shall install drivable drain dips and water bars, or other erosion control measures as agreed to by the Forest Service, to stabilize the road and prevent erosion (on slopes over 8%, this may require a structure approximately every 100 feet), and close the road to vehicles if directed to by Forest Service.

8. Culverts shall be placed in all stream courses, where they are crossed by temporary roads, and shall return the water to the same stream course. Culverts shall be functional for as long as the road is in use, and shall not be less than 18" in diameter, unless otherwise agreed to in writing by the Forest Service.

9. **Culvert installation in live streams** shall take place between **July 1 and October 15.** During culvert installation in live streams, a dewatering plan will be developed which will show how the stream shall be temporarily diverted around the site, which will be agreed to by the Forest Service. Biodegradable geotextile cloth will be placed downstream from the site to minimize transport of sediment, unless other methods are agreed to in writing with the Forest Service.

PLANS AND CRITERIA PURSUANT TO C5.1# (OPTION1)-
TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008)
(Continued)

10. At the end of the use of temporary roads not shown on the Sale Area, culverts will be pulled and removed from Forest Service lands, the roadbed scarified to below the compacted layer, the roadbed recontoured to facilitate stream flow, water bars shall be installed, and erosion control methods will be used to stabilize the road and prevent erosion, as directed by the Forest Service.

11. Landings shall be designed in accordance with B6.422, shall be as small as operationally feasible, and shall be agreed to in writing with the Forest Service. In addition, helicopter landing openings shall be less than 1 acre in size, including slash piles.

12. Areas to be covered with fill material shall be cleared of logs and cull woody material over 4 inches in diameter and/or 8 feet long.

13. Where side slopes exceed 45 percent, waste material shall be utilized in other areas of the road, or end-hauled to locations authorized in writing by the Forest Service.

14. Placement of rock ballast shall not take place unless mutually agreed to in writing by the Forest Service.

15. Rock ballast shall not exceed 4 inches in depth, unless mutually agreed to in writing by the Forest Service. Landing cut and fill slopes shall be left at no steeper than 1 ½ to one upon completion of sale operations.

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

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
1800000	Big Fall Creek	Jct. County Road	Jct. 1831000	R*	Limited strength.
1832000	Tiller Creek	Jct. 1800000	Jct. 1832342	R*	Limited strength.
1831000	HeHe Creek	Jct. 1800000	MP 7.28	R*	Limited strength.
1831381	N/A	Jct. 1831000	MP 2.25	R*	Limited strength.
1832342	N/A	Jct. 1832000	MP 0.47	R*	Limited strength.
1831401	N/A	Jct. 1831381	EOR	R*	Limited strength.
1831402	N/A	Jct. 1831381	EOR	R*	Limited strength.

*Limited structural strength, may not support commercial haul during wet weather conditions.

Title and Date of Governing Road Rules Document:

Road Rules for Commercial Haul Willamette National Forest	January 1999
Commercial Road Rules	**Effective Date**

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

Construction of Specified Roads shall be completed no later than **10/31/2015** ; 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 $ **$26,885.00** . 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	Termini To	Engineering Services Completion Date
Road-1831000	0	7.28	10/31/2015
Road-1831381	0	2.25	10/31/2015
Road-1832342	0	.47	10/31/2015

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.

C5.221# - MATERIAL SOURCES *(04/2004)*

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

Should the designated source, due to causes beyond the control of Purchaser, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with B5.253.

When Purchaser elects not to use designated sources, Purchaser shall furnish the specified product with no adjustment in unit rates. Quality testing shall be the responsibility of Purchaser. Test results shall be furnished to Forest Service.

When Purchaser elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under B5.253 when Forest Service determines the work will not be required.

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

Source I **N/A** , Source II **N/A** , and Source III **N/A** .

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

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

See Material Source Table.

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

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

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

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

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

MATERIAL SOURCE TABLE PURSUANT TO C5.221# - MATERIAL SOURCES (04/2004)

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
N/A						

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.

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO C5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications										
	From	To		T-803	T-811	T-813	T-831	T-832	T-834	T-836	T-838	T-842	T-854	T-891
1832342	Jct. 1831	EOR	0.47	P			P	P	P		P		P	
1832	Jct. 18	Jct. 1832342	5.14	P	P	P	P	P	P	P			P	P
1831402	Jct. 1831381	EOR	0.10	P			P	P	P		P			
1831401	Jct. 1831381	EOR	0.20	P			P	P	P		P			
1831381	Jct. 1831	EOR	2.25	P			P	P	P		P		P	P
1831	Jct. 18	Jct. 1831381	5.66	P	P	P	P	P	P	P			P	P
1831	Jct. 1831381	Subdv. 12	1.68	P			P	P	P		P		P	
18	County Maint.	Jct. 1832	9.85	P			D		D			D		

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		T-803	T-811	T-813	T-831	T-832	T-834	T-836	T-838	T-842	T-854	T-891
1832342	Jct. 1831	EOR	0.47	P			P	P	P		P		P	P
1832	Jct. 18	Jct. 1832342	5.14	P	P	P	P	P	P	P			P	P
1831402	Jct. 1831381	EOR	0.10	P			P	P	P		P			
1831401	Jct. 1831381	EOR	0.20	P			P	P	P		P			
1831381	Jct. 1831	EOR	2.25	P		P	P	P	P		P		P	P
1831	Jct. 18	Jct. 1831381	5.66	P	P	P	P	P	P	P			P	P
1831	Jct. 1831381	Subdv. 12	1.68	P			P	P	P		P		P	
18	County Maint.	Jct. 1832	9.85	P			D		D			D		

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		T-803	T-811	T-813	T-831	T-832	T-834	T-836	T-838	T-842	T-854	T-891
1832342	Jct. 1831	EOR	0.47				P	P	P		P			
1832	Jct. 18	Jct. 1832342	5.14		P		P	P	P	P				P
1831402	Jct. 1831381	EOR	0.10				P	P	P		P			
1831401	Jct. 1831381	EOR	0.20				P	P	P		P			
1831381	Jct. 1831	EOR	2.25				P	P	P		P			
1831	Jct. 18	Jct. 1831381	5.66		P		P	P	P	P				P
1831	Jct. 1831381	Subdv. 12	1.68				P	P	P		P			
18	County Maint.	Jct. 1832	9.85				D		D			D		

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

Description of work required by the above listed T-specs is shown in the following ROAD MAINTENANCE REQUIREMENTS SPECIFICATION table, and included in the timber sale contract.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO
C5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

1	2	3			4	5	6			7	8	9	
Road No. and Termini	Special Project Specifi-cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte-nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applicat. Rate	Width			Block	Treat
1832342		EX	AI		OPT					W	TS		PR
Jct. 1832 EOR													
1832		EX	AI	B	OPT	*20 CY					TS		PR
Jct. 18 Jct. 1832342													
1831402		EX	AI		OPT						TS		PR
Jct. 1831381 EOR													
1831401		EX	AI		OPT						TS		PR
Jct. 1831381 EOR										W			
1831381		EX	AI		OPT	*20 CY					TS		PR
Jct. 1831 EOR													
1831		EX	AI	B	OPT	*30 CY					TS		PR
Jct. 18 Jct. 1831381													
1831		EX	AI		OPT						TS		PR
Jct. 1831381 Unit 12													
18		EX	AI		OPT						JU		PR
County Maint Jct. 1832													

***Forest Service Grading A**

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO C5.31# - ROAD MAINTENANCE REQUIREMENTS (7/01)

Column No.	Heading	Entry	Explanation
1	Any	Blank	Except as otherwise described, no entry indicates Purchaser is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of sale related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Purchaser shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Purchaser shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Purchaser shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Purchaser may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO C5.31# - ROAD MAINTENANCE REQUIREMENTS (7/01)

Column No.	Headings	Entry	Explanation
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
		D	Contractor is to make deposits for listed road maintenance, including surface rock replacement.
6	Dust Abatement	OPT	Product selection is Purchaser's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Purchaser is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Purchaser shall abate dust on the existing width
		Numbers	Purchaser shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Purchaser prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Purchaser's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	PR	PR denotes that work is Purchaser's Responsibility to perform.

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: **$3.15** 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
N/A		

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: **N/A**
Wildlife and Botanical Protection Measures: **N/A**
Cave Resource Protection Measures: **N/A**

C6.29# - PROTECTION OF HABITAT OF NESTING NON-THREATENED, ENDANGERED AND SENSITIVE RAPTORS *(09/2004)*

Location of areas needing special measures for protection of nesting non-TE&S raptors, colony nesting birds, and species with designated protection outlined in the ROD for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (1994), are shown on the Sale Area Map and identified on the ground. Measures needed to protect such areas have been included elsewhere in this contract or as follows: **N/A**
If protection measures prove inadequate or if other such areas are discovered, Forest Service may either terminate the sale under B8.34 or unilaterally modify this contract to provide additional protection regardless of when such facts become known. Discovery of such areas by either party shall be promptly reported to the other party.

In the events of contract modification under this Subsection, Purchaser shall be reimbursed for any additional protection required by the modification, provided that any work or extra protection required shall be subject to prior approval by Forest Service. Amount of reimbursement shall be determined by Forest Service using standard Forest Service rate redetermination methods in effect at time of agreed change and shall be in the form of a reduction in Current Contract Rates unless agreed otherwise in writing. However, in no event may Current Contract Rates be reduced below Base Rates.

C6.315# - SALE OPERATION SCHEDULE *(06/1994)*

Unless otherwise agreed to between Purchaser and Forest Service, Purchaser's Operations shall be performed in accordance with the following schedule.

See attached schedule.

SCHEDULE PURSUANT TO C6.315# - SALE OPERATION SCHEDULE *(06/1994)*

Subdivision	Operating Conditions	Purpose
All	Road reopening, reconstruction, and temporary road construction is restricted during the wet season (approximately November 1 through May 31).	Avoid potential surface erosion of exposed soil.
All permanent and temporary native surface roads	Haul is restricted on native surfaced roads during the wet season (approximately November 1 through May 31) unless rocked.	Avoid potential surface erosion of exposed soil.
All Permanent and Temporary Roads	No live stream culvert replacement work from October 16 through June 30.	Minimize input of sediment into streams.

C6.405 - ALTERNATE REMOVAL OF INCLUDED TIMBER *(05/2005)*

Purchaser and Forest Service may agree to alternate removal requirements of Included Timber contained in A2. Alternate removal requirements are to be set forth in an agreement signed by both Purchaser and Contracting Officer. The terms of the agreement binds both parties and becomes part of the timber sale contract.

The development and execution of the agreement is based upon the determination by the Contracting Officer that removal of Included Timber is economically impractical if Purchaser has no ready market for such logs in the tributary area. A tributary area is defined as the area in which the Purchaser and competitors regularly deliver saw logs, or 200 miles from the Sale Area, whichever distance is greater.

The agreement for alternate removal requirements shall be executed prior to removing any timber from the Subdivisions 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 removed to locations designed in the agreement.

Volumes of material with alternate removal requirements will be determined from the National Cruise report for the sale. Purchaser will be charged for the following:

a) stumpage value at current contract rates of the alternatively removed timber;
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 Sawtimber and/or Nonsawtimber 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 alternate removal requirements, the Subdivision 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.

C6.41# - SPECIFIC REQUIREMENTS *(01/2000)*

Notwithstanding B6.41, B6.411, B6.5 and B6.61, felling objectives shall be accomplished by the type of felling methods and equipment listed herein. Methods or equipment other than those specified may be approved. For Subdivisions shown in the following table, Purchaser shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

See attached table.

TABLE PURSUANT TO C6.41# - SPECIFIC REQUIREMENTS *(01/2000)*
(Continued)

FELLING METHODS	SUBDIVISIONS
Trees shall be felled away from designated Streamcourses and wet areas. Direction of felled trees shall also be to the lead, which shall facilitate the yarding operation so damage to residual trees is kept to a minimum. Exceptions to these objectives apply only where safety, or protecting improvements, terrain features, or felling within Subdivision boundaries preclude felling to lead.	All

FELLING EQUIPMENT	SUBDIVISIONS
Wedges	All

C6.42# - YARDING/SKIDDING REQUIREMENTS *(04/2003)*

Purchaser shall submit for Forest Service approval a Yarding/Skidding Plan prior to the start of felling operations. Requirements other than those specified in the following table may be approved. When appropriate, such approval shall include adjustments in Current Contract Rates and revision of the Sale Area Map. In no such case shall the adjustments result in Current Contract Rates less than Base Rates.

Location of all skid roads and trails, tractor roads, skyline corridors, mechanized harvester trails, forwarder roads, and other log skidding facilities, shall be approved prior to their use or construction.

See attached table for requirements.

TABLE PURSUANT TO C6.42# - YARDING/SKIDDING REQUIREMENTS *(04/2003)*

	YARDING/SKIDDING REQUIREMENTS	**SUBDIVISION**
1.	Except during lateral yarding, the yarding system must keep one end of the log suspended above ground during in-haul. Where possible, yard away from streams and wet areas. All yarding across streamcourses and wet areas, and within 50 feet slope distance of streams and wet areas must be done with the logs suspended free of the ground.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
2.	The carriage shall be positioned such that during lateral yarding, logs are yarded away from stream courses and wet areas.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
3.	Ground-lead yarding is permitted within 100 feet of subdivision boundaries, 100 feet of tail trees, and 100 feet of the tower position.	3, 4, 12, 14, and skyline portions of 1, 2, 6, 15
4.	Skyline roads will be spaced no further apart than 150 feet at the back end of the road when radial road are used and 150 feet center to center where parallel roads are used.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
5.	Skyline corridors shall initially be made as narrow as practicable, with the corridor being only wide enough to allow free passage of the carriage and turn of logs. The corridors shall normally not exceed 12 feet in width after yarding has been completed.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
6.	When skyline, haulback, or other cables pass through areas of residual trees or reproduction more than 18 inches in height, lines shall be pulled out of the residual trees or reproduction area prior to restringing the next skyline road.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
7.	Location of all skyline roads shall be agreed upon prior to felling.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
8.	A slackpulling carriage able to maintain a fixed position on the skyline during lateral yarding and be able to pass over intermediate supports is required. The carriage must be capable of lateral yarding up to 75 feet from skyline.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
9.	Tailtrees, multi-stump anchors, and intermediate supports may be necessary to achieve suspension requirements.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15

TABLE PURSUANT TO C6.42# - YARDING/SKIDDING REQUIREMENTS *(04/2003)*
(Continued)

	YARDING/SKIDDING REQUIREMENTS	**SUBDIVISION**
10.	The haulback line that is attached to the carriage shall be positioned so that it remains within the skyline corridor. The objective is to reduce lateral movement in the skyline.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
11.	A skyline system capable of transporting logs at least 2,000 feet slope distance uphill and downhill is required. A yarder capable of keeping the lines under the canopy is required.	3, 4, 12, 16, and skyline portions of 1, 2, 6, 15
12.	Equipment assist may be necessary.	12, 16
13.	Helicopter yarding specified. Logs must be broken free of their beds vertically and totally suspended during the in-haul portion of the yarding cycle. A tagline of at least 250 feet in length may be required during yarding.	8, 10, 11, 13, 14, 17, 18, 21 and helicopter portions of 1, 2, 6, 15
14.	A Helicopter Yarding system capable of lifting and transporting logs fully suspended at least 5280 feet horizontal distance uphill and downhill is required.	8, 10, 11, 13, 14, 17, 18, 21 and helicopter portions of 1, 2, 6, 15

C6.6# - EROSION CONTROL AND SOIL TREATMENT BY PURCHASER *(04/2014)*

Erosion prevention and control work required by B6.6, shall be completed within 15 calendar days after yarding/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.

On slopes greater than 20 percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Sale Area by Purchaser's Operations and where measures described in B6.6 will not result in satisfactory erosion control or where subsoiling is shown on Sale Area Map, the following shall be performed. If applicable, timing of the work shall be coordinated with required scarification or subsoiling.

(a) Where staked or otherwise marked on the ground by Forest Service, seed, fertilizer, and mulch will be applied as indicated below in the seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from **February 15 - April 15** to **September 15 - November 1**, unless otherwise agreed to. Applications shall be done only during favorable conditions. If Purchaser and Forest Service agree, seed can be applied and covered within 10 days of ground disturbance, and may be done outside the required periods.

(b) Where shown on Sale Area Map, landings, Temporary Roads and/or skidtrails/roads shall be scarified to a depth of 20 inches to provide a seedbed for grass seed, fertilizer, and mulch. Seed, fertilizer, and mulch shall be spread evenly at the rates shown in the table. When the seed, fertilizer, and mulch are applied in separate operations, the second or third operations shall be within 10 days of the first or second.

(c) Where shown on Sale Area Map, landings, Temporary Roads, and skid trails/roads used by Purchaser shall be subsoiled to a minimum depth of 20 inches, except that Forest Service may agree to lesser depths. Each subsoiler shank shall be equipped with a shoe and wings which has a total width of at least 18 inches. The design of the shank and wings will be such that the treated, compacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. The distance between subsoiler shank passes shall not exceed 36 inches. Treated areas shall span the total width of compaction. Subsoiling shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

(d) When agreed to, Purchaser may use alternate methods of erosion control.

Seed shall meet current Forest Service requirements, with the additional requirement that no seed containing any noxious weed seed in excess of established state limitations as listed in the current "State Noxious Weed Requirements Recognized in the Administration of the Federal Seed Act" publication will be used (commonly referred to as the "all states" noxious weed seed list). Seed shall be furnished separately or in mixture in standard containers clearly marked with: (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed); (5) percentage of weed seed content; and (6) certification that no noxious weed seeds in excess of established state standards are present. The contractor shall furnish the Government duplicate signed copies of a certificate, signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysis or the Society of Commercial Seed Technologists), certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts Standards within 12 months prior to date of application. This certificate shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of

germination, (6) percentage of purity, (7) percentage of weed seed content, and (8) certification that no noxious weed seeds in excess of established state limitations are present in any kind of seed.

Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer.

No seed may be applied without prior written approval by the government.

(e) Purchaser may be required to seed areas disturbed by harvest activites to prevent the spread of noxious weeds, or the establishment of new areas.

See attached application schedule.

APPLICATION SCHEDULE PURSUANT TO C6.6# - EROSION CONTROL AND SOIL TREATMENT BY PURCHASER *(04/2014)*

	AREAS	***SEED***		***FERTILIZER***		***MULCH***	
SUBDIVISION OR UNIT NUMBER	***A) SKID TRAILS B) FIRELINES C) TEMP. ROADS D) LANDINGS E) OTHER***	***APPLICATION***		***APPLICATION***		***APPLICATION***	
		SPECIES 1/ MIXTURE	***LBS/AC***	***TYPE 2/***	***LBS/AC***	***TYPE 3/***	***LBS/AC***
ALL	C) TEMP. ROADS D) LANDINGS E) SYSTEM ROAD CUT AND FILL SLOPES	FS PROVIDED	20	N/A	N/A	7/	1500

The Purchaser will be required to pay a co-op deposit of $.02/Ton, for the cultivation and harvest of replacement seed of native species used on this contract.

1/ For sales in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:

1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

For sales in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The purchaser shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

Legumes must be innoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the innoculant.

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

2/ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.

3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's records.

7/ Wood Fiber Mulch OR Straw (Organic-Weedfree)

C6.7 - SLASH DISPOSAL *(06/2008)*

As used in the following Subsections, the term "slash" is vegetative debris including, but not limited to, cull logs, blasted or pushed-out stumps, chunks, broken tops, limbs, branches, rotten wood, damaged brush, damaged or destroyed reproduction, saplings or poles, resulting from Purchaser's Operations.

Any burning of slash or refuse by Purchaser is subject to C7.201.

Forest Service may agree to substitute methods of slash disposal if such substitute methods will give equally satisfactory results.

Forest Service may waive specific slash treatment requirements. Purchaser's Timber Sale Account will be charged for any slash treatment requirements waived or for work taken over by Forest Service. The amount of such charges will be determined by Forest Service if Purchaser has not begun felling operations. If felling operations have begun, charges will be determined by mutual agreement.

Forest Service may enter into a written agreement with the Purchaser for the Purchaser to complete slash disposal work originally scheduled to be done by the Forest Service. The agreement will describe the work to be completed by the Purchaser, and the value of such work. Value of the work to be done will be based upon the slash disposal plan in which the cooperative deposits were calculated, and will include Forest Service overhead. Any deposits paid by the Purchaser for this work will be credited to the Purchaser's timber sale account. This work is in addition to that required by C6.74#.

Forest Service may also enter into a written agreement with Purchaser for the Purchaser to remove slash from landings, subject to B3.41. Brush disposal deposits paid by the Purchaser for the Forest Service to burn landing piles will be credited to the Purchaser's timber sale account in the amount shown in the brush disposal plan, less the amount needed by the Forest Service for final cleanup of the landings following removal of the landing slash piles by the Purchaser. The credit will be made following the final removal by the Purchaser of all Included Timber, and slash piles, from the Sale Area.

C6.74# - SLASH TREATMENT REQUIREMENTS *(02/2002)*

Purchaser shall pile, burn, yard, construct firelines or otherwise treat slash defined in C6.7, within designated areas. Work required of Purchaser shall be in accordance with the attached slash plan, specifications, and Sale Area Map.

Unless otherwise agreed, or shown in the attached slash plan or specifications, when Included Timber is removed during Normal Operating Season, required slash work shall be completed within 30 days of removal of approximately three-quarters of the volume in the unit. When Included Timber is removed outside Normal Operating Season, required work will be completed within 30 days of the beginning of the next Normal Operating Season.

See attached specifications.

SPECIFICATIONS PURSUANT TO C6.74# - SLASH TREATMENT REQUIREMENTS (02/2002)

In accordance with Contract Provision C6.74#, SLASH TREATMENT REQUIREMENTS, the following is the detailed Slash Disposal Plan:

I. Yarding Tops and Limbs Left Attached to Logs

In Subdivisions 3, 4, 12, 16 and the skyline portions of Subdivisions 1, 2, 6, and 15, tops and limbs will be left attached to all logs and will be yarded to the landings. For safe and efficient operations at the landings, to keep landing size small and to keep piles from burning too long and hot, the larger unutilized material (over 2 inches in diameter outside bark on the small end and at least 6 feet long), shall be limbed, severed, and stacked in a parallel position in a separate pile, unless otherwise agreed to in writing by the Forest Service. On temporary roads, if the landing area is large enough, this requirement may be waived. The location of piles and method of piling shall be in accordance with the specifications listed below in section II (Machine Piling of Landing and Roadside Clean-up Slash).

II. Machine Piling of Landing and Roadside Clean-up Slash

A. Slash to be piled

The purchaser is responsible for machine piling all unutilized material resulting from logging operations at all landings, and within 25 feet from the edge of roads 1831381, 1831401, 1831402, and 1831 inside the adjacent Subdivisions. This will include piling within 25 feet from both sides of the roads where the Subdivision is on both sides of the road. The machine used to grapple pile the slash shall stay on the road surface. Material to be piled will include all material at least 1 inch in diameter on the small end, and at least 3 feet in length. This may include chunks, broken tops, and limbs, branches, rotten wood, and brush, damaged or destroyed reproduction, and saplings or poles created by any type of vegetative cutting or clearing.

For safe and efficient operations at landings, to keep landing size small and keep piles from burning too long and hot, besides the top material, any additional larger unutilized material (over 6 inches diameter outside bark on the small end, and at least 2 feet in length) shall be stacked in a parallel position in or beside the same pile as the larger top material, unless otherwise agreed to in writing by the Forest Service.

B. Location of piles

Piles will be located so as to minimize damage to standing green trees during burning. Unless otherwise approved by Forest Service, piles will be constructed to be equal distance between the boles of standing green trees, or at least 20 feet from a standing green tree where the trees are farther apart. Piles will not be placed where they will interfere with functioning of drainage structures, ditches, or stream channels.

C. Construction and size of piles

Piles shall be constructed using a 'lift and stack' method using equipment with a hydraulic attachment mechanism capable of constructing piles that are compact and free of dirt and rocks. Completed piles shall be approximately equal in height and width, and shall not exceed 10 feet in height. In piles where the tops are permitted to be piled in the same pile as the other slash, piles may be up to 15 feet in height.

C6.815 - THIRD PARTY SCALING SERVICES *(04/2004)*

Notwithstanding the requirement for Forest Service or parties under contract to Forest Service to provide Scaling services under B6.81, Scaling designated in A10 shall be conducted by a third party Scaling organization approved by Forest Service. Scaling shall be done in accordance with A9 and Purchaser shall bear costs for Scaling service.

In the event third party Scaling service is suspended for causes such as strikes, termination of third party's approval to Scale National Forest logs by Forest Service, or Purchaser's failure to pay third party Scaling costs, hauling operations shall be suspended until agreed alternate Scaling services are provided or service by third party is resumed.

When an approved alternate Scaling location pursuant to B6.811 does not have an approved third party scaling organization as a commonly used Scaling services provider, Forest Service or parties under contract to Forest Service shall provide Scaling services at the approved alternate location. In such an event, the cost of waived third party Scaling listed in A10 shall be charged to Timber Sale Account.

If Forest Service and Purchaser agree in writing that another party under contract to Forest Service will perform Scaling, the contract will be modified to include C6.816 and Timber Sale Account will be charged for such Scaling.

C6.84 (OPTION 1) - USE OF PAINT BY PURCHASER *(05/2005)*

Notwithstanding B6.842, use of paint by the Purchaser within the Sale Area in the color(s) used by the Forest Service in the preparation of the sale and administration of the contract will be by written approval of the Forest Service.

C6.840 - ACCOUNTABILITY *(04/2014)*

Notwithstanding B6.84, when Weight scaled contracts offer products at different rates in A4, each product must be completely removed from a landing or decking area before another product can be removed, unless otherwise agreed to in writing by the Contracting Officer.

C6.851 - WEIGHT OF LOST LOADS *(04/2014)*

Purchaser shall present all loads for weighing and shall furnish a weight ticket for each load pursuant to a weighing services agreement. Any load for which a weight ticket is not provided, or the weight ticket is incomplete or unreadable, or does not include the Forest Sevice load receipt number, shall be considered a lost sample load with a net weight equal to the load with the heaviest net weight presented during the billing period, as established by the Forest Service.

C7.1 - PLANS *(09/2004)*

The plan shall state how Purchaser's representative or alternates will be contacted in a fire emergency, both during periods of operation and at other times such as evenings or weekends. Purchaser shall certify compliance with specific fire precautionary measures included as Subsections under C7.2 - Specific Fire Precautions, before beginning operations during Fire Precautionary Period (closed season) and shall update such certification when operations change.

If helicopter yarding is required, the plan shall include a schedule of rates mutually agreed to for computing Purchaser costs incurred toward meeting Purchaser's obligations under A14, or for paying for helicopters controlled by Purchaser and used under Forest Service direction for suppressing Operations Fires or other fires on Sale Area, excluding Negligent Fires.

C7.11 - ADDITIONAL AREA OF FIRE RESPONSIBILITY *(03/1989)*

The area within 200 feet slope distance of the center line of any road constructed or reconstructed under this contract on National Forest lands outside of Sale Area shall be considered as a part of Sale Area in connection with responsibilities under B7.3 and B7.4 until the road has been accepted in writing by Forest Service.

C7.2 - SPECIFIC FIRE PRECAUTIONS *(09/2002)*

When the industrial fire precautions level is I or higher, unless waiver is granted under C7.22, specific required fire precautionary measures are as follows:

A. Fire Security.

Purchaser will designate in writing a person or persons who shall perform fire security services listed below on Sale Area and vicinity. The designated person will be capable of operating Purchaser's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of Purchaser's personnel on Forest fires. Such person must report any fire detected to Forest Service within 15 minutes of detection. In lieu of having the designated person perform the required supervisory duties, Purchaser may provide another person meeting the qualifications stated above to direct the activities of Purchaser's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time Purchaser's Operations are shut down. For the purposes of this provision, personnel servicing equipment, and their vehicles, who are not engaged in cutting or welding metal are excluded.

Fire security services shall consist of moving throughout the operation area or areas constantly looking, reporting, and taking suppression action on any fires detected. Where possible, the designated person shall observe inaccessible portions of helicopter operating areas from vantage points within or adjacent to Sale Area.

Purchaser shall furnish fire security services based on the predicted industrial precaution level, obtained by Purchaser from the appropriate Ranger District Headquarters. If predictions made after 6:00 p.m. local time, are significantly different than originally estimated, Forest Service will inform Purchaser when changes in fire security services are indicated.

B. Fire Extinguisher and Equipment (on Trucks, Tractors, Power Saws, etc.).

(a) Each yarder or loader equipped with an internal combustion engine or other spark emitting source shall be equipped with a readily accessible fire extinguisher, with an Underwriter's Laboratory (UL) Rating of at least 5 B,C.

(b) All power-driven equipment operated by Purchaser on National Forest land, except portable fire pumps, shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C and one "D" handled or long handled round point shovel, size 0 or larger. In addition, each motor patrol, truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 3-1/2 pounds or larger.

(c) Equipment required in (a) and (b) shall be kept in a serviceable condition and shall be readily available.

(d) Each gasoline power saw operator shall be equipped with a pressurized chemical fire extinguisher of not less than 8-ounce capacity by weight, and one long handled round point shovel, size 0 or larger, except at a landing where a suitable fire extinguisher and shovel are immediately available. The extinguisher will be kept in possession of the saw operator at all times. The shovel shall be accessible to the operator within 1 minute.

(e) Each helicopter shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C mounted inside the aircraft within reach of the pilot's operating position.

(f) One refill for each type or one extra extinguisher sufficient to replace each size extinguisher required on equipment shall be safely stored in the fire tool box or other agreed upon place on Sale Area that is protected and readily available.

(g) At each area where helicopters are being serviced or supplied, a carbon dioxide fire extinguisher with a UL rating of at least 20 B,C will be provided on the site and placed where it is available for immediate use.

C. Spark Arrestors and Mufflers.

Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard 5100-1a as shown in the National Wildfire Coordination Group Spark Arrester Guide, unless it is:

(a) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.

(b) A multi-position engine, such as on power saws which must meet the performance levels set forth in the Society of Automotive Engineers (SAE) "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended.

(c) A passenger carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory designed muffler complete with baffles and an exhaust system in good working condition.

(d) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this Subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

D. Fire Tools.

Purchaser shall furnish serviceable fire fighting tools in a readily accessible fire tool box or compartment of sound construction with a hinged lid and hasp so arranged that the box can be secured or sealed. The box shall be red and marked "Fire Tools" in letters at least 1 inch high. It shall contain a minimum of:

(a) Two axes or Pulaskis with a 32 inch handle.

(b) Three adze eye hoes. One Pulaski may be substituted for one adze eye hoe.

(c) Three long handled, round point shovels, size 0 or larger.

E. Tank Truck.

Purchaser shall provide a tank truck or trailer, containing not less than 300 gallons of water, during yarding, skidding, loading, land clearing, right-of-way clearing, mechanical falling, and mechanical treatment of slash. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each operating side during Fire Precautionary Period (closed season), except as provided under B7.21.

The tank truck or trailer shall be equipped with a pump capable of discharging 20 gallons of water per minute, using a 1/4 inch nozzle tip, through a 50 foot length of poly or rubber lined hose. In addition, 500 feet of serviceable hard rubber poly or rubber lined or FJRL hose of not less than 1 inch outside diameter, fitted with a nozzle capable of discharging a straight stream of 1/4 inch diameter and a spray pattern shall be immediately available for use. The tank, pump, nozzle and at least 250 feet, of the total 500 feet of hose, shall be connected and ready for use at all times. Synthetic hose may be used by

agreement.

If a trailer is used, it shall be equipped with a hitch to facilitate prompt movement. A serviceable tow vehicle shall be immediately available for attachment to the trailer and must meet the time requirements stated above. Such truck or trailer shall be equipped to operate for a minimum of 8 hours.

Where designated on Sale Area Map, Purchaser shall provide a tank trailer or water source and pumping equipment, including accessories, which can be lifted and transported by the yarding system. The component parts shall meet all specifications above. The tank trailer or water supply and pumping accessories shall be deliverable to a fire, in area of operations, within 15 minutes of detection.

In lieu of the above tank trailer or water supply for helicopter operations, Purchaser may provide a suitable helicopter water bucket with a 300 gallon capacity. When Purchaser provides a water bucket, a water source shall be provided within 5 minutes round trip flight time from operating side.

F. Communications.

During Purchaser's Operations, excluding powersaw falling and bucking, Purchaser shall provide adequate two-way communication facilities to report a fire to Forest Service within 15 minutes of detection. Citizen Band radios (CB's) are not considered adequate two-way communications because FCC Regulations prohibit commercial use.

G. Smoking and Open Fire Restrictions.

Smoking and fires shall be permitted only at the option of Purchaser. Purchaser shall not permit open fires on Sale Area without advance permission in writing from Forest Service.

H. Blasting.

Blasting shall be permitted only for road construction purposes unless advance permission is obtained from Forest Service.

Whenever the Industrial Fire Precaution Level is II or greater, a fire security person equipped with a long handled round point No. 0 or larger shovel and a 5 gallon backpack pump can filled with water, will stay at location of blast for 1 hour after blasting is done. Blasting may be suspended by Forest Service, in areas of high rate of spread and resistance to control.

Fuses shall not be used for blasting. Explosive cords shall not be used without permission of Forest Service, which may specify conditions under which such explosives may be used and precautions to be taken.

I. Compliance with State Fire Laws.

Listing of specific fire precautionary measures in the foregoing Subsections is not intended to relieve Purchaser in any way from compliance with State fire laws covering fire prevention and suppression equipment, applicable to Purchaser's Operations.

J. Aircraft Communications.

Every aircraft used in conjunction with Purchaser's Operations shall be equipped with an operable radio system. The radio system shall be capable of transmitting and receiving on VHF frequency 122.85 Megahertz (MHz) with a minimum output of 5 watts at the transmitter. The system shall be located and installed so that the pilot can operate it while flying. A shielded all-weather broad-band antenna shall be part of the system. Radio and antenna shall be properly installed and maintained.

Upon discovery or notification of a fire on Sale Area, all aircraft pilots controlled by Purchaser shall

monitor VHF frequency 122.85 MHz when within 5 miles of a fire and broadcast their intentions.

K. Logging Block Equipment.

Purchaser shall provide a serviceable 5 gallon backpack pump full of water, one axe, and one long handled round point shovel, size 0 or larger, at each haulback block through which a running line passes.

The area below such blocks must be kept clear of all flammable debris under 4 inches in diameter for a distance of 6 feet in all directions. Material larger than 4 inches that poses a fire risk, such as punky logs, must also be removed.

Purchaser shall avoid line-rub on rocks or woody material which may result in sparks or sufficient heat to cause ignition of fire.

C7.201 - BURNING BY PURCHASER *(01/1993)*

Notwithstanding the Fire Precautionary Period limitation of B7.2, Purchaser is required to obtain written permission from Forest Service prior to any burning on the National Forest Lands.

C7.22 - EMERGENCY FIRE PRECAUTIONS *(09/2004)*

Purchaser shall restrict operations in accordance with the Industrial Fire Precaution Levels attached. Forest Service may change the Industrial Fire Precaution Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Industrial Fire Precaution Levels when such changes are necessary for the protection of the National Forest. When sent to Purchaser, the revised Industrial Fire Precaution Levels will supersede the attached levels.

INDUSTRIAL FIRE PRECAUTIONS SCHEDULE

LEVEL INDUSTRIAL FIRE PRECAUTION

I. Closed Season - Fire precaution requirements are in effect. A Fire Watch/Fire Security is required at this and all higher levels unless otherwise waived.

II. Partial Hootowl - The following may operate only between The hours of 8 p.m. and 1 p.m. local time:

power saws, except at loading sites;
cable yarding;
blasting;
welding or cutting of metal.

III. Partial shutdown - The following are prohibited:

cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m. local time when all blocks and moving lines are 10 feet or more above the ground, excluding the line between the carriage and the choker.

power saws - except at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m. local time.

In addition, the following are permitted between the hours of 8 p.m. and 1 p.m. local time:

tractor, skidder, feller-buncher, forwarder, or shovel logging operations where tractors, skidders or other equipment with a blade capable of constructing fireline are immediately available to quickly reach and effectively attack a fire start;
mechanized loading and hauling;
blasting;
welding or cutting of metal;
any other spark-emitting operation not specifically mentioned.

IV. General shutdown - All operations are prohibited.

The following definitions shall apply to these Industrial Fire Precaution Levels:

Cable yarding systems: A yarding system employing cables and winches in a fixed position.

Closed Season (Fire Precautionary Period): That time period each year when a fire hazard exists as

described in A12.

Hauling: Where hauling involves transit through more than one shutdown zone/regulated use area, the precaution level at the woods site shall govern the level of haul restrictions, unless prohibited by other than the Industrial Fire Precaution Level system.

Loading sites/woods site: A place where any product or material (including but not limited to logs, firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

Advance written waiver of the above precautions may be issued by the Contracting Officer or Forest Service Representative.

Such waiver, or substitute precautions under B7.21, shall prescribe measures to be taken by Purchaser to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer or Forest Service Representative shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. Purchaser shall assure that all conditions of such waivers or substitute precautions are met.

Purchaser shall obtain the predicted Industrial Fire Precaution Level from the appropriate Ranger District headquarters. If predictions made after 6:00 p.m., local time, are significantly different than originally estimated, Forest Service will inform Purchaser when changes in restrictions or industrial precautions are indicated.

C8.13 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY *(09/2004)*

Purchaser and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Purchaser will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Purchaser hereby acknowledges the acceptance of the risk that this contract is subject to interruption or termination as a result of litigation associated with the environmental analysis process used by the Forest Service in the planning of this timber sale. If such interruption or termination occurs due to litigation, Purchaser agrees to accept as full compensation for such interruption remedies pursuant to B8.33, or for termination remedies pursuant to B8.34.

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.

C8.3# (OPTION 1) - CONTRACT CHANGES *(06/2004)*

Contract changes involving volumes and/or values will use a weightratio of **2.8203** to convert net CCF cruise volumes to TONS.

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 **Alaska yellow-cedar** 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.

C8.71 - TRIPARTITE LAND EXCHANGE *(04/1999)*

Purchaser agrees that timber values for which cash payment is required under B4.0 may be applied to any land exchange transaction authorized by law under which the owner of offered lands agrees to accept the money value of timber sold for the value of land granted to the United States.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS PURSUANT TO B6.33 SAFETY

Unless otherwise agreed, the following measures are required to provide adequate warning of hazards for users of roads and trails adjacent to Purchaser's Operations.

Part I. Signing and Other Warning Methods:

(a) Signs. The following signs are required when Purchaser's Operations are in progress adjacent to or on Forest Service controlled roads and trails:

	MINIMUM LETTER SIZE AND LEGEND	MINIMUM SIZE AND SHAPE	WHEN AND WHERE REQUIRED
1.	LOGGING OPERATIONS NEXT <> MILES (4" letters)	24" (rectangle) 36"	Min. 100ft. outside of any continuous work areas, on roads listed in C5.31# and trails listed in Part II.
2.	LOGGING OPERATIONS (3" letters)	24" (diamond) 24"	To be used in conjunction with "Logging Operations Next <> Miles" and where work area is not continuous.
3.	FOR LOGGING USE ONLY (3" letters)	24" (diamond) 24"	Required where roads listed in C5.31# and temporary roads intersect with C5.31# roads. Install a cross ditch to discourage use when sign is covered or removed for extended periods.
4.	TRUCKS (4" letters)	24" (diamond) 24"	At critical intersections on roads listed in C5.31# when traffic is heavy or otherwise exceeds volumes stated in Part II below. Remove or cover when the sign is not applicable.
5.	END LOGGING OPERATIONS (4" letters)	24" (rectangle) 24"	Use in conjunction with "Logging Operations Next <> Miles" and "Logging Operations".
6.	TREE FELLING AHEAD (3" letters)	24" (diamond) 24"	Required 200 feet in advance of danger area where timber is being felled adjacent to all roads, including temporary roads, and trails.
7.	ROAD MACHINERY AHEAD (3" letters)	24" (diamond) 24"	Required at least 200 feet in advance of Purchaser road maintenance operations on roads listed in Schedule C5.31#.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS - B6.33 SAFETY (continued)

All signs shall meet requirements as specified in Parts I and VI of the Manual of Uniform Traffic Control Devices (MUTCD).

Sign borders and lettering shall be black. Borders are ½ inch wide, inset ½ inch from outside edge of sign. All sign backgrounds shall be orange, except signs #1 and 5 which shall be reflectorized orange.

Signs shall be installed on posts, with a 5 foot minimum ground clearance, or on temporary supports complying with MUTCD standards.

All signs are to be removed or covered when operations are interrupted for seasonal nonuse or other extended periods.

Purchaser shall furnish personnel and advance warning signs when cable or helicopter logging above roads or trails, felling adjacent to roads or trails, where logs being bucked may roll into roads or trails, and in areas where fallout from blasting may occur. On roads listed in C5.31# and temporary roads, Purchaser may temporarily block the road in lieu of furnishing flag personnel.

(b) Barricades. On roads listed in C5.31#, if Purchaser's Operations cause the traveled way or road shoulders to be constricted overnight, or longer, by such obstructions as decked logs, parked equipment, or piled slash, Purchaser shall place barricades on both sides of the encroaching obstruction to safely channel traffic around such obstructions. Barricades shall remain in place until the obstruction is removed.

Barricades shall be Type II and meet specifications in MUTCD, Part VI. Barricades must be at least 3 feet high. Rails must be at least 2 feet long. Striping shall be alternating orange and white, sloping at a 45 degree angle, and reflectorized. For rails 2 fee to 3 feet long, striping shall be 4 inches wide. For rails longer than 3 feet, striping shall be 6 inches wide. Two rails, 8-12 inches in width, must face each direction.

Barricades shall be equipped with warning lights which shall be Type A low intensity flashing and shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet.

(c) Other Traffic Control Methods. The posting of CB channel signs may be authorized.

On roads listed in C5.31#, Purchaser may be authorized to install temporary gates, barricades (except cables), or natural barriers. The devices must be installed with the necessary hazard markers, be reasonably passable by Forest Service, and be removed prior to acceptance of the Subdivision being served by the road.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS - B6.33 SAFETY (continued)

Part II. Specified Requirements:

None

Purchaser and Forest Service agree to the above stated requirements of the Traffic Control Plan:

_____	_____
Name	Name
_____	_____
Title	Title
_____	_____
Date	Date

Timber Sale Road
Maintenance Specifications
for the Hehe Thin Timber Sale

Road Name									
Road Number		1832342	1832	1831402	1831401	1831381	1831	1831	18
Termini (Miles)		0.47	5.14	0.10	0.20	2.25	5.66	1.68	9.85
	Latest Revision Date								
Maintenance Specification	2003								
T-803	05/07	X	X	X	X	X	X	X	X
T-811	10/07		X				X		
T-813	10/07		X			X	X		
T-831	10/07	X	X	X	X	X	X	X	
T-832	05/07	X	X	X	X	X	X	X	
T-834	05/07	X	X	X	X	X	X	X	
T-836	05/07		X				X		
T-838	05/07	X	X	X	X	X		X	
T-842	10/07								
T-851	05/07								
T-854	05/07	X	X			X	X	X	
T-891	05/07	X	X			X	X		

T-803 - SNOW REMOVAL (05/07)

803.01 Description

This Section provides for removal of snow from roads to facilitate logging operations and safe use.

803.02 Maintenance Requirements

(1) Erect signs required by the Sign Plan in the SUPPLEMENTAL SPECIFICATIONS.

(2) Perform work in a manner to preserve and protect roads and appurtenances, and prevent erosion damage to roads, streams, and other Forest values.

(3) Do not undercut banks. Do not blade gravel or other surfacing material off the road.

(4) Keep roadbed drainage ditches, drain dips, and culverts functional when needed during operations and upon completion of operations.

(5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width.

(6) Space, construct, and maintain drainage holes in the dike of snow or berm caused by snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills.

(7) Close roads to wheeled vehicles at times and in the manner specified in C(T)5.12 or the Road Rules document.

(8) Upon seasonal completion of Purchaser's Operations, effectively block the road by a snow barricade, unless otherwise approved by the Contracting Officer.

(9) Remove snow for either public access or project use as established in the SUPPLEMENTAL SPECIFICATIONS and meet the following requirements:

(a) Removal for Public Access (Method JU) - Remove snow from all of the traveled way, including turnouts, for safe and efficient use for both timber transportation and the public. Remove intruding windfalls, debris, or slough and slide material for the full width of the traveled way and

deposit out of drainage's at locations designated by the Contracting Officer.

(b) Removal for Project Use (Method TS) - Remove snow from all or part of the traveled way, including sufficient turnouts for safe and efficient use for timber transportation and to protect the road. Remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for timber transportation. Removed materials may be deposited off the traveled way or outside the traveled way at locations designated by the Contracting Officer.

(10) When directed by the Contracting Officer, replace in kind, within sixty (60) days after the start of Normal Operating Season, any surfacing material which has been bladed off the road, unless otherwise agreed. Contracting Officer will notify Purchaser in writing as to the cubic yard equivalent of bladed off material by the start of the normal operating season.

803.03 Equipment

Purchaser may use any type of equipment to remove snow, providing:

a. Type or use of equipment is not restricted in C(T)5.12 or Road Rules document.

b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road.

c. The use of plows or dozers to remove snow requires written approval by the Contracting Officer. Equip plows or dozers with shoes or runners to keep the dozer blade a minimum of 2 inches above the road surface unless otherwise approved by the Contractor Officer.

803.04 Ice Control

Ice control may be performed by Purchaser when approved by the Contracting Officer in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

T-811 BLADING (10/07)

811.01 Description

This work consists of surface blading the traveled way to a condition that facilitates traffic and provides proper drainage. Blading includes shaping the crown or slope of travel way, berms, and drainage dips in accordance with this specification. Compaction is required when shown on the ROAD LISTING.

811.02 Maintenance Requirements

A. Timing - Perform surface blading during the contract period as often as needed to provide conditions stated for the maintenance level of the road.

B. General

1. Blade and shape the existing traveled way and shoulders, including turnouts , to produce a surface which is uniform, consistent to grade, and crowned or cross-sloped as indicated by the character of the existing surface, unless otherwise shown in the ROAD LISTING, to at least ½ inch per 1 foot of width, but not more than ¾ inch per 1 foot of width. Thoroughly loosen surfacing material to no less than 2 inches depth or the depth of potholes or corrugations. Scarification to facilitate cutting to the full depth of potholes or corrugations may be elected, but will be considered incidental to blading. Do not scarify to a depth that will cause contamination of the surfacing.

2. Apply water during blading when sufficient moisture is not present to prevent segregation. Supply, haul, and apply water in accordance with Section T-891.

3. Shape existing native rock or aggregate surfaced drainage dips to divert surface runoff to existing outlet devices, ditches, or discharge locations.

4. Establish a blading pattern which provides a uniform driving surface, retains the surfacing on the roadbed, and provides a thorough mixing of the materials within the completed surface width. Upon final blading, no disturbed rock shall protrude more than 2 inches above the adjacent surface unless otherwise provided in the contract. Remove and place outside the roadbed, material not meeting this dimension so as not to obstruct drainage ways or structures. This material may be scattered off the roadbed if there is free drainage.

5. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
To be filled in by local FS invasive plant specialist, if applicable.

C. Routine Blading

1. Conform to the dimensions SHOWN ON THE DRAWINGS or designated in the SUPPLEMENTAL SPECIFICATIONS upon completion of blading.

2. Shape roadbed width in excess of the dimensions shown only as needed to provide drainage away from the traveled way. Do not remove established grasses and other vegetation from the excess width except as incidental to providing drainage or unless otherwise provided in the contract.

D. Compaction

Roads requiring compaction will be included in the ROAD LISTING. Unless compaction Method B is designated in the ROAD LISTING, all traveled ways requiring compaction may be compacted by Method A. Compaction shall commence immediately following blading.

Compaction methods are:

Compaction Method A: Breaking track while operating equipment on the traveled way.

Compaction Method B: 7-10 ton pneumatic, steel, or equivalent vibratory roller, operated to cover the full width two (2) times.

E. Undercutting - Undercutting roadway back slope is not permitted.

F. Intersections

1. At intersections, blade the roadbeds of side roads which are not closed or restricted from vehicular use to ensure smooth transitions.

2. Signing, cross ditching in the road surface (traveled way), earth berms, or other devices placed to discourage or eliminate use by passenger cars, are field evidence of road closure or restriction. Roads listed for work under Sections T-835, T-836, T-838, or T-839 are considered restricted.

3. Side roads listed for work under this Section are not restricted.

G. Cleaning of Structures - Do not allow materials resulting from work under this Section to remain on or in structures, such as bridges, culverts, cattle guards, or drainage dips.

H. Berms - Maintain existing berms to the condition of adjacent segments. Do not create new berms.

I. Smooth Blading - Smooth blading may be used as an interim measure to remove loose surfacing material from the wheel paths, and store removed materials in a recoverable windrow, until blade processing as described in this section is feasible. Watering will not be required for smooth blading. Accomplish smooth blading without distorting the existing cross-slope or crown of the traveled way. Move and store loose surfacing materials on the high side of super-elevated curves and sections with uniform inslope or outslope. In crowned sections, store the material on either or both sides as elected. Windrow and place stored materials to provide not less than 12 feet of smooth traveled way on one-lane segments, or 20 feet of smooth traveled_way on two-lane segments, or segments with turnouts. Cut holes through windrows, which may collect water on the road, for drainage at least every 500 feet.

T-813 SURFACING (10/07)

813.01 Description

This work consists of placing surface aggregate as DESIGNATED ON THE GROUND, or as ordered by the Contracting Officer. It includes preparing the area, furnishing, hauling, and placing all necessary materials and other work necessary to blend with the
adjacent road cross section.

813.02 Materials

A. Materials will be Government-furnished when stated in the supplemental specifications.

B. Materials furnished by the Purchaser shall conform to the gradation and quality requirements of Section 703 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects FP-03 U.S. Customary Units" and FS supplements to the FP-03.

C. All materials transported onto National Forest System land shall be free of invasive species of concern. Written documentation of methods used to determine the invasive species of concern free status of any and all materials furnished by the Purchaser shall be submitted to the Contracting Officer before transport of any materials onto National Forest System land.

The Contracting Officer shall have 5 days, excluding weekends and Federal holidays, to review the methods and inspect the materials after the required written documentation is provided by the Purchaser. After satisfactory review and inspection or after such 5 day period, the Purchaser may transport the material onto National Forest System land.

Material or methods appropriate for establishing invasive species of concern free status for the particular invasive species of concern are listed below.

Invasive Species of Concern and Acceptable Methods specific to this project:

Invasive Species of Concern	Acceptable Methods
To be filled in by the local FS invasive plant specialist	*To be filled in by the local FS invasive plant specialist*

813.03 Maintenance Requirements

A. Thoroughly loosen the area to be surfaced to a minimum depth of 1 inch prior to placement of aggregate.

B. Mixing and Placing

When scheduled coincidentally with work under Section T-811, and included in the SUPPLEMENTAL SPECIFICATIONS, mix surfacing and existing aggregate with water until a uniform mixture is obtained prior to final shaping and compaction.

Otherwise, spread the material on the prepared area in layers no more than 4 inches in depth. When more than one (1) layer is required, shape and compact each layer before the succeeding layer is placed. Upon completion, the surfacing shall reasonably conform to the adjacent cross section and provide smooth transitions in the road profile.

C. Compaction Methods

Compaction Method A: Breaking track while operating equipment on the traveled way.

Compaction Method B: 7-10 ton pneumatic, steel, or equivalent vibratory roller, operated to cover the full width two (2) times.

Either Method A or B may be used unless Method B is designated in the ROAD LISTING.

T-831 DITCH MAINTENANCE (10/07)

831.01 Description

This Section provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the ROAD LISTING or DESIGNATED ON THE GROUND.

831.02 Maintenance Requirements

A. Maintain ditches by removing rock, soil, wood, and other materials. Maintained ditches shall function to meet the intent of the original design.

B. Undercutting backslopes during removal operations is not permitted.

C. Suitable material up to 4 inches in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.

D. Do not blend material from ditch cleaning operations into aggregate surfaced roads. Do not blade material across aggregate or bituminous surfaced roads, unless approved in writing by the Contracting Officer.

E. Haul material in excess of 831.02 D or subject to 831.02 E to a designated waste area under Section T-832. Remove excess materials temporarily stored on the ditch slope or edge of the shoulder daily.

F. Remove limbs and wood chunks in excess of 12 inches in length or 3 inches in diameter from ditches and place outside the roadway.

G. Clean paved surfaces of all materials resulting from ditch maintenance work.

Shape lead-off ditches to drain away from the traveled way.

Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
NA

T-832 REMOVE AND END HAUL MATERIALS (05/07)

832.01 Description

Work consists of loading, hauling, and placing of slide, slough, or excess materials such as rock, soil, vegetation, and other materials to designated disposal sites.

832.02 Maintenance Requirements

A. Remove, end haul, and dispose of excess materials generated by work under other Sections of this contract.

B. Remove the slide and slough materials in the area extending approximately 6 feet vertically above the road surface and not more than 3 feet down slope from the roadbed. Dispose of material at designated sites as SHOWN ON THE DRAWINGS, identified in SUPPLEMENTAL SPECIFICATIONS, or as ordered by the Contracting Officer. Reshape the slope which generated the slide material as nearly as practical to its original condition by equipment operating from road surface. Reshaping of roadside ditches in slide area shall be in accordance with Section T-831.

C. When approved by the Contracting Officer, fill slumps by compacting selected materials into roadway depressions. Compaction is by Method 2.

D. Place all materials in disposal sites as specified in the SUPPLEMENTAL SPECIFICATIONS, as SHOWN ON THE DRAWINGS, or as ordered by the Contracting Officer.

1. Method 1 - Side Casting and End Dumping. Material may be placed by side casting and end dumping. Where materials include large rocks, provide a solid fill by working smaller pieces and fines into voids. Shape the finished surfaces to drain.

2. Method 2 Layer Placement - Step or roughen surfaces on which materials are to be placed prior to placing any material. Place materials in approximately horizontal layers no more than 12 inches thick. Compact each layer by operating hauling and spreading equipment over the full width of each layer.

E. Repair any damage to existing aggregate or pavement surfaces.

T-834 DRAINAGE STRUCTURE MAINTENANCE (10/07)

834.01 Description

This work consists of cleaning and reconditioning culverts and other drainage structures.

834.02 Maintenance Requirements

A. Clean drainage structures, inlet structures, culverts, catch basins, and outlet channels specified in the SUPPLEMENTAL SPECIFICATIONS. Clean catch basins by removing the material within the area SHOWN ON THE DRAWINGS.

B. Clean the transition from the ditch line to the catch basin a distance of 10 feet from the catch basin. Clean outlet channels and lead-off ditches a distance of 6 feet. Remove and place debris and vegetation so as to not enter the channel or ditch, or obstruct traffic. Haul debris and vegetation to a designated disposal area in accordance with Section T-832.

C. Hydraulic flushing of drainage structures is not allowed unless provided for in the SUPPLEMENTAL SPECIFICATIONS.

D. Cleaning and reconditioning are limited to the first 3 feet of inlet and outlet, determined along the top of the structure. Recondition culvert inlet and outlet by field methods such as jacking out or cutting away damaged metal which obstructs flow. Treat cut edges with a zinc rich coating, in accordance with AASHTO M 36M and ASTM A 849.

E. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

T-836 - MAINTENANCE FOR LIMITED USE (05/07)

836.01 Description

This work consists of making limited use roads passable for joint use by Purchaser and high clearance vehicles, and providing drainage from the traveled way and roadbed.

836.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and water bars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

a. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way and 10 feet turnout widths. Center the usable width on the roadbed or position away from the fill slope.

b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 a. above. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove timber which meets utilization standards or deck at agreed locations.

c. Place all removed materials away from drainages.

d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.

2. Clean and recondition drainage facilities in accordance with: Section T-831 and T-834.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out slope to no more than six percent.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.

2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 10 feet in the area of the slump.

3. Unless the Contractor Officer agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 10 feet usable width. Use removed materials to guide vehicles to
the ramp location or to aid in draining the area.

4. Washouts may be filled with suitable material.

D. Post haul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.

2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.

3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement

T-838 - MAINTENANCE FOR HIGH CLEARANCE VEHICLE USE (05/07)

838.01 Description

This work consists of making limited use roads passable for project use by Purchaser and providing drainage from the traveled way and roadbed.

838.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and water bars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

a. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way and 10 feet turnout widths. Center the usable width on the roadbed or position away from the fill slope.

b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 a. above. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove timber which meets utilization standards or deck at agreed locations.

c. Place all removed materials away from drainages.

d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.

2. Clean and recondition drainage facilities in accordance with: Section T-831 and T-834.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out slope to no more than six percent.

3. Reposition slough or slide materials on the roadbed which are not capable of supporting a vehicle to provide the 12 foot width. When directed by the Contracting Officer, slough or slide material will be removed under Section T-832.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.

2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 10 feet in the area of the slump.

3. Unless the Contractor Officer agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 10 feet usable width. Use removed materials to guide vehicles to
the ramp location or to aid in draining the area.

4. Washouts may be filled with suitable material.

D. Post haul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.

2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.

3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

T-842 CUTTING ROADWAY VEGETATION (10/07)

842.01 Description

This work consists of cutting all vegetative growth, including trees and other vegetation less than 4 inches in diameter measured 6 inches above the ground, on roadway surfaces and roadsides.

842.02 Maintenance Requirements

A. General

1. Cut brush, trees, and other vegetation within each area treated to a maximum height of 6 inches above the ground surface or obstruction such as rocks or existing stumps. When work is performed under this Section, remove all limbs which extend into the treated area, or over the roadbed, to a height of 14 feet above the traveled way surface elevation.

2. Items to remain will be DESIGNATED ON THE GROUND.

3. Work may be performed either by hand or mechanically unless specifically shown in the Road Listing. Self-propelled equipment is not allowed on cut and fill slopes or in ditches.

4. Correct damage to trunks of standing trees caused by Purchaser's operation either by treatment with a commercial nursery sealer or by removing the tree as directed by the Contracting Officer.

5. Limb trees within the cutting limits which are over 4 inches - measured at 6 inches above the ground in lieu of cutting.

6. When trees are limbed, cut limbs within 4 inches of the trunk.

B. Cutting Side Vegetation

1. Show the width of vegetation to be removed in the Road Listing.

2. Unless otherwise included in the SUPPLEMENTAL SPECIFICATIONS or DESIGNATED ON THE GROUND:

a. Commence work at the edge of the traveled way and proceed away from the road centerline.

b. Roads without a defined traveled way: The starting point for cutting will be marked on the ground or defined in the SUPPLEMENTAL SPECIFICATIONS.

3. The points for establishing cutting limits are as follows:

a. Fill and daylighted (wide roadbed) section cutting commences at the edge of the traveled way and proceeds away from the road center line.

b. Drainage ditched section cutting commences at the bottom of the existing ditch and proceeds away from the road center line. Cutting on ditch foreslopes is not required.

c. Unditched cut section cutting commences at the intersection of the cutbank and the roadbed and proceeds away from center line.

4. Provide transitions between differing increments of cutting width. Accomplish transitions in a taper length of not less than 50 feet nor more than 70 feet.

C. Debris

1. Materials resulting from the cutting operation in excess of 12 inches in length or 3 inches in diameter is not allowed to remain on roadway slopes within the treated area, in ditches, or within water courses.

2. Remove limbs and chunks in excess of 3 inches in any dimension from the traveled way and shoulders.

3. Materials may be scattered down slope from the roadbed, outside of the work area and drainages unless otherwise listed in D. Invasive Species of Concern.

D. Invasive Species of Concern

Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
To be filled in by local FS invasive plant specialist, if applicable.

T-851 LOGGING OUT (5/07)

851.01 Description

This work consists of removal of fallen trees and snags which encroach into the roadway or the 3 feet of roadside abutting the roadway on the cut side.

851.02 Maintenance Requirements

A. Limb and remove timber which meets Utilization Standards, or deck at locations designated by the Contracting Officer.

B. Limb other material cut into lengths for handling. Deck outside ditches and drainages, off the traveled way and turnouts or at staked locations. The clearing width is to the edge of the roadway for public use roads, except limited use roads. The clearing width for limited use roads is shown in the specifications.

C. Notwithstanding B(T)2.3, blowdown timber outside Sale Area required to be removed, which meets Utilization Standards in A(T)2, when designated by the Contracting Officer is Included Timber subject to requirements of B(T)2.2.

D. Do not leave woody debris and slash in excess of 12 inches in length or 3 inches in diameter, or concentrations which may plug ditches or culverts, in ditches, drainage channels, or on backslopes, traveled way, shoulders, or turnouts.

T-854 – TREATMENT AND DISPOSAL OF DANGER TREES (5/07)

854.01 Description

This work consists of felling and disposal of designated live or dead danger trees sufficiently tall to reach roads used by the Purchaser. Any removal of logs is subject to prior agreement between the Contractor Officer and the Purchaser.

854.02 Requirements

A. Designation of danger trees.

Danger trees to be felled will be designated in advance by the Contracting Officer. Trees to be removed will be Marked.

B. Falling, bucking and treatment for disposal.

Use controlled felling to ensure the direction of fall and prevent damage to property, structures, roadway, residual trees, and traffic. Stump heights, measured on the side adjacent to the highest ground, must not exceed 12 inches or 1/3 of the stump diameter, whichever is greater. Higher stump heights are permitted when necessary for safety.

Felled snags and trees, which are not Marked for removal, will be left in a stable condition such that they will not roll or slide. Position logs away from standing trees so they will not roll, are not on top of one another, and are located out of roadway and drainage structures.

Fell, limb and, remove trees, which are Marked for removal, that equal or exceed the utilization standards as listed in the Timber Sale contract or SUPPLEMENTAT SPECIFICATIONS. Dispose of merchantable timber designated for removal in accordance with B/BT2.32 Construction Clearing, of the Timber Sale Contract, or as described in SUPPLEMENTAL SPECIFICATIONS.

C. Slash treatment.

Within the roadway, remove limbs, chunks, and debris in excess of 12 inches in length and 3 inches in diameter, and concentrations that may plug ditches or culverts, and water courses.

Dispose of slash by scattering outside the roadway limits without damaging trees, or improvements.

Large accumulations of slash may be ordered hauled under T-832.

T-891 WATER SUPPLY AND WATERING (5/07)

891.01 Description

This work consists of providing facilities to furnish an adequate water supply, hauling and applying water.

891.02 Materials

If the Purchaser elects to provide water from other than designated sources, the Purchaser is responsible to obtain the right to use the water, including any cost for royalties involved.
Suitable and adequate water sources available for Purchaser's use under this contract are designated as follows:

Only sites approved by contracting officer.

891.03 Equipment

A. Positive control of water application is required. Equipment shall provide uniform application of water without ponding or washing.

B. An air gap or positive anti-siphon device shall be provided between the water source and the vehicle being loaded if the vehicle has been used for other than water haul, if the source is a domestic potable water supply, or the water is used for tank mixing with any other materials.

C. The designated water sources may require some work prior to their use. Such work may include cleaning ponded areas, installing temporary weirs or sandbags, pipe repair, pump installation, or other items appropriate to the Purchaser's operations. Flowing streams may be temporarily sandbagged or a weir placed to pond water, provided a minimum flow of 10 cu. ft/sec is maintained. Obtain approval from the Contracting Officer on improvements for sandbags or weirs prior to placement.