



File Code: 2450

Date: August 16, 2013

Dear Prospective Bidder:

The Forest Service will receive technical and price proposals (no public opening) at Okanogan Wenatchee N.F. Supervisor's Office, 215 Melody Lane, Wenatchee, WA no later than 4:30 PM local time on or before September 18, 2013 for the Low Pole Stew Contract. This contract is located in T.27N., R.17E., Sections 3, 10, 14, 15, 34 and T.26N., R.17E., Sections 3, 10, 11, 14, 23, 26 W.M., Surveyed, Chelan County, WA. Contract Form FS-2400-13, will be used. The termination date for this contract is March 31, 2017.

This Stewardship Contract includes the removal of timber and the completion of two restoration service type projects meant to improve ecological conditions within the Okanogan Wenatchee National Forest. Contractor will earn stewardship credits equal to the value of service work completed and accepted that will offset an equal amount of stumpage required to be paid by the contractor.

There are 1.99 miles of specified road reconstruction. A specified road reconstruction cost of \$12,732.74 has been allowed in the appraisal for this work.

Measurement of the estimated quantities will be made after felling. The total estimated quantity on this contract is 71,434 TONS. The Forest Service encourages potential bidders to make their own inspection and estimate prior to bid submission. The Forest Service makes no representation, warranty, or guarantee of the accuracy of the following quantity estimates;

Estimated Quantities and Minimum Acceptable Rates per Unit of Measure

Species	Product	Unit of Measure	Estimated Quantities	Average DBH	Minimum Acceptable Bid Rates	Base Rates	Required Deposits	
							Slash Disposal	Road Maintenance
Douglas-fir	Sawtimber	TON	28,068	11.9	0.27	0.27	0.00	0.19
Grand fir and Other Coniferous Species	Sawtimber	TON	32,324	11.2	0.27	0.27	0.00	0.19
Softwood Other	Grn Bio Cv	TON	11,042		0.27	0.27	0.00	0.19
Required Removal at Fixed Rates								
	TOTAL		71,434					13,572.46



A bid guarantee is not required.

The minimum acceptable bid for advertised timber is \$0.27 per TON for biddable species.

Bidders are required to submit a Bid Price/Best Value proposal for this contract. Contract award will be based on a determination of which proposal constitutes the best value to the Government. Proposals will be submitted in two parts and will include a Technical and a Price Proposal. Details on what to include in the proposals are stated in the Bid Form. Award will be made to the offeror whose offer is both technically acceptable and whose technical/price relationship is the most advantageous to the Government. **The Government may, when in its interest, reject any or all offers or waive any informality in bids received. A written award mailed, or otherwise furnished to the successful Bidder, shall be deemed to result in a binding contract without further action by either party. (ADDED 7-17-08; INFO FROM R5)**

If you wish further information on this contract, the prospectus, solicitation, and the restorative service projects, please write or call the Okanogan Wenatchee Supervisor's Office, 215 Melody Lane, Wenatchee, Washington 98801 or Wenatchee River Ranger District, 600 Sherbourne, Leavenworth, WA. 98826, 509 548 2550, or go to the forests' webpage at "<http://fs.usda.gov/resources/okanoganwenatchee/landmanagement/resourcemanagement>".

Sincerely,



SUSAN RINKE
Contracting Officer

NATIONAL FOREST TIMBER FOR SALE

INTEGRATED RESOURCE TIMBER CONTRACT LOW POLE STEW

OKANOGAN WENATCHEE NATIONAL FOREST

The Low Pole Stew Integrated Resource Timber Contract is located within T.27 N., R.17 E., Sections 3, 10, 11, 14, 15, 34 and T.26 N., R.17 E., Sections 3, 10, 11, 14, 23, 26 W.M. Surveyed, Chelan County WA. The Forest Service will receive technical and price proposals (no public opening) at Okanogan Wenatchee Supervisor's Office, 215 Melody Lane, Wenatchee, WA no later than 4:30 PM local time on or before September 18, 2013 for an estimated 28,068 Tons of Douglas-fir Sawtimber and 32,324 Tons of Grand fir and Other Coniferous Species Sawtimber marked or otherwise designated for cutting. The contract also includes the removal of 11,042 Tons of Grn Bio Cv product that the offeror agrees to remove at a fixed rate. In addition, the contract area contains an estimated volume of 22,093 Tons of Miscellaneous Sawtimber and 1,961 Tons Grn Bio Cv that the offeror may agree to remove. There are two mandatory and restorative service projects to be completed by the Contractor. The contract will be awarded based on a Best Value determination. One award will be made to the Offeror (a) whose proposal is technically acceptable and (b) whose technical/price relationship is the most advantageous to the Government. The Forest Service reserves the right to reject any and all proposals. Interested parties may obtain a prospectus from the office listed below. A prospectus, offer form, and complete information concerning the timber, the restoration service projects, the conditions of sale, and submission of offers is available to the public from the Wenatchee River Ranger District, 600 Sherbourne, Leavenworth, WA 98826). Contract information and bidding documents can be found on the Okanogan Wenatchee National Forest web page "<http://fs.usda.gov/resoures/okanoganwenatchee/landmanagement/resourcemanagement>".

The USDA is an equal opportunity provider and employer.

INTEGRATED RESOURCE TIMBER CONTRACT PROSPECTUS

Stewardship Contract Name :	Low Pole Stew	Type of Contract :	Scaled
National Forest :	Okanogan-Wenatchee	Ranger District :	Wenatchee River
Bidding Method :	Sealed Bid		
Location to Receive Offers :	Supervisor's Office, 215 Melody Lane, Wenatchee, WA		
Date :	09/18/2013	Time :	04:30 PM

1. INTRODUCTION. This prospectus furnishes prospective offerors with information not contained in the published advertisement and is designed to enable offerors to decide whether or not to further investigate this stewardship project. The prospectus is not a legally binding document, but is offered to provide general information about a Stewardship Contract. The prospectus does not include descriptions, estimates, and other data that are contained in the sample contract, unless otherwise stated. In the event that the prospectus contains an error or contradicts the sample contract, the contract governs. Offerors are urged to examine the contract and make their own estimates. Contract 2400-13 will be used. Inspect the contract area and the sample contract before submitting an offer. Obtain the appraisal, other information on the contract and stewardship work items and conditions of offering at Forest Service offices listed above and in the advertisement.

This is a Stewardship End Results Contract authorized by 16 U.S.C. 2104 Note.

2. OFFERING. This is a Sealed Bid Stewardship Contract . Offerors must submit sealed offers on prepared forms they can obtain from Forest Service offices listed above and in the advertisement. The forms include instructions for offering and submission of the required certifications and technical proposals. The term "offer form" in this prospectus is the Bid for Integrated Resource Contract form. Also, the term "offeror" in this prospectus is identified as "offeror" in the Bid for Integrated Resource Contract form. **THE OFFERS WILL NOT BE PUBLICLY OPENED.**

The offeror is required to submit a technical and price proposal and comply with all other provisions stated on the offer form. The proposal should be practical and be prepared simply and economically, providing a straightforward, concise description of the Contractor's ability to meet the requirements of the contract. Upon contract award, this technical proposal will become a binding part of the contract. See Section 21, General for instructions for preparation of technical proposals and evaluation factors for award.

3. LOCATION AND DESCRIPTION OF INTEGRATED RESOURCE TIMBER. Refer to the sample contract and contract area map attached to the sample contract for legal location of contract area, location of subdivisions, location of cutting units, the acreage of contract area, the cutting unit acreage and location of stewardship work activities.

THE FOLLOWING GENERAL LOCATION, ROUTES OF ACCESS, ACREAGES, AND OTHER SPECIAL LOCATION DATA DO NOT SUPERSEDE THE CONTRACT AREA MAP OR SAMPLE CONTRACT.

This contract area is located on the Wenatchee River Ranger District near Fish Lake and Natapoc Mountain. Primary access to the area is by U.S.Hwy 2, S.R. 207, Chiwawa Loop Road, Chiwawa River Road (6200000), Meadow Creek Road (630000) and Pole Ridge Road (6305000). Access to the Natapoc area is by Beaver Valley Highway, to River Road to 6601000 (powerline road). There are 22 subdivisions totaling 713 acres. Subdivision 21,22 (113 acres) and Subdivision 23 (248 acres) will be designation by prescription (DxPre), remaining acres are Leave Tree Mark. Skyline yarding is 22% of the volume, Ground base is 21% and helicopter is 57%. Average diameters of cut trees are 11.9 inches for Douglas-fir, 11.2 for grand fir and 12.8 for ponderosa pine. There is one optional helicopter unit on 248 acres with an estimated 24,054 Tons.

4. QUANTITIES AND RATES. The quality, size, cut per acre, and product suitability of the timber are estimates based on detailed cruise information on file and available for inspection at the Forest Service offices listed above and in the advertisement. VOLUME QUANTITIES LISTED HEREIN ARE MADE AVAILABLE WITH THE UNDERSTANDING THAT VALUES SHOWN ARE FOREST SERVICE ESTIMATES AND ARE NOT GUARANTEED. For these reasons, offerors are urged to examine the contract area and make their own estimates.

Road Construction Costs. The estimated road construction cost has been included in the appraisal as a cost that the Contractor will incur. The Contractor will be responsible for the road construction cost and WILL NOT receive credit towards stumpage costs for this expense, i.e., THIS CONTRACT DOES NOT INCLUDE STEWARDSHIP CREDIT for the construction of specified roads and Contractors should consider the cost of specified road construction when developing their offers.

THE MINIMUM ACCEPTABLE BID RATE FOR THE MANDATORY TIMBER CUTTING UNITS IS STATED IN THE ATTACHED OFFER FORM. THESE RATES ARE EFFECTIVE AT THE TIME OF ADVERTISEMENT.

Mandatory Estimated Quantities and Rates per Unit of Measure

Species	Product	Unit of Measure	Estimated Quantities	Rates Per Unit of Measure			
				Base Rate	Advertised Rate	Additional Deposits for Slash Disposal	Road Maintenance
Mandatory Timber Cutting Units :							
Douglas-fir	Sawtimber	Ton	28,068.00	\$.27	\$0.27	\$0.00	\$0.19
Grand Fir and Other Coniferous Species	Sawtimber	Ton	32,324.00	\$.27	\$0.27	\$0.00	\$0.19
Softwood Other	Grn Bio Cv	Ton	11,042.00	\$.27	\$0.27	\$0.00	\$0.19
TOTAL		Ton	71,434.00			\$0.00	\$13,572.46

Optional Estimated Quantities and Rates per Unit of Measure

Species	Product	Unit of Measure	Estimated Quantities	Rates Per Unit of Measure			
				Base Rate	Advertised Rate	Additional Deposits for Slash Disposal	Road Maintenance
Not Applicable							

Total Value Bidding:

Prospective Contractors must submit bids for the timber portion of the contract in terms of the minimum acceptable total contract value. The Bid for Integrated Resource Contract (FS-2400-14BV) states minimum acceptable bid rates and estimated quantities of timber, together with the minimum acceptable total timber value. The advertised minimum acceptable total timber value is only for the biddable species, as listed on the offer form in the upper section of block 14. It does not include any non-biddable, fixed rate species listed in the middle section of block 14 titled "Only the Fixed Rate Applies." The offeror should enter the offer on the offer form only in terms of the total timber value. The Forest Service shall establish timber bid rates by species in the contract by multiplying each species' minimum acceptable bid rate by the bid increase percentage. Such rates will be rounded to the nearest cent. The bid increase percentage is the offeror's total timber value bid rate divided by the minimum acceptable total timber value. The total amount for stumpage is the volume of each biddable species multiplied by its bid rate, plus the volume of each fixed rate species multiplied by its fixed rate.

If the contract includes optional timber cutting units and offeror elects to bid on those units, bids for optional units are entered on the lower section of block 14. By entering bids for optional timber cutting units on the lower section of the offer form, offeror is agreeing to harvest the optional timber units. Procedures for distributing bid premium are as described in the previous paragraph and total timber value becomes the sum of mandatory and optional timber units.

Timber Subject to Agreement

Species	Product	Unit of Measure	Fixed Rates	Slash Disposal Deposits	Road Maintenance Deposits
Miscellaneous	Sawtimber	Ton	\$0.27	\$0.00	\$0.19
Fuelwood	Grn Bio Cv	Ton	\$0.01	\$0.00	\$0.19
Miscellaneous	Grn Bio Cv	Ton	\$0.27	\$0.00	\$0.19

All of the mandatory stewardship work items, as shown in A.4.3 or AT.4.4 of the sample contract, shall be performed. Optional stewardship work items, as shown in A.4.3 or AT.4.4 of the sample contract, shall be performed when authorized in writing by Contracting Officer. Such authorization may be for all or a portion of the quantity shown. Optional stewardship work items may be selected and authorized in any order. Upon written request of Contractor, additional stewardship work items shall be considered and authorized; however, Contracting Officer shall not be obligated to authorize additional stewardship work items if three or more authorized optional stewardship work items or any of the mandatory stewardship work items remain uncompleted. Contracting Officer shall not be obligated to authorize additional stewardship work items at any time if Contracting Officer determines that there is insufficient value of remaining designated timber to cover the value of additional stewardship work items.

Stewardship Schedule of Work Items			
Item Number (a)	Work Activity Description (b)	Unit of Measure (c)	Estimated Quantity (d)
Mandatory Stewardship Work Items			
001	Tree Marking D x Pre	Acres	113.00
002	6300140 Road Decommission	Miles	.50
Optional Stewardship Work Items			
003	Tree Marking D XPre	Acres	248.00
004	6601210 Road Decommission	Miles	.44
005	6122912 Road Decommission	Miles	.60
006	6602100 Road Decommission	Miles	.70
007	6305315 Road Decommission	Miles	.35
008	6604113 Road Decommission	Miles	.47
009	6305331 Road Decommission	Miles	.76
010	6300137 Road Decommission	Miles	.03
011	6300135 Road Decommission	Miles	.34
012	6202135 Road Decommission	Miles	.19
013	6202140 Road Decommission	Miles	.32

5. PERIOD OF CONTRACT. The normal operating season covers the period between 06/01 and 10/31.

Contract termination date is 03/31/2017. Extensions of this contract may be granted only when the contractor has met specified conditions.

Upon acceptance by the Forest Service, the technical proposal is a binding part of the contract and shall include, but is not limited to, plan periods for and methods of work activities. The Contractor must also submit an annual schedule of operations before commencing operations. This schedule will include the anticipated major activities and needs for harvest. This annual schedule of operations does not require concurrence of the Forest Service.

6. PAYMENT. Payment for timber and any required deposits for slash disposal or road maintenance are required in advance of cutting. Contractor may earn stewardship credits or provide an acceptable payment guarantee prior to cutting. "Stewardship Credits" are credits that are earned and established when work described in K(T)-G(T).9# of the sample contract has been performed and accepted. Stewardship Credits shall be earned at the offer rate as shown in the awarded contract. Earned Stewardship Credits may be used to pay for Included Timber value in excess of Base Rates and Required Deposits. Base Rates and Required Deposits must be paid in cash.

7. PERFORMANCE BOND. Not Applicable.

8. SPECIFIED ROADS. The Forest Service has determined that the following National Forest System roads shall be constructed or paid for, in whole or in part, by the Contractor. Sufficient information to permit a prospective offeror to calculate the likely cost to be incurred for road construction is available at the Forest Supervisor's Office. See the sample contract for verification of specific details and information concerning construction specifications. **CONSTRUCTION ESTIMATES AND INFORMATION CONTAINED HEREIN, TOGETHER WITH RELATED SPECIFICATIONS, ARE NOT GUARANTEED.** The following roads are those that Forest Service considers necessary to remove the timber from this contract.

Road Number	Road Name	Traffic Service Level	Approximate Miles/Kilometers	Estimated Road Construction Cost	Type of Work *
6305331	BEES	D	0.39 / 0.63	\$5,347.33	R
6300140	Low Pole Stew FY 13	D	0.17 / 0.27	\$1,605.23	R
6300131	Low Pole Stew FY13	D	0.32 / 0.51	\$2,988.25	R
6305315	Low Pole Stew FY13	D	0.03 / 0.05	\$218.82	R
6305311	POLE KNOB	D	0.33 / 0.53	\$2,573.11	R

* C = Construction
R = Reconstruction

The required specified road completion date for all roads is 03/15/2017. If provision K(T)-F(T).1.3# - Road Completion Date has different dates for projects, this is the final road completion date.

Total estimated road construction cost allowed in appraisal is \$12,732.74

9. ROAD MAINTENANCE. Contractor shall perform or pay for road maintenance work, commensurate with Contractor's use, on roads controlled by Forest Service, and used by Contractor in connection with this contract. Road maintenance requirements are based on the predicted haul route. Any change in the Contractor's actual haul route may necessitate a change in the roads to be maintained and/or in the amount of required deposit for road maintenance. Required deposits for road maintenance are listed in provision K(T)-F(T).3.2# in the sample contract. Maintenance specifications are in the sample contract.

10. INAPPLICABLE STANDARD PROVISIONS. See sample contract.

11. SPECIAL PROVISIONS. See sample contract.

12. SET-ASIDE CONTRACTS. Not Applicable.

13. LOG EXPORT AND SUBSTITUTION RESTRICTIONS. The contract requires domestic processing of included timber except for species declared to be surplus, and prohibits the use of such included timber in substitution for unprocessed private timber exported. The offeror, by signing the offer for advertised timber, certifies compliance with the applicable prohibitions against export and substitution prescribed in the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 U.S.C. 620, et seq.) with each offer.

14. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE REVIEW. If the total contract value for this contract exceeds \$10 million, before award, the Forest Service shall request an equal employment opportunity compliance review of the Contractor to determine compliance with the provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967 and Executive Order No. 12086 of October 5, 1978.

15. AWARD. The Contracting Officer is required to make a determination of Contractor responsibility as stated in Title 36, Section 223.101, of the Code of Federal Regulations.

To determine a Contractor to be responsible, a Contracting Officer must find that:

- a. The Contractor has adequate financial resources to perform the contract or the ability to obtain them;
- b. The Contractor is able to perform the contract within the contract term taking into consideration all existing contracts and Governmental business commitments;
- c. The Contractor has a satisfactory performance record on similar type contracts. A prospective Contractor that is or recently has been seriously deficient in contract performance shall be presumed not to be responsible, unless the Contracting Officer determines that the circumstances were beyond the Contractor's control and were not created through improper actions by the Contractor or affiliate, or that the Contractor has taken appropriate corrective action. Past failure to apply sufficient tenacity and perseverance to perform acceptably under a contract is strong evidence that a Contractor is not responsible. The Contracting Officer shall consider the number of contracts involved and extent of deficiency of each in

making this evaluation;

- d. The Contractor has a satisfactory record of integrity and business ethics;
- e. The Contractor has or is able to obtain equipment and supplies suitable for completing the requirements of the contract;
- f. The Contractor is otherwise qualified and eligible to receive an award under applicable laws and regulations.

Offerors, by signing the offer form, certify that, to the best of offeror's knowledge, the offeror will meet the requirements in 36 CFR 223.101, determination of Contractor responsibility, and if awarded this contract, that offeror will complete the contract and any modifications thereof in accordance with its terms including requirements to purchase, cut, and remove included timber or forest products and complete stewardship projects by the termination date.

16. FALSE STATEMENTS ACT. Offerors, by signing the offer form, certify that they are aware that offeror is subject to the penalties prescribed in 18 U.S.C. 1001, Chapter 47, Fraud and False Statements (P.L. 104-45). The Act states "whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined under this title or imprisoned not more than 5 years, or both."

17. DAMAGES. This contract shall be terminated for breach if: 1) Contractor fails to execute this stewardship contract or furnish a satisfactory performance bond by the date required in the award letter, if required; or 2) offeror is found to have violated the False Statements Act in making any statement or certification on the offer form including not meeting responsibility requirements, and offeror has made a false statement.

18. SUSPENSION AND DEBARMENT CERTIFICATION. Non-procurement debarments and suspensions are governed by the Government-wide common rules (7 CFR 3017).

These rules require each contractor, to submit a certification for itself, its principals, and its affiliates when submitting an offer on stewardship contracts. The offeror must designate its status regarding debarment, suspension, and other matters as specified on the offer form. The offeror, by signing the offer, certifies this status. An explanation for not submitting a certification may be submitted. The Contracting Officer will determine whether the explanation provides sufficient reason for permitting participation in the competition. Also, as a Contractor enters into transactions with subcontractors, these subcontractors must certify their eligibility. The certification titled "Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion" must be provided to subcontractors, but completed certifications are not required to be submitted with the offer. Contractor must keep these subcontractor certification forms on file for review by the Forest Service, if requested.

The certification forms and instructions for subcontractors transactions are provided as an addendum to the offer form.

19. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. Conduct of operations on this contract is subject to compliance with all OSHA requirements related to the various work activities. Inspection by OSHA may include inspection for compliance with the logging operations regulations at 29 CFR 1910.266. This standard is applicable to the entire logging industry wherever logging operations occur. Information is available to assist Contractors to ensure compliance with the logging operations regulations during conduct of this contract from the U.S. Department of Labor, Occupational Safety and Health Administration, OSHA, 505 106th Avenue NE, Suite 302, Bellevue, Washington 98004, (425) 450-5480.

20. GENERAL.

This sale is subject to the Washington State Excise Tax. For information, contact the WA State Dept. of Revenue, Olympia, WA, 800-548-8829.

CONTRACT TERMINATION: Included in the contract are standard provisions I.3.4 and I.3.5 which limit the United States liability in the event of a contract cancellation to protect endangered or sensitive species.

EQUIPMENT CLEANING: Contractor is required to clean all off-road equipment to be free of invasive species of concern prior to bringing the equipment onto the contract area. Refer to standard provision G.3.5.

OPERATIONS: This sale has seasonal operating restriction requirements. No operations shall occur during SAP FLOW from April 15 to June 1 Subdivisions 1,2,3,4,5,7,8,9,10,11,12: No helicopter logging in Subdivisions 13,14,15,16,17,18,19 from February 1 to August 31 Eagle

Nesting : No Helicopter logging in Subdivision 23 within 1/4 mile of goshawk nest site from March 1 until August 31; For Subdivisions 21, 22 NO Helicopter Logging within 1/2 mile of residences before 0700 on weekdays or 0800 on weekends, helicopter logging prohibited on Memorial Day, 4th of July, Labor Day, Thanksgiving, Christmas and New Years. Special provision K-G.3.1.5#.

OPERATIONS: Directional felling of trees is required away from private land in Payment Units 11,12,13,14,15,16,17,18,19; away from ATP on Contract Area Map; toward angle of yarding or skidding; away from areas designated on the Contract Area Map for Streamcourse Protection; away from Sensitive Plant site in Subdivision 23. Refer to special provision K-G.4.1#.

SLASH: This contract includes slash disposal requirements. Refer to special provision K-G.7.4.2#.

There will be a PRE BID meeting on August 22, 2013 at 10:00 AM at the Wenatchee River Ranger District to discuss the contract, or for a field trip to the sale area to review any units on the ground. Please RSVP to Michelle Satterfiled at 509 548 2578 or Ray Ward at 509 548 2609 if you plan to attend.

TIMBER SUBJECT TO AGREEMENT: Subdivision 23 is Timber Subject To Agreement, unit is 248 acres of helicopter yarding and contains an estimated volume of 22,093 tons of Miscellaneous sawtimber and 1,961 tons of Grn Bio Cv product. Final utilization specifications will be determined as part of the agreement to include the removal of the material in the contract. K-C.1.1#.

OFFEROR REQUIREMENTS: The offer form contains offeror certification requirements which must be met or your offer will be declared non-responsive. Each offeror must enter their tax identification number (Social Security Number if offeror does not have a Tax ID) on the offer form in the block provided. All personnel information is requested on a voluntary basis. However, if not provided, your offer will not be accepted and the sale will not be awarded to you.

Contractor shall Subsoil and Seed Temporary Roads, Landings and Skid Trails to a depth of 20 inches, K-G.6.0#, seed will be provided by Forest Service, K-F.1.0.1#.

The Government may, when in its interest, reject any or all offers or waive any informality in bids received. A written award mailed or otherwise furnished to the successful Bidder, shall be deemed to result in a binding contract without further action by either party.

Notice - Special Provision K-G.8.5.1 Weight of Lost Loads (06/13) is a new provision that is part of this contract. Prospective Offeror's are encouraged to read the provision prior to submitting Technical and Price Proposals.

Specific subdivisions volumes can be found in the cruise summary which is available at the Wenatchee River Ranger District office in Leavenworth.

\$15 per load will be charged for processing scaling tickets by the Forest Service unless the Contractor elects a Third Party to perform these services.

Corporations submitting an offer under this solicitation must include form AD-3030-FS Representations Regarding Felony Conviction and Tax Delinquent Status For Corporate Applicants.

This award is subject to the provisions contained in the Consolidated Appropriations Act, 2012 P.L. No 112-74, Division E, Sections 433 and 434 regarding corporate felony convictions and corporate federal tax delinquencies. Complete and return the enclosed form AD-3031-FS with the signed copies of the contract.

The Technical Proposal submitted shall not exceed 30 pages.

Contractors are to disregard the following sections: INSTRUCTIONS FOR THE PREPARATION OF TECHNICAL AND PRICE PROPOSALS; EVALUATION, NEGOTIATIONS, AND AWARD PROCESS; and Evaluation Criteria. Contractors are to refer to the Region 6 Technical Proposal Template for instructions and information on completing Technical and Price Proposals.

The successful offeror shall register in the Central Contractor Registration (CCR) at www.ccr.gov.

INSTRUCTIONS FOR THE PREPARATION OF TECHNICAL AND PRICE PROPOSALS

(a) General Instructions. Proposals submitted shall be furnished in the following format with the numbers of copies as specified below.

(1) - The proposal must include a technical proposal and price proposal. Each of the parts shall be separate and complete so that evaluation of one may be accomplished independently from evaluation of the other. The technical proposal must not contain reference to cost.

(2) - Offerors may, at their discretion, submit alternate proposals or proposals which deviate from the requirement; provided, that an offeror also submit a proposal for performance of the work as specified in the statement of work. Any "alternate" proposal may be considered if overall performance would be improved or not compromised, and if it is in the best interest of the Government. Alternate proposals, or deviations from any requirement of this Request for Proposal (RFP), must be clearly identified.

OR

(2) Offerors must submit a proposal that meets all requirements specified in the sample contract. No alternate proposals will be accepted.

(3) - The Government will evaluate proposals in accordance with the evaluation criteria set forth below.

(4) - Offerors shall submit their proposal(s) in the following format and the quantities specified:

(i.) One copy of the completed, signed offer form FS-2400-14BV or FS-2400-14BVU provided by the Forest Service for this contract.

(ii.) Three copies of the technical proposal.

(iii.) One copy of the business/cost proposal.

(b) Technical Proposal Instructions. Technical proposals will be evaluated to determine the ability of the Contractor to meet the requirements of the Government. As a minimum, the proposal must clearly provide the following: See the attached Technical Proposal Form for the Evaluation Factors and Subfactors.

EVALUATION, NEGOTIATION AND AWARD PROCESS

Proposals will be evaluated and rated to determine which offerors are within a competitive range, price and other factors considered. Award may be made without further negotiations. Proposals should be submitted initially on the most favorable terms that the offeror can submit to the Government, from both price and technical standpoints. However the Government may, after evaluation of proposals, conduct further oral or written discussions as appropriate, with all offerors whose proposals are within a competitive range. Proposals that do not address one or more criteria or subfactors, may not be considered further for award.

Firms lacking a past performance record (e.g., new firms or those with no relevant experience within their organization) will be treated as an unknown performance risk, receiving a neutral score in this criteria. A neutral score will be established as the average of all other competing offerors, or the average of the total score available, whichever is less.

EVALUATION CRITERIA

The evaluation factors for this contract and their relative importance are listed below in descending order of priority. All subfactors within a factor are equal in weight.

<u>Factor</u>	<u>Approximate Weight</u>
A. Price	0%
B. Technical Approach	0%
1. Plan of Operations	
2. Quality Control	
3. Contract Manager and On-the-Ground Supervisor(s)	
4. Equipment	
5. Production Capability	
C. Capability and Past Performance	0%
1. Key Personnel	
2. Subcontractors	
3. Past Contacts	
D. Utilization of Local Workforce	0%
E. Other	100%

Award Statement. One award will be made to the offeror (a) whose proposal is technically acceptable and (b) whose technical/price relationship is the most advantageous to the Government. All technical evaluation factors (B-D), when combined, are approximately equal to price (A). The critical factor in making any technical/price trade-off is not the spread between the technical ratings, but rather the significance of that difference. The significance of the spread in ratings will be determined on the basis of what that difference might mean in terms of performance and what it would cost the Government to take advantage of it. Award may not necessarily be made for technical capabilities that would appear to exceed those needed for fulfilling the requirements of this contract. The Government reserves the right to make cost/technical trade-offs that are in the best interest and to the advantage of the Government.

Price proposals will not be scored.

POSTAWARD DEBRIEFING OF OFFERORS

- (a) (1) An offeror, upon its written request received by the agency within 3 days after the date on which that offeror has received notification of contract award in shall be debriefed and furnished the basis for the selection decision and contract award.
- (2) To the maximum extent practicable, the debriefing should occur within 5 days after receipt of the written request.
- (3) An offeror that was notified of exclusion from the competition, but failed to submit a timely request, is not entitled to a debriefing.
- (4) (i) Untimely debriefing requests may be accommodated.
- (ii) Government accommodation of a request for delayed debriefing, or any untimely debriefing request, does not automatically extend the deadlines for filing protests. Debriefings delayed could affect the timeliness of any protest filed subsequent to the debriefing.
- (b) Debriefings of successful and unsuccessful offerors may be done orally, in writing, or by any other method acceptable to the Contracting Officer.
- (c) The Contracting Officer should normally chair any debriefing session held. Individuals who conducted the evaluations shall provide support.
- (d) At a minimum, the debriefing information shall include-
- (1) The Government's evaluation of the significant weaknesses or deficiencies in the offeror's proposal, if applicable;
 - (2) The overall evaluated cost or price (including unit prices) and technical rating, if applicable, of the successful offeror and the debriefed offeror, and past performance information on the debriefed offeror;
 - (3) The overall ranking of all offerors, when any ranking was developed by the agency during the source selection;
 - (4) A summary of the rationale for award;
 - (5) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror; and
 - (6) Reasonable responses to relevant questions about whether source selection procedures contained in the solicitation, applicable regulations, and other applicable authorities were followed.
- (e) The debriefing shall not include point-by-point comparisons of the debriefed offeror's proposal with those of other offerors. Moreover, the debriefing shall not reveal any information prohibited from disclosure by Federal Acquisitions Regulations 24.202 or exempt from release under the Freedom of Information Act (5 U.S.C. 552) including-
- (1) Trade secrets;
 - (2) Privileged or confidential manufacturing processes and techniques;
 - (3) Commercial and financial information that is privileged or confidential, including cost breakdowns, profit, indirect cost rates, and similar information; and
 - (4) The names of individuals providing reference information about an offeror's past performance.
- (f) An official summary of the debriefing shall be included in the contract file.

See A.4.3 and K-G.9# in the sample contract for more information.

PROJECT #	Mandatory	Unit of Measure	Quantity
001	Tree Marking DxPre	Acres	113
002	6300140 Road Decommission	Miles	0.5
	<u>Optional</u>		
003	Tree Marking DxPre	Acres	248
004	6602210 Road Decommission	Miles	0.44
005	6122912 Road Decommission	Miles	0.60
006	6602100 Road Decommission	Miles	0.70
007	6305315 Road Decommission	Miles	0.35
008	6604113 Road Decommission	Miles	0.47
009	6305331 Road Decommission	Miles	0.76
010	6300137 Road Decommission	Miles	0.03
011	6300135 Road Decommission	Miles	0.34
012	6202135 Road Decommission	Miles	0.19
013	6202140 Road Decommission	Miles	0.32

Table of Restricted Operating Periods Applicable to Timber Removal

Restriction	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sap Flow				x	x	x						
Eagle Nest		x	x	x	x	x	x	x				
Goshawk			x	x	x	x	x	x				

Refer to contract provisions K-G.3.5.1#, K-G.4.1#, K-G.4.2# in the sample contract for specific requirements.

Contractors are requested to submit the following documents with their proposal:

Item Description	Number of Copies
Offer Form FS-2400-14BV signed by contractor	1
Technical Proposal	5

LOGGING SYSTEM SUMMARY - Low Pole Stewardship Contract

SUBDIVISION B.1	Acres	Logging System	Remarks
01	40	Grd Base	LTM
02	35	Grd Base	LTM
03	15	Grd Base	LTM
04	18	Skyline	LTM
05	10	Grd Base	LTM
06	48	Helicopter	LTM
07	91	Skyline	LTM
08	22	Grd Base	LTM
09	10	Grd Base	LTM
10	26	Skyline	LTM
11	22	Skyline	LTM
12	20	Grd Base	LTM
13	61	Helicopter	LTM
14	8	Helicopter	LTM
15	3	Helicopter	LTM
16	10	Helicopter	LTM
17	4	Helicopter	LTM
18	12	Helicopter	LTM
19	15	Helicopter	LTM
20	130	Helicopter	LTM
21	90	Helicopter	DxPre
22	23	Helicopter	DxPre

The above listed logging systems were used by the Forest Service in calculating the stump to truck cost in the appraisal. The above listed logging systems are not required by the contract. However, the contractor is to include logging systems and yarding methods that will meet the end results as part of their Technical Proposal.

USDA - FOREST SERVICE
Stewardship: Y

REPORT OF TIMBER SALE
APPRAISAL SUMMARY CCF

R6-ES-2400-17 (04/10)
Version 1331 (TEA 07-13)

Region: 06
Forest: 17 Okanogan-Wenatchee
District: 07 Wenatchee River
Salvage: N

Sale Name: LOW POLE STEW
Sale Number: 14701
Appraise to: SNOHOMISH, WA
Appraiser: RFWARD

Appraisal Date: 08/12/13
Base Period Ending: 06/30/13
Competition Factor: 10%
Essential KV Cost: 0

	1	2	3	4	5	6	7	Average	Total
SELLING PRICES									
1. Species	D-fir	Gr Fir	GBCVNS						
2. Species Code	204	17	2						
3. Product/Unit	01-03	02-03	20-03						
4. Volume	9,143	9,422	3,289						21,854
5. Base Period Price	46.21	33.94*	64.00*					43.60	
6. Base Period Index	197.62	190.24	78.00					176.44	
7. Current Index	197.62	190.24	78.00					176.44	
8. Rapid Market Adj	5.20	5.20						4.42	
9. Market Adj BP Price	51.41	39.14	64.00					48.01	
10. Unusual Adjustment									
11. GBCV-Nonsaw Adj				-171.52				-25.81	
12. Product Quality Adj									
13. Adj Base Period Price	51.41	39.14	-107.52					22.20	485,185.43

	Zone Avg Cost/UM	Est Sale Cost/UM	Adj to BP Cost	ROADS	Km	Miles	Cost
COSTS							
14. Stump to Truck	105.55	146.00	-40.45	Specified Road Con	3.20	1.99	17,924
15. Haul/Scale	55.30	64.61	-9.31	Specified Road Rec	2.14	1.33	34,676
16. Road Maintenance	4.82	4.48	-.34	Temporary Road Con		114	
17. Contract	5.36	1.67	3.69	Haul Miles			
18. Development & Other	.49	1.59	-1.10				
19. Road Const & Recon		.82	-.82				
20. Total (lines 14-19)	171.52	219.17	-47.65	DEPOSITS:			
				Br Disp/UM		Rd Mtc/UM	C(T)5.213#
							.62

	1	2	3	4	5	6	7	Average	Total
ADVERTISED RATES									
21. Predicted Bid Rate	3.76	-8.51	-155.17					-25.45	-556,157.67
22. Competition Adjustment	.38	-.85	-15.52					-2.54	-55,579.64
23. Property Value	3.38	-7.66	-139.65					-22.91	-500,578.03
24. Indicated Adv Rate	1.00	1.00	.25					.89	19,387.25
25. Base Rate	-2.38	8.66	139.90					23.80	519,965.28
26. Adjustment	1.00	1.00	.25					.89	19,387.25
27. Advertised Rate									

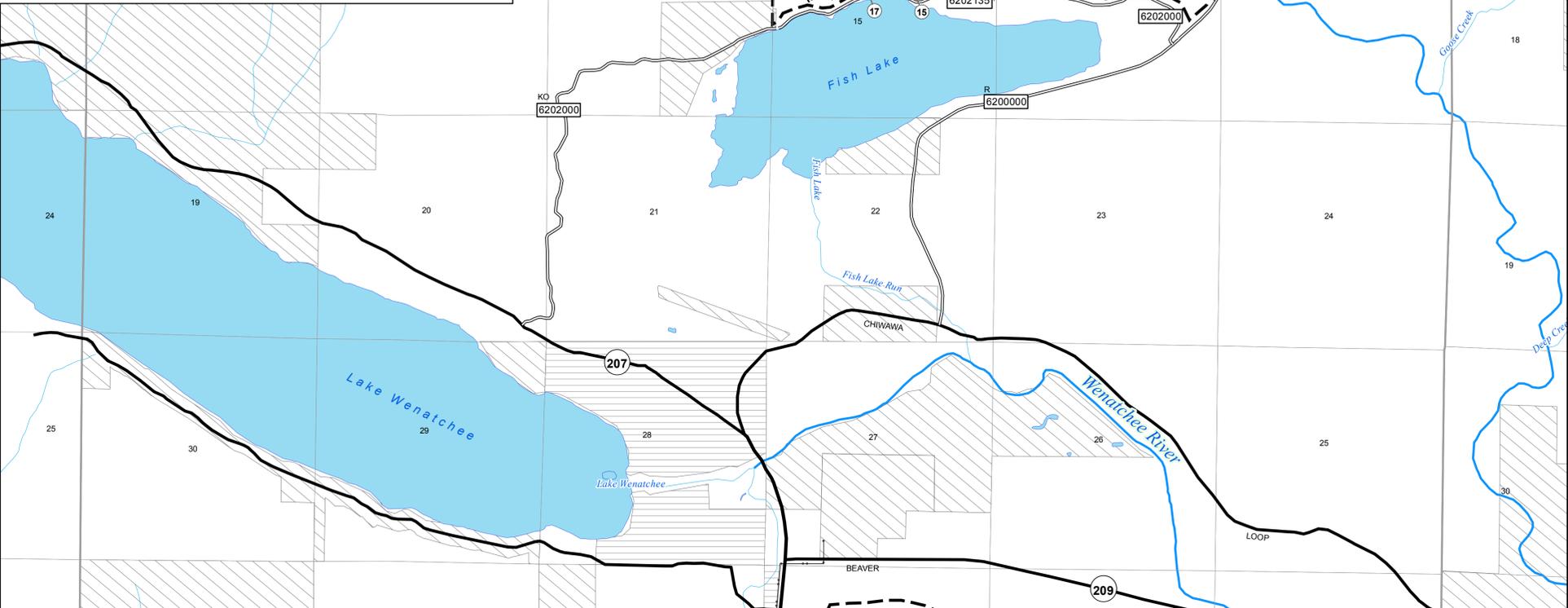
CCF to MBF Rate Factors: 1.8606 2.2589
 CCF to MBF Volume Factors: .5375 .4427
 MBF to CCF Index Factors: .52 .52
 CCF Base Index for A(T)5a: 199.52C 192.07C
 CCF Wtd Avg Del Log Price: 288.94 224.87
 MBF Volume: 4,914 5,046 1,456
 Total Tons Removed: 28,068 32,325 11,040
 Net CCF to Tons Conversion Factor for C8.3#(Option 1) or K-I.3.1#:

3.2686 DEPOSITS/Ton BD: RM: .19

Subdivision B.1	Acres	Restrictions K-G.3.1.5# K-G.4.1# K-G.4.2#	Harvest Methods K-G.4.2#	Timber Designation K-C.3.5.5# K-C.3.5.7#
1	40	LTA, SAP, DF		LTM
2	35	LTA, SAP, DF		LTM
3	15	LTA, SAP, DF		ITM
4	18	LTA, SAP, DF		LTM
5	10	LTA, SAP, DF		LTM
6	48		Helicopter	LTM
7	91	LTA, SAP, DF		LTM
8	22	LTA, SAP, DF		LTM
9	32	LTA, SAP, DF		LTM
10	26	LTA, SAP, DF		LTM
11	22	LTA, SAP, DF		LTM
12	20	LTA, SAP, DF		LTM
13	61	DF	Helicopter	LTM
14	8	EAGLE, DF	Helicopter	LTM
15	3	EAGLE, DF	Helicopter	LTM
16	10	EAGLE, DF	Helicopter	LTM
17	4	EAGLE, DF	Helicopter	LTM
18	12	EAGLE, DF	Helicopter	LTM
19	15	EAGLE, DF	Helicopter	LTM
20	130		Helicopter	LTM
21	90	NOISE	Helicopter	D X Pre
22	23	NOISE	Helicopter	D x Pre
23 - Timber Subject To Agreement, K-C.1.1#	248	GOSHAWK, DF	Helicopter	D x Pre



T. 27 N.



T. 26 N.

**CONTRACT AREA MAP
LOW POLE STEW
WENATCHEE RIVER RANGER DISTRICT
OKANOGAN WENATCHEE NATIONAL FOREST**

**T27N.,R17E., Sections 3, 10, 11, 14, 15, 34
T26N.,R17E., Sections 3, 10, 11, 14, 23, 26**

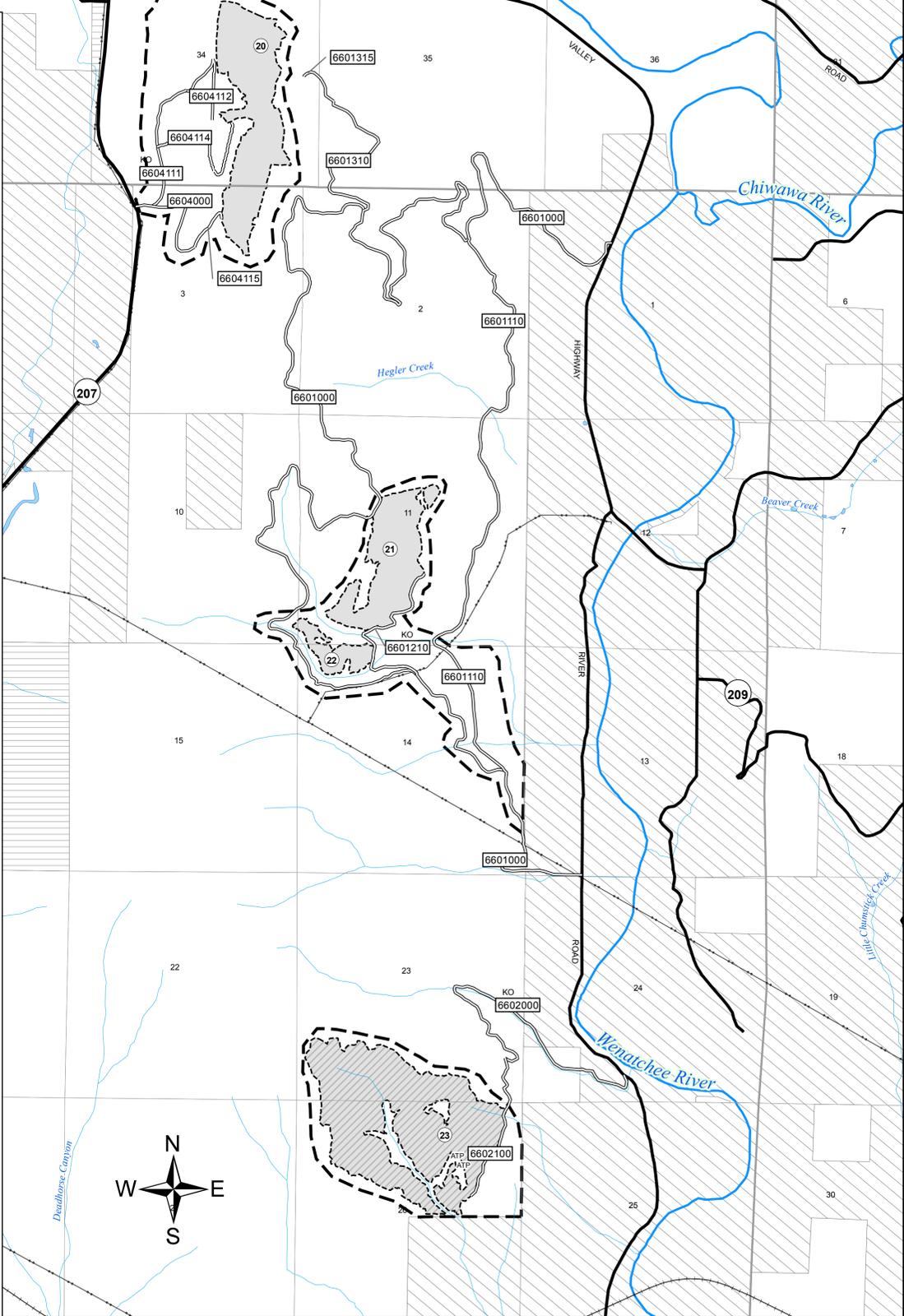
Legend

- Contract Area boundary, B.1
- Subdivision Boundary, B.1, C.3
- Timber Subject To Agreement, A.2, K-C.1.1#
- Subdivision Number, B.1, K-G.#9
- LTM Leave Trees Marked, C.3, K-C.3.5.7#
- LTA Leave Tops and Limbs Attached to Logs and Skid/Yard to Landings, K-G.4.2#
- H Helicopter Logging Required, K-G.4.2#
- DF Specific Requirements, K-G.4.1#
- ATP Area To Protect, B.1, K-G.4.1#
- Protect Known Survey Monuments, G 2.3
- Reserve Trees, K-C.3#, K-G.3.2.#
- Streamcourse Protection, G.5
- D Road to be Decommissioned, A.4.3, K-G.9# (ATTACHMENT A)
- Road Reconstruction Specified, A.7, F.2, K-F.1.2#
- KO Keep Road Open, G.2.2
- R Road Restriction, K-F.1.2#
- Existing Transportation System and Road Number, F.1.2, K-F.1.2#, K-F.3.1#
- Private Property
- Washington State Land

NOTES:
Contractor shall subsoil and seed Temporary Roads, Landings and, Skid Trails to a depth of 20 inches, K-G.6.0.#, K-F.1.0.1#

Contractor will Hand Pile logging slash within 100 feet of private property boundary in Subdivisions 11, 12, 13, 14, 15, 16, 17, 18, 19, K-G.7.4.2#(Option 2).

Contractor will Machine Pile landings and temporary road slash K-G.7.4.2#(Option 2)



SOLICITATION AND OFFER FOR INTEGRATED RESOURCE CONTRACT									
1. TIM ID: 14701		2. Date and Time for Receipt of Offers: 09/18/2013 04:30 PM			3. Opened By:			4. In the Presence of:	
5. Contract Name: Low Pole Stew									
6. National Forest: Okanogan-Wenatchee				7. Ranger District: Wenatchee River			8. Type of Offer: Best Value		
9. To: (Title and address of Contracting Officer receiving offers) Supervisor's Office Okanogan Wenatchee N.F. Contracting Officer 215 Melody Lane Wenatchee, WA 98826					10. Name of Newspaper: Wenatchee World			11. Date Published: 08/16/2013	
					12. City: Wenatchee			13. State: Washington	
					<p>INSTRUCTIONS TO CONTRACTING OFFICER: Verify that TIM has completed applicable blanks before sending to prospective Offerors. Attach copy of contract solicitation. Entries are required in blocks 1; 2; 5-7; 9-13; 14a, b, c, d, e, f, h, l, j & k; 15a, b, c, & d; 19; and 24; and instructions 2, 5, and 10 for all contracts. Strike out spaces for entries in one or more of columns 14e, g, h or i, if not applicable to the contract.</p> <p>*****In Response to the Notice of Integrated Resource Contract published in the newspaper specified above, and subject to the conditions attached hereto, the following offer is submitted and shall constitute a Firm Offer:*****</p>				
14. Timber Offer Information:				Rates Per Unit of Measure					
Species (a)	Product (b)	Unit of Measure (c)	Estimated Quantity (d)	Base Rate (e)	Advertised Rate (f)	Total Offer (g)	Additional Deposits for Slash Disposal (h)	Base Indices (i)	
Mandatory Timber Cutting Units									
Douglas-fir	Sawtimber	Ton	28,068.00	\$0.27	\$0.27	*/////////	\$0.00	N/A	
Grand Fir and Other Coniferous Species	Sawtimber	Ton	32,324.00	\$0.27	\$0.27	*/////////	\$0.00	N/A	
Softwood Other	Grn Bio Cv	Ton	11,042.00	\$0.27	\$0.27	*/////////	\$0.00	N/A	
Minimum Acceptable Total Offer for Mandatory Timber Cutting Units, 14(i)							\$ 19,287.18		
Offeror's Total Offer for Mandatory Timber Cutting Units, 14(g) 1/							\$		
1/ Total Value Offering: Forest Service to determine proportionate rates for Species and Products.									
Only the Fixed Rate Applies.							Fixed Rate		
Not Applicable									
Optional Timber Cutting Units (Offering Optional):									
Not Applicable									
Minimum Acceptable Total Offer for Optional Cutting Units 14(k)							\$ 0.00		
Offeror's Total Offer for Optional Timber Cutting Units, 14(l) 1/							\$		
1/ Total Value Offering: Forest Service to determine proportionate rates for Species and Products.									

15. Stewardship Project Offer Information:					
Project Number (a)	Project Description (b)	Unit of Measure (c)	Estimated Quantity (d)	Rate per Unit (e)	Total Offer (d) x (e) (f)
Mandatory Stewardship Projects - Offeror must complete columns (e) and (f):					
001	Tree Marking D x Pre	Acres	113.00		
002	6300140 Road Decommission	Miles	0.50		
Optional Stewardship Projects (Offering Mandatory) - Offeror must complete columns (e) and (f):					
003	Tree Marking D XPre	Acres	248.00		
004	6601210 Road Decommission	Miles	0.44		
005	6122912 Road Decommission	Miles	0.60		
006	6602100 Road Decommission	Miles	0.70		
007	6305315 Road Decommission	Miles	0.35		
008	6604113 Road Decommission	Miles	0.47		
009	6305331 Road Decommission	Miles	0.76		
010	6300137 Road Decommission	Miles	0.03		
011	6300135 Road Decommission	Miles	0.34		
012	6202135 Road Decommission	Miles	0.19		
013	6202140 Road Decommission	Miles	0.32		

16. OFFEROR RESPONSIBILITY CERTIFICATION: Subject to the penalties prescribed in 18 USC 1001, Offeror certifies, by signing this offer form, that to the best of Offeror's knowledge that the following representations are accurate and complete:

a. That the Offeror has not employed or retained any company or person (other than a full-time bona fide employee working solely for the Offeror) to solicit or secure this contract.

b. That the Offeror has not paid or agreed to pay any company or person (other than a full-time bona fide employee working solely for the Offeror) any fee, commission, percentage, or brokerage fee, contingent upon or resulting from the award of this contract and agrees to furnish information relating thereto as requested by the Contracting Officer.

c. That the Offeror meets the requirements in 36 CFR 223.101 regarding determination of contractor responsibility.

d. That if awarded this contract that Offeror will complete the contract to its terms and any modifications thereof including requirements to purchase, cut, and remove the included timber or forest products and complete stewardship projects by the termination date.

16a. OFFEROR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS: Subject to the penalties prescribed in 18 USC 1001, Offeror certifies, by signing this offer form, that to the best of Offeror's knowledge that the following representations are accurate and complete.

a. That the Offeror and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from contracts (covered transactions) by any Federal department or agency.

b. That the Offeror and its principals have not within a 3-year period preceding this offer been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

c. That the Offeror and its principals are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph b of this certification.

d. That the Offeror and its principals have not within a 3-year period preceding this offer had one or more public transactions (Federal, State, or local) terminated for breach or default of a contract.

Offerors that cannot certify this block, in whole or in part, shall submit an explanation with their offer. (See instruction 14.)

16b. OFFEROR INFORMATION REQUIREMENTS: Subject to the penalties prescribed in 18 USC 1001, Offeror certifies, by signing this offer form, that to the best of Offeror's knowledge that the following information is accurate.

a. That the Offeror has, has not participated in a previous contract subject to the provision of section 202 of Executive Order 11246 (Non-discrimination in Employment) of 9/24/65, as amended; and that the Offeror has, has not submitted required compliance reports under such previous contracts.

b. That the Offeror together with its affiliates employs the following number of persons and is classified as:
 1-25 26-500 Over 500 and a: Manufacturer Nonmanufacturer of sawtimber

17. CERTIFICATE OF INDEPENDENT PRICE DETERMINATION: Subject to the penalties prescribed in 18 USC 1001, Offeror certifies and represents, by signing this offer form, that the following representations are accurate and complete:

a. By submission of this offer each offeror also certifies, and in the case of a joint offer each party thereto certifies as to its own organization, that in connection with this contract:

(i) The prices in this offer have been arrived at independently, without consultation, communication, or agreement, as to any matter relating to such prices with any other Offeror or with any potential competitor;

(ii) The prices which have been quoted in this offer have not been knowingly disclosed by the Offeror and will not knowingly be disclosed by the Offeror prior to opening of offer, directly or indirectly to any other Offeror or to any potential competitor; and

(iii) No attempt has been made or will be made by the Offeror to induce any other person or firm to submit or not to submit a offer.

b. Each person signing this offer or proposal certifies that:

(i) The Signer is the person in the Offeror's organization responsible within that organization for the decision as to the prices offered herein and that the Signer has not participated, and will not participate, in any action contrary to paragraphs a(i) through a(iii); or

(ii) The Signer is not the person in the Offeror's organization responsible within that organization for the decision as to prices offered herein but that the Signer has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to paragraphs a(i) through a(iii), and as their agent does hereby so certify; and that the Signer has not participated, and will not participate, in any action contrary to paragraphs a(i) through a(iii).

c. An offer will not be considered for award where any portion of paragraph a or b has been deleted or modified. Where these provisions have been deleted or modified, the offer will not be considered for award unless Offeror furnishes with the offer a sworn statement which sets forth in detail the circumstances of the disclosure and the Chief, Forest Service, or the Chief's designee, determines that such disclosure was not made for the purpose of restricting competition.

18. ROAD CONSTRUCTION OPTION:

Not applicable.

19. CONTRACT AND BOND: The Offeror whose offer is accepted will, within 30 days of the award letter's date, or any written extension thereof by the Forest Service, execute a stewardship contract which shall be provided by the Forest Service and be based on the sample contract referenced in the prospectus. Simultaneously, Offeror shall furnish a satisfactory performance bond, in accordance with the provisions of such stewardship contract, in the penal sum as prescribed in the prospectus for this contract, and otherwise complete the process described on this form and pages attached hereto. Offeror agrees that its failure to comply with this paragraph shall result in a termination of this contract for breach under provisions of instruction 6 of the Instructions to Offeror's portion of this form.

20. FIRM OFFER: Subject to the penalties prescribed in 18 USC 1001, the Offeror hereby agrees not to withdraw this offer after the time for receipt of offers. Signing this offer form binds the Offeror to accept award under the terms of the sample contract, this offer form, and any accepted terms from Offeror's proposal, if its offer is accepted within 90 days after time for receipt of offers. The period for acceptance may be extended by written notice from Offeror. If Offeror qualifies as a small business and elects road construction by the Forest Service, then the Offeror agrees that its offer shall remain open through the period stated in the prospectus although that period may exceed 90 days.

If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s). Offerors may submit modifications to their proposals at any time before the time for receipt of offers.

21. TERMS OF OFFER: Offeror certifies and represents that the Offeror has read and understands each and every provision of this offer form (together with any attachments thereto) and the sample contract. The Offeror agrees that it assumes the responsibility to clarify any questions before signing this form. The Offeror agrees that the written provisions of this offer form (together with any attachments), the sample contract, and any accepted terms from Offeror's proposal constitute the entire agreement of the parties until a written contract is executed and neither the offer form (and any attachments), the Offeror's proposal, nor the sample contract can be orally modified. The Offeror expressly adopts the terms of this offer form, the Offeror's proposal, and the sample contract as material parts of the Offeror's offer.

22. DISCLAIMER OF ESTIMATES AND OFFEROR'S WARRANTY OF INSPECTION: Before submitting this offer, the Offeror is advised and cautioned to inspect the contract area, review the requirements of the sample contract, and take other steps as may be reasonably necessary to ascertain the location, estimated quantities, construction requirements and estimates, and operating costs of the offered timber or forest products and stewardship projects. Failure to do so will not relieve the Offeror from responsibility for completing the contract.

The Offeror warrants that this offer is submitted solely on the basis of its examination and inspection of the quality and quantity of the timber or forest products offered for sale and operating costs of stewardship projects to be performed and is based solely on its opinion of the value thereof and its costs of recovery, without any reliance on Forest Service estimates. Offeror further acknowledges that the Forest Service: (a) expressly disclaims any warranty of fitness of timber or forest products for any purpose; (b) offers this timber or forest products, as is, without any warranty of quality (merchantability) or quantity, and (c) expressly disclaims any warranty as to the quantity or quality of timber or forest products sold, except as may be expressly warranted in the sample contract.

The Offeror further holds the Forest Service harmless for any error, mistake, or negligence regarding estimates, except as expressly warranted against in the sample contract.

23. CERTIFICATION OF COMPLIANCE WITH EXPORT AND SUBSTITUTION RESTRICTIONS:

The Offeror certifies, by signing this offer form, that the Offeror is in compliance with applicable prohibitions against export and substitution prescribed in the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.). In Alaska, exports of logs, cord-wood, or primary products derived from included timber may not be transported from Alaska without Regional Forester approval. (See instruction 12.)

24. CERTIFICATION OF NON-AFFILIATION:

Not applicable.

25. CERTIFICATION OF AFFILIATION: The Offeror certifies that a complete listing of Offeror's affiliates who are primarily engaged in the logging of forest products is included with this offer.(Add additional pages if needed. See instructions 6 and 11.):		
Full Name of All Partners & Affiliates (Type or Print)		Tax Identification Number
		When requested by the Contracting Officer, Offeror agrees to furnish the tax identification number of each partner and affiliate listed herein.
Before signing this offer, review the attached instructions to Offerors and fill in the applicable blanks in boxes 14g, 14l, 15e, 15f, 16b, 18, and 25.		
Name of Offeror: (Type or Print)		By: (Signature in ink)
Tax Identification No. :	Title: (Type or Print)	Date:
Business Name Address and Phone Number: (Include Zip Code and Area Code) (Type or Print)		
Public reporting burden for this collection is estimated to be 53 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Under the Paperwork Reduction Act of 1995, an agency shall not conduct or sponsor, and no persons are required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is 0596-0066.		
Deposits will be returned to unsuccessful Offerors by certified mail unless deposits are returned personally.		
<u>Receipt for Returned Deposits:</u>		
Check Number _____ in the amount of \$ _____ dated _____ was returned to _____		
Signature: _____ Date: _____		

INSTRUCTIONS TO OFFERORS

1. OFFEROR'S QUALIFICATIONS: Before an offer is considered for award, the Offeror may be required to submit a technical and price proposal, as described in instruction 2 and comply with all other provisions stated herein. The proposal should be practical and be prepared simply and economically, providing a straightforward, concise delineation of what it is the Offeror will do to satisfy the requirements of the contract. Upon contract award, this technical proposal will become a binding part of this contract.

2. PREPARATION OF PROPOSALS: Offers shall be manually signed, prices entered in block 14g for timber values and blocks 15e and 15f for the cost stewardship projects and all fill-in blocks, 16b, 18, and 25, completed. If erasures or other changes appear on the forms, the person signing the offer must initial each erasure or change.

Proposal Requirements. Proposals shall be submitted in two parts: a technical proposal and a price proposal.

a. Technical Proposal Instructions. The technical proposal will be used to make an evaluation and arrive at a determination as to whether the proposal will meet the requirements of the Government. Therefore, the technical proposal must present sufficient information to reflect a thorough understanding of the requirements and a detailed description of the techniques, procedures, and program for achieving the objectives of the specifications/statement of work. Proposals which merely paraphrase the requirements of the Government's specifications/statement of work, or use phrases such as "will comply" or "standard techniques will be employed" will be considered unacceptable and will not be further considered. The technical proposals will be evaluated and ranked on the basis of the following criteria. As a minimum, the proposal must clearly provide the following:

(i) Technical Approach

I. Describe your plan of operations for both timber harvest and stewardship project work. Include a timeline and the rationale for the work activities identified to ensure all contractual requirements will be completed by the termination date.

II. Describe your quality control plan for both the harvesting and conservation projects.

III. Provide names and resumes for your contract manager and your on-the-ground supervisor(s).

IV. Describe the equipment you propose to use to accomplish this contract, including both harvest and stewardship projects.

V. Define your production capability to accomplish this contract within the contract period.

(ii) Capability and Past Performance

I. Provide a list of the experience of your key personnel who will actually be working on this contract.

II. Identify all subcontractors you propose to use for this contract and the work activities planned for subcontracting. Describe subcontractor's past performance using the criteria identified in (ii)III. If any subcontractors are certified in their area of expertise, provide information as to when, what, and by whom they are certified.

III. Submit a list of similar or related contracts that your firm has completed in the past 3 years. This listing must include the contract type; contract amount or contract size; location, the year completed, the Agency, company or individual contracted with, and a current telephone number.

(iii) Utilization of Local Work Force. Local labor is defined as _____. Identify how you intend to utilize labor, subcontractors, and other workforce from the local area. Additional evaluation preference will be given for the use of labor or subcontractors located closest to the contract area.

b. Price Proposal. All Offerors must furnish a total offer value in Block 14g for the mandatory timber cutting units. If an offer is entered for the optional timber cutting units in Block 14l, timber removal will be required. In addition, Offerors must enter a rate per unit in Block 15e and a total offer in Block 15f for the mandatory and optional stewardship projects.

3. SUBMISSION OF OFFERS: Offers must be submitted to the Contracting Officer, designated by the solicitation as the receiving officer, at or prior to the time for receipt of offers. Such offers must be enclosed in a sealed envelop addressed to the designated receiving officer. The envelop should show on the outside (a) that it is a "Best Value Offer," and (b) the contract name or number, and the date and time of offer closing, as shown by the offer form. Offers received after the time specified on the offer form are late offers. Forest Service Handbook 2409.18, Chapter 60 will govern acceptance of such offers.

4. OPENING OF OFFERS: The competitive proposal does not allow for public opening of offers. The Government may disclose the following information in post-award debriefings to other Offerors: (a) the overall evaluated price and technical rating of the successful Offeror; (b) the overall ranking of all Offerors, when any ranking was developed by the Agency during source selection, (c) a summary of the rationale for award, and (d) for acquisitions of commercial items, the make and model of the item to be delivered by the successful Offeror.

5. EVALUATION OF PROPOSALS AND AWARD OF CONTRACT: One award will be made to the Offeror (a) whose proposal is technically acceptable and (b) whose technical/price relationship is the most advantageous to the Government. All technical evaluation factors including those listed in section 2a(i)-(iii) of these instructions and any additional factors listed in the prospectus when combined, are approximately equal to cost or price. The critical factor in making any technical/price trade-off is not the spread between the technical ratings, but rather the significance of that difference. The significance of the spread in ratings will be determined on the basis of what that difference might mean in terms of performance and what it would cost the Government to take advantage of it. Where technical proposals are determined to be substantially equal, any cost/price advantage to the Government may control award.

Proposals must be submitted initially on the most favorable terms from a technical and price standpoint which the Offeror can submit to the Government. Therefore, the Government reserves the right to award without discussions with the Offerors. However, after receipt of initial offers, written or oral discussions may be conducted with all responsible Offerors whose offers are determined to be in the competitive range. Discussions conducted after receipt of an offer do not constitute a rejection or counteroffer by the Government.

Firms lacking a past performance record (new firms or those with no relevant experience within their organization) will be treated as an unknown performance risk, and will receive a neutral rating in this criteria. A neutral rating will be established as the average of all other competing Offerors.

The selection official will base the award decision on a tradeoff between price and non-price factors, comparing the relative risk to the government of poor or non-performance posed by each of the offerors, and making a judgement as to whether or not reduced risk of performance is worth additional cost. In some cases this will result in award to a lower ranked but lower priced offer, in other cases award may be to a higher ranked but higher priced offer.

The Government may, when in its interest, reject any or all offers or waive any informality in offers received. A written award mailed (or otherwise furnished) to the successful Offeror shall be deemed to result in a binding contract without further action by either party.

If an appeal or lawsuit is filed challenging the decision to award this contract or upon determination by the Regional Forester that conditions existing on this stewardship contract are the same as, or nearly the same as, conditions existing on other contract(s) in appeal or litigation, Contracting Officer may delay award or reject all offers. If delay in award is for 10 days or more during Normal Operating Season after offer opening, Contracting Officer shall, upon award, adjust the contract term to include additional calendar days in one or more Normal Operating Seasons equal to the actual time lost.

6. DAMAGES: Offeror acknowledges that this contract shall be terminated for breach pursuant to blocks 16, 16a, 16b, 19, 20, 23, 24, and/or 25 of this offer form if: (a) the Offeror fails to execute a stewardship contract, or furnish a satisfactory performance bond, within the number of days listed in block 19, of award letter's date; or (b) the Offeror is found to have violated the False Statements Act in making any statement or certification on this offer form, including not meeting contractor responsibility requirements. The Offeror acknowledges that the Offeror shall not be entitled to cure this breach and that it will pay damages pursuant to the following terms:

Damages due the United States shall be determined in the following manner: (a) The costs, as described in this instruction, incurred by Forest Service in contacting the other qualified offerors regarding accepting the award of the contract at the high Offeror's repudiated rate or (b) If another qualified offeror does not accept award of the contract at the high Offeror's repudiated rate:

(i) If the repudiated contract is reoffered within 6 months of the date of repudiation, damages shall be the difference between the total recontract value and the total value of Offeror's repudiated offer, plus costs described in this instruction or

(ii) If there are no responsive offers on the reoffered contract, damages shall be the difference between the reoffered appraised value and the total value of Offeror's repudiated offer, plus costs described in this instruction or

(iii) If the repudiated contract will not be reoffered or the reoffer is not made within 6 months of Offeror's repudiation, damages shall be the difference between the appraised value of this contract as of the date of Offeror's repudiation and the total value of Offeror's repudiated offer, plus the costs described in this instruction.

The costs to be included in damages are the costs the Government incurs in making the reoffer, including, but not limited to, salary costs, document preparation and duplication costs, mailing costs, and contract solicitation costs.

Damages will also include interest measured by interest at the Current Value of Funds Rate established by the Secretary of the Treasury. Interest will be calculated from the date of Offeror's repudiation to the date of award of the reoffered contract or to the date a determination is made not to reoffer the repudiated contract or for 6 months, whichever comes first.

7. PRIVACY ACT: All personal information is requested on a voluntary basis; however, if you do not provide this personal information, your offer will not be accepted and the contract will not be awarded to you. Solicitation of this information is necessary for the Government to conduct its contracting program and thus is authorized under the National Forest Management Act of 1976, (16 USC 472a). The principle purpose for collecting this information is to allow for proper award of a stewardship contract and to provide for administration of that contract after award. Other routine uses of this data include: (a) compilation of small business data to determine needs for set-aside contracts, (b) determination of volume purchased in any specific time period by a single contractor, and (c) determination

of volume under contract by a contractor.

8. ROAD COMPLETION DATE: The Offeror hereby acknowledges that the Offeror is aware of the road completion date in the sample contract. The Offeror also acknowledges that if the Offeror elects to have Forest Service construct specified roads, the Offeror is aware: (a) that the Forest Service expects to contract for road construction, (b) that the stewardship contract will not be awarded unless a satisfactory road construction bid is received and a road construction contract is awarded or, if the Forest Service fails to receive such a bid within a maximum period stated in the solicitation of the road contract, the Offeror agrees to perform road construction, (c) that the Forest Service may extend the maximum award delay time by the amount of time needed to confirm either contract or road Bidder's size status or by any time in excess of 40 days from offer opening needed to begin solicitation of construction bids, and (d) that if the Forest Service extends the maximum award delay period because solicitation of the road contract is delayed, the Offeror may withdraw its offer without penalty.

9. ELECTION OF ROAD OPTION AND CERTIFICATE OF SMALL BUSINESS STATUS: The National Forest Management Act of 1976 (16 USC 472h(i)) provides that the Secretary of Agriculture may permit offerors qualifying as small business concerns under the Small Business Act to elect, when submitting an offer, to have the Secretary build the specified roads. Offerors qualifying as a small business concern under the Small Business Act, as amended, and the regulations thereunder, may elect to have the Forest Service construct the Specified Roads required by this contract. The Offeror who does not elect agrees, if awarded the contract, to construct the roads in accordance with the contract. An Offeror who does elect acknowledges that Offeror is aware of and agrees to the conditions stated in instruction 8 and that the Offeror is a small business concern.

If you wish to elect Government construction, you must so indicate in block 18 on the offer form that you submit. You may not accept this election at a later time. If you do not elect Government construction on your original offer form and you receive contract award, you must construct needed specified roads. You must elect Government construction for all of the specified roads as a package. Election of Government construction of a portion of the roads constitutes a non-responsive offer. When you elect Government construction, you must certify your firm as a qualified small business concern and acknowledge your understanding that award of the contract cannot take place until the Forest Service ensures road construction.

Except in rare instances, and then only when indicated in the solicitation, the Forest Service must rely upon independent contractors to construct the roads when you request Government construction. The Forest Service shall make a good-faith effort to let a contract for the construction. Without receipt of a satisfactory bid under Federal Procurement Regulations, the Forest Service can only award the stewardship contract to you if you agree to perform the construction. This problem does not arise often, but you should consider the possibility when deciding upon your election.

The Act also requires that when the Offeror elects to have the Secretary build the roads, the price paid for the timber must include all of the estimated construction costs of the roads. The Offeror must pay the total cost of the road, regardless of the amount that the offer value exceeds base rate value. This means that you may be billed at a rate higher than the offer rate.

10. ELECTION OF ROAD OPTION: Not applicable.

11. DEFINITIONS:

Affiliates: Business concerns or individuals are affiliates of each other if, directly or indirectly, (a) either one controls or has the power to control the other; or (b) a third party controls or has the power to control both.

Offeror: An Offeror is any individual, organization, or other legal entity that submits an offer for, or may be expected to submit an offer for, a National Forest contract.

Covered Transactions: A primary or lower tier covered transaction. A primary covered transaction is any non-procurement transaction between an agency and a person. A lower tier covered transaction is any transaction between a participant and a person other than a procurement contract, unless the procurement contract is greater than \$25,000.

Participant: Any person who submits a proposal for, enters into, or reasonably may be expected to enter into a covered transaction. This term also indicates any person who acts on behalf of or is authorized to commit a participant in a covered transaction as an agent or representative of another participant.

Contract Officer: An individual delegated responsibility for any specific aspect or task in the offering or awarding process for contracts.

Small Business: In contracts of National Forest timber a small business is a concern that: (a) is primarily engaged in the logging and forest products industry; (b) is independently owned and operated; (c) is not dominant in its field of operation; and (d) together with its affiliates does not employ more than 500 persons.

12. CERTIFICATION OF COMPLIANCE WITH EXPORT RESTRICTIONS: Certain restrictions on the purchase and export of unprocessed logs cut from National Forest timber apply in various parts of the country. Pursuant to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.), the Offeror acknowledges that the Offeror is aware of the applicable export restrictions. The Offeror is aware that these

restrictions affect the disposition of the included timber and is aware that the restrictions may reduce the potential value of the timber.

13. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS-CONTRACT TRANSACTIONS: The inability of a person to provide the certifications in block 16a will not necessarily result in denial of participation in this contract (covered transaction). The Offeror shall submit an explanation of why it cannot provide the certification. The certification or explanation will be considered in connection with the Forest Service's determination whether to enter into this contract. However, failure of the Offeror to furnish a certification or an explanation shall disqualify such person from participation in this contract.

The certification is a material representation of fact upon which reliance was placed when the Forest Service determined to enter into this contract. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Forest Service may terminate this contract for cause or default.

The Offeror shall provide immediate written notice to the Forest Service officer, to whom this offer is submitted, if at any time the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

The terms 'covered transaction,' 'debarred,' 'suspended,' 'ineligible,' 'lower tier covered transaction,' 'participant,' 'person,' 'primary covered transaction,' 'principal,' 'proposal,' and 'voluntarily excluded,' as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Forest Service for assistance in obtaining a copy of those regulations.

The Offeror agrees by submitting this offer that, should the proposed contract transaction be entered into, it shall not knowingly enter into any subcontractor transaction (lower tier covered transaction) with a person who is proposed for debarment under 48 CFR 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract, unless authorized by the Forest Service's non-procurement Debarment and Suspending Official.

The Offeror further agrees by submitting this offer that it will provide the addendum titled 'Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion,' without modification, to all subcontractors and in all solicitations for subcontractors.

14. SUBCONTRACTOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION: Pursuant to 7 CFR 3017.335 each contractor shall require subcontractors to include a certification for it and its principals in any proposal submitted in connection with this contract. Contractors shall keep the certifications on file until the termination date of the contract.

A participant in a contract may rely upon a certification of a prospective subcontractor that it is not proposed for debarment under 48 CFR 9.4, debarred, suspended, ineligible, or voluntarily excluded from the contract, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

Except for transactions authorized in paragraph 5 of the instructions for certification, if a contractor knowingly enters into a sub-contractor transaction with a person who is proposed for debarment under 48 CFR 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this contract, in addition to other remedies available to the Federal Government, the Forest Service may terminate this contract for cause or default and/or pursue suspension and/or debarment. The instructions and certification follow:

INSTRUCTIONS FOR:
Subcontractor Certification
Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion

1. By signing and submitting this proposal, the prospective subcontractor (lower tier participant) is providing the certification set out below.

2. The certification is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective subcontractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Forest Service, with which this transaction originated, may pursue available remedies, including suspension and/or debarment.

3. The prospective subcontractor shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective subcontractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms 'covered transaction,' 'debarred,' 'suspended,' 'ineligible,' 'lower tier covered transaction,' 'participant,' 'person,' 'primary covered transaction,' 'principal,' 'proposal,' and 'voluntarily excluded,' as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Forest Service for assistance in obtaining a copy of these regulations.

5. The subcontractor agrees by submitting this certification that, should the proposed subcontract be entered into, it shall not knowingly enter into any other subcontract with a person who is proposed for debarment under 48 CFR 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract, unless authorized by the Forest Service.

6. The subcontractor further agrees by submitting this certification that it will include this certification titled 'Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion,' without modification, and instructions in all sub-contracts and in all solicitations for its subcontracts.

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

Contract Name: Low Pole Stew

National Forest: Okanogan-Wenatchee

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

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

Name of Subcontractor:

Business Address:

Date

Signature

REGION 6 TECHNICAL PROPOSAL TEMPLATE FOR STEWARDSHIP CONTRACTS

Additional Information in the Development of Technical Proposals

The attached Technical Proposal template provides prospective Offerors with additional information on how to develop their Technical Proposal and what specific items to address or emphasize. These items cover areas of special concern to the Forest Service and the community collaborative which has participated in the development of this project. They are areas where tradeoffs between price and quality will be considered. You may use the attached template or use your own format, however all items listed in the following Technical Proposal template are to be addressed in your Technical Proposal.

Remember!

- What you put down in your Technical Proposal becomes a binding part of the Contract (see G.3.1.1 Inclusion of Technical Proposal). **Do not include items you do not intend to do!**
- If it fits, include adaptive approaches. These might help to make sure you are not tied into actions that may become unnecessary. They can also be used to describe to the Forest Service how operations will be done differently if problems arise.
- We understand that what you put in your Technical Proposal may have a price tradeoff. The government is looking for the offer whose technical/price relationship is the most advantageous to the Government.

Also, to further assist you in completing the Technical Proposal, the italicized text provide contractors with details on information to provide in response to the evaluation criteria. Suggestions listed are not all inclusive and the contractors should add other information as appropriate.

PREPARED FOR THE WENATCHEE RIVER RANGER DISTRICT
OKANOGAN WENATCHEE NATIONAL FORESTS

NOTE:
SUBMISSION OF PRICE AND TECHNICAL PROPOSALS ARE DUE NO LATER THAN
September 18, 2013 at 4:30 PM

This Technical Proposal is being submitted in response to the advertisement of the Low Pole Stew Integrated Resource Contract advertised on **August 16, 2013** in the Wenatchee World. A Price Proposal is submitted on the enclosed "Offer For Integrated Resource Contract" form FS-2400-14BV.

I understand that the Low Pole Stew Integrated Resource Contract will be awarded based on a Best Value determination. One award will be made to the Offeror (a) whose proposal is technically acceptable and (b) whose technical/price relationship is the most advantageous to the Government.

This Technical Proposal, along with the FS-2400-14BV Price Proposal, constitutes a firm offer and binds this company to accept award under the terms of the sample contract, the offer form, and any of the accepted terms of this Technical Proposal.

Name of Offeror:

By: (signature)

Date:

COST/PRICE EVALUATION CRITERION. These criteria will (1) consider price reasonableness, and (2) be used to help determine the offerors' understanding of the work. The importance of cost/price may become greater as the differences between technical proposals decreases. Where Technical Proposals are determined to be substantially equal, any cost/price advantage to the Government may control award.

PRICE PROPOSAL

Price Proposal (complete, sign, and enclose form FS-2400-14BV)

TECHNICAL PROPOSAL

Technical proposals will be evaluated and ranked on the basis of the following listed criteria. All factors are listed in descending order of importance. All sub-factors listed under each evaluation criteria are approximately equal in importance. All technical evaluation criteria when combined are approximately equal to cost or price.

Except for Past Performance, the Offeror's Technical Proposal, as accepted by the Forest Service, will be incorporated into any resultant contract.

Technical Proposal

In preparing your Technical Proposal, the contractor shall keep in mind the following end results, specifications and objectives that shall be achieved in this contract.

LIST OF END RESULTS, SPECIFICATIONS AND OBJECTIVES TO BE MET WITH THE HOW-TO'S DESCRIBED BY THE CONTRACTOR IN THEIR TECHNICAL PROPOSAL	SUBDIVISIONS
Reduce fuel loadings to between 10-15 tons on 80% of the acres.	All
Retain all course woody debris of down logs 16 inch end diameter and a minimum 16 feet in length.	All
Maximize removal of recent Douglas-fir blowdown from winter storm of 2013 is priority for removal to reduce Douglas-fir beetle populations.	All
Impact to soils from Contractor's Operations shall be less than 20 percent of the subdivision. Impact is defined as soils being exposed by the removal of the duff layer, displacement from one place to another or compaction as the result of Contractor's Operations.	All
Not more than 5 percent of the residual stands may be damaged by Contractor's Operations. Damage is defined as scarring of boles that exceed 16 square inches of cambium exposure "root sprung" trees or trees with broken tops.	All
Surface erosion and sediment delivery coming from new and/or existing landings, skid trails, skyline corridors, and temporary roads are mitigated and confined to inside the subdivision boundaries.	All
Have a safe travel way for contractor employees, agency personnel, and the general public, and prevent sediment from moving into nearby Fish Lake and streams.	All

EVALUATION CRITERIA.

The Government will assess the capability of each offeror on the basis of the following criteria which are of approximately equal value to: (i) Technical Approach, (ii) Capability and Past Performance, (iii) Utilization of Local Workforce including utilization of small businesses, and (iv) Benefit to communities within the defined local area. The Government will evaluate each offer based on the criteria set forth below.

Local Area is defined as businesses and personnel with an address in Chelan, Okanogan and Douglas counties.

(i) Technical Approach. The Government will evaluate each Offeror's technical approach on the basis of the following sub-factors:

(A) Plan of Operations. Offeror's who demonstrate a plan of operations for both product removal and stewardship project work, including its timeline (start and completion dates), and the rationale for work activities to ensure all contractual work will be completed by the contract termination date, will rank the highest.

For those contracts with Grn Bio CV, offers that show a well-organized, scheduled, and staffed project will rank the highest. Offers that show qualified and experienced staff or subcontractors will rank the highest. Offers that show diverse removal and delivery systems will rank the highest. Offers that show a well-developed quality control plan and effective measures for ensuring the plan will be followed will rank the highest.

(B) Quality Control Plan and Safety. Offers that show a well-developed quality control plan and effective measures for ensuring the plan will be followed will rank the highest. This shall include both harvesting and the service type restoration work items (stewardship projects). Safety plans that discuss the multiple hazards inherent in forest work activities and provide adequate measures to mitigate the hazards will rank the highest.

(C) Supervision. Contract managers and on-the-ground supervisors with more than 3 years' experience, that show knowledge of the multiple stewardship activities and can demonstrate their ability to manage the multiple stewardship contracts and subcontractors, will rank the highest.

(D) Equipment. Offerors who provide a list of equipment to be used and its capability to accomplish this contract that is realistic or innovative based on past projects, and achieve the listed **End Results**, will rank the highest.

(E) Production Capability. Offeror's demonstrating a production capability to accomplish this contract within the time allowed will rank acceptable.

(ii) Capability and Relevant Past Performance. The Government will evaluate each offeror's organizational experience on the basis of its breadth, its depth, and its relevance to the work that will be required under the contract.

(A) Key Personnel. Key personnel who display significant, high quality experience and education in the type of work to be performed will rank higher. Key personnel who display experience in the defined local area will rank higher.

(B) Subcontractors. The Government will evaluate the organizational experience of the Offeror's proposed key subcontractors. Subcontractors who display significant, high quality past performance and who have worked in the defined local area will rank higher.

(C) Relevant Past Performance. Past performance is a measure of the degree to which the Offeror satisfied its customers in the past and complied with Federal, state, and local laws and regulations.

In evaluating past performance, the Government will contact some of the references provided by the Offeror and other sources of information, including, but not limited to, Federal, state, and local government agencies, better business bureaus, published media, and electronic data bases.

Past performance will be evaluated on the following sub-factors: Quality of Work, Customer Satisfaction, Timeliness of Performance, Business relations, and Cost Control. Contractors with demonstrated knowledge and experience in the work to be completed, met specifications with few or no contract non-compliances or breaches, satisfied their customers, finished on time or ahead of time, maintained amicable communications with customer, exhibited flexibility, and completed the work at or below contract cost (assuming no changes in specifications), will be rated the highest.

(iii) Utilization of Local Workforce. The ability of Offerors to enhance local and small business employment opportunities will be evaluated based upon the following sub-factors. "Place of operation" is defined as the Contractor's address for normally doing business on a year-to-year basis. Credit for recruitment, employment or utilization of labor or subcontractors will be evaluated as follows:

1. Highest evaluated rating: Utilization of work force for at least 9 months each year, creating jobs, and maintaining infrastructure in the defined local area.
2. Secondary evaluated rating: Utilization of work force for at least 6 months each year, creating jobs, and maintaining infrastructure in the defined local area, and businesses with addresses in Yakima and Kittitas counties.
3. Lowest evaluated rating: Utilization of work force for less than 6 months each year, creating jobs, and maintaining infrastructure anywhere within Snohomish, Skagit, Ferry and Stevens counties.

(A) Local Hires. Offerors who submit the greatest number of local hires residing in the defined local area will be given a higher rating.

(B) Prime Contractor. Offerors whose permanent place of operation is within the defined local area will be given a higher rating

(C) Key Personnel. Key personnel who are from the defined local area who display significant, high quality experience and education in the type of work to be performed will rank higher.

(D) Subcontractors. Offerors who submit the greatest number of subcontractors having a permanent place of operation inside the defined local area will be given a higher rating.

(iv) Benefit to Communities Within the Defined Local Area.

(A) Positive Economic Impact. In addition to Utilization of Local Workforce, Offerors that commit to spending the most at businesses within the defined local area will be rated the highest.

(B) Delivery and Processing of Forest Products.

Contractors who deliver forest products removed from the contract area to locations inside the defined local area which are also processed at manufacturing facilities inside the local area will be rated the highest. Contractors who deliver forest products removed from the contract area to locations within 50 miles of the defined local area will be rated the second highest. Contractors who deliver forest products removed from the contract area to locations beyond 100 miles of the defined local area will be rated the lowest.

(B) Delivery and Processing of Forest Products.

Contractors who deliver more than 50% of the forest products removed from the contract area to locations inside the defined local area inside the local area will be rated the highest. Contractors who deliver between 50-75% of the forest products removed from the contract area to locations within the defined local area will be rated the second highest. Contractors who deliver less than 50% of the forest products removed from the contract area to locations in the defined local area will be rated the lowest.

INSTRUCTIONS FOR SUBMISSION OF TECHNICAL PROPOSALS

The Technical Proposal submitted shall not exceed 30 pages.

(i) Technical Approach

Technical Proposals must present sufficient information to reflect a thorough understanding of the requirements and a detailed description of the techniques, procedures, and program for achieving the objectives of the specifications/statement of work. Proposals which merely paraphrase the requirements of the Government's specifications/statement of work, or use phrases such as "will comply" or "standard techniques will be employed" will be considered unacceptable and will not be further evaluated.

(A) Describe your plan of operations for both product removal and stewardship project work including the timeline (start and completion dates) and the rationale for work activities to ensure all contractual work will be completed by the contract termination date. Describe all staff and/or subcontractors that will be utilized. Describe any diverse removal and delivery systems. Contractors are advised to review provisions K-G.3.1.5#, K-G.4.1#, and K-G.4.2# in the sample contract for additional operational requirements and restrictions. Also, describe how you plan to organize, schedule, and staff woody biomass removal if included in the contract.

(B) Provide a quality control plan for product removal and service type restoration work items and the measures you will use to ensure the plan is followed. Provide a safety plan that discusses the multiple hazards inherent in the work identified in the sample contract. The plan must include your monitoring of employee work and working conditions. Include mitigation measures in the safety plan. Offerors may use their own format for the quality control plan, or the attached Forest Service template found at the end of this section.

(C) Provide resumes for the contract manager and the on-the-ground supervisor to be assigned to this project. Describe your ability to complete the multitude of activities listed within this project including product removal and all restoration type work activities. If multiple subcontractors will be used, describe your plan for managing all subcontractors

(D) Provide a list of equipment to be used on this project and its capability. Also, prepare a response to each of the **End Results** indicating how you will use and deploy your equipment and personnel, and/or subcontractors, in achieving the specified **End Results**.

(E) Describe your production capability to accomplish this project within the specified contract time. How many sides will you need to complete the required work?

(ii) Capability and Relevant Past Performance Information Sheet

(A) Submit a list of similar contracts that your firm has performed in the past three years. For each contract, provide:

1. Company Name
2. Contact Person, phone number, and email
3. Dates of Work for the company
4. Work (Tasks) assigned and completed

Also, explain for each contract how well you met each of the following business and contractual functions:

1. Quality of Work - Demonstrated ability to perform services in accordance with contract specifications. Conformance to good standards of workmanship.
2. Customer Satisfaction - Satisfaction of end users with the contractor's completed products and services.
3. Timeliness of Performance - will be evaluated on compliance with delivery schedules; reliability; responsiveness to technical direction, no assessment of liquidated damages.
4. Business Relations - Effective management, ability to manage projects involving subcontracts, working relationship with the contracting officer and technical representatives, reasonable/cooperative behavior, flexibility, effective contractor recommended solutions, businesslike concern for government's interests.
5. Cost Control - Ability to complete contracts within budget (at or below); reasonableness of price change proposals submitted, and providing current, accurate, and complete billings.

(B) Describe the experience of your key personnel who will be working on the the contract.

(C) Provide a list of subcontractors you propose to use on this contract and the work activities they will complete. Describe subcontractors' past performance and provide a list of similar contracts that each subcontractor has completed within the last three years.

(iii) Utilization of Local Workforce

(A) Describe the amount of local hiring you plan to achieve, and length of employment.

(B) List your permanent place of operation.

(C) List the geographic location of your key personnel.

(D) List your subcontractors business address and County, and geographic place of operation.

(iv) Benefit to Communities Within the Defined Local Area

(A) Describe how your plan of operations will provide a positive economic impact to the local community.

Some examples may be; all of the volume removed from treatment areas will be hauled to the mills in the local area, my contractors and subcontractors will stay in motels in the local area, at least 10 people from the local area will be hired and provided training and employment for a minimum of 6 months each year, company personnel and subcontractors will frequent

Contract Name: Low Pole Stew

Page 7

local restaurants and grocery stores during the life of the contract, needed parts and supplies for equipment will be ordered and purchased from local part stores, at least \$1,000 per month will be spent at local businesses to purchase fuel for logging equipment and vehicles, contractors are available from the local area and will be used to complete the service type restoration work activities, the service type restoration work activities will be completed when restrictions prevent operating in harvest treatment units to utilize company and local workers on a year round basis, etc.

(B) Delivery and processing of forest products.

List by name and city the various mills and other facilities and locations where you plan to deliver products to be removed from the contract area. Be specific as to sawlog material, species of sawlog, poles, biomass/chips, hogfuel, etc. Describe the market conditions or criteria in which you will deliver products to each of these locations.

List by name, city, percentages, and the various mills and other facilities and locations where you plan to deliver products to be removed from the contract area. Be specific as to sawlog material, species of sawlog, poles, biomass/chips, hogfuel, etc. Describe the market conditions or criteria in which you will deliver products to each of these locations.

QUALITY CONTROL PLAN

Quality control is an important emphasis item for the Low Pole Stew Integrated Resource Contract. Offeror are encouraged to develop an effective plan for ensuring that their operations are in compliance with all contractual requirements. Offerors should develop a Quality Control Plan that addresses the following questions:

1. How will quality be monitored to assure performance standards are met?

Break down the response into major work areas. For all items, indicate whether you want a pre-work in the field to discuss quality before activities begin.

Tree Marking: describe the monitoring method to be used to evaluate compliance with the end results. A walk through with visual inspection and documentation will not be acceptable. List the monitoring metrics to be used in collecting data.

Logging: list examples of the types of things that will be monitored, e.g. residual tree damage, soil displacement and compaction, determining whether appropriate logging conditions are met, cutting only designated trees, landing size and location, etc. Indicate whether there is a separate quality control process and how often it will occur, i.e. is your field representative going to take some extra time every day/once a week to review all aspects of quality control? (or, do you just rely on every worker to do their job properly?) Will he be documenting the results of monitoring or just reporting problems verbally to the Contractor's Rep (CR) and Forest Service?

Mastication: Indicate the process you will use to determine whether you are meeting the mastication specifications. Will this require frequent visits by Forest Service to make sure you are on track?

Tree Marking: Describe the monitoring method to be used to evaluate compliance with the end results. A walk through with visual inspection and documentation will not be acceptable. List the monitoring metric to be used in collecting data.

2. How will the quality control work be supervised?

This is the next higher level of supervision, i.e. how will the Contractor's Rep type supervise the Field Rep's work? How often can we expect the CR to be there? Will the CR do a sample inspection as well, e.g. "once a week the Contractor's Rep will review the results of the quality monitoring for that week (written or verbal) with the Field Rep and do a walk through sample inspection of the completed area to discuss and verify quality control inspections. If there are problems that were not identified by the Field Rep what will be done? (the FR says "everything looks great" and you find that an obvious problem with orange painted trees cut. Someone's not doing their quality control job)

3. How will results of the monitoring be used to ensure quality performance?

If the inspections indicate a problem, how will that be addressed? For example, "The Field Rep will review the problem with those that did the work, require that it be reworked before further work is done (if it can be corrected), and inspect the next batch of work more frequently until it is determined that the problem is corrected. The Field Rep will report quality issues to the next higher level (Contractor's Rep) and to the Forest Service contract administrator".

4. Describe how the results will be documented and submitted to the Forest Service.

5. Identify, by work activity, the personnel responsible for performing quality control?

As described above, the Contractor's Rep supervising quality control will be _____.

The Field Rep responsible for quality control monitoring of logging will be _____.

The Field Rep for Mandatory Project 001 – Tree Marking D x Pre will be _____.

The Field Rep for Mandatory Project 002 – 6300140 Road Decommissioning will be _____.

The Field Rep for Optional Project 003 - Tree Marking D x Pre will be _____.

The Field Rep for Optional Project 004 – 6601210 Road Decommissioning will be _____.

The Field Rep for Optional Project 005 – 6122912 Road Decommissioning will be _____.

The Field Rep for Optional Project 006 – 6602100 Road Decommissioning will be _____.

The Field Rep for Optional Project 007 – 6305315 Road Decommissioning will be _____.

The Field Rep for Optional Project 007 – 6604113 Road Decommissioning will be _____.

The Field Rep for Optional Project 008 – 6305331 Road Decommissioning will be _____.

The Field Rep for Optional Project 009 – 6300137 Road Decommissioning will be _____.

The Field Rep for Optional Project 010 – 6300135 Road Decommissioning will be _____.

The Field Rep for Optional Project 011 – 6202135 Road Decommissioning will be _____.

The Field Rep for Optional Project 012 - 6202140 Road Decommissioning will be _____.

B.0—CONTRACT AREA

B.1 Contract Area Map. The boundaries of “Contract Area” and any subdivision thereof, are as shown on the attached “Contract Area Map” that is made a part hereof, and were, before contract advertisement, designated on the ground by Forest Service to meet the anticipated needs of the parties. The location of Contract Area and its approximate acreage are stated in A.1. Subdivisions may be revised and additional ones may be established only by written agreement. Subdivisions or cutting units and stewardship project areas may be eliminated from Contract Area under conditions described in G.3.6. Catastrophically Damaged areas may be removed from Contract Area under I.3.2.

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

- (a) Identified claims limiting Contractor’s rights under B.2;
- (b) Subdivisions defined in C.3 where timber is to be Marked after date of contract advertisement;
- (c) Boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units under C.3;
- (d) Diameter limits for Overstory Removal Units and Understory Removal Units under C.3.3 and C.3.4;
- (e) Areas where leave trees are Marked to be left uncut under C.3.5;
- (f) Specified Roads listed in A.7;
- (g) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items;
- (h) Roads where log hauling or use is prohibited or restricted under F.1.2;
- (i) Roads and trails to be kept open under G.2.2;
- (j) Improvements to be protected under G.2.2;
- (k) Locations of known wildlife or plant habitat and cave resources to be protected under G.2.4;
- (l) Locations of areas known to be infested with specific invasive species of concern under G.3.5;
- (m) Maximum stump heights when more than one height is listed by areas in A.6 under G.4.1.2;
- (n) Skidding or yarding methods specified under G.4.2;
- (o) Streamcourses to be protected under G.5;
- (p) Locations of meadows requiring protection under G.6.1;
- (q) Locations of wetlands requiring protection under G.6.2;
- (r) Locations of temporary roads to be kept open under G.6.3.1; and
- (s) Other features required by Parts A through K.

B.2 Claims. Valid claims are excluded from Contract Area, except those on which timber cutting is authorized in writing by the claimant and except mining claims on which cutting is authorized by the Act of July 23, 1955 (30 USC 614). Claims that limit Contractor’s rights to operate under this contract and that Forest Service has been able to identify are shown on Contract Area Map. Contractor is not obligated to operate contrary to existing claim limitations. Forest Service shall designate boundaries of claims on the ground to the extent necessary to identify Included Timber.

C.0—TIMBER SPECIFICATIONS

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

C.1.1 Standard Timber. Live and dead trees and portions thereof that meet Utilization Standards under C.2 and are designated for cutting under C.3.

C.1.2 Substandard Timber. Live and dead trees that:

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

C.1.3 Damaged Timber.

C.1.3.1 Damaged by Contractor. Undesignated live trees meeting Utilization Standards:

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

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

C.1.3.2 Negligent or Willful Damage. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Contractor, if included by Contracting Officer.

C.1.3.3 Damage by Catastrophe. As provided under I.3.2, undesignated live and dead timber within Contract Area, meeting Utilization Standards, and affected by Catastrophic Damage. “Catastrophic Damage” as used hereunder is major change or damage to Included Timber on Contract Area, to Contract Area, to access to Contract Area, or a combination thereof:

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

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

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

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

C.1.3.4 Minor Damage by Natural Causes. Undesignated trees within Contract Area and meeting Utilization Standards, in amounts less than specified in C.1.3.3, that become insect infested, windthrown, suffer serious damage, or die, as designated by agreement.

C.1.4 Unintentionally Cut Timber. Trees, within or immediately adjacent to Contract Area or to road construction or other authorized clearing outside Contract Area, not designated for cutting under C.3 but that are cut through mistake by Contractor, when included by Contracting Officer.

C.1.5 Construction Timber. Trees to be used for construction under F.1.

C.1.6 Other Material. Species or products not listed in A.2, upon written approval of Contracting Officer under D.4.1.

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

- (a) Meet minimum piece standards in A.2 or
- (b) Do not meet such standards, but would have qualified as part of minimum pieces if bucking lengths were varied to include such material.

C.3 Timber Designations. Timber designated for cutting shall be confined to Contract Area, except as provided in C.1.3.1, C.1.4, C.1.5, C.3.2, and F.1. Contract Area Map indicates subdivisions, if any, where Marking under C.3.5 is to be done after contract advertisement, except for construction clearing under C.3.2, minor changes under C.3.7, and damaged timber.

The boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units were plainly Marked on ground before contract advertisement and are shown on Contract Area Map. Boundary trees shall not be cut. The number of units and approximate acreage of timber designations are stated in A.3.

C.3.1 Clearcutting Units. All trees that meet Utilization Standards within "Clearcutting Units" are designated for cutting.

C.3.2 Construction Clearing. All timber is designated for cutting that is within the clearing limits of roads constructed hereunder or is in other authorized clearings. All dead or unstable live trees are designated for cutting that are sufficiently tall to reach Contractor's landings, work areas, or the roadbed of Specified and Temporary Roads when Marked in advance of work in the immediate area. Pieces meeting Utilization Standards from such dead or unstable live trees shall be removed, unless there is agreement that to do so could damage the road. Such designation may be revised as part of agreed changes in road location under F.2.

C.3.3 Overstory Removal Units. All trees within "Overstory Removal Units" are designated for cutting when they meet Utilization Standards and equal or exceed the diameter limits shown on Contract Area Map.

C.3.4 Understory Removal Units. All trees within "Understory Removal Units" are designated for cutting when they meet Utilization Standards and are smaller than the diameter limits shown on Contract Area Map.

C.3.5 Individual Trees. All trees to be cut, other than in the units described in C.3.1, C.3.2, C.3.3, and C.3.4, are Marked or designated by description. Trees are "Marked" when individually designated by Forest Service with paint marks above and below stump height.

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

C.3.6 Incompletely Marked Timber. Live trees within incompletely Marked subdivisions shown on Contract Area Map at time of contract advertisement shall be designated in accordance with K-C.3.6. A representative sample of the timber to be designated has been Marked prior to contract advertisement in accordance with such rules. The approximate locations of the representative sample areas are shown on Contract Area Map.

C.3.7 Minor Changes. Within Contract Area, minor adjustments may be made in boundaries of cutting units or in the timber individually Marked for cutting when acceptable to Contractor and Forest Service.

C.4 Volume Estimate. The estimated volumes of timber by species designated for cutting under C.3 and expected to be cut under Utilization Standards are listed in A.2. If Contract Area Map indicates that there are incompletely Marked subdivisions, the objective of Forest Service shall be to designate for cutting in such subdivisions sufficient timber so that Contract Area shall yield the approximate estimated volume by species or species groups stated in A.2. However, the estimated volumes stated in A.2 are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract.

Volume adjustments shall not be made under this Section after there is modification for Catastrophic Damage under I.3.2.

C.4.1 Adjustment for Volume Deficit. If Contract Area Map indicates that there are incompletely Marked subdivisions and if Contracting Officer determines that a deficit in the estimated volume will cause the volume cut to be less than 90 percent of the total estimate shown in A.2, Forest Service, upon request by Contractor, shall designate additional timber within Contract Area. Such additional timber shall be limited to that estimated to be necessary to reach approximately the estimated volumes by species listed in A.2. Any such additional designation shall be consistent with land and resource management plans.

C.4.2 Adjustment for Excess Volume. If Contract Area Map indicates that there are incompletely Marked subdivisions and if Contracting Officer determines that the volume cut will be more than 120 percent of the total estimated volume listed in A.2, Forest Service, upon request by Contractor, shall make an adjustment in Marking or cutting unit boundaries with the objective of designating for cutting the approximate estimated volumes by species listed in A.2. Such adjustments in volumes shall be confined to (a) Marking adjustments on Contract Area and (b) reduction in area to be cut over. Such adjustments or reductions shall not conflict with the silvicultural treatment being applied on Contract Area and shall not materially change the average value by species of the timber designated for cutting. Such adjustments may be made notwithstanding the provisions of B.1 and C.3.

If the timber designated for cutting is not reduced by such adjustments to less than 120 percent of the total estimated quantity listed in A.2, Contractor, after cutting 120 percent of the total estimated volume listed in A.2, may elect to have Contract Area reduced to eliminate the remaining Included Timber. However, where felling operations have been started, units of minimum practical size shall be retained in Contract Area.

D.0—RATES OF PAYMENT

D.1 Current Contract Rates. Included Timber that is removed by Contractor and presented for Scaling in the product form stated in A.2 shall be paid for at Current Contract Rates determined under this Section. "Current Contract Rates" shall be (a) Flat Rates and (b) Tentative Rates adjusted by the escalation procedures in D.2. Flat Rates and Tentative Rates shall be those listed in A.4, unless superseded by rates redetermined under D.3 or established for Contract Term Extension. In addition, Required Deposits shall be made as listed in A.4, K-F.3.2, and K-G.8.1.6, or established under D.3 or I.2.3.

In the event Termination Date is adjusted under I.2.1 or I.2.1.2, Current Contract Rates shall be continued in the same manner as immediately prior to the adjustment period.

Notwithstanding I.2.3, Current Contract Rates for timber cut and removed from Contract Area that remains unscaled after Termination Date, as adjusted or extended, shall be Current Contract Rates in effect on Termination Date.

"Current Contract Value" is the sum of the products of Current Contract Rates and estimated remaining unscaled volumes by species of Included Timber meeting Utilization Standards, less the bid rate for mandatory stewardship projects that have not been completed.

D.2 Escalation Procedure. Tentative Rates for those species and products listed in A.4.1 are subject to quarterly escalation in accordance with the following procedures: The calendar quarter index average for each price index described in A.5 is the arithmetic average of the three such monthly price indices preceding January 1, April 1, July 1, and October 1. The difference between calendar quarter index average and Base Index listed in A.4.1 shall be the basis for quarterly escalation. To arrive at Current Contract Rates for timber Scaled during the preceding calendar quarter, Tentative Rates for each species shall be reduced or increased by such difference, except when the calendar quarter index average is:

- (a) Less than the Base Index, the reduction shall not result in a rate below Base Rate or
- (b) Greater than the Base Index, the increase shall not exceed the difference between Tentative Rate and Base Rate.

In the event of Contract Term Extension, the escalation procedure will be used during the extension period, except that adjusted payment rates for any calendar quarter cannot be less than Tentative Rates, for each species and product group, established under I.2.3 for the extension period.

D.2.1 Unavailable Index. If an index described in A.5 is no longer available, Contracting Officer may replace that index. If Contracting Officer determines that a replacement index does not exist, Current Contract Rates for the remainder of the contract shall be a Flat Rate. Flat Rates will be Tentative Rates adjusted by the arithmetic average of the index described in A.5 for a 12-month period prior to its becoming unavailable using the quarterly adjustment procedure outlined in D.2. Contracting Officer will determine availability and a beginning point to average the index for Flat Rates. Such Flat Rates are subject to rate redetermination as provided elsewhere under this contract.

D.3 Rate Redetermination. Rates may be redetermined as set forth in this Section. Bid Premium Rates shall be added to all redetermined rates, except as provided in D.3.1, D.3.2, and D.3.3.

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

Redetermined rates shall not be less than Base Rates listed in A.4, except for reduction under D.3.1, D.3.2, or D.3.3. Required Deposits shall be redetermined. Redetermined Specified Road construction cost is subject to the limitations of F.2.6.

D.3.1 Rate Redetermination for Environmental Modification. In the event of a contract modification under I.3.3 or partial termination under I.3.4, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber remaining immediately prior to the revision and the appraised unit value of Included Timber to be cut under the modification. The appraisal shall consider the estimated cost of any construction work listed in the Schedule of Items that was performed and abandoned.

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

Redetermined rates, or differences for rates subject to D.2, and Required Deposits shall be considered established under D.1 for timber Scaled subsequent to the contract revision.

D.3.2 Rate Redetermination after Catastrophic Damage. In event of Catastrophic Damage and adjustment, if any, of Included Timber, Contracting Officer shall make an appraisal to determine for each species the catastrophe-caused difference between the appraised unit value of Included Timber remaining immediately prior to the catastrophe and the appraised unit value of existing and potential Included Timber immediately after the catastrophe. Included Timber is any that would not be eliminated under I.3.2. Potential Included Timber is any that would be added under I.3.2.

Tentative Rates and Flat Rates in effect at the time of catastrophe shall be adjusted by said differences to become the redetermined rates for the purpose of a contract modification under I.3.2. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to new Base Rate limitations of 25 cents per hundred cubic feet or equivalent. However, existing Base Indices shall not be changed under this Subsection.

Upon agreement under I.3.2, redetermined rates and Required Deposits shall be considered established under D.1 for timber Scaled subsequent to Catastrophic Damage.

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

D.3.3 Rate Redetermination for Market Change. In the event of delay or interruption, exceeding 90 days, under I.3.3, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the delay or interruption and the appraised unit value of Included Timber immediately after the delay or interruption. The appraisal shall be done after any rate redetermination done pursuant to D.3.1, using remaining volumes.

Tentative Rates and Flat Rates in effect at the time of delay or interruption or established pursuant to D.3.1 will be reduced, if appraised rates declined during the delay or interruption, to become Current Contract Rates. Increases in rates will not be considered. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to a new Base Rate limitation of the cost of essential reforestation or 25 cents per hundred cubic feet or equivalent, whichever is larger. However, existing Base Indices shall not be changed under this Subsection.

Redetermined rates shall be considered established under D.1 for timber Scaled subsequent to the delay or interruption.

D.3.4 Emergency Rate Redetermination. Forest Service shall redetermine rates if, upon Contractor's application, Forest Service determines that, because of changes in the timber market since the award date or the last rate redetermination under this provision, the Producer Price Index identified in A.20 has declined by 25 percent. Rates shall be redetermined under D.3 and shall be considered established under D.1 for timber Scaled subsequent to Contractor's application. This Subsection shall not apply during Contract Term Extension.

D.4 Other Payment Rates.

D.4.1 Material Not in A.2. Incidental amounts of products or portions of trees of species listed on A.2 that do not meet Utilization Standards may be removed without charge. Such material may be purposely removed in more than incidental amounts without charge upon written approval of Contracting Officer, and subject to agreement on deposits if needed for road maintenance and use.

Other species or products not listed in A.2 may be cut and removed upon written approval of Contracting Officer and subject to agreement on rates of payment and deposits if needed for road maintenance and use.

When any material suitable for use in a product form included in A.2 is removed in another product form, the rates of payment shall be not less than but approximately equivalent to Current Contract Rates and Required Deposits.

D.4.2 Timber Cut Through Mistake. Undesignated timber meeting Utilization Standards, cut by Contractor through mistake and included by Contracting Officer under C.1.4, shall be removed and paid for at Current Contract

Rates and Required Deposits, unless such material is not listed in A.2. In such event, Contracting Officer, in accord with standard Forest Service methods, shall establish rates to be paid.

D.4.3 Designated Timber Cut But Not Removed. Standard timber shall be removed, as provided in C.2, prior to acceptance of subdivision for completion of logging and stewardship project operations under G.3.6. There shall be no charge when:

- (a) The leaving of incidental material is justified under existing conditions, including those under G.4 or
- (b) Cut timber is left by option or requirement, as under C.3.1, C.3.2, and G.4.

D.4.4 Undesignated Timber Damaged Without Negligence. Undesignated timber meeting Utilization Standards, damaged without negligence by Contractor and designated by Forest Service under C.1.3.1, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits.

D.4.5 Undesignated Timber Unnecessarily Damaged or Negligently or Willfully Cut. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Contractor, if included by Contracting Officer under C.1.3.2, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits that are in addition to liquidated damages under D.4.6.

If such timber is of a species or size not listed in A.2 or is of a quality different from designated timber, Contracting Officer shall establish payment rates in accord with standard Forest Service methods.

D.4.6 Liquidated Damages. Unnecessary damage to or negligent or willful cutting of undesignated timber, as described in D.4.5, on portions of Contract Area cut over under this contract is likely to cause substantial silvicultural or other damage to the National Forest. It will be difficult, if not impossible, to determine the amount of such damage. Therefore, Contractor shall pay as fixed, agreed, and liquidated damages an amount equivalent to the amount payable at Current Contract Rates. If designated by Contracting Officer, Contractor shall remove such damaged or cut timber and pay for it at Current Contract Rates.

D.4.7 Defect Caused by Abnormal Delay. Scaling deductions made for rot, check, or other defect resulting from abnormal delay in Scaling caused by Contractor shall be recorded separately and charged to Integrated Resource Account at Current Contract Rates and applicable deposits.

E.0—PAYMENTS

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

E.2 Integrated Resource Account. "Integrated Resource Account" is an account maintained by Forest Service of all Contractor's deposits, credits, payment guarantees, and the charges for:

- (a) Timber at Current Contract Rates;
- (b) Slash disposal, road maintenance, and contract scaling at Required Deposit rates;
- (c) Cooperative work at rates established by specific agreement under E.2.1.8;
- (d) Stewardship Credits established; and
- (e) Other charges provided in this contract.

Cash deposits shall be recorded currently in such account.

Charges for timber cut shall be made when Forest Service prepares and furnishes to Contractor periodic statements of volume and value of such timber cut and Scaled. Charges subject to escalation under D.2 shall be made initially on the basis stated in E.2.1.4 and shall be adjusted at the end of each calendar quarter, as provided in D.2.

E.2.1 Cash Deposits. Within the limitations of this Subsection, Contractor shall make cash deposits to meet Contractor's obligations within 15 days of billing by Forest Service. Deposits shall be made to Forest Service, U.S.D.A., by mail or delivery to the address to be furnished by Forest Service. Forest Service shall explain the bill at the time it requests each deposit.

E.2.1.1 Downpayment. The downpayment amount shown in A.18 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to J.4, transferred to other contracts, or refunded until stumpage value representing 25 percent of the total bid value of the contract has been charged and paid for or the estimated value of the unscaled timber is equal to or less than the amount of the downpayment.

E.2.1.2 Advance Deposits. Contractor agrees to make cash deposits in advance of cutting to meet charges under E.2.

Forest Service billings for advance cash deposits shall be in such amounts that Integrated Resource Account will maintain an unobligated balance equal to the applicable charges for timber that Forest Service estimates will be cut in not less than 30 days and not more than 60 days. This advance cash deposit may be reduced to a smaller amount by the terms of E.2.1.1, E.2.1.3, E.2.1.5, and/or E.2.1.7. Except for amounts required pursuant to E.2.1.1, E.2.1.3, and E.2.1.7, Contractor shall not be required to make advance deposits above those required under this Item.

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

E.2.1.3 Periodic Payment Schedule. Contractor shall make periodic payments for stumpage value, as shown in A.19.

In the event Contractor has not paid the amount(s) stated in A.19 as stumpage for volume removed by the periodic payment determination date(s), Forest Service shall issue a bill for collection for the difference between the required amount and payments made by Contractor. If payment(s) fall due on a date other than a normal billing date, the payment date shall be extended to coincide with the next Integrated Resource Account billing date.

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

Only cash may be used for this purpose. No other form of payment is acceptable. Forest Service will apply the payments to subsequent charges on this contract under the terms of E.2.1.2.

Except for Contract Term Extensions under I.2.3, periodic payment determination date(s) that have not been reached shall be adjusted one day for each additional day of contract time granted.

E.2.1.4 Deposits for Charges Subject to Escalation. Deposits requested to cover estimated charges for timber subject to escalation under D.2 shall be based upon Current Contract Rates and related deposits in effect during previous calendar quarter.

E.2.1.5 Deposits When Payment Guaranteed. To the extent payment guarantee is provided under E.3, requirements for advance cash deposits under E.2.1.2 shall be waived for the value of timber on Contract Area that is cut, but not removed, and for the value of products removed from Contract Area for not more than a monthly billing period, subject to the provisions of E.4.

E.2.1.6 Blanket Cash Deposits. Contractor may make cash deposits under a written agreement to cover charges made under this and other contracts within the same National Forest. Forest Service shall allocate such deposits to such contracts. When there is to be no timber cutting hereunder for 30 days or more and payment of current charges has been made, the allocation to this contract shall be reallocated to other contracts within the same National Forest at Contractor's request. Contractor shall not start cutting until allocation has again been made to this contract.

E.2.1.7 Extension Deposits. In the event of Contract Term Extension, Forest Service shall divide the difference between Current Contract Value as of the start of any Contract Term Extension and the credit balance of any deposit made pursuant to E.2.1.3 by the number of whole months remaining in Normal Operating Season(s) within the extension period to determine the amount of each "Extension Deposit."

Contractor shall make the initial Extension Deposit prior to Forest Service executing the contract modification. In response to Forest Service billing under E.2.1, Contractor shall make advance cash deposits. Such deposits shall at least equal each Extension Deposit required for each whole month remaining in Normal Operating Season(s) during the extension period. Extension Deposits shall be due by the last day of each month during Normal Operating Season whether or not the volume that is covered by such deposits has been Scaled.

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

E.2.1.8 Cooperative Deposits. On a basis of cooperation or assistance (16 USC 572) and by a written agreement, Forest Service shall perform all or portions of the work that Contractor is obligated to perform under this contract, as well as furnish other Services in connection with activities under this contract. When Forest Service is to perform such work, Contractor shall make one or more deposits to cover the estimated cost of the work. On request of Contractor, Forest Service shall render monthly accounts, as may be specified in such agreement.

E.2.2 Stewardship Credits. "Stewardship Credits" are credits that are earned and established when work described in K-G.9 has been performed and accepted. Stewardship Credits shall be earned at the rate as shown in A.4.3. Earned Stewardship Credits may be used to pay for Included Timber value in excess of Base Rates and Required Deposits. Base Rates and Required Deposits must be paid in cash.

E.2.2.1 Progress Estimates. Forest Service shall make timely estimates of Contractor's progress on stewardship projects. On the basis of such progress estimates, Forest Service shall credit Integrated Resource Account each month as such work proceeds.

E.2.2.2 Excess Stewardship Credits. In the event there are unused established Stewardship Credits when all of the Included Timber has been cut and removed, Forest Service, at its option, shall either add more timber or make cash payment for the unused Stewardship Credits.

E.2.2.3 Excess Timber Value. In the event the value of Included Timber exceeds the total value of all of the mandatory projects shown in A.4.3, plus the optional projects shown in A.4.3 that Contractor has been authorized to perform:

(a) Contracting Officer shall authorize additional optional projects shown in A.4.3 if the excess timber value exceeds 10 percent of the total timber value, or

(b) Contracting Officer shall authorize additional optional projects shown in A.4.3 or require cash payment if the excess timber value is less than 10 percent of the total timber value, or

(c) Contractor shall make cash payment for the excess timber value if there are no remaining optional projects shown in A.4.3.

E.2.2.4 Cash Payment for Stewardship Projects. In lieu of providing timber for established Stewardship Credits, Forest Service may elect to provide a cash payment to Contractor.

E.2.3 Temporary Reduction of Downpayment. When, under I.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 90 days, the downpayment amount being held on deposit may be temporarily reduced upon the written request of Contractor or at the discretion of Contracting Officer. For the period of the delay or interruption, the downpayment on deposit may be reduced to \$1,000 or two (2) percent of the downpayment amount listed in A.18, whichever is larger.

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

Upon Contractor's receipt of bill for collection and written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Contractor shall restore the downpayment to the full amount shown in A.18 within 15 days after the date the bill for collection is issued, subject to the provisions of E.4. Contractor shall not resume contract operations until the downpayment amount is fully restored.

E.2.4 Refund of Excess Cash. If at any time the credit balance of Integrated Resource Account exceeds the charges for timber that Forest Service estimates will be cut within the next 60 days, any portion of such excess that is due to cash in the account shall be refunded, if requested by Contractor, unless deposited under E.2.1.1, E.2.1.3, or E.2.1.7. If Contractor plans no cutting within the next 60 days, Forest Service may refund the entire unencumbered cash balance, except as provided in this Subsection. After a refund for a shutdown, deposits shall be made to meet the requirements of E.2.1.2 before additional timber may be cut.

E.2.5 Refund after Scaling Completed. Any cash deposit, in excess of that required to meet charges under E.2, shall be refunded or transferred within 15 days of Contractor's request after Scaling is completed, except for amounts estimated to be required under J.5.

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

For payment purposes, penal sum of the surety bond or market value at time of deposit of negotiable securities shall be in lieu of the performance bond furnished under J.1.

E.3.1 Blanket Bond. If Contractor furnishes an acceptable bond, or deposits securities, in accordance with E.3, to guarantee payment for timber from this and other contracts within the same National Forest, the amount of such bond or deposited securities shall be allocated to such contracts by Forest Service. When there is to be no timber cutting hereunder for 30 days or more and payment of current charges has been made, the allocation to this contract shall be reallocated to other contracts at Contractor's request. Contractor shall not start cutting hereunder until this contract receives an allocation that will meet the obligation for payment guarantee.

E.3.2 Letters of Credit for Payment Bond. Notwithstanding the provisions of E.3, Contractor may use letters of credit in lieu of a surety bond for payment bond purposes when approved by Contracting Officer.

E.4 Payments Not Received. (a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date allowed in the bill for collection for receipt of payment, Contracting Officer will suspend all or any part of Contractor'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 E.2.1.8;
- (iii) Damages pursuant to J.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to E.2.2;
- (vi) Periodic payments pursuant to E.2.1.3;
- (vii) Extension Deposits pursuant to E.2.1.7; and
- (viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date allowed in the bill for collection for receipt of payment shall be considered a breach under J.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date allowed for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will

receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

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

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

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

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

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

(d) Forest Service remedies for Contractor'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 Contractor's Operations, and administrative offset, shall be stayed for so long as:

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

(ii) Contractor files and prosecutes a timely Claim.

F.0—TRANSPORTATION FACILITIES

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

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

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

F.1.1 Requirements of Rights-of-Way. Contractor's road construction and use of rights-of-way identified in attached list or K-F.1.1 shall be confined to rights-of-way and limited by the related easements and stipulations, if any, unless Contractor makes other arrangements that will not infringe upon or adversely affect the grantee's rights. Easements or right-of-way documents are available in the offices of the Forest Supervisor and District Ranger.

F.1.2 Use of Roads by Contractor. Except as provided herein, Contractor is authorized to use existing National Forest system roads and Specified Roads listed in A.7, when Forest Service determines that such use will not cause damage to the roads or National Forest resources.

If Contractor's use of an existing temporary or National Forest system road, not listed in A.7, cannot be satisfactorily accommodated without reconstruction, Contractor shall be authorized to use such road upon agreement as to the minimum reconstruction work that Contractor shall perform before hauling. When appropriate, such road shall be included in A.7 as an alternate facility under F.2.6.

K-F.1.2 lists existing roads shown on Contract Area Map that for such reasons as limitations in structural capacity, safety, and protection of soil, water, and roads:

(a) Cannot be used for log hauling or

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

F.2 Specified Roads. "Specified Roads" are roads, including related transportation facilities and appurtenances, shown on Contract Area Map and listed in A.7. Contractor shall construct Specified Roads used under this contract. Construction initiated by Contractor on any such Specified Road shall be completed to an agreed terminus that meets Contractor's needs and prevents unnecessary impact on National Forest resources. Construction to such terminus shall be in full accordance with Plans and specifications identified in A.7 or specifications and the Schedule of Items attached hereto, except for agreed adjustments needed to accommodate such terminus. For each pay unit, the "Schedule of Items" itemizes quantity of work and materials and cost, with method of measurement and basis for payment. Forest Service shall revise the Schedule of Items to show the estimated cost for the portion constructed to the revised terminus as a separate segment.

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

In event of agreed substitution or revision of construction design, specifications, or performance responsibility under F.2.1.2, F.2.5, F.2.6, or K-F.2.1.5, A.7 shall be modified. If Contractor does not need a Specified Road or a portion of a Specified Road for harvesting Included Timber or completing stewardship projects and the Specified Road is not constructed, the deletion of the road or road segment will be a mutually agreed Design Change and Integrated Resource Account will be adjusted for the reduction in cost, as provided in F.2.5.

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

F.2.1 Engineering. Forest Service completed survey and design for Specified Roads prior to contract advertisement, unless otherwise shown in A.8 or Contractor survey and design are specified in A.7. On those roads for which Forest Service completes the design during the contract, the design quantities shall be used as the basis for revising estimated costs stated in the Schedule of Items and adjusting Integrated Resource Account.

Forest Service engineering shall be completed according to the schedule in A.8. Should Forest Service be unable to perform the designated survey and design by the completion date or other agreed to time, upon written agreement, Contractor shall assume responsibility for such work. In such event, Contracting Officer shall revise:

(a) A.7 to show Contractor's performance responsibility.

(b) The Schedule of Items to include costs of survey and design, as provided under F.2.4, and adjust Integrated Resource Account, as provided in F.2.5. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

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

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

F.2.1.1 Contract Plans. "Plans" are documents that show location, details, and dimensions of the work to be performed. On any of the contract Plans where a portion of the work is drawn out and the remainder is shown in outline, the parts drawn out shall apply to all other like portions of the work.

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

A change in the amount of construction work that exceeds construction tolerances specified in the specifications identified in A.7 caused by a Forest Service error in construction staking shall be treated as a Design Change. When incompatible situations arise between Plans, specifications, and actual conditions on the ground, Contractor shall make corrections pursuant to F.2.5.3.

F.2.1.2 Construction Staking. Contractor shall avoid careless or negligent damage to construction stakes, flags, or marks. If such damage occurs, Contractor shall be required to replace stakes necessary to construction. Contractor's replacement staking shall be approved by Forest Service. Alternatively, upon Contractor's request, Contracting Officer may agree to perform such work under E.2.1.8.

When A.7 shows that construction stakes are to be set by Forest Service after clearing, Contractor shall submit to Forest Service a written schedule for clearing, construction staking, and construction that will provide Forest Service a reasonable period for setting construction stakes. Time for setting construction stakes may be modified by written agreement.

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

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

(a) A.7 to show Contractor's performance responsibility.

(b) The Schedule of Items to include costs of construction staking, as provided under F.2.4, and adjust Integrated Resource Account, as provided in F.2.5. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

F.2.2 Material Delivery. Within 60 days after award date, Contractor shall provide Forest Service a written schedule showing the desired delivery dates of any material to be supplied by Forest Service. With reasonable notice, schedule may be amended by agreement. Forest Service agrees to make delivery within 15 days after the scheduled delivery dates that are at least 60 days after the schedule is submitted, unless prevented by causes beyond control of Forest Service.

If Contractor does not provide Forest Service the written schedule within the period provided in this Subsection, Forest Service agrees to make delivery within 90 days after a late schedule is submitted, unless prevented by causes beyond control of Forest Service. After delivery to and written receipt by Contractor, Contractor is responsible for installation of needed material and for any loss of or damage to such material due to Contractor's negligence prior to installation or return of unused material to Forest Service.

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

F.2.3 Use of Partially Constructed Roads. Unless Contracting Officer determines that there is justification under existing conditions and ground conditions permit hauling without undue damage, portions of Specified Roads shall be Substantially Completed prior to their use for hauling timber. When necessary to facilitate construction and protect bridges and roads from damage, timber felled in construction and timber logged directly to the road from areas immediately adjacent thereto may be hauled before road construction is Substantially Completed. Such hauling shall be confined to periods when abnormal soil erosion and damage to National Forest lands will not result.

"Substantially Completed" means:

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

(b) Laying the specified depth of base course, if any, unless Contracting Officer determines that physical conditions make it impractical or ground conditions permit hauling without undue damage.

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

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

F.2.4 Estimated Cost. Estimated costs by construction phases for Specified Roads listed in A.7 are stated by segments in the Schedule of Items. Such estimated costs are subject to adjustment under D.3, F.2, F.2.1, F.2.1.2, F.2.5, and F.2.6. Appropriately adjusted costs shall be made a part of a revised Schedule of Items and shown as adjustments to Integrated Resource Account. The revised Schedule of Items shall supersede any prior Schedule of Items when it is dated and signed by Contracting Officer and a copy is furnished to Contractor.

F.2.5 Construction Cost Adjustment. Contracting Officer, as provided in F.2.1, F.2.1.2, F.2.5.1, F.2.5.2, and F.2.5.3, shall adjust Specified Road construction cost estimates in the Schedule of Items and show the adjustments as credits or debits to Integrated Resource Account in the month when the road segment is accepted.

F.2.5.1 Variation in Quantities. (a) This Item applies only to differences between quantities shown in the Schedule of Items and measured quantities actually constructed and accepted that are not covered under F.2.5.2 or F.2.5.3. Only changes in quantities where other than contract quantities or lump sum is specified in the Schedule of Items are subject to this Item.

(b) Adjustments to the Specified Road construction cost for variation in quantities shall be computed at unit rates established in the Schedule of Items for units of work actually constructed and measured in accordance with specified method of measurement shown in the Schedule of Items and described in the specifications identified in A.7, except that:

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

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

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

F.2.5.2 Physical Change. (a) Forest Service shall adjust the Specified Road construction cost if, prior to acceptance under G.3.6, a physical change, caused by a single event and not due to negligence of Contractor, results in an increase or decrease in work and/or materials furnished by Contractor involving additional estimated cost of:

- (i) More than \$10,000 or
- (ii) More than 10 percent of total Specified Road construction cost, whichever is less.

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

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

- (i) Estimated quantities actually constructed prior to physical change, including work abandoned, and
- (ii) Estimated quantities to be constructed following physical change.

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

- (i) Current Unit Rates to differences when quantities increase and
- (ii) Unit rates comparable to those used in computing most recent cost estimate for the contract when quantities decrease.

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

F.2.5.3 Design Change. (a) "Design Change" is a change in work and/or materials shown in the Schedule of Items and described in Plans or specifications that has been mutually agreed to in writing or ordered by Contracting Officer. Changes of a minor nature (such as adjustment in horizontal and vertical alignment, that do not exceed specified tolerance, necessary to maintain or balance earthwork quantities substantially as designed) and variation in quantities, as described in F.2.5.1, shall not be considered Design Changes.

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

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

- (i) Be due to differences between anticipated and actual field conditions,
- (ii) Be necessary to construct Specified Roads to design standards, or
- (iii) Be necessary to assure stability of Specified Roads.

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

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

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

- (i) Estimated quantities actually constructed prior to Design Change and
- (ii) Estimated quantities to be constructed following Design Change.

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

- (i) Current Unit Rates to difference when quantities increase and
- (ii) Unit rates comparable to those used in computing most recent cost estimates of the contract when quantities decrease.

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

F.2.6 Alternate Facilities. If under Contractor's Operating Schedule, roads needed for the removal of Included Timber differ substantially from Specified Roads, other roads may be added to A.7. Contracting Officer shall assure that road routing, location, design, and needed easements will make such other roads acceptable as parts of the National Forest transportation facilities. Contractor shall provide survey, design, and construction staking for such other roads.

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

F.2.7 Temporary Credit for Unamortized Specified Road Construction Cost. When, under I.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 90 days, the unamortized cost of Specified Roads shall be credited to Contractor's Integrated Resource Account upon the written request of Contractor or at the discretion of Contracting Officer. The amount credited to Contractor shall be limited to stumpage paid above Base Rates.

Any Specified Road construction cost credited to Contractor pursuant to this Subsection may be refunded or transferred at the request of Contractor. However, if Contractor has outstanding debt owing the United States, Contracting Officer must apply the amount of credit that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended.

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

F.3 Road Maintenance. Contractor shall maintain roads, commensurate with Contractor's use, in accordance with Road Maintenance Requirements in K-F.3.1 and the Road Maintenance Specifications. Performance of road maintenance work by Contractor may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on Contractor's Operating Schedule under G.3.1.

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

If Contractor elects to use different roads than those listed in K-F.3.1, Forest Service shall determine Contractor's commensurate share of road maintenance and revise road maintenance deposits in K-F.3.2.

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

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

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

Unless otherwise provided in K-F.4, Forest Service shall authorize other uses of roads constructed by Contractor hereunder only if:

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

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

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

G.0—OPERATIONS

G.1 Representatives. Unless otherwise agreed, Contractor shall designate, in writing, a representative who is authorized to receive notices in regard to performance under this contract and take related action. In no case shall Contractor designate any representative to this contract who is currently debarred, proposed for debarment, or sus-

pending by the Federal Government. Contractor's representative shall provide a copy of the contract to Contractor's field supervisor and persons authorized to assume responsibilities in the field supervisor's absence. Prior to initial operations and after shutdowns of 10 days or more, Contractor's representative shall notify Forest Service 2 days, excluding weekends and Federal holidays, before any operations begin on Contract Area.

Contractor's representative shall designate, in writing, a field supervisor, one of whose responsibilities shall be on-the-ground direction and supervision of Contractor's Operations. The field supervisor shall be readily available to the area of operations when operations are in progress and shall be authorized to receive notices in regard to performance under this contract and take related action. The responsibilities of the field supervisor shall include the safeguarding of National Forest resources and performance within the terms of the contract. Contractor representative will furnish Forest Service with names of persons authorized to assume responsibilities in field supervisor's absence. Such delegations may be made a part of Contractor's annual Operating Schedule under G.3.1.

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

- (a) Receive notice in regard to performance under this contract,
- (b) Take action in relation to this contract, and
- (c) Be readily available to the area of construction, stewardship project work, and logging operations.

Contracting Officer or Forest Service representative shall designate other on-the-ground representatives in writing along with their specific contractual responsibilities and authority. Representatives with authority delegated in writing are the only Forest Service personnel authorized to provide notice or take related actions under the contract. Such delegation shall be made within 60 days of contract award.

G.1.1 Notices. Notices by either party as to action taken or to be taken by the other respecting this contract shall be made in writing to the other party's designated representative.

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

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

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

G.2.1 Removal. Unless Forest Service authorizes continued use, Contractor shall remove or dispose of all improvements when no longer needed. Should Contractor fail to remove or dispose of improvements within 6 months after Termination Date, Forest Service may dispose of improvements at Contractor's expense under J.5 or may, upon written notice to Contractor, assume title to improvements in the name of the United States. In the latter event, Contractor shall not be required to remove such improvements.

G.2.2 Protection of Improvements. So far as practicable, Contractor shall protect Specified Roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

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

Contractor shall keep roads and trails needed for fire protection or other purposes and designated on Contract Area Map reasonably free of equipment and products, slash, and debris resulting from Contractor's Operations. Contractor shall make timely restoration of any such improvements damaged by Contractor's Operations and, when necessary because of such operations, shall move such improvements, as specified in K-G.2.2.

G.2.2.1 Protection of Improvements Not Owned by Forest Service. Forest Service will notify all utility companies, or other parties affected, and make arrangements for all necessary adjustments of the public utility fixtures, pipelines, and other appurtenances likely to be affected by Contractor's Operations.

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

Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and/or rearrangement operations in order that these operations may progress in a reasonable manner, utility duplication or rearrangement work may be reduced to a minimum, and services shall not be unnecessarily interrupted.

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

When materials are to be hauled across the tracks of any railway, Forest Service will make arrangements with the railroad for the use of any existing crossing or for any new crossing required. Contractor shall make arrangements for

use of alternate crossings. All construction work to be performed by Contractor on the railroad right-of-way shall not damage railroad company's property.

G.2.2.2 Protection of Property. In construction and reconstruction of Specified Roads, Contractor shall not unnecessarily remove, deface, injure, or destroy trees, shrubs, or other natural features, unless specifically authorized. To the extent practicable, Contractor shall confine operations to within the clearing limit or other areas designated in the contract and prevent the depositing of rocks, excavated materials, stumps, or other debris outside these limits.

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

G.2.3 Protection of Land Survey Monuments. Forest Service shall appropriately designate on the ground all known survey monuments, section corners, and other corner accessories. Forest Service shall post identifying signs on two sides of each known bearing tree.

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

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

G.2.4 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources. Locations of known areas needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Contract Area Map and/or identified on the ground. Special protection measures needed to protect such known areas are identified in K-G.2.4.

In addition to any special protection measures noted, Contractor has a general duty to protect all known and identified resources referenced in this Subsection from damage or removal during Contractor's Operations. Discovery of additional areas, resources, or members of species needing special protection shall be promptly reported to the other party, and operations shall be delayed or interrupted at that location, under I.3.3, if Contracting Officer determines there is risk of damage to such areas, resources, or species from continued operations.

Wheeled or track-laying equipment shall not be operated in areas identified as needing special measures for the protection of cultural resources, except on roads, landings, tractor roads, or skid trails approved under F.1 or G.4.2.2. Unless agreed otherwise, trees will not be felled into such areas. Contractor may be required to backblade skid trails and other ground disturbed by Contractor's Operations within such areas in lieu of cross ditching required under G.6.

Contractor shall immediately notify Forest Service if disturbance occurs to any area identified as needing special protection measures and shall immediately halt operations in the vicinity of the disturbance until Forest Service authorizes Contractor to proceed. Contractor shall bear costs of resource evaluation and restoration to identified sites. Such payment shall not relieve Contractor from civil or criminal liability otherwise provided by law.

Nothing in this Subsection shall be interpreted as creating any warranty that all locations and special measures for the protection of plants, animals, cultural resources, and cave resources have been described herein, elsewhere in the contract, or designated on the ground.

G.3 Control of Operations. Under this contract, "Contractor's Operations" shall include activities of or use of equipment of Contractor, Contractor's employees, agents, Subcontractors, or their employees or agents, acting in the course of their employment in operations hereunder on National Forest lands or within Forest Service protection boundary (unless acting under the immediate supervision of Forest Service).

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

G.3.1 Operating Schedule. Contractor shall, before commencing operations, provide in writing an annual Operating Schedule of anticipated major activities and needs for logging Included Timber and completing stewardship projects, such as logging, road maintenance, Scaling, and road construction, including construction staking under F.2.1.2 and material delivery under F.2.2. Upon reasonable notice to Forest Service, such schedule shall be subject to modifications necessitated by weather, markets, or other unpredictable circumstances.

Subject to G.6 and when the requirements of G.6.6 are met, Contractor's Operations may be conducted outside Normal Operating Season. "Normal Operating Season" is the period(s) beginning and ending on the dates stated in A.16 of any year.

G.3.1.1 Inclusion of Technical Proposal. Upon execution of the contract, all elements of the Technical Proposal accepted by Forest Service become binding parts of the contract, including, but not limited to, planned peri-

ods for and methods of road construction, timber harvesting, performance of stewardship projects, slash disposal, erosion control measures, and other contractual requirements. In addition, Contractor may not substitute a Subcontractor that has been accepted in the Technical Proposal with an alternate Subcontractor, unless Contracting Officer agrees to substitution.

Contractor may revise this Technical Proposal when necessitated by weather, markets, or other unforeseen circumstances beyond the Contractor's control, subject to approval of Contracting Officer. In the event of delays beyond the control of Contractor that qualify for Contract Term Adjustment, the Technical Proposal shall be adjusted by mutual agreement to accommodate the adjusted contract period.

G.3.1.2 Plan of Operations for Road Construction. Annually, prior to start of construction, Contractor shall submit a supplement to the Technical Proposal that shall include a schedule of proposed progress and a description of planned measures to be taken to provide erosion control for work in progress, including special measures to be taken on any segments of construction not Substantially Completed prior to periods of seasonal precipitation or runoff. Contractor shall submit a revised schedule when Contractor proposes a significant deviation from the progress schedule.

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

G.3.2 Protection of Residual Trees. Contractor's Operations shall not unnecessarily damage young growth or other trees to be reserved.

G.3.3 Safety. Contractor's Operations shall facilitate Forest Service's safe and practical inspection of Contractor's Operations and conduct of other official duties on Contract Area. Contractor has all responsibility for compliance with safety requirements for Contractor's employees.

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

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

G.3.4 Sanitation and Servicing. Contractor shall take all reasonable precautions to prevent pollution of air, soil, and water by Contractor's Operations. If facilities for employees are established on Contract Area, they shall be operated in a sanitary manner. In the event that Contractor's Operations or servicing of equipment result in pollution to soil or water, Contractor shall conduct cleanup and restoration of the polluted site to the satisfaction of Forest Service.

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

G.3.4.1 Prevention of Oil Spills. If Contractor maintains storage facilities for oil or oil products on Contract Area, Contractor shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States.

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

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

G.3.4.2 Hazardous Substances. Contractor shall notify the National Response Center and Contracting Officer of all releases of reportable quantities of hazardous substances on or in the vicinity of Contract Area that are caused by Contractor's employees, agents, Subcontractors or their employees or agents, directly or indirectly, as a result of Contractor's Operations, in accordance with 40 CFR 302.

G.3.5 Equipment Cleaning. (a) Areas, known by Forest Service prior to contract advertisement, that are infested with invasive species of concern are shown on Contract Area Map. A current list of invasive species of concern and a map showing the extent of known infestations is available at the Forest Supervisor's Office.

(b) Contractor shall not move any Off-Road Equipment, which last operated in an area that is infested with one or more invasive species of concern onto Contract Area without having first taken reasonable measures to make each such piece of equipment free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Contractor shall identify the location of the equipment's most recent operations. If the prior location of the Off-Road Equipment cannot be identified, Forest Service will assume that it is infested with seeds of invasive species of concern. In addition, prior to moving Off-Road Equipment from an area on this contract that is shown on Contract Area Map to be infested with invasive species of concern to any other area that is indicated on Contract Area Map as being free of invasive species of concern, Contractor shall again take reasonable measures to make each such piece of equipment free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds.

(c) Contractor must advise Forest Service of measures taken to clean Off-Road Equipment and arrange for Forest Service inspection prior to such equipment being placed in service or moved from areas infested with invasive species of concern to areas that are free of such invasive species. Forest Service shall have 2 days, excluding weekends and Federal holidays, to inspect equipment after it has been made available for inspection. After inspection or after 2 days, Contractor may proceed with operations. Reasonable measures shall not require the disassembly of equipment components or use of any specialized inspection tools. Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.

(d) "Off-Road Equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

(e) If Contractor desires to clean Off-Road Equipment on National Forest land, such as at the end of a project or prior to moving to a new area that is free of invasive species of concern, Contractor and Forest Service shall agree on locations for the cleaning and control of off-site impacts, if any.

(f) New infestations of invasive species of concern to Forest Service, identified by either Contractor or Forest Service on Contract Area, shall be promptly reported to the other party and operations shall be delayed or interrupted at that location, under I.3.3, until Contractor and Forest Service agree on treatment methods.

(g) Nothing in this Subsection shall be interpreted as creating any warranty that all locations of invasive species of concern have been described herein, elsewhere in the contract, or designated on the ground.

G.3.6 Acceptance of Work. Upon Contractor's written request and assurance that work has been completed, Forest Service shall perform an inspection within 5 days, excluding weekends and Federal holidays, so as not to delay unnecessarily the progress of Contractor's Operations. Such a request may be for acceptance of:

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

(b) Specific requirements on a subdivision of Contract Area (such as logging, stewardship project operations, slash disposal, erosion control, or snag felling); or

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

Forest Service may perform such inspections without request from Contractor.

Within 2 days of inspection, excluding weekends and Federal holidays, Forest Service shall furnish Contractor with written notice either of acceptance or of work remaining to be done.

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

When all contractual work of Contractor has been accepted for any subdivision of Contract Area or cutting unit or stewardship project area identified on Contract Area Map, such area shall be eliminated from Contract Area on written notice of either party to this contract, unless such area is a portion of a larger work area. In the latter circumstance, such area may be eliminated only by agreement.

G.3.6.1 Acceptance of Specified Roads. Specified Road work may be accepted subject to completion of clearing work that does not affect the road structure when completion is delayed for reasons beyond control of Contractor, such as adverse weather.

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

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

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

G.4 Conduct of Logging. Unless otherwise specifically provided herein, Contractor shall fell trees designated for cutting and shall remove the portions that meet Utilization Standards, as provided in C.2, prior to acceptance of subdivision for completion of logging and stewardship projects under G.3.6. Forest Service may make exceptions for occasional trees inadvertently not cut or trees or pieces not removed for good reason, including possible damage to forest resources or gross economic impracticability at the time of removal of other timber. Logging shall be conducted in accordance with the following, unless K-G.4 provisions set forth requirements to meet special or unusual logging conditions:

G.4.1 Felling and Bucking. Felling shall be done to minimize breakage of Included Timber and damage to residual timber. Unless agreed otherwise, felling shall be done by saws or shears. Bucking shall be done to permit removal of all minimum pieces set forth in A.2. Contractor may buck out cull material when necessary to produce pieces meeting Utilization Standards. Such bucked out material shall contain a minimum amount of sound wood, not in excess of the net scale in percentage of gross scale, or based on the merchantability factor, whichever is stated in A.2. If necessary to assess extent of defect, Contractor shall make sample saw cuts or wedges.

G.4.1.1 Felling in Clearings. Insofar as ground conditions, tree lean, and shape of clearings permit, trees shall be felled so that their tops do not extend outside Clearcutting Units, construction clearings, and areas of regeneration cutting.

G.4.1.2 Stump Heights. Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in A.6, except that occasional stumps of greater heights are acceptable when Contractor determines that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, Contractor shall re-cut high stumps so they will not exceed heights specified in A.6 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in A.6 were selected with the objective of maximum reasonable utilization of the timber, unless Contract Area Map shows special areas where stump heights are lower for aesthetic, land treatment, or silvicultural reasons.

G.4.1.3 Bucking Lengths. Trees shall be bucked in various lengths to obtain the greatest utilization of material meeting Utilization Standards.

G.4.1.4 Limbing. When Forest Service determines it is necessary to minimize damage to the residual stand during skidding, Contractor shall cut exposed limbs from products prior to skidding. Contractor may leave uncut those limbs that cannot be cut with reasonable safety.

G.4.2 Skidding and Yarding. Methods of skidding or yarding specified for particular areas, if any, are indicated on Contract Area Map. Outside Clearcutting Units and construction clearings, insofar as ground conditions permit, products shall not be skidded against reserve trees or groups of reproduction and tractors shall be equipped with a winch to facilitate skidding.

G.4.2.1 Rigging. Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

G.4.2.2 Landings and Skid Trails. Location of all landings, tractor roads, and skid trails shall be agreed upon prior to their construction. The cleared or excavated size of landings shall not exceed that needed for efficient skidding and loading operations.

G.4.2.3 Skidding on Roads. Products may be skidded on permanent roads authorized for hauling under F.1.2 only by prior written agreement.

G.4.2.4 Arches and Dozer Blades. Unless otherwise specified in K-G.4.2.4, skidding tractors equipped with pull-type arches or dozer blades wider than tractor width or C-frame width, whichever is greater, shall not be used in residual timber outside Clearcutting Units and other authorized clearings, except on constructed tractor roads or landings, unless there is written agreement that residual timber will not be damaged materially by such use.

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

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

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

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

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

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

If Contractor fails to do seasonal erosion control work prior to any seasonal period of precipitation or runoff, Forest Service may temporarily assume responsibility for the work and any unencumbered deposits hereunder may be used by Forest Service to do the work. If needed for such work, Contractor shall make additional deposits on request by Forest Service. Any money deposited or used for this purpose shall be treated as cooperative deposits under E.2.1.8.

G.6.1 Meadow Protection. Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on Contract Area Map. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved under F.1 or G.4.2.2. Unless otherwise agreed, trees felled into meadows shall be removed by endlining. Resulting logging slash shall be removed where necessary to protect cover, soil, and water.

G.6.2 Wetlands Protection. Wetlands requiring protection under Executive Order 11990 are shown on Contract Area Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved under F.1 or G.4.2.2. Additional measures needed to protect such areas are provided in K-G.6.2.

G.6.3 Temporary Roads. As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, Contractor shall employ such measures as outsloping, drainage dips, and water-spreading ditches.

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

G.6.3.1 Temporary Roads to Remain Open. To maintain short term access to portions of Contract Area for post-contract treatments and other purposes after a Temporary Road has served Contractor's purpose, pursuant to G.6.3, Contractor agrees, that on Temporary Roads designated on Contract Area Map as "Remain Open," to construct cross ditches and water bars, as designated, staked, or otherwise directed by Forest Service, that can be traversed by a normal two-wheel drive pickup truck. On "Remain Open" Temporary Roads, all bridges and culverts shall remain in place and ditches shall not be eliminated. All drainage structures shall be left in functional condition.

G.6.4 Landings. After landings have served Contractor's purpose, Contractor shall ditch and slope them to permit water to drain or spread. Unless agreed otherwise, cut and fill banks around landings shall be sloped to remove overhangs and otherwise minimize erosion.

G.6.5 Skid Trails and Fire Lines. Contractor shall construct cross ditches and water-spreading ditches on tractor roads and skid trails, where staked or otherwise marked on the ground by Forest Service. Forest Service shall designate cross ditching on Contractor-built fire lines prior to or during construction. By agreement, Contractor may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.

G.6.6 Current Operating Areas. Where logging, road construction, or other stewardship project work is in progress but not completed, unless agreed otherwise, Contractor shall, before operations cease annually, remove all temporary log culverts and construct temporary cross drains, drainage ditches, dips, berms, culverts, or other facilities needed to control erosion.

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

G.6.7 Erosion Control Structure Maintenance. During the period of this contract, Contractor shall provide maintenance of soil erosion control structures constructed by Contractor until they become stabilized, but not for more than 1 year after their construction. Contracting Officer may agree to perform such structure maintenance under E.2.1.8, if requested by Contractor, subject to agreement on rates. Contractor shall not be responsible for repair of such structures damaged by other National Forest users whose activities are not a part of Contractor's Operations.

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

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

- (a) Various volume determination methods, such as log rule, sampling, measuring, linear measuring, counting, weighing, or another method or combination of methods;
- (b) Various sites, such as truck Scaling stations, rollways, weighing stations, woods landings, water Scaling stations, or other sites; and

(c) Various geographic locations.

G.8.1 Scaling Services. Scaling services shall be performed by Forest Service personnel or parties under contract to Forest Service, except that weighing services may be performed by personnel or parties approved by Forest Service. Scaling shall be provided in accordance with the instructions and specifications in A.9. Scalers shall be currently certified to perform accurate Scaling services. The Scaling services provided shall be selected exclusively by Forest Service.

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

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

G.8.1.1 Scaling Location. Forest Service shall provide Scaling services at the Scaling site(s) shown in A.10. The Scaling site(s) shown in A.10 normally will be a non-exclusive site where more than one National Forest contractor may be served.

Contractor may request, in writing, an alternate Scaling site, such as at a private mill yard, private truck ramp, or a privately operated log transfer facility. Contracting Officer may approve an alternate Scaling site, when Contracting Officer determines that Scaling conditions at an alternate site are acceptable. Such conditions shall include at a minimum:

- (a) Scaler safety and comfort,
- (b) Product accountability and security,
- (c) Facilities and practices conducive to accurate and independent Scaling, and
- (d) The ability to provide for remote check Scaling.

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

G.8.1.2 Scaling Adjustments. Forest Service shall check the accuracy of the Scaling performed on National Forest logs. Scaling will be satisfactory if performed within the accuracy standards stated in governing instructions identified in A.9. In the event Forest Service check Scale(s) shows a variance in net Scale in excess of the allowable variance, an adjustment to volume reported Scaled may be made by Forest Service.

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

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

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

G.8.1.3 Delayed or Interrupted Scaling Services. In the event Scaling services are delayed or interrupted, Contractor shall discontinue hauling. Contractor agrees that in the event such a delay or interruption occurs for reasons not caused by Contractor, its sole and exclusive remedy shall be:

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

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

G.8.1.4 Weighing Services. Weighing services for stumpage payment purposes may be provided by either public or privately owned and operated weighing facilities. A "Weighing Services Agreement," approved by the Forest Supervisor, must be executed at each weighing facility providing weighing services.

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

Weighing facilities shall meet the following minimum requirements:

- (a) Be an electronic design,
- (b) Use electronic load cells or have a fully enclosed and sealed weigh-beam,
- (c) Have digital weight meters sealed with a seal approved by the State,
- (d) Have a zero interlocking device on the printer,
- (e) Have an automatic zero-setting mechanism,
- (f) Have an automatic motion-detecting device,
- (g) Be shielded against radio or electromagnetic interference, and
- (h) Have a date and time stamp and gross and tare weights that print electronically with each weighing. Contracting Officer may waive electronic printing for public or third party weighing facilities.

Contractor shall bear all charges or fees for weighing services.

G.8.2 Presentation for Scaling. Contractor shall present products so that they may be Scaled in an economical and safe manner. If prior to Scaling, Included Timber is to be mixed with other timber, Contractor shall, prior to mixing, provide for distinguishing, by means approved by Forest Service, each product included in this contract.

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

Deductions made for rot, check, or other defects resulting from abnormal delay in Scaling caused by Contractor shall be recorded separately and charged to Integrated Resource Account under D.4.7.

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

G.8.3 Scaling Other Products. The Scaled volume of material presented for Scaling in forms other than those stated in A.2, when appropriate, shall be converted to the A.2 unit of measure by the application of standard converting factors and procedures in effect at the time the contract was sold. Other converting factors may be used by written agreement.

G.8.4 Accountability. When Scaling is performed away from Contract Area, products shall be accounted for in accordance with Forest Service written instructions or an Accountability Agreement between Forest Service and Contractor and as follows:

- (a) Contractor shall plainly mark or otherwise identify products prior to hauling in accordance with G.8.4.2;
- (b) Forest Service shall issue removal receipts to Contractor;
- (c) Contractor shall assign a competent individual at the landing to complete removal receipts and attach them to each load of products removed from Contract Area;
- (d) Removal receipts shall be returned to Forest Service at periodic intervals;
- (e) When products are in transit, the truck driver shall possess or display removal receipt and show it upon request as evidence of authority to move products;
- (f) The scaler's portion of removal receipt shall be surrendered at point of Scaling, the unloading point, or as requested by Forest Service; and
- (g) Contractor shall notify Forest Service of lost or off-loaded logs and their location within 12 hours of such loss.

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

G.8.4.1 Route of Haul. As part of the annual Operating Schedule, Contractor shall furnish a map showing the route of haul over which unscaled products will be transported from Contract Area to the approved Scaling location. Such route of haul shall be the shortest, most economical haul route available between the points.

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

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

- (a) For accountability checks when products are in transit from Contract Area to the designated Scaling location or
- (b) For a remote check Scale when products are in transit after being truck Scaled at the designated Scaling location.

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

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

G.8.4.2 Product Identification. Before removal from Contract Area, unless Contracting Officer determines that circumstances warrant a written waiver or adjustment, Contractor shall:

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

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

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

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

G.8.5 Scaling Lost Products. The volume of lost products shall be determined by the best methods currently available, using data from the records for the period in which the loss occurred or the most applicable period if loss should occur substantially after cutting. In the absence of specific information indicating size or species of lost products, species distribution and volume for entire truckloads shall be assumed to be the same as the average volume Scaled per truck during the report period, and for individual products it shall be assumed that the volume and species were the average volume of the highest priced species Scaled during the report period.

G.8.5.1 Scaling Lost Sample Loads. If Scaling is being done by sampling loads of logs, Contractor shall present such sample loads for Scaling by Forest Service. If loads of logs selected to be sample Scaled are placed in the decks before they are Scaled, they will be considered as lost sample loads. It will be difficult, if not impossible, to determine the volume and species contained in such loads for payment purposes. Therefore, lost sample loads will be deemed to have a Scale volume and species composition equal to that of the highest value load Scaled during the sampling period, as established by Forest Service. If no sample loads were Scaled during the period, the Scale data for the high valued load will be taken from the most current preceding sampling period with Scale. Sample loads lost as a result of Forest Service actions shall be treated as non-Scaled loads.

G.8.6 Scale Reports. Forest Service shall provide Contractor a copy of Forest Service scaler's record, if requested in writing.

G.9 Stewardship Projects. Performance of stewardship projects shall be in accordance with the specifications in K-G.9.

All of the mandatory stewardship projects, as shown in A.4.3, shall be performed. Optional stewardship projects, as shown in A.4.3, shall be performed when authorized in writing by Contracting Officer. Such authorization may be for all or a portion of the quantity shown. Optional stewardship projects may be selected and authorized in any order by the Contracting Officer. Upon written request of Contractor, additional optional stewardship projects shall be authorized; however, Contracting Officer shall not be obligated to authorize additional stewardship projects if three or more authorized optional stewardship projects or any of the mandatory stewardship projects remain uncompleted. Contracting Officer shall not be obligated to authorize additional optional stewardship projects at any time if Contracting Officer determines that there is insufficient value of remaining designated timber to cover the value of additional stewardship projects.

G.9.1 Refund of Unused Stewardship Credits. When, under I.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 60 days, unused Stewardship Credits may be refunded upon the written request of Contractor or at the discretion of Contracting Officer.

Contractor agrees that when unused Stewardship Credits are refunded that Contractor shall remit, release, and forever discharge the United States from any and all Claims arising from any delay in using Stewardship Credits under this contract, including, but not limited to, any Claims of interest or other costs.

If Contractor has outstanding debt owing the United States, Contracting Officer must apply the amount of Stewardship Credit that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended.

H.0—FIRE PRECAUTIONS AND CONTROL

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

H.2 Fire Precautions. Specific fire precautionary measures listed in K-H.2 shall be applicable during Contractor's Operations in "Fire Precautionary Period" described in A.12. Contracting Officer may change the dates of Fire Precautionary Period by advance written notice, if justified by unusual weather or other conditions. Required tools and

equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during Contractor's Operations in Fire Precautionary Period.

H.2.1 Substitute Precautions. Forest Service may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.

H.2.2 Emergency Precautions. Forest Service may require the necessary shutting down of equipment on portions of Contractor's Operations, as specified by the emergency fire precautions schedule of K-H.2.2. Under such conditions, after Contractor ceases active operations, Contractor shall release for hire by Forest Service, if needed, Contractor's shutdown equipment for fire standby on Contract Area or other areas of Contractor's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by Contractor for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if Contractor requests, shall be operated only by personnel approved by Contractor. Personnel so hired shall be subject to direction and control by Forest Service and shall be paid by Forest Service at fire fighting rates common in the area or at prior agreed rates.

H.3 Fire Control. Contractor shall, both independently and in cooperation with Forest Service, take all reasonable and practicable action to prevent and suppress fires resulting from Contractor's Operations and to suppress any forest fire on Contract Area. Contractor's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at Contractor's disposal on Contract Area or within the distance of Contract Area stated in A.13.

H.3.1 Contractor's Reinforcement Obligations. Whenever an Operations Fire or Negligent Fire, whether on or off Contract Area, or any other forest fire on Contract Area, has not been suppressed by initial action and appreciable reinforcement strength is required, Forest Service may require further actions by Contractor until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:

H.3.1.1 Suspend Operations. To suspend any or all of Contractor's Operations.

H.3.1.2 Personnel. To release for employment by Forest Service any or all of Contractor's personnel engaged in Contractor's Operations or timber processing within the distance of Contract Area stated in A.13. Any organized crew so hired shall include Contractor's supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.

H.3.1.3 Equipment. To make available for Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of Contractor's equipment suitable for fire fighting and currently engaged in Contractor's Operations within the distance of Contract Area stated in A.13. Equipment shall be operated only by personnel approved by Contractor, if so requested by Contractor.

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

H.4.1 Operations Fire. An "Operations Fire" is a fire caused by Contractor's Operations other than a Negligent Fire.

Forest Service, except as provided in H.3, shall use cooperative deposits under E.2.1.8 to perform fire suppression activities on Operations Fires. Contractor agrees to reimburse Forest Service for such cost for each Operations Fire, subject to a maximum of the dollar amount stated in A.14. The cost of Contractor's actions, supplies, and equipment on any such fire provided pursuant to H.3, or otherwise at the request of Forest Service, shall be credited toward such maximum. If Contractor's actual cost exceeds Contractor's obligation stated in A.14, Forest Service shall reimburse Contractor for the excess.

H.4.2 Negligent Fire. A "Negligent Fire" is a fire caused by negligence or fault of Contractor's Operations, including, but not limited to, one caused by smoking by persons engaged in Contractor's Operations during the course of their employment, or during rest or lunch periods; or if Contractor's failure to comply with the requirements of H.2 and H.3 results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Contractor.

H.4.3 Other Fires on Contract Area. Forest Service shall pay Contractor, at fire fighting rates common in the area or at prior agreed rates, for equipment or personnel furnished by Contractor pursuant to H.3, or otherwise at the request of Forest Service, on any fire on Contract Area other than an Operations Fire or a Negligent Fire.

H.5 State Law. Contractor shall not be relieved by the terms of this contract of any liability to the United States for fire suppression costs recoverable in an action based on State law, except for such costs resulting from Operations Fires. Amounts due Contractor for fire fighting expenditures in accordance with H.4.1 shall not be withheld pending settlement of any such claim or action based on State law.

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

I.0—OTHER CONDITIONS

I.1 Title and Liability.

I.1.1 Title Passage. All right, title, and interest in and to any Included Timber shall remain in Forest Service until it has been cut, Scaled, removed from Contract Area or other authorized cutting area, and paid for, at which time title shall vest in Contractor. For purposes of this Subsection, timber cut under cash deposit or payment guarantee under E.3 shall be considered to have been paid for. Title to any Included Timber that has been cut, Scaled, and paid for, but not removed from Contract Area or other authorized cutting area by Contractor on or prior to Termination Date, shall remain in Forest Service.

I.1.2 Liability for Loss. If Included Timber is destroyed or damaged by an unexpected event that significantly changes the nature of Included Timber, such as fire, wind, flood, insects, disease, or similar cause, the party holding title shall bear the timber value loss resulting from such destruction or damage; except that such losses after removal of timber from Contract Area, but before Scaling, shall be borne by Contractor at Current Contract Rates and Required Deposits. Deterioration or loss of value of salvage timber is not an unexpected event, except for deterioration due to delay or interruption that qualifies for Contract Term Adjustment or under I.3.3.

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

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

I.2 Period of Contract. All obligations of Contractor shall be discharged not later than “Termination Date” stated in A.15, unless it is adjusted pursuant to I.2.1 or I.2.1.2 or extended pursuant to I.2.3 or I.3.2, excepting only those obligations for which Forest Service has given written permission to delay performance. Such written permission shall be considered a Contract Term Adjustment for the purpose of Contractor completing performance of obligations covered by such permission.

I.2.1 Contract Term Adjustment. “Contract Term Adjustment” means adjustment only as provided for in the three circumstances described in this Subsection. Under these circumstances, the contract term shall be adjusted in writing to include additional calendar days in one or more Normal Operating Seasons equal to the actual time lost, except as limited by paragraph (b) in this Subsection.

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

(a) Contractor experiences delay in starting scheduled operations or interruptions in active operations, either of which stops removal of Included Timber from Contract Area through curtailment in felling and bucking, yarding, skidding and loading, hauling, or road construction, as scheduled under G.3.1, for 10 or more consecutive days during a Normal Operating Season due to causes beyond Contractor’s control, including, but not limited to, acts of God, acts of the public enemy, acts of the Government, labor disputes, fires, insurrections, or floods.

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

(c) (i) Contracting Officer requests Contractor, in writing, to delay or interrupt operations during the normal operating season for any purpose other than suspension under E.4 or J.3 or

(ii) Contractor suffers a delay or interruption of Contractor’s Operations affecting skidding, yarding, and loading because of fire emergency closure ordered by Forest Service (or another agency in its behalf), and the total of such lost time is 10 or more days during any Normal Operating Season.

If Termination Date is adjusted, as described in this Subsection, and later extended under I.2.3, the appraisal for the extension shall be made as of the unadjusted Termination Date, but the date on which the new rates become effective, if higher than Current Contract Rates immediately prior to Termination Date, shall be the adjusted Termination Date.

I.2.1.1 Delay in Reconstruction of Processing Facilities. Notwithstanding the 12-month limitation in I.2.1, if Contractor demonstrates a diligent effort has been made to replace primary timber processing facilities and that delays in doing so have been beyond Contractor’s control, Contracting Officer may authorize Contract Term Adjustment up to a total of 24 months.

I.2.1.2 Market-Related Contract Term Addition. The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in A.20. Contractor 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 Contractor's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season. Contracting Officer must receive Contractor's written request for a market-related contract term addition before the expiration of this contract.

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

I.2.2 Termination for Catastrophe. In event of Catastrophic Damage, this contract may be modified under I.3.2, following rate redetermination under D.3.2, or terminated under this Subsection. Such termination shall not be considered a termination under I.3.4.

I.2.2.1 Termination by Contractor. This contract shall be terminated, upon election and written notice by Contractor, if Catastrophic Damage rate redetermination under D.3.2 shows that the appraised weighted average Indicated Advertised Rate of all Included Timber remaining immediately prior to the catastrophe has been reduced through Catastrophic Damage by an amount equal to or more than the weighted average Current Contract Rate.

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

I.2.2.2 Termination by Forest Service. This contract may be terminated by written notice from Contracting Officer, if there is Catastrophic Damage and Contractor does not agree, under I.3.2, within 30 days of receipt from Contracting Officer of contract modifications proposed to permit the harvest of the catastrophe-affected timber.

I.2.3 Contract Term Extension. "Contract Term Extension" means an extension of the term of this contract, at the request of Contractor, under this Subsection. This Subsection does not obligate Contracting Officer to grant Contract Term Extension. An extension can only be granted when Contracting Officer has determined that Contractor has diligently performed under the terms of this contract and when such extension is determined to be in the best interest of Forest Service.

Contracting Officer may not grant Contractor's written request for Contract Term Extension, unless Contractor's Operations to date have been in reasonable compliance with contract terms and the approved Technical Proposal under G.3.1.1 and all contractual requirements have been met by Contractor and accepted by Forest Service in active stewardship project areas and on areas cut over at time of Contractor's request, except for areas where work is in progress at time of Contractor's request. Contractor's burning of current slash or seeding or planting for erosion control may be temporarily waived, if weather or other considerations make such work impractical.

Contract Term Extension shall not become effective unless the initial Extension Deposit required by E.2.1.7 has been made by the effective date of any extension.

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

I.3 Contract Modification. The conditions of this contract are completely set forth in this contract. Except as provided in I.3.2 and I.3.3, this contract can be modified only by written agreement between the parties. Only Contracting Officer may make contract modifications, with compensating adjustments to Current Contract Rates where appropriate, on behalf of Forest Service.

I.3.1 Changed Conditions. When it is agreed that the completion of certain work or other requirements hereunder would no longer serve the purpose intended because of substantial change in the physical conditions of Contract Area or Included Timber since the date of this contract, the requirements shall be waived in writing. The estimated cost of such waived work or other requirement shall be charged to Integrated Resource Account.

I.3.2 Modification for Catastrophe. In event of Catastrophic Damage, Forest Service, in consultation with Contractor, shall outline on Contract Area Map:

- (a) Any areas of catastrophe-affected live and dead timber meeting Utilization Standards and having undesignated timber so situated that it should be logged with the designated timber;
- (b) If needed, any such areas where the damaged undesignated timber can reasonably be logged separately; and
- (c) Areas of affected or unaffected timber that are to be eliminated from Contract Area.

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

After Contract Area Map has been outlined under this Subsection, Forest Service may propose contract modification to permit the harvest of catastrophe-affected timber. If Contractor accepts Forest Service proposed modifications, this contract shall be modified to include rates redetermined under D.3.2 and other related revisions as necessary, such as revision of Operating Schedule to ensure prompt removal of affected timber when necessary to avoid further loss and provision for additional contract time, if needed.

I.3.3 Contract Suspension and Modification. (a) Contracting Officer may, by written order, delay or interrupt authorized operations under this contract or modify this contract, in whole or in part:

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

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

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

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

(v) Upon a change in law if performance of the contract, as determined by the Forest Service, would not be in compliance, in whole or in part, with such law.

(b) In the event of a request delaying or interrupting Contractor's Operations under this Subsection, Contractor's remedy shall be: (i) Contract Term Adjustment, (ii) reimbursement for Out-of-Pocket Expenses, (iii) rate redetermination to measure any decline in the market pursuant to D.3.3, (iv) temporary reduction of downpayment pursuant to E.2.3, (v) temporary credit for unamortized Specified Road construction cost pursuant to F.2.7, and (vi) temporary bond reduction pursuant to J.1.3.

(c) In addition to the compensation scheme set forth in subparagraph (b), Contractor may seek termination pursuant to I.3.6 or, at any time prior to authorization to resume work suspended under this Subsection, demand termination under I.3.4. If Contractor elects termination under I.3.4 or I.3.6, Contractor is nonetheless required, prior to contract termination, to fulfill all contract obligations for areas not affected by the delay or interruption under this Subsection and all compliance obligations for areas affected by the delay or interruption, including, but not limited to, erosion control, brush disposal, and road maintenance. To the extent Contractor is unable to fulfill such obligations, any compensation due to Contractor will be reduced by the cost of completing the unfulfilled obligations, as determined by Contracting Officer. If Contractor seeks damages pursuant to subparagraph (b) and termination pursuant to this subparagraph, Contractor is not entitled to duplicative recovery of any damages.

(d) In cases of modification under this Subsection, Contractor shall receive a rate redetermination pursuant to D.3.1.

(e) Contractor will only be eligible for the remedies listed in this Subsection if the delay or interruption occurs when operations were in progress or would have been proceeding, had there been no delay or interruption under this Subsection

(f) The applicability of this Subsection shall be unaffected by a finding during administrative appeal or litigation that this sale or a similarly situated sale was awarded or operated without properly complying with any statute, regulation, or policy.

I.3.4 Contract Termination. (a) The Chief or the Chief's designee may unilaterally terminate this contract, in whole or in part, for any of the reasons set forth in paragraph (a) of I.3.3.

(b) Contractor agrees that compensation for termination of this contract, in whole or in part, under this Subsection shall be: (i) refund or release of advanced deposits under E.2.1.2 for timber cut but not removed, (ii) reimbursement for Out-of-Pocket Expenses, and (iii) one of the following, except when termination, pursuant to I.3.3(v), is based upon a change of law which is public and general in nature: replacement volume under subparagraph (c) or liquidated damages under subparagraph (d).

(c) Forest Service and Contractor shall make good faith efforts to identify within Contract Area replacement timber of similar volume, quality, access, and topography. Stumpage price shall be adjusted under D.3.1 to account for differences between replacement timber and timber deleted. If Forest Service and Contractor cannot reach agreement on satisfactory replacement volume or the proper stumpage of such timber, either party may opt to end the search and Contractor shall be compensated under paragraph (d) of this Subsection.

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

(e) When Contractor elects termination under this Subsection as a remedy for a delay or interruption pursuant to I.3.3, Contractor shall only be entitled to damages pursuant to subparagraph (d) if the I.3.3 delay or interruption is

greater than one year, and the delay or interruption was not initially caused by wind, flood, earthquake, landslide, fire, forest pest epidemic, or other major natural phenomenon.

(f) In cases of partial termination under this Subsection, Contractor's sole and exclusive remedy for the remaining volume shall be a rate redetermination pursuant to D.3.1.

(g) The applicability of this Subsection shall be unaffected by a finding during administrative appeal or litigation that this sale, or a similarly situated sale, was awarded or operated without properly complying with any statute, regulation, or policy.

(h) Contractor is required to fulfill all contract obligations not affected by a termination or partial termination under this Subsection. To the extent Contractor is unable to fulfill such obligations, any compensation due to Contractor will be reduced by the cost of completing the unfulfilled obligations, as determined by Contracting Officer.

1.3.5 Out-of-Pocket Expenses. "Out-of-Pocket Expenses" are unrecovered expenditures arising directly from performing the contract that were rendered unrecovered due to delay, interruption, or termination pursuant to 1.3.3 or 1.3.4. An expenditure is unrecovered within the meaning of this Subsection where Contractor was precluded from gaining the benefit of the expenditure during a given period because operations were not permitted. Forest Service will reimburse Contractor only for the following Out-of-Pocket Expenses:

(a) Out-of-Pocket Expenses for maintenance of the contract performance and payment bonds during the period when operations were delayed or interrupted or, if terminated, from the date operations were halted until the expiration of the bonds;

(b) Out-of-Pocket Expenses for maintenance of the downpayment or other cash deposits during the period when operations were delayed or interrupted or, if terminated, from the date operations were halted until the cash is returned to Contractor;

(c) Out-of-Pocket Expenses for move-in and move-out;

(d) Out-of-Pocket Expenses for felling, bucking, lopping, skidding, yarding, and decking any products so processed, but not removed from Contract Area because: (i) the contract was terminated or (ii) the products no longer meet Utilization Standards because of delay or interruption;

(e) If terminated in whole or in part, Out-of-Pocket Expenses for unused Temporary Roads;

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

(g) If the contract is terminated, in whole or in part, Out-of-Pocket Expenses for bid preparation, including review of contract offering.

Contractor shall submit documentation of claimed expenditures and supporting analysis to Contracting Officer to assist in Contracting Officer's calculation of reimbursement. Expenses related to paragraphs (a), (b), and (g) may be based on interest at the Prompt Payment Rate established by the Secretary of the Treasury. Contracting Officer shall determine the amount of reimbursement under this Subsection using information from Contractor and/or Forest Service methods in use on the date that operations were delayed, interrupted, or terminated at Contracting Officer's sole discretion.

Contractor shall make all reasonable efforts to minimize Out-of-Pocket Expenses.

1.3.6 Termination for Market Change. In the event of delay or interruption under 1.3.3, exceeding 90 days, this contract may be:

(a) Modified to include rates redetermined under D.3.3 or

(b) Terminated upon election and written notice by Contractor, if a rate redetermination for market change under D.3.3 shows that the appraised weighted average Indicated Advertised Rate of all Included Timber remaining immediately prior to the delay or interruption has been reduced through a market change by an amount equal to or more than the weighted average Current Contract Rate.

Contractor agrees that damages caused by termination of contract by either party will be limited to Out-of-Pocket Expenses.

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

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

(b) Be given unless such other party:

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

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

1.5 Sale of Other Materials. Forest Service reserves the right to sell from Contract Area during the period of this contract any materials or products not subject to its terms, but shall not permit removal, possession, or use thereof

that will materially interfere with Contractor's Operations. Contractor shall not be obligated to do any work made necessary by the action of others.

I.6 Provisions Required by Statute.

I.6.1 Covenant against Contingent Fees. Contractor warrants that no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial agencies maintained by Contractor for the purpose of securing business. For breach or violation of this warranty, Forest Service shall have the right to annul this contract without liability or to require Contractor to pay, in addition to the contract price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

I.6.2 Officials Not to Benefit. No member of Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, unless it is made with a corporation for its general benefit (18 USC 431, 433).

I.6.3 Nondiscrimination in Employment. If the total value of this contract is in excess of \$10,000, Contractor agrees during its performance as follows:

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

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

(c) Contractor will send to each labor union or representative of workers with which Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided by Forest Service, advising the labor union or worker's representative of Contractor's commitments under this Subsection, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

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

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

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

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

I.6.4 Debarment and Suspension Certification. Pursuant to 7 CFR Part 3017, Contractor shall obtain certifications from its Subcontractors regarding debarment, suspension, ineligibility, and voluntary exclusion, including additional Subcontractors obtained after award of this contract. "Subcontractors" are participants in lower tier covered transactions.

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

Contractor shall keep the certifications of its Subcontractors on file until contract Termination Date and any extensions thereof, and will provide a copy at the written request of Contracting Officer. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this Subsection. The knowledge and information of Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

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

The Subcontractor for a contract shall complete a "Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion." An example of this certification is shown following the instructions for page 2 of this contract.

I.6.5 Contract Consistency With Other Laws. The contract shall govern if State and local environmental quality laws conflict with or preclude performance of contractual requirements.

J.0—PERFORMANCE AND SETTLEMENT

J.1 Performance Bond. As a further guarantee of the faithful performance of the provisions of this contract, Contractor delivers herewith and agrees to maintain a surety bond in the dollar amount stated in A.17, unless the amount is adjusted as provided in J.1.1 or J.1.3. In lieu of surety bond, Contractor may deposit into a Federal Depository, as directed by Forest Service under E.2.1, and maintain therein, cash in the dollar amount stated in A.17 or negotiable securities of the United States having market value at time of deposit of not less than the dollar amount stated in A.17.

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

J.1.1 Bond Reduction. Upon Contractor's written request, Contracting Officer shall redetermine the amount of Contractor's performance bond to an amount not less than Contractor's remaining obligations, including the value of Included Timber remaining on Contract Area, plus the estimated cost of uncompleted work required of Contractor and any unpaid billings due on the contract. Contracting Officer shall provide written notice of the redetermined amount to Contractor and to Contractor's surety. Similarly, Contracting Officer shall report to Contractor in writing the amount of deposited cash or deposited securities required thereafter, if such deposits exist in lieu of a surety bond.

As soon as security for the performance of this contract or the settlement of Claims incident thereto is no longer necessary, appropriate notice shall be given to surety or deposits that may have been made in lieu of surety bond shall be returned to Contractor, subject to the conditions in J.5.

J.1.2 Letters of Credit. Notwithstanding the provisions of J.1, approved letters of credit may be used in lieu of a surety bond for performance bond purposes. Such letters of credit shall be subject to approval by Contracting Officer.

J.1.3 Temporary Bond Reduction. When, under I.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 90 days, the performance bond amount required may be temporarily reduced upon the written request of Contractor or at the discretion of Contracting Officer. For the period of the delay or interruption, the performance bond may be reduced to an amount not less than the estimated cost of uncompleted work required of Contractor and any unpaid billings due on the contract.

Upon Contractor's receipt of written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Contractor shall restore the performance bond to the full amount shown in A.17 within 15 days. Contractor shall not resume contract operations until the performance bond amount is fully restored.

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

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

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

For Contractor Claims of \$100,000 or less, Contracting Officer must render a decision within 60 days. For Contractor Claims in excess of \$100,000, Contracting Officer must decide the Claim within 60 days or notify Contractor of the date when the decision will be made.

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

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

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

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

J.2.1 Time Limits for Submission of Claim. Failure by Contractor to submit a Claim within established time limits shall relinquish the United States from any and all obligations whatsoever arising under the contract or portions thereof. Contractor shall file such Claim within the following time limits:

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

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

(c) For subdivisions or cutting units and stewardship project areas, Contractor must file any Claim not later than 60 days after receipt of Forest Service written notification that such area has been accepted; and

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

J.2.2 Contract Documents. All contract documents are intended to be consistent with each other. In case of discrepancy, the following is the order of precedence:

(a) Special Provisions in Part K

(b) Contract Area Map

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

(d) Standard Provisions in Parts B through J

(e) Special project specifications

(f) Plans, such as slash, erosion control, and dust abatement

(g) Agreements between Contractor and Forest Service, as authorized under the contract

(h) Plans:

(i) Figured dimensions over scaled dimensions

(ii) Large scale Plans over small scale Plans

(i) Standard specifications

(j) Lists and/or tables in Plans over any conflicting notations on Plans

(k) Shop Drawings

J.3 Breach. In event Contractor breaches any of the material provisions of this contract, Forest Service shall give Contractor notice of such breach and, allowing reasonable time for remedy of such breach and of Forest Service's election to suspend, may give notice to suspend all or any part of Contractor's Operations. Such notice of breach and notice to suspend Contractor's Operations shall be written, except oral notices may be given if such breach constitutes an immediate threat to human life or a threat of immediate and irreparable damage to National Forest resources. Notwithstanding Section G.1, such oral suspension notice may be given to Contractor's work supervisor or, in work supervisor's absence, to those performing the operation. An oral suspension notice shall be promptly followed by telephone notice and a written explanation from Forest Service to Contractor.

Suspension under this Section shall not entitle Contractor to any remedies arising under I.3.3.

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

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

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

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

J.3.1 Termination for Breach. Contracting Officer, with the concurrence of the Regional Forester, may terminate this contract for breach in the event Contractor:

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

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

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

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

(b) Is convicted for violation of criminal statutes or civil standards, orders, permits, or other regulations for environmental protection issued by a Federal agency, State agency, or political subdivision thereof in the conduct of operations hereunder on National Forest lands, pursuant to G.0.1;

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

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

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

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

J.4 – Damages for Failure to Complete Contract or Termination for Breach. (a) In event of Contractor's failure to cut designated timber on portions of Contract Area by Termination Date; Contractor's failure to complete required stewardship projects by Termination Date; or termination for breach under J.3.1; Forest Service shall appraise remaining Included Timber and stewardship projects, unless termination is under I.2.2 or I.3.4. Such appraisal shall be made with the standard Forest Service method in use at time of termination.

(b) If the contract is reoffered and awarded, damages due shall be the amount by which Current Contract Value decreases at new Bid Rates, plus costs described in paragraph (d) of this Section, less any unused established Stewardship Credits.

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

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

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

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

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

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

J.5 Settlement. If obligations of Contractor have not been fully discharged by Termination Date, any money advanced or deposited hereunder shall be retained and applied toward unfulfilled obligations of Contractor without prejudice to any other rights or remedies of Forest Service. Such funds may be treated as cooperative deposits under E.2.1.8 for uncompleted work 30 days after receipt of written notice from Contracting Officer to Contractor of work to be done and Contractor's failure to deny the obligation or to do the work.

J.6 Contract Closure. Contracting Officer shall give appropriate written notice to Contractor when Contractor has complied with the terms of this contract. Contractor shall be paid refunds due from Integrated Resource Account under E.2.4 and excess cooperative deposits under E.2.1.8.

K.0—SPECIAL PROVISIONS

In accordance with A.21, the Sections, Subsections, and Items therein listed are attached and made a part hereof. The identifier after the K indicates the Part, Section, Subsection, or Item that is being supplemented or modified by each particular provision included in this Part.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE INTEGRATED RESOURCE CONTRACT (Applicable to Contracts with Measurement after Harvest)		Name of Contractor	
National Forest Okanogan-Wenatchee	Ranger District Wenatchee River	Region Pacific N-West	Contract Number
Contract Name Low Pole Stew		Award Date	Termination Date 03/31/2017

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

Unless provided otherwise herein, Forest Service agrees to sell and permit Contractor to cut and remove Included Timber and Contractor agrees to purchase, cut, and remove Included Timber and complete required stewardship projects.

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

UNITED STATES OF AMERICA

Two Witnesses: 2/

(Name)

(Address)

(Name)

(Address)

By: _____
Contracting Officer

(Title)

(Contractor) 3/

By: _____

(Title)

(Business Address)

I, 4/ _____, certify that I am the _____
 Secretary of the corporation named as Contractor herein; that _____
 who signed this contract on behalf of Contractor, was then _____
 of the corporation; that the contract was duly signed for and in behalf of the corporation by authority of its governing body, and is
 within the scope of its corporate powers.

**CORPORATE
 SEAL 5/**

INSTRUCTIONS:

1/ If Contractor is a corporation, state a "corporation organized and existing under the laws of the State of _____" and specify the State; if Contractor is a partnership, state a "partnership consisting of _____" and specify the names of each partner; and if Contractor is a sole proprietor doing business under an assumed name, state "(n) individual doing business under the name of _____ City of _____, State of _____."

2/ The signatures and addresses of two witnesses are required if Contractor is other than a corporation.

3/ If Contractor is a co-partnership, the signatures should be: XYZ Company, by John Doe, a member of the firm. If Contractor is a corporation, form of signature should be: XYZ Company, by John Doe, President (or other officer or agent) and the seal of the corporation must be impressed or indicated.

4/ The certificate must be completed if Contractor is a corporation.

5/ For companies incorporated in States that require a corporation seal, if the corporation has no corporate seal that fact shall be stated, in which case a scroll or adhesive seal shall follow the corporate name.

EXAMPLE 1/

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

Contract Name: _____
National Forest: _____

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

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

Name of Subcontractor: _____
Business Address: _____

_____ Date _____ Signature

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

A.0 - SPECIFIC CONDITIONS. The following conditions apply to the indicated portions.

A.1 - Location and Area, applicable to B.1

This Contract Area of 2819 acres more or less is located in: T.27N.,R17E.,Sections 3, 10, 11, 14, 15, 34; T26N,R17E., Sections 3, 10, 11, 14, 23, 26 W.M. Surveyed, Chelan County Washington

A.2 - Volume Estimate and Utilization Standards, applicable to C.1, C.2, C.4, and G.4

Species	Product	Estimated Quantity	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Net Scale in % of Gross Scale 1/
Douglas-fir	Sawtimber	28,068.00	Ton	7.0	1	8	6.0	40
Grand Fir and Other Coniferous Species	Sawtimber	32,324.00	Ton	7.0	1	8	6.0	40
Softwood Other	Grn Bio Cv	11,042.00	Ton	7.0	1	16	6.0	N/A

Timber Subject to Agreement under K-C.1.1#								
Miscellaneous	Sawtimber	unestimated	Ton	7.0	1	8	6.0	40
Fuelwood	Grn Bio Cv	unestimated	Ton	N/A	1	N/A	N/A	N/A
Miscellaneous	Grn Bio Cv	unestimated	Ton	7.0	1	16	6.0	N/A
Total Quantity		71,434.00	Ton					

1/ Enter Merchantability Factor (Merch. Factor) or Net Scale in % of Gross Scale, whichever is appropriate.

A.3- Timber Designations, applicable to C.3; acres are approximate:

	<u>Number</u>	<u>Acres</u>
Clearcutting Units (C.3.1)		
Specified Road Clearing (C.3.2)		
Overstory Removal Units (C.3.3)		
Understory Removal Units (C.3.4)		
Individual Trees (C.3.5)		713
Incompletely Marked Timber (C.3.6)		

A.4 - Timber Payment Rates, applicable to D.1 and E.0

A.4.1 - Escalated Rates, applicable for Species and Products to be Paid for at Rates Escalated under D.2

Species	Product	Unit of Measure	Rates per Unit of Measure				Required Deposits Slash Disposal \$	Base Index
			Base \$	Advertised \$	Bid Premium \$	Bid (Tentative) \$		
Not Applicable								

A.4.2 - Flat Rates, applicable for Species and Products to be Paid for at Flat Rates

Species	Product	Unit of Measure	Rates per Unit of Measure				Required Deposits Slash Disposal \$
			Base \$	Advertised \$	Bid Premium \$	Bid (Flat) \$	
Douglas-fir	Sawtimber	Ton	.27	.27			.00
Grand Fir and Other Coniferous Species	Sawtimber	Ton	.27	.27			.00
Softwood Other	Grn Bio Cv	Ton	.27	.27			.00
Timber Subject to Agreement under K-C.1.1#							
Miscellaneous	Sawtimber	Ton	.27	.27			.00
Fuelwood	Grn Bio Cv	Ton	.01	.01			.00
Miscellaneous	Grn Bio Cv	Ton	.27	.27			.00

For purposes of convenience in collection and bookkeeping, Bid Rates stated in A.4 include payment of deposits for contract area betterment required pursuant to 16 USC 576b. Such deposits are not included as Required Deposits defined hereunder.

The following definitions are established for the terms used in A.4:

Base Rates are the lowest rates of payment for timber that are authorized by this contract. Base Rates remain constant throughout the life of this contract and are not subject to change by rate redetermination, except for reduction under D.3.1, D.3.2, or D.3.3.

Advertised Rates are the minimum acceptable Bid Rates for timber, exclusive of Required Deposits. These rates are those indicated by appraisal, with a cost allowance made for construction of Specified Roads listed in A.7, but are never less than Base Rates.

Bid Premium Rates are the amounts by which Contractor's bid is in excess of Advertised Rates. The Bid Premium Rates are constant during this contract, except as provided in D.3.1, D.3.2, and D.3.3.

Bid Rates are the rates bid by Contractor (exclusive of Required Deposits for slash disposal, road maintenance, and contract scaling) and are the sum of Advertised Rates and Bid Premium Rates. Until a rate redetermination becomes effective, the Bid Rate for species and products in A.4.1 is the Tentative Rate that is subject to quarterly adjustment under D.2; for species and products in A.4.2, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Contractor may be required to pay for slash disposal (16 USC 490), road maintenance (16 USC 537), and contract scaling (1994 Appropriations Act). Required Deposits may be adjusted as part of a rate redetermination or a Contract Term Extension. The table shows only Required Deposits for slash disposal; road maintenance deposits, if any, are given in K-F.3.2#; and contract scaling deposits, if any, are given in K-G.8.1.6#.

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

A.5 - Indices Used in Quarterly Adjustment, applicable to D.2

Species	Index Name and Date
Not Applicable	

A.6 - High Stumps, applicable to G.4.1.2

Species	Product	Maximum Stump Height * (inches)
All	All	12

A.7 - Specified Roads, applicable to F.2

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

Project		Design Class	Appro. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking 1/
6305331	BEES (R) (segment 0 to .63)	Single Lane - 10 mp	.39 / .63	8 07/29/2013	FS	FS	FS BC
6300140	Low Pole Stew FY 13 (R) (segment 0 to .27)	Single Lane - 10 mp	.17 / .27	8 07/29/2013	FS	FS	FS BC
6305315	Low Pole Stew FY13 (R) (segment 0 to .05)	Single Lane - 10 mp	.03 / .05	8 07/29/2013	FS	FS	FS BC
6300131	Low Pole Stew FY13 (R) (segment 0 to .51)	Single Lane - 10 mp	.32 / .51	8 07/29/2013	FS	FS	FS BC
6305311	POLE KNOB (R) (segment 0 to .53)	Single Lane - 10 mp	.33 / .53	8 07/29/2013	FS	FS	FS BC

1/ Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to F.2.1.2.

A.8 - Forest Service Engineering Completion Schedule, applicable to F.2.1

Road No.	Road Name	Type of Work	Completion Date
	Not Applicable		

A.9 - Scaling Instructions and Specifications, applicable to G.8

Name and Date of Governing Instructions: FSH 2409.11a, National Forest Cubic Log Scaling Handbook, as amended and supplemented.

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

A.10 - Scaling Services, applicable to G.8.1

Species	Product	Unit of Measure	Site and Geographic Location	Method	Standard Estimated Cost per Unit \$
All	All	Ton	Contractor shall request alternate scaling site per G.8.1.1 which meets requirements contained in G.8.1.4.	Total (100%) Weight Scale	.00

A.11 - Minimum Scaling Volumes, applicable to G.8.1

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

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

A.12 - Fire Precautionary Period, applicable to H.2

April 01 to October 31, inclusive

A.13 - Contractor's Responsibility to Furnish Crews and Equipment for:

Initial Fire Suppression, applicable to H.3

Within 5 road miles

Fire Suppression Reinforcement, applicable to H.3.1.2 and H.3.1.3

Within 100 road miles

A.14 - Contractor's Obligation per Operations Fire, applicable to H.4.1

Maximum Amount: \$ \$300,000.00

A.15 - Termination Date, applicable to 1.2

March 31, 2017

A.16 - Normal Operating Season, applicable to G.3.1, G.6.6, 1.2.1 and J.3

First Period: June 01 to October 31, inclusive

Second Period: _____ to _____, inclusive

A.17 - Performance Bond Amount, applicable to J.1

Performance Bond Amount: N/A

A.18 - Downpayment, applicable to E.2.1.1

Downpayment Amount: Not Applicable

A.19 - Periodic Payment Amount, applicable to E.2.1.3

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

A.20 - Market-Related Contract Term Addition Producer Price Index, applicable to 1.2.1.2

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

A.21 - Inapplicable Provisions

The following listed provisions - are hereby made inapplicable. (Instructions: List by reference number and title.)

E.2.1.5	DEPOSITS WHEN PAYMENT GUARANTEED
E.4	PAYMENTS NOT RECEIVED
I.2.1.2	MARKET-RELATED CONTRACT TERM ADDITION

A.22 - List of Special Provisions in Part K

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

K-C.1.1#	TIMBER SUBJECT TO AGREEMENT (09/2004)
K-C.3#	RESERVE TREES (09/2004)
K-C.3.5.5#	DESIGNATION BY PRESCRIPTION (09/2004)
K-C.3.5.7#	INDIVIDUAL TREE DESIGNATION (OPTION 1) (06/2008)
K-D.4.7#	ABNORMAL DELAY (05/2005)
K-E.2.1.5	DEPOSITS WHEN PAYMENT GUARANTEED (05/2010)
K-E.2.1.9#	COST SHARE ROAD DEPOSITS (09/2004)
K-E.2.2	CHANGES IN STEWARDSHIP CREDITS (06/2008)
K-E.4	PAYMENTS NOT RECEIVED (08/2012)
K-F.1.0.1#	TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/2010)
K-F.1.2#	USE OF ROADS BY CONTRACTOR (09/2004)
K-F.1.3#	ROAD COMPLETION DATE (09/2004)
K-F.3.1#	ROAD MAINTENANCE REQUIREMENTS (09/2004)
K-F.3.2#	ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)
K-G.3.1.5#	PROJECT OPERATION SCHEDULE (05/2005)
K-G.3.2#	PROTECTION OF RESERVE TREES (09/2004)
K-G.4.0.5	ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)
K-G.4.1#	SPECIFIC REQUIREMENTS (05/2005)
K-G.4.2#	YARDING/SKIDDING REQUIREMENTS (05/2005)
K-G.6.0#	EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (07/2008)
K-G.7	SLASH DISPOSAL (06/2008)
K-G.7.4.2#	SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008)
K-G.8.1.5	THIRD PARTY SCALING SERVICES (09/2004)
K-G.8.4	USE OF PAINT BY CONTRACTOR (OPTION 1) (06/2006)
K-G.9#	STEWARDSHIP PROJECTS (09/2004)
K-H.1	PLANS (05/2005)
K-H.2	SPECIFIC FIRE PRECAUTIONS (05/2005)
K-H.2.0.1	BURNING BY CONTRACTOR (06/2006)
K-H.2.2	EMERGENCY FIRE PRECAUTIONS (05/2005)
K-H.3.1	ADDITIONAL AREA OF FIRE RESPONSIBILITY (05/2005)
K-I.1.0	DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (05/2005)
K-I.2.1.2	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)
K-I.3.1#	CONTRACT CHANGES (OPTION 1) (05/2005)
K-I.6.8# (Option 1)	USE OF TIMBER (09/2004)

Contract Name: Low Pole Stew

K-C.1.1# - TIMBER SUBJECT TO AGREEMENT (09/2004)

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

Species	Product
Miscellaneous	Sawtimber
Miscellaneous	Grn Bio Cv
Fuelwood	Grn Bio Cv

that shall be Included Timber upon written agreement.

K-C.3# - RESERVE TREES (09/2004)

Notwithstanding the designations for cutting under C.3.1, C.3.2, C.3.3, or C.3.4, live or dead genetic and wildlife reserve trees or groups of reserve trees within such cutting units or clearings shall be left uncut. Reserve trees are identified by genetic trees are identified with wide bands of orange paint at diameter breast height and are posted with yellow metal tags(R6-24-11) "Selected Tree For Genetics" and shall be protected in accordance with K-G.3.2#. Units with reserve trees are shown on Contract Area Map.

K-C.3.5.5# - DESIGNATION BY PRESCRIPTION (09/2004)

Within Subdivision(s) or cutting unit(s) 21, 22 and 23, as shown on Contract Area Map, the following criteria shall be used by Contractor to designate trees and other products for cutting and removal. Contractor shall Mark leave trees with Contractor's non-tracer Orange paint. Forest Service shall inspect and approve Marking prior to cutting.

- (a) See Low Pole DxPre Specifications, Attachment B.
- (b) Additional trees to be cut, if any, are Marked by Forest Service with Green or blue tracer paint.
- (c) Cutting unit boundaries and other trees that shall be left uncut are Marked by Forest Service with Orange tracer paint.

K-C.3.5.7# - INDIVIDUAL TREE DESIGNATION (OPTION 1) (06/2008)

All trees Not painted with orange paint above and below stump height in all LTM Subdivisions which meet the minimum tree diameter stated in A.2 are designated for cutting. Additional timber to be cut, if any, will be designated for cutting in accordance with C.3.7.

Leave trees, Marked with orange, or identified by, NA, are not to be cut, unless designated by the Forest Service.

Contract Name: Low Pole Stew

K-D.4.7# - ABNORMAL DELAY (05/2005)

Unless otherwise agreed, felled timber meeting Utilization Standards shall be removed by Contractor pursuant to C.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 D.4.7.

See attached removal schedule.

REMOVAL SCHEDULE PURSUANT TO K-D.4.7# - ABNORMAL DELAY (5/05)

Included Timber

Time Limits

ALL.

180 days after felling is started.

All timber decked during
construction clearing.

180 days after felling on each Specified
Road constructed by Contractor is
initiated.

Timber decked during road
construction.

180 days after Forest Service authorizes
Contractor to use roads pursuant to
F.2.

K-E.2.1.5 - DEPOSITS WHEN PAYMENT GUARANTEED (05/2010)

To the extent payment guarantee is provided under E.3, requirements for advance cash deposits under E.2.1.2 shall be waived for the value of Included Timber removed except for:

- (a) Base Rates,
- (b) associated charges, and
- (c) the value of Included Timber exceeding the sum of stewardship credits that have not been established under E.2.2 for mandatory stewardship projects listed in A.4.3 plus optional stewardship projects listed in A.4.3 authorized by Contracting Officer.

Charges for (a), (b) and (c) shall be waived for not more than a monthly billing period, subject to the provisions of E.4.

K-E.2.1.9# - COST SHARE ROAD DEPOSITS (09/2004)

Contractor is authorized to use cooperative roads constructed under provisions of a cooperative agreement, dated 06/28/1989, between Longview Fibre Company, Cooperator, and Forest Service, and available for inspection at the Forest Supervisor's Office. Under the terms of this agreement, Contractor will be required to make a lump sum payment of \$ \$5,192.00 for use of cooperative roads. Contractor shall make this deposit in advance of road use, unless Contractor provides a payment bond under E.3. If a payment bond is provided, Contractor shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. The amount of the Required Deposit will be shown as an associated charge on Contractor's Integrated Resource Account. If Contractor is also the Cooperator under the agreement, the amount of the Required Deposit will be credited to the Cooperator as part of Forest Service's commensurate cost share.

K-E.2.2 - CHANGES IN STEWARDSHIP CREDITS (06/2008)

The Contracting Officer may at any time, by written order, make changes within the general scope of this contract in any one or more of the following:

- (1) Specifications for Stewardship Projects listed in K-G.9#.
- (2) Quantities of Stewardship Projects listed in A.4.3.
- (3) Prices for Stewardship Projects listed in A.4.3.
- (4) Place of performance of the Stewardship Projects as shown on the Contract Area Map.

In addition, by written agreement, new Stewardship Projects may be added to K-G.9# and A.4.3 as long as they are within the general scope of this contract. Contract Area may be expanded to add new stewardship projects.

If a written change order causes an increase in the time required for performing any part of the work under this contract, the Contracting Officer shall make an adjustment in the Contract Termination Date and shall modify the contract accordingly.

The Contractor must assert their right to equitable adjustments under this provision within 30 days from receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before contract closure.

If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

Failure to agree to an adjustment under this provision shall be considered a dispute under J.2. However, nothing in this provision shall excuse the Contractor from proceeding with the contract as changed.

In addition, by written modification of the contract, new Stewardship Projects may be added to K-G.9# and A.4.3, with or without expanding the Contract Area, as long as they are within the general scope of this contract.

K-E.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, Contracting Officer will suspend all or any part of Contractor'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 E.2.1.8;
- (iii) Damages pursuant to J.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to E.2.2;
- (vi) Periodic payments pursuant to E.2.1.3;
- (vii) Extension Deposits pursuant to E.2.1.7; 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 J.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 Contractor'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 Contractor's Operations, and administrative offset, shall be stayed for so long as:

- (i) A bona fide dispute exists as to Contractor's obligation to make such payment and
- (ii) Contractor files and prosecutes a timely Claim.

K-F.1.0.1# - TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/2010)

In addition to the requirements of F.1 and G.6.3, Contractor 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 Contract Area Map shall be in accordance with the attached plans or criteria.

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

See attached Plans and/or Criteria.

PLANS AND/OR CRITERIA PURSUANT TO K-F.1.0.1# - TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/08).

LANDINGS

Landings will not be constructed in Riparian Reserves unless other practicable locations outside the Riparian Reserve are not available. If landings are constructed in Riparian Reserves, suitable erosion control measures such as silt fences or other retention methods will be installed prior to landing construction and will remain in place during the harvest operations.

TEMPORARY ROADS

In addition to the erosion control and stabilization requirements of G.6.3, all temporary roads constructed pursuant to F.1 shall be decommissioned in accordance with the following specifications:

Description - The work shall consist of decommissioning roads and landings and restoring drainage facilities to the original hydrological function. Specific work activities are listed below.

Contractor supplied equipment and materials - Contractor is responsible for providing equipment (a self drafting winged subsoiler to subsoil the road or an excavator to scarify the road surface.

The Forest Service must authorize all work. Work must be completed to a standard sufficient to meet objectives before acceptance will be made.

Specific Work Activities

1. Clearing and Slash Treatment - Clearing of trees and slash may be necessary. The work shall consist of removing vegetation from fill slope, road surface, ditch lines and back slope as necessary prior to sub soiling of the road surface and excavation and placement of excavated material. When clearing is needed, it shall be accomplished as follows:
 - a. Materials generated will not need to be limbed and lopped.
 - b. Slash will be machine piled in areas designated by Forest Service.
 - c. Materials shall be positioned in a stable position to prevent rolling.
 - d. Generated materials that create such a deep or thick mat that they will prevent seeding, ripping, or other ground surface treatments called for shall be further scattered or moved off disturbed areas.

2. Drainage - The work shall consist of filling and removing ditches and shaping the road surface to drain. Eliminate all ruts and low spots that could hold water.
3. Subsoiling - The work shall consist of using a self drafting winged subsoiler to loosen 100% of the soil across the entire width of the existing roadbed or landing surface area to a minimum depth of 20 inches. Equipment shall not be operated on sub-soiled areas.
4. Removal of Culverts - The work involves removing all culverts or drainage structures and associated fills. Channels, following removal of drainage structures, shall be reshaped. Excavation limits shall be as follows:
 - a. The width of the excavated channel shall match the width of the natural stream valley or channel, whichever is wider.
 - b. The elevation of the excavated channel shall approximate the average channel gradient of the natural stream upstream and downstream of the site.
 - c. Stream banks shall be sloped to match the natural stream bank contours adjacent to the site upstream and downstream. Rocks over 12 inches may be placed along edges of channel for erosion control, but shall not narrow the required width of the channel. Finish slopes to provide gradual transitions in slope adjustments without noticeable breaks.
5. Waste Areas - Excavated material shall be placed on cut sections of the road prism against back slopes along the roadbed near the excavation area. Waste areas shall be treated as follows:
 - a. Any road segment or surface area where embankment is to be placed shall be decompacted prior to placement.
 - b. Excavated material shall be shaped to drain in a manner that precludes sediment from entering the stream and left in an uncompacted condition.
 - c. Keep excavated material within the original construction limits.
6. Disposal of Culverts - All removed culverts shall become property of the Contractor and shall be removed from national forest lands.
7. Road Closure Barriers - Road Closure Barriers shall be constructed at locations specified by Forest Service. Cover at least 100 ft. of the sub-soiled road surface beyond the barrier with slash and cleared material to screen the decommissioned road.
8. Seeding - Seed shall be applied to all areas disturbed under this contract pursuant to K-G 6.0#.

Contract Name: Low Pole Stew

K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

Contractor's use of existing roads identified on Contract 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 Forest Service to inform the public of use restrictions. Contractor's use of roads coded R, A, or W shall be in accordance with the following restrictions:

See Restricted Road List Table.

TABLE PURSUANT TO K-F.1.2# - USE OF ROADS BY CONTRACTOR (9/04)

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
6300	Meadow Creek	0.0	2.0	R	No winter log haul
6305	Pole Ridge	0.0	2.2	R	No Winter log haul

Title and Date of Governing Road Rules Document:

Wenatchee National Forest Road Use
Rules

July 1, 2010

Commercial Road Rules

Effective Date

Contract Name: Low Pole Stew

K-F.1.3# - ROAD COMPLETION DATE (09/2004)

Construction of Specified Roads shall be completed no later than 03/15/2017 ; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station		Completion Date
		From	To	

N/A

Completion date is binding on the party that constructs road, whether Contractor or Forest Service. Contracting Officer may modify the completion date in writing to conform to the Technical Proposal under G.3.1.1.1 at the request of Contractor.

When Contractor elects Forest Service construction of Specified Roads shown in contract 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 Contractor on request. Promptly after the end of Normal Operating Season in which qualifying days occur, Forest Service shall give Contractor 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, Contractor may request a rate redetermination under D.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 Contract 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 Contractor 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 Contractor desires to construct an alternate facility under F.2.6, Forest Service and Contractor 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 Contractor 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 provision, construction of a road is completed when:

(a) Contractor constructs Specified Roads and Forest Service furnishes Contractor with written notice of acceptance under G.3.6 or

Contract Name: Low Pole Stew

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

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

K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

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

See Contract Road Maintenance Requirements Summary Table.

TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Pre-haul Road Maintenance Specifications													
	From	To		T-803	T-812	T-831	T-834	T-835	T-836	T-839	T-842	T-851	T-891				
6200000	End of County Rd.	Jct. w/6300000	2.43			P	P										
6202000	Jct. w/6200000	Jct. w/6202135	0.87			P						P					
6202135	Jct. w/6202000	End of rd.	0.19			P							P				
6202140	Jct. w/6202000	End of rd.	0.32			P							P				
6300000	Jct. w/6200000	Jct. w/6305000	2.24				P							P			
6300131	Jct. w/6300000	Unit 13	0.51														
6300135	Jct. w/6300131	End of rd.	0.34											P	P	P	
6300137	Jct. w/6300135	End of rd.	0.03												P		
6300140	Jct. w/6300000	N edge of Unit 02	0.27														
6305000	Jct. w/6300000	Jct. w/6305311	2.05				P		P	P					P		P
6305311	Jct. w/6305000	End of road	0.53														
6305315	Jct. w/6305311	E edge of Unit 12	0.05														
6305331	Jct. w/6305000	W edge of Unit 03	0.63														
6601000	Jct. w/River Road	Jct. w/6601210	1.73			P							P				
6601210	Jct. w/6601000	2nd Helicopter landing	1.30			P									P		P
6602000	Jct. w/River Road	Jct. w/6602100	1.40			P									P		P
6602100	Jct. w/6602000	2nd Helicopter landing	0.70			P									P		P
6604000	Jct. w/Hwy. 207	Jct. w/6604111	0.07			P											
6604111	Jct. w/6604000	Helicopter Landing	0.26			P											
6604114	Jct. w/6604111	Helicopter Landing	0.35			P											

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

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	Explanation
	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
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	Explanation
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
		D	Purchaser 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.

Contract Name: Low Pole Stew

K-F.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Contractor's performance of road maintenance, Contractor 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 Contractor's commensurate use of each road listed in the Road Maintenance Plan in K-F.3.1#.

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

The Required Deposits for Forest Service work in lieu of Contractor performance and for deferred maintenance is: \$ \$.19 per Ton.

The following table lists who Contractor 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
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N/A		
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K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

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

See attached schedule.

SCHEDULE PURSUANT TO K-G.3.1.5# - PROJECT OPERATION SCHEDULE (5/05)

<u>Subdivisions</u>	<u>Operation Conditions</u>	<u>Purpose</u>
1,2,3,4,5,7,8, 9,10,11,12	No harvest operations from April 15 to June 1.	Sap Flow Restriction
21,22	No Helicopter logging within ½ mile of residences before 7:00 AM on weekdays or 8:00 AM on weekends.	Reduce noise
21,22	Helicopter logging prohibited within ½ mile from residences on River Road on Memorial Day, 4 th of July, Labor Day, Thanksgiving, Christmas and New Years.	
23	No Helicopter logging within ¼ mile of nest site from March 1 until August 31. If nesting has not occurred by April 15 restriction can be waived.	Protect Nesting Goshawk.
14,15,16,17, 18,19	No helicopter operations from February 1 through August 31.	Protect Nesting Eagle

K-G.3.2# - PROTECTION OF RESERVE TREES (09/2004)

Contractor's damage or destruction of reserve trees described in K-C.3# will cause serious and substantial silvicultural or other damage to the National Forest. It will be difficult if not impossible to determine the amount of such damage. Therefore, Contractor shall pay as fixed, agreed, and liquidated damages \$ 500.00 for each Genetic reserve tree and \$ 500.00 for each wildlife reserve tree damaged or destroyed by Contractor's Operations, in addition to amounts payable under D.4.5 and D.4.6.

Damage, as used herein, includes any injury to the living crown, bole, or roots of reserve trees. If areas are marked on the ground around such reserve trees, operation of heavy equipment or skidding of products within the area shall be considered to be damage to the tree.

K-G.4.0.5 - ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)

Contractor and Forest Service may agree to alternate removal requirements of Included Timber contained in A.2. Alternate removal requirements are to be set forth in an agreement signed by both Contractor and Contracting Officer. The terms of the agreement binds both parties and becomes part of the stewardship 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 Contractor has no ready market for such logs in the tributary area. A tributary area is defined as the area in which the Contractor and competitors regularly deliver saw logs, or 200 miles from the Contract 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 designated in the agreement.

Volumes of material with alternate removal requirements will be determined from the National Cruise report for the project. Contractor 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 Contractor associated with alternate removal requirements.

Charges will be debited to the Contractor's Integrated Resource Account.

Upon acceptance of the alternate removal requirements, the Subdivision will be removed from the Contract Area under G.3.6.

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

K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

Notwithstanding G.4.1, G.4.1.1, G.5 and G.6.1, 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, Contractor shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

See attached Table.

TABLE PURSUANT TO K-G.4.1# - SPECIFIC REQUIREMENTS (5/05)

<u>FELLING METHODS</u>	<u>SUBDIVISIONS</u>
Directionally fall trees away from private land.	11,12,13,14,15 16,17,18,19
Directionally fall timber away from streamcourses designated on the Contract Area Map for streamcourse protection.	14,15,16,17,18 19
Directionally fall trees away from Area to Protect (ATP) on the Contract Area Map.	6,8
Directional fall trees away from sensitive plant sites.	23
Directionally fall timber to angle in the direction of skidding and yarding.	1,2,3,4,5,6,7,8,9,10 11,12
 <u>FELLING EQUIPMENT</u>	 <u>SUBDIVISIONS</u>
As included in the Contractor's Technical Proposal and accepted by the Forest Service.	All

K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

Contractor 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 Contract 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 K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (5/05)

YARDING/SKIDDING REQUIREMENTS

Subdivision's

Skid trails will be pre located to minimize damage to soil and residual trees. Skid trails will generally be 100 feet apart except where they converge at a landing. Skid trail locations will be pre-approved by the Forest Service before tree cutting begins. Contractor is to use old skid trails as much as possible before designating new ones.

1,2,3,5,8,9,12

The dropline underneath the helicopter used to haul trees to the landing shall be at least 200 feet in length.

13,14,15,16,17,
18,19,20,21,22
23

Break all logs free of their beds vertically and suspend logs above ground during inhaul portion of the flying cycle in a manner that prevents damage to residual timber stand and other resources.

13,14,15,16,17,18
19,20,21,22

Yard tops with limbs attached to logs.

1,2,3,4,5,7,8,9,
10,11,12

K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (07/2008)

Erosion prevention and control work required by G.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 Contractor's Operations due to causes beyond Contractor'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 Contractor's Operations due to failure to perform required work shall be repaired by Contractor.

On slopes greater than 35 percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Contract Area by Contractor's Operations and where measures described in G.6 will not result in satisfactory erosion control or where subsoiling is shown on Contract 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 in the attached seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from April 15 to October 31 unless otherwise agreed to. Applications shall be done only during favorable conditions. If Contractor 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 Contract Area Map, landings, Temporary Roads and/or skidtrails/roads shall be scarified to a depth of NA 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 Contract Area Map, landings, Temporary Roads, and skid trails/roads used by Contractor 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, Contractor 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

Contract Name: Low Pole Stew

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.

See attached application schedule.

APPLICATION SCHEDULE PURSUANT TO K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (5/05)

PAYMENT UNIT OR UNIT NUMBER	AREAS	SEED		FERTILIZER		MULCH	
	A) SKID TRAILS B) FIRELINES C) TEMP. ROADS	APPLICATION		APPLICATION		APPLICATION	
	D) LANDINGS E) CORRIDORS	SPECIES 1/ MIXTURE	LBS/AC	TYPE 2/ LBS/AC	LBS/AC	TYPE 3/ LBS/AC	LBS/AC
ALL	A, C, D, E	SEED TO BE SUPPLIED		NA	NA	NA	NA

1/ For projects 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 projects in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The Contractor 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 inoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the inoculant.

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.

K-G.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 Contractor's Operations, including construction of roads or other improvements under this contract. Slash resulting from the construction of Specified Roads shall be disposed of as provided for in Section 201 of the Standard and Special Specifications and as shown in Drawings.

Any burning of slash or refuse by Contractor is subject to K-H.2.0.1.

Forest Service may enter into a written agreement with Contractor for the Contractor to remove slash from landings, subject to D.4.1. Brush disposal deposits paid by the Contractor for the Forest Service to burn landing piles will be credited to the Contractor's integrated resource 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 Contractor. The credit will be made following the final removal of all Included Timber, and slash piles, from the Contract Area.

K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008)

Contractor shall pile, burn, yard, construct firelines or otherwise treat slash defined in K-G.7, within designated areas. Work required of Contractor shall be in accordance with the following slash plan and specifications, and the Contract 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 following specifications.

SPECIFICATIONS PURSUANT TO K-G.7.4.2#-SLASH TREATMENT REQUIREMENTS
(OPTION 2) (6/2010)

MACHINE PILING OF LANDING SLASH, ALL UNITS

Only material less than 4 feet in length and 2 inches in diameter at the small end of the piece shall remain unpiled on the landing.

Piles are to be reasonably free of soil and noncombustible material.

Size and location of the pile shall not impair road use or result in damage to residual timber.

Compact piles with no piece extending 6 feet beyond the edge of the pile.

PILING OF TEMPORARY ROAD SLASH, UNIT 1,4,5,7,9

Piling of temporary road slash will be done in the same manner as for machine piling of landing slash.

Contractor Hand Pile Logging Slash within 100 feet of Private Property in Units 11,12,13,14,15,16,17,18,19.

Material from 1 inch up to 4 inches in diameter having a minimum length of 2 feet will be piled.

Locate piles so that burning will cause minimum damage to standing live trees or physical improvements.

Construct piles as compactly as possible, material will be bucked to less than 5 feet with long axis straight up and down hill, piles should be constructed so as not to topple over. Keep piles to a practical size to burn. Cover piles with waterproof material, material will be approved by the Forest Service. Waterproof material shall be placed on the pile and secured with combustible material so the pile will be protected from rain and snow. Place material as a continuous piece from ground surface on one side of the pile to ground surface on the other side covering 95% of the pile, width of covering shall be at least 4 feet.

K-G.8.1.5 - THIRD PARTY SCALING SERVICES (09/2004)

Notwithstanding the requirement for Forest Service or parties under contract to Forest Service to provide Scaling services under G.8.1, Scaling designated in A.10 shall be conducted by a third party Scaling organization approved by Forest Service. Scaling shall be done in accordance with A.9 and Contractor 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 Contractor'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 G.8.1.1 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 A.10 shall be charged to Integrated Resource Account.

If Forest Service and Contractor agree in writing that another party under contract to Forest Service will perform Scaling, the contract will be modified to include K-G.8.1.6 and Integrated Resource Account will be charged for such Scaling.

K-G.8.4 - USE OF PAINT BY CONTRACTOR (OPTION 1) (06/2006)

Notwithstanding G.8.4.2, use of paint by the Contractor within the Contract Area in the same color(s) used by the Forest Service in the preparation and administration of the contract will be by written approval of the Forest Service.

K-G.9# - STEWARDSHIP PROJECTS (09/2004)

Performance of stewardship projects shall be in accordance with the following specifications.

Stewardship Projects

K-G.8.5.1 - WEIGHT OF LOST LOADS (06/13)

If weight (TON) is the unit of measure for payment purposes, Contractor 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 no weight ticket is furnished shall be considered a lost sample load with a weight equal to the weight of the heaviest load presented during the billing period, as established by the Forest Service.

K-G.9# STEWARDSHIP PROJECTS. (9/04)

Performance of stewardship projects shall be in accordance with the following specifications.

MANDATORY PROJECTS

Project Number 001 - Tree Marking D x Pre. See Attachment A

Project Number 002 - 6300140 Road Decommission. See Attachment A

OPTIONAL PROJECTS

Project Number 003 - Tree Marking D x Pre. See Attachment A

Project Number 004 - 6601210 Road Decommission. See Attachment A

Project Number 005 - 6122921 Road Decommission. See Attachment A

Project Number 006 - 6602100 Road Decommission. See Attachment A

Project Number 007 - 6305315 Road Decommission. See Attachment A

Project Number 008 - 6604113 Road Decommission. See Attachment A

Project Number 009 - 6305331 Road Decommission. See Attachment A

Project Number 010 - 6300137 Road Decommission. See Attachment A

Project Number 011 - 6300135 Road Decommission. See Attachment A

Project Number 012 - 6202135 Road Decommission. See Attachment A

Project Number 013 - 6202140 Road Decommission. See Attachment A

Contract Name: Low Pole Stew

K-H.1 - PLANS (05/2005)

The plan shall state how Contractor'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. Contractor shall certify compliance with specific fire precautionary measures included as Subsections under K-H.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 Contractor costs incurred toward meeting Contractor's obligations under A.14, or for paying for helicopters controlled by Contractor and used under Forest Service direction for suppressing Operations Fires or other fires on Contract Area, excluding Negligent Fires.

K-H.2 - SPECIFIC FIRE PRECAUTIONS (05/2005)

When the industrial fire precaution level is I or higher, unless waiver is granted under K-H.2.2, specific required fire precautionary measures are as follows:

A. Fire Security.

Contractor shall designate in writing a person or persons who shall perform fire security services listed below on Contract Area and vicinity. The designated person will be capable of operating Contractor's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of Contractor'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, Contractor may provide another person meeting the qualifications stated above to direct the activities of Contractor's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time Contractor'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 Contract Area.

Contractor shall furnish fire security services based on the predicted industrial precaution level, obtained by Contractor 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 Contractor 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 Contractor 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 Contract Area that is protected and readily available.

Contract Name: Low Pole Stew

(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 arresters 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.

Contractor 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.

Contractor 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 H.2.1.

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 Contract Area Map, Contractor 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, Contractor may provide a suitable helicopter water bucket with a 300 gallon capacity. When Contractor provides a water bucket, a water source shall be provided within 5 minutes round trip flight time from operating side.

F. Communications.

During Contractor's Operations, excluding powersaw falling and bucking, Contractor 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 Contractor. Contractor shall not permit open fires on Contract 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 Contractor in any way from compliance with State fire laws covering fire prevention and suppression equipment, applicable to Contractor's Operations.

J. Aircraft Communications.

Every aircraft used in conjunction with Contractor'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 Contract Area, all aircraft pilots controlled by Contractor

Contract Name: Low Pole Stew

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

K. Logging Block Equipment.

Contractor 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.

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

K-H.2.0.1 - BURNING BY CONTRACTOR (06/2006)

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

K-H.2.2 - EMERGENCY FIRE PRECAUTIONS (05/2005)

Contractor 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 Contractor, 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 and as described in A.12.

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 H.2.1, shall prescribe measures to be taken by Contractor 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. Contractor shall assure that all conditions of such waivers or substitute precautions are met.

Contractor 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 Contractor when changes in restrictions or industrial precautions are indicated.

K-H.3.1 - ADDITIONAL AREA OF FIRE RESPONSIBILITY (05/2005)

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 Contract Area shall be considered as a part of Contract Area in connection with responsibilities under H.3 and H.4 until the road has been accepted in writing by Forest Service.

K-I.1.0 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (05/2005)

Contractor and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Contractor will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Contractor 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 project. If such interruption or termination occurs due to litigation, Contractor agrees to accept as full compensation for such interruption remedies pursuant to I.3.3, or for termination remedies pursuant to I.3.4.

K-I.2.1.2 - 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 A.20. Contractor 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 Contractor'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 Contractor'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 contract 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 Contractor'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.

K-I.3.1# - CONTRACT CHANGES (OPTION 1) (05/2005)

Contract changes involving volumes and/or values will use a weight ratio of 3.2696 to convert net CCF cruise volumes to Tons.

Contract Name: Low Pole Stew

K-I.6.8# (Option 1) - USE OF TIMBER (09/2004)

(a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.).

(b) Except for None determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor 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, Contractor 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 Contractor or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Contractor 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 Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor 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 action 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 Contractor relating to the termination.

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 K(T)-F(T).1.2# or the Road Rules document.
- (8) Upon seasonal completion of Contractor'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 Contractor in writing as to the cubic yard equivalent of bladed off material by the start of the normal operating season.

803.03 Equipment

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

- a. Type or use of equipment is not restricted in K(T)-F(T).1.2# 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 Contracting Officer.

803.04 Ice Control

Ice control may be performed by Contractor 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 1/2 inch per 1 foot of width, but not more than 3/4 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
<i>To be filled in by local FS invasive plant specialist, if applicable.</i>

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-812 - DUST ABATEMENT (05/09)

812.01 Description

This work consists of applying dust palliatives on roads shown in the Road Listing.

812.02 Materials

The dust palliative materials are shown in the Road Listing, unless shown as Optional for Contractor's election. If Optional is shown then the Contractor may use any of the products listed below. Dust palliative materials shall meet the following requirements:

- A. Water (H2O) will be obtained from sources SHOWN ON THE DRAWINGS or listed in the SUPPLEMENTAL SPECIFICATIONS to Section T-891 Water Supply, unless otherwise approved by the Contracting Officer.
- B. Lignin Sulfonate (LIG S) Provide certification that the material meets the requirements of Subsection 725.20 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03)" and the Forest Service Supplemental Specification 725.20.
- C. Magnesium Chloride (MG CL2) Provide certification that that the material meets the requirements of Subsection 725.02 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP03) " and the Forest Service Supplemental Specification 725.02.
- D. Calcium Chloride Brine (CA CL2B). Provide certification that the material meets the requirements of Subsection 725.02 of the " Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP03) " and the Forest Service Supplemental Specification 725.02.
- E. Calcium Chloride Flake (CA CL2F). Provide certification that that the material meets the requirements of Subsection 725.02 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP03) " and the Forest Service Supplemental Specification 725.02.
- F. Bituminous dust palliatives. Manufacture materials specifically for dust abatement purposes which conform to the requirements of Section T-892 for each listed road in the Road Listing.

812.03 Methods

As shown in the SUPPLEMENTAL SPECIFICATIONS, Contractor may utilize a variety of methods to decrease or eliminate the need for dust abatement

812.04 Equipment

- A. Design, equip, and operate application equipment for spreading dust palliatives so that the material is uniformly applied at the rate and traveled way widths shown in the Road Listing
- B. For bituminous palliatives provide equipment that heats and applies the bituminous material. Provide a bituminous distributor that is self-powered and mounted on pneumatic tires and equipped with a pump and circulating spray bar, a tachometer, pressure gauges, accurate volume measuring devices such as visual volume dial or gauge calibrated to the tank, and a thermometer. Provide equipment which is a standard commercial type of proven performance.
- C. Accomplish dilution of dust palliatives within the application vehicle with the water source protected from contamination. Circulate the resulting mixture at least five (5) minutes to ensure uniform mixing prior to application.

812.05 Maintenance Requirements

- A. Limit water applications to abatement for hauling vehicles and provide at a frequency and rate which controls dust such that vehicle tail lights and turn signals remain visible. Vary rates of application as needed but remain low enough to avoid forming rivulets. Accomplish the abatement by sufficient frequency of application without saturating and softening the traveled way. Compacted or glazed road surface or wheel tracks may be loosened as needed for water penetration.
- B. Apply all other dust palliatives at the rates and times agreeable to the Contracting Officer. The Road Listing shows the expected average application rate and may be varied to meet field conditions. Lignin Sulfonate, Magnesium Chloride, and Calcium Chloride Brine are listed as gallons per square foot of the undiluted product at fifty (50), thirty-three (33), and thirty-eight (38) percent respectively. Calcium Chloride Flake is listed in pounds per square foot at seventy-seven (77) percent concentration.
- C. Apply bituminous dust palliatives only when the surface to be treated contains sufficient moisture to obtain uniform distribution of the dust palliative unless noted differently in the SUPPLEMENTAL SPECIFICATIONS.
- D. Prior to initial application, when needed, the road will be bladed and shaped under Section T-811, Blading.
- E. Required subsequent applications may be applied to the existing road surface without blading.
- F. Dust palliatives will not be applied in a manner that spatters or mars adjacent structures or trees, or placed on or across cattleguards or bridges. Discharge dust abatement material only on roads approved by the Contracting Officer.

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

<i>To be filled in by local FS invasive plant specialist, if applicable.</i>
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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.

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

T-835 - ROADWAY DRAINAGE MAINTENANCE (05/07)

835.01 Description

This work consists of providing post haul drainage on roads.

835.02 Maintenance Requirements

A. Drainage

1. Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles. Repair and reinstall water bars, barriers or berms existing prior to the Contractor's operation. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.
2. Continuous blade shaping of the roadbed is not required under this specification.
3. Work to be done at staked locations shall be as indicated on the stake and/or stated in SUPPLEMENTAL SPECIFICATIONS:
4. Any of the following methods are acceptable for use at eroded or rutted locations:
 - Method A: Outsloping the roadbed at not less than 1/2 inch per yard of width.
 - Method B: Insloping the roadbed at not less than 1/2 inch per yard of.
 - Method C: Water bar roadbed at locations staked on the ground and construct as SHOWN ON THE DRAWINGS or as included in SUPPLEMENTAL SPECIFICATIONS.
5. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet of the structure.

6. Either clean culverts and other fabricated structures to provide drainage from road ditches and make the ditch functional or provide water bar(s) across the roadbed. Removed structures shall become Contractor's property to be removed from National Forest System land. Remove and replace any Contractor-installed temporary drainage structures with a water bar.

B. Slides, Slumps and Slough

1. Slides and slough may be left in place, provided they do not potentially impound water or divert water from watercourses. As necessary, reshape the various surfaces to provide drainage.

2. Provide drainage to effectively decrease or eliminate the entry of surface water into slides, slumps, and roadbed surface cracks. Place berms, waterbars or ditches as needed to intercept and remove runoff water from the roadbed. Surface seal cracks by covering over with native soil materials to prevent additional water entry and compact with equipment tires.

C. Entrance Devices

Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles having four (4) wheels and a width in excess of 50 inches.

D. Seeding

Seed and fertilize all disturbed areas in accordance with requirements set forth in Section T-841.

**SPECIAL PROJECT SPECIFICATION
T-835-01F DRAINAGE STRUCTURE AND ENTRANCE BARRIER (02/06)**

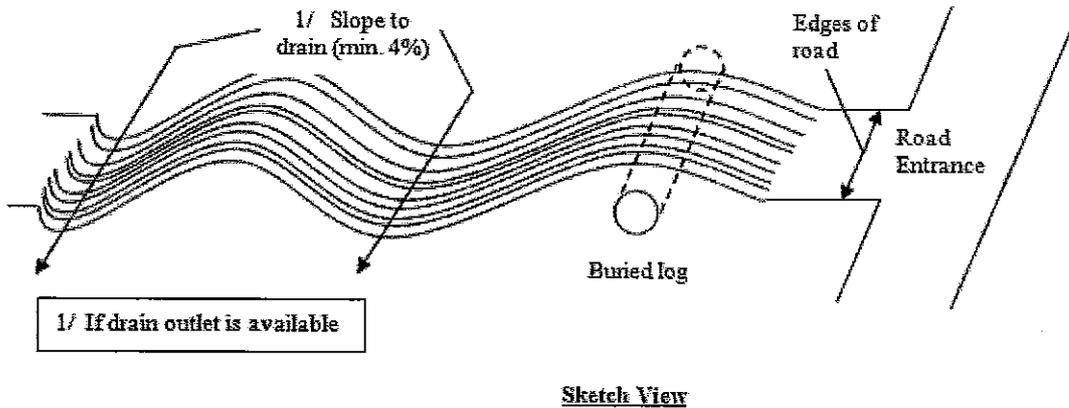
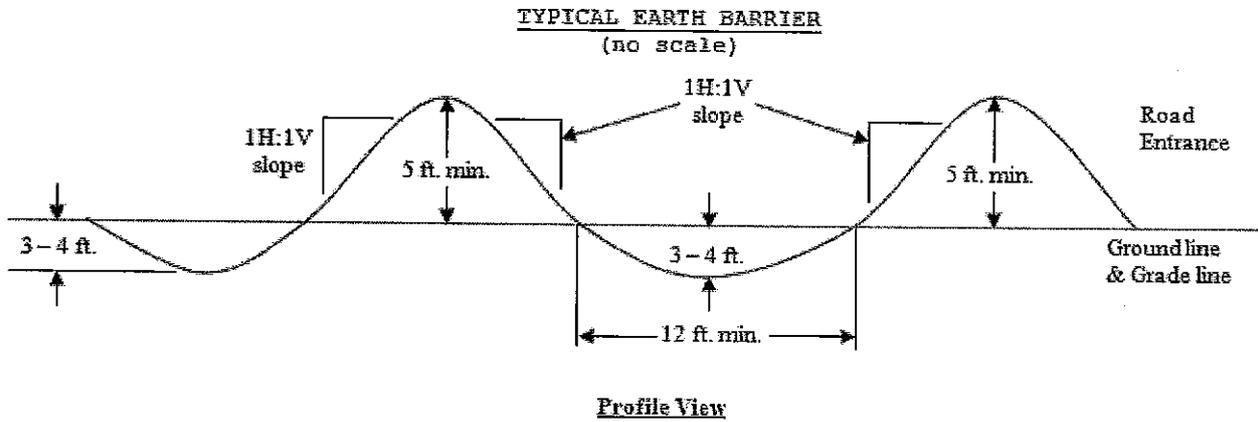
A. Drainage Structure Placement

Waterbar roadbed at intervals based on the below table:

Road Grade	Minimum Waterbar Spacing
0-3%	200 feet
3-6%	175 feet
6-9%	150 feet
9-12%	125 feet
12-15%	100 feet
Greater than 15%	75 feet

B. Entrance Devices

Any rocks placed in road must allow a minimum 60" clearance for snowmobile passage and any logs placed on roadway must be placed as flat as practicable.



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

836.01 Description

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

836.02 Maintenance Requirements

A. Traveled Way

Contractor 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. Contractor 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. Posthaul

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 Contractor modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

T-839 - MAINTENANCE FOR PROJECT USE (05/07)

839.01 Description

Work consists of providing minimum access required for Contractor's Operations and associated Forest Service contract administration and preventing unacceptable resource or road damage.

839.02 Maintenance Requirements

- A. Contractor is authorized to perform the following maintenance to provide vehicle passage and drainage:
1. Contractor is authorized to perform the following maintenance to provide vehicle passage and drainage.
 2. Smoothing or filling existing cross ditches and water bars.
 3. Installing Contractor-furnished culverts or other temporary drainage structures for shallow stream crossings as approved by the Contracting Officer.
 4. Removing brush, fallen trees, rocks, and other materials from the traveled way and other locations that interfere with needed maintenance:
 - a. Place all removed materials away from drainage's.
 - b. Limb and remove timber which meets utilization standards or deck at locations approved by the Contracting Officer. Scatter other woody materials, including limbs, off of and below the roadbed without creating concentrations.
 5. Clean and recondition drainage structures in accordance with Section T-831 and Section T-834.
 6. Reposition or ramp over slough and slides to provide adequate width of traveled way material.
 7. Provide traveled way drainage above slumps and seal cracks in slump area. Ramp the slumps on both ends into undisturbed roadbed to provide usable width unless otherwise ordered by the Contracting Officer.
- B. During use, the traveled way shall not channel water along the road. Prior to seasonal periods of anticipated rains and runoff, perform the following work:
1. Shape the traveled way and roadbed to drain.

2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes through use and maintenance.
3. Perform work outlined in 839.02 A (5), (6), and (7).
4. During periods of non use, replace original barrier or provide and maintain standard MUTCD, Type 3, barricades unless alternate type barriers are approved by the Contracting Officer.

839.03 Post Haul Requirements

- A. Upon completion of project use perform such work as needed to reasonably conform to the character of the existing road prior to Contractor's maintenance for project use, unless otherwise provided in the SUPPLEMENTAL SPECIFICATIONS or the Road Listing. Work shall be in addition to requirements of 839.02 B and in accordance with 839.03 B and C.
- B. Roads designated in the Road Listing to be blocked shall conform to the requirements of Section T-835. Unless otherwise approved by the Contracting Officer, remove Contractor-installed temporary structures from National Forest System land. Associated commercially-obtained materials shall remain the property of the Contractor.
- C. Remove or reshape Contractor improvements at road junctions, as approved by the Contracting Officer 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 Contractor'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. Remove limbs and chunks in excess of 3 inches in any dimension from the traveled way and shoulders.

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
<i>To be filled in by local FS invasive plant specialist, if applicable.</i>

T-851 - LOGGING OUT (05/07)

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-891 - WATER SUPPLY AND WATERING (05/07)

891.01 Description

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

891.02 Materials

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

<u>Location</u> <u>Road</u>	<u>Location</u> <u>Milepost</u>	<u>Use</u> <u>Restrictions</u>
6202000	Fish Lake @ approx.MP 1.5	*see below
County Rd. C- 413	Nason Cr. @ approx.MP 0.2	*see below

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 Contractor's operations. Flowing streams may be temporarily sandbagged or a weir placed to pond water, provided a minimum flow of 5 cu. ft/sec is maintained. Obtain approval from the Contracting Officer on improvements for sandbags or weirs prior to placement.

*The intake on any pump used for diverting water from a fish-bearing waterbody shall be screened with material that has openings no larger than 5/64 inch for square openings, measured side to side, or 3/32 inch diameter for round openings, and the screen must have at least one square inch of functional screen area for every gallon per minute (gpm) of water drawn through it. For example, a 100 gpm-rated pump would require at

least a 100 square inch screen. Screen maintenance shall be adequate to prevent injury or entrapment to juvenile fish and shall remain in place whenever water is withdrawn from the waterbody through the pump intake. Fish within construction sites that will be dewatered or isolated from the main waterbody shall be captured and safely moved from the job site. Fish capture and transportation equipment shall be available on the job site during all inwater activities.

CONSTRUCTION OF SPECIFIED ROADS

Table of Contents

Schedule of Items	5 pages
Specification List	2 pages
Special Project Specifications	27 pages
Drawings (under separate cover)	8 pages

SCHEDULE OF ITEMS
(Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6300131

Road Name _____

Length (Miles) 0.51

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
15101	Mobilization	AQ	Lump Sum	1.00	\$ 978.02	\$ 978.02
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	0.25	\$ 1,601.63	\$ 400.41
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.51	\$ 3,156.51	\$ 1,609.82

SUB-TOTAL: \$ 2,988.25

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6300140

Road Name N/A

Length (Miles) 0.27

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
15101	Mobilization	AQ	Lump Sum	1.00	\$ 593.68	\$ 593.68
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	0.58	\$ 1,115.85	\$ 647.19
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.27	\$ 1,349.48	\$ 364.36

SUB-TOTAL: \$ 1,605.23

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale Low Pole Stewardship
Road Name N/A

Road No. 6305311
Length (Miles) 0.53

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	1.16	\$ 1,601.63	\$ 1,857.89
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.53	\$ 1,349.48	\$ 715.22

SUB-TOTAL: \$ 2,573.11

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS
(Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6305315

Road Name N/A

Length (Miles) 0.05

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	0.10	\$ 1,601.63	\$ 160.16
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.05	\$ 1,173.11	\$ 58.66

SUB-TOTAL: \$ 218.82

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS
(Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6305331

Road Name N/A

Length (Miles) 0.63

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
15101	Mobilization	AQ	Lump Sum	1.00	\$ 1,852.50	\$ 1,852.50
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	1.65	\$ 1,601.63	\$ 2,642.69
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.63	\$ 1,352.61	\$ 852.14

SUB-TOTAL: \$ 5,347.33

TOTAL ALL ROADS: \$ 12,732.74

SPECIFICATION LIST

LOW POLE TIMBER SALE		ROAD NUMBER				
		6300	6300	6305	6305	6305
SECTION & TITLE	REV DATE	131	140	311	315	331
101 - Terms, Format, and Definitions	2013	X	X	X	X	X
101 00 FLH FP-03 Corrections	7/25/2005	X	X	X	X	X
101 01 Meaning of Terms	1/22/2009	X	X	X	X	X
101 01 Meaning of Terms	1/22/2009	X	X	X	X	X
101 03 Abbreviations and Symbols	6/16/2006	X	X	X	X	X
101 04 Definitions	11/6/2007	X	X	X	X	X
101 04 Symbols	3/29/2007	X	X	X	X	X
102 - Bid, Award, And Execution of Contract	2013	X	X	X	X	X
102 00 Delete 102 in its entirety	2/16/2005	X	X	X	X	X
103 - Scope of Work	2013	X	X	X	X	X
103 00 intent of Contract	2/16/2005	X	X	X	X	X
104 - Control of Work	2013	X	X	X	X	X
104 00 Deletions to 104	6/16/2006	X	X	X	X	X
104 03 Specifications and Drawings.	1/22/2009	X	X	X	X	X
104 03 Specifications and Drawings	2/22/2005	X	X	X	X	X
104 06 Use of Roads by Contractor	2/17/2005	X	X	X	X	X
104 07 Other Contracts	2/17/2005	X	X	X	X	X
105 - Control of Material	2013	X	X	X	X	X
105 02 Material Sources	1/18/2007	X	X	X	X	X
Contractor provided material						
105 02 sources	3/8/2007	X	X	X	X	X
105 05 Use of Material Found in the Work	5/12/2004	X	X	X	X	X
106 - Acceptance of Work	2013	X	X	X	X	X
Conformity with Contract						
106 01 Requirements	7/31/2007	X	X	X	X	X
106 07 Partial and Final Acceptance	5/11/2004	X	X	X	X	X
107 - Legal Relations and Responsibility to the Public	2013	X	X	X	X	X
107 05 Responsibility for Damage Claims	5/11/2004	X	X	X	X	X
107 06 Contractor Responsibility for Work	6/16/2006	X	X	X	X	X
107 08 Sanitation, Health & Safety	3/29/2005	X	X	X	X	X
107 09 Legal Relationship of the Parties	6/16/2006	X	X	X	X	X
107 10 Environmental Protection	6/16/2006	X	X	X	X	X
Protection of Forests, Parks, and						
107 11 Public Lands	2/17/2005	X	X	X	X	X
108 - Prosecution and Progress	2013	X	X	X	X	X
108 00 Delete Section 108 in entirety	2/16/2005	X	X	X	X	X
109 - Measurement and Payment	2013	X	X	X	X	X
109 00 Deletions	2/17/2005	X	X	X	X	X
Measurement Terms and						
109 02 Definitions	6/16/2006	X	X	X	X	X
151 - Mobilization	2013	X	X	X	X	X
151 03 Payment	8/5/2005	X	X	X	X	X
155 - Schedules for Construction Contracts	2013	X	X	X	X	X
Contractor Quality Control Plan,						
155 00 Records	5/11/2004	X	X	X	X	X
201 - Clearing and Grubbing	2013	X	X	X	X	X

SPECIFICATION LIST

LOW POLE TIMBER SALE		ROAD NUMBER					
		6300	6300	6305	6305	6305	
SECTION & TITLE	REV DATE	131	140	311	315	331	
201 00 Deletions	8/5/2009	X	X	X	X	X	
201 01 Description	2/18/2005	X	X	X	X	X	
201 04 Clearing	2/22/2005	X	X	X	X	X	
201 06 Disposal	2/18/2005	X	X	X	X	X	
201 06 Disposal	11/9/2005	X	X	X	X	X	
303 - Road Reconditioning	2013	X	X	X	X	X	
303 00 Complete Specification	5/11/2007	X	X	X	X	X	
Aggregate & Asphalt Surface							
303 06 Reconditioning	8/5/2008	X	X	X	X	X	
303 11 Measurement	3/29/2005	X	X	X	X	X	
718 - Traffic Signing and Marking Material	2013	X	X	X	X	X	
718 05 Aluminum Panels	8/5/2009	X	X	X	X	X	

Table of Contents

Table of Contents	1
Preface.....	3
101 - Terms, Format, and Definitions.....	4
101.01 Meaning of Terms	4
101.01 Meaning of Terms	4
101.03 Abbreviations.	4
101.04 Definitions.....	4
101.04 Definitions.....	7
102 - Bid, Award, and Execution of Contract.....	7
102 Bid, Award, and Execution of Contract	7
103 - Scope of Work	7
Deletions.....	7
104 - Control of Work.....	8
Deletions.....	8
104.03	8
104.06 Use of Roads by Contractor	8
104.07 Other Contracts.	8
105 - Control of Material	9
105.02 Material Sources.....	9
105.02(a) Government-provided sources.....	9
105.02 Material Sources.....	9
105.02(a) Contractor-provided sources.....	9
105.05 Use of Material Found in the Work.	9
106 - Acceptance of Work	10
106.01 Conformity with Contract Requirements.	10
106.07 Delete	12
107 - Legal Relations and Responsibility to the Public	12
107.05 Responsibility for Damage Claims.	12
107.06 Contractor's Responsibility for Work.....	12

107.08 Sanitation, Health, and Safety	12
107.09 Legal Relationship of the Parties.	12
107.10 Environmental Protection.....	13
107 - Legal Relations and Responsibility To the Public.....	13
107.11 Protection of Forests, Parks, and Public Lands:.....	13
108 - Prosecution and Progress	14
108 Delete.	14
109 - Measurement and Payment.....	14
109 Deletions.....	14
109.02 Measurement Terms and Definitions.	14
151 - Mobilization.....	15
152 - Construction Survey and Staking.....	15
152.02 General.	15
Table 152-1 Tolerances for reestablishing P-line, traverse, and elevations.....	18
Table 152-2 Cross section and slope stake tolerances.	19
155 - Schedules for Construction Contracts.....	20
155 Delete.	20
201 - Clearing and Grubbing.....	20
201.02 Material:	20
201.01 Description	20
201.04 Clearing. (c).....	20
201.06 Disposal.....	21
303 - Road Reconditioning	22
303.06 Aggregate Surface Reconditioning.	24
303.06 Asphalt and Aggregate Surface Reconditioning.....	24
303.10 Measurement	27
718 - Traffic Signing and Marking Material.....	27
718.05 Aluminum Panels	27

Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

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

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the FAR (Federal Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

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

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

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

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

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

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

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

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

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

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

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

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

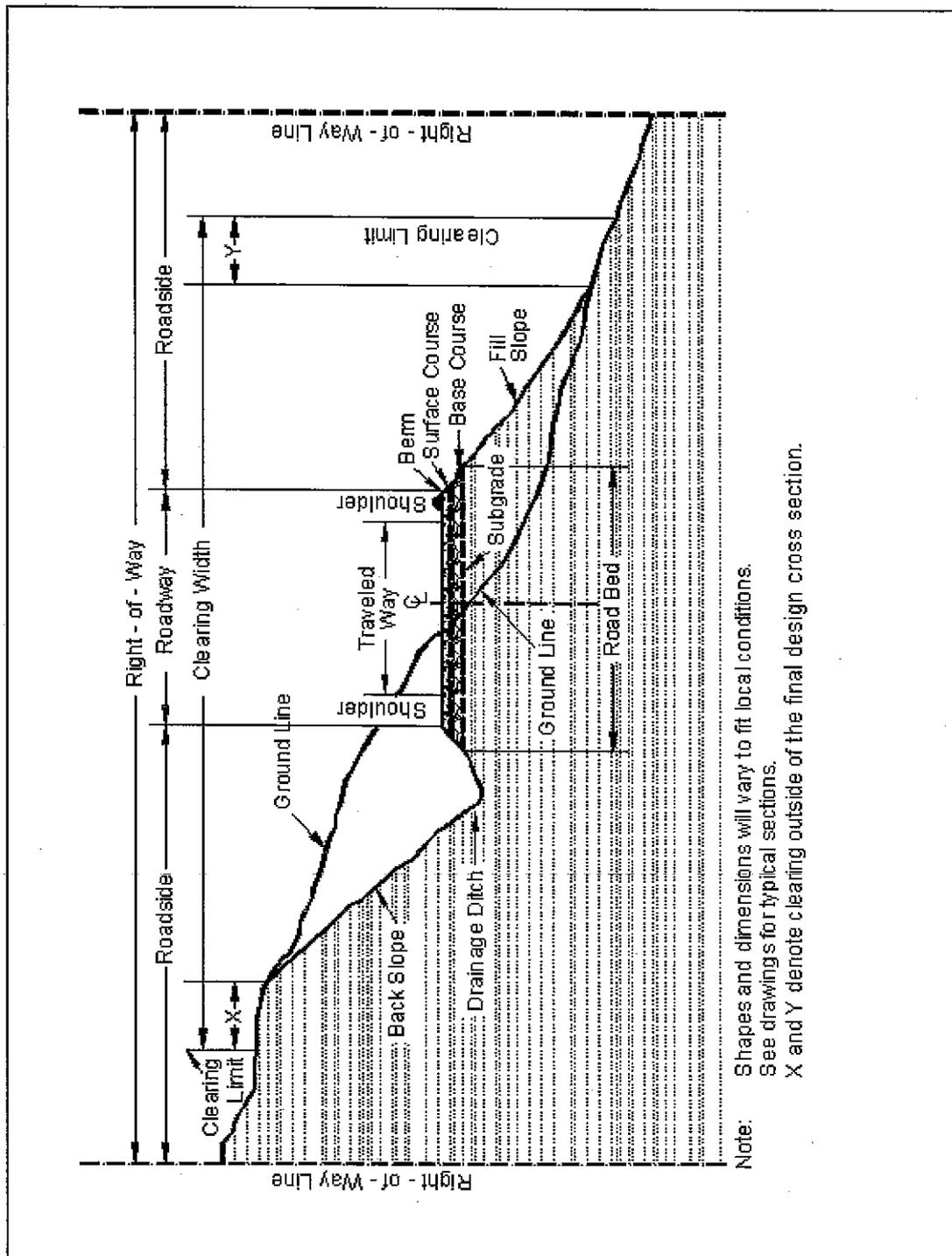
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

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

Figure 101-1—Illustration of road structure terms.



101.04 Definitions.

Delete the following definitions:

Contract Modification

Day

Notice to Proceed

Solicitation

102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.03_nat_us_01_22_2009

104.03 Specifications and Drawings.

Delete 104.03.

104.03_nat_us_02_22_2005

104.03 Drawings and Specifications

Delete subsection 104.03

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

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

104.07_nat_us_02_17_2005

Add Subsection.

104.07 Other Contracts.

Example: The Federal Highway Administration is administering and is intending to award a contract for the reconstruction of 3 1/2 miles of Salmon la Sac Road approximately 5 miles north of this project. Schedule activities to assure no delays or interference to the operations of the Federal Highway Administration contract.

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

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

105.02_nat_us_03_08_2007

105.02 Material Sources.

105.02(a) Contractor-provided sources.

Add the following:

All material (e.g., soil, gravel, sand, borrow, aggregate, etc.) transported onto National Forest System land or incorporated into the work will be weed-free. The Contracting Officer may request written documentation of methods used to determine the weed-free status of any and all materials furnished by the contractor. Contractor-provided expertise and methods to establish weed-free status must be appropriate for the weeds of concern in the local area. The following applies to this contract:

A Forest Service weed specialist will inspect proposed sources to determine weed-free status. Provide the Contracting Officer written notification of proposed material sources 14 days prior to use. Written approval of the specific source will be provided to the contractor. If weed species are present in the proposed source, appropriate mitigation measures may allow conditional use of the source as required by the Contracting Officer.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

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

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

106 - Acceptance of Work

106.01_nat_us_07_31_2007

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (1) Have the work accepted at a reduced price; or
- (2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.08_nat_us_03_29_2005

107.08 Sanitation, Health, and Safety

Delete the entire subsection.

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10 Environmental Protection.Add the following:

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

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

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

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

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

107 - Legal Relations and Responsibility To the Public**107.11 Protection of Forests, Parks, and Public Lands:**Add the following:

Add appropriate fire plan and equipment language.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

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

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

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

151 - Mobilization

151.03_nat_us_08_05_2005

151.03 Payment

Delete the entire subsection and add the following:

151.03 Payment

Mobilization is considered an indirect cost of this contract and will not be compensated as a separate work item.

152 - Construction Survey and Staking

152.00_nat_us_08_05_2005

Description

152.01(c) Material.

Add the following:

Use required stake dimensions and materials. Pre-paint the top 2 inches of all stakes and lath, or mark them with plastic flagging. Use designated colors for paint or flagging. Mark all stakes with a stake pencil that leaves a legible imprint, or with waterproof ink.

Do not use aerosol spray paints.

Use moisture-resistant paper for survey notes. Keep notes in books with covers that will protect the contents and retain the pages in numerical sequence.

Construction Requirements

152.02 General.

Delete the first two sentences.

Add the following:

When indicated on the plans, a preliminary survey line has been established on the ground. The project location line is established by offsets from this preliminary line.

Delete second sentence in second paragraph and replace with the following:

Reestablish missing reference, control lines, or stakes as necessary to control subsequent construction staking operations

152.03 Survey and Staking Requirements.

(b) Roadway cross-sections.

Replace the first two sentences with the following:

Take roadway cross-sections normal to centerline. When the centerline curve radius is less than or equal to 200 feet, take cross-sections at a maximum centerline spacing of 25 feet. When the centerline curve radius is greater than 200 feet take cross-sections at a maximum centerline spacing of 80 feet.

c) Slope Stakes & References:

Replace section with the following:

Slope stakes and references. When required, locate slope stakes on designated portions of the road. Locate the slope stake catch points and use them to establish clearing limits and slope stake references.

Mark slope stakes with the station, the amount of cut or fill, the horizontal distance to centerline, and the slope ratios.

Place slope reference stakes at least 10 feet outside the clearing limit and mark with the offset distance to the slope stake. Place sight stakes when required.

Prior to clearing and grubbing operations, move the slope stake outside the clearing limit to the slope reference stake. After clearing and grubbing and before excavation, reset the slope stakes in their original position.

Use the designated method to establish the slope stake catchpoint.

- **Method I**—Computed Method. Use the template information shown in the plans or other Government-provided data to calculate the actual location of the catchpoint. The slope stake “catchpoint distance” provided may be used as a trial location to initiate slope staking. Recatch slope stakes on any section that does not match the staking report within the tolerances established in Table 152-2.
- **Method II**—Catchpoint Measurement Method. Determine the location of slope stake catchpoints by measuring the catchpoint distances shown in the plans or other Government-provided data.

(d) Clearing and grubbing limits.

Add the following:

Establish clearing limits on each side of the location line by measuring the required horizontal or slope distances shown in the stake notes. Mark the clearing limits with flagging or tags on trees to be left standing, or on lath. Make markings intervisible, and no more than 90 feet apart.

After establishing clearing limits, move the location line stake outside the clearing limits for station identification purposes, and mark it with horizontal distance to location line

(e) Centerline reestablishment.

Replace with the following:

Reestablish centerline from instrument control points. The maximum spacing between centerline points is 25 feet when the centerline curve radius is less than or equal to 200 feet. When the centerline curve radius is greater than 200 feet, the maximum distance between centerline points is 80 feet.

(g) Culverts.

Replace subsection with the following:

Set culvert reference stakes at all culvert locations. Set a culvert reference stake on the centerline of the culvert 10 feet from each end or beyond the clearing limit, whichever is greater. Record the following on culvert reference stakes:

- (1) Diameter, actual field measured length, and type of culvert.
- (2) The vertical and horizontal distance from the reference stake to the invert at the ends of the culvert.
- (3) Station of actual point where culvert intersects centerline.

When required, stake headwall for culverts by setting a hub with a guard stake on each side of the culvert on line with the face of the headwall. Perform this work after clearing is completed.

152.03 (I) Miscellaneous Survey and Staking.

Add the following:

- (11) Cattleguards
- (12) Drain Dips
- (13) Erosion Control Measures

Replace Table 152-1 with the following two tables:

Table 152-1 Tolerances for reestablishing P-line, traverse, and elevations.

Precision Class	Minimum Position Closure	Angular Accuracy (\pm)	L-Line Tangent Control Points ^a (\pm)	Vertical Closure ^b (\pm)
A (Bridges)	1/10,000	2 sets, direct/reverse 10 second rejection limit	N/A	0.02 ft or 0.02ft/1000ft ^c
B	1/5,000	2 sets, direct/reverse 20 second rejection limit	0.1 ft	0.02 ft or 0.02ft/1000ft ^c
C	1/1,000	1 set, direct/reverse 1 minute rejection limit	0.2 ft	0.5ft/1000ft ^c
D	1/300	Foresight and backsight; 15 minute rejection limit ^c	0.4 ft	1.0ft/1000ft ^c
E	1/100	Foresight and backsight; 30 minute rejection limit ^c	0.8 ft	1.0ft/1000ft ^c

a. Accuracy of offset measurement.

b. Determine vertical closures at intervals not to exceed 2000 ft as measured along centerline.

c. Use greater value.

Table 152-2 Cross section and slope stake tolerances.

Item	Tolerances				
	A	B	C	D	E
Allowable deviation of cross-section line projection from a true perpendicular to tangents, a true bisector of angle points, or a true radius of curves	(±)2°	(±)3°	(±)3°	(±)5°	(±)5°
Take cross-sections topography measurements so that variations in ground from a straight line connecting the cross-section points will not exceed	0.5 ft	1.0 ft	2.0 ft	2.0 ft	3.0 ft
Horizontal and vertical accuracy for cross-sections, in feet or percentage of horizontal distance measured from traverse line, whichever is greater.	0.1 ft or 0.4%	0.15 ft or 0.6%	0.2 ft or 1.0%	0.2 ft or 1.0%	0.3 ft or 1.0%
Horizontal and vertical accuracy for slope stake, slope stake references, and clearing limits. In feet or percentage of horizontal distance measured from centerline or reference stake, whichever is greater.					
Slope reference stakes and slope stakes.	0.1 ft or 0.4%	0.15 ft or 0.6%	0.2 ft or 1.0%	0.2 ft or 1.0%	0.3 ft or 1.0%
Clearing limits	1.0 ft	1.0 ft	1.0 ft	1.5 ft	2.5 ft

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

201 - Clearing and Grubbing

201.00_nat_us_08_05_2009

201.02 Material:

Delete Tree wound dressing material reference.

201.03 General.

Delete the last sentence.

201.04 Clearing.

Delete the last sentence of (d).

201.01_nat_us_02_18_2005

201.01 Description

Replace with the following

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

201.04_nat_us_02_22_2005

201.04 Clearing. (c)

Delete paragraph (c) and replace with the following:

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to within 12 inches or one-third of the stump diameter of the ground, whichever is higher, measured on the side adjacent to the highest ground. For timber sales, stump heights will meet the requirements of the Timber Sale contract.

201.04 Clearing.

Delete subsection (d) and replace with the following:

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

Add the following:

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

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

201.06_nat_us_11_09_2005

201.06 Disposal

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

Limb and deck logs that meet utilization standards at locations approved by the CO or otherwise designated. Deck logs according to 201.04 (f).

201.06_nat_us_02_18_2005

201.06 Disposal.

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

Dispose of merchantable timber designated for removal according to the provisions of the timber sale contract.

303 - Road Reconditioning

303.00_0605_us_05_11_2007

Delete Section 303 in its entirety and replace with the following.

Description

303.01 This work consists of reconditioning ditches, shoulders, roadbeds, parking areas, approach road intersections, cattleguards, asphalt surfaces and aggregate surfaces. Clean and maintain all drainage structures.

Material

303.02 Conform to the following Subsection:

Water 725.01

Construction Requirements

303.03 Ditch Reconditioning. Remove all slide material, sediment, vegetation, and other debris from the existing ditches and culvert inlets and outlets. Reshape ditches and culvert inlets and outlets to achieve positive drainage and a uniform ditch width, depth, and grade. Dispose of waste as shown on the plans.

303.04 Shoulder Reconditioning. Repair soft and unstable areas according to Subsection 204.07. Remove all slide material, vegetation, and other debris from existing shoulders including shoulders of parking areas, turnouts, and other widened areas. Dispose of waste as shown on the plans.

303.05 Roadbed Reconditioning Repair soft and unstable areas according to Subsection 204.07. Remove all organic, deleterious material larger than 6 inches from the top 6 inches of subgrade. Dispose of waste as shown on the plans. Scarify and shape the traveled way and shoulders at locations and to the depth and width designated on the plans. Remove surface irregularities and shape to provide a uniform surface.

Dispose of rock larger than 4 inches brought to the surface during scarification in areas designated on the plans.

For portions of roads not requiring scarification, the roadbed may contain rocks larger than 4 inches provided they do not extend above the finished roadbed surface. Reduce in place or

remove rock extending above the finished roadbed surface. Dispose of removed rock in areas designated on the plans.

Compact using the following method as specified:

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

(b) Layer Placement (Roller Compaction) Method. Place material by end dumping to the minimum depth needed for operation of spreading equipment. Adjust the moisture content of the material to obtain a mass that will not visibly deflect under the load of the hauling and spreading equipment. Operate compaction equipment over the full width of each layer until visible deformation of the layer ceases or, in when a sheepsfoot roller is used, the roller “walks out” of the layer. Make at least three complete passes. . Use rollers that meet the following requirements:

- (1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.
- (2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, specifically designed to compact the material on which it is used.
- (3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi.

303.06 Aggregate Surface Reconditioning. Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth and width shown on the plans, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Section 301, Section 308, Section 321, or Section 322 as applicable.

303.07 Roadway Reconditioning. Perform all the applicable work described in Subsections 303.03 through 303.06.

Maintain the existing cross slope or crown unless otherwise shown on the plans. Establish a blading pattern that will retain the surfacing on the roadbed and provide a through mixing of the materials within the completed surface width.

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

303.08 Pulverizing. Scarify the surface to the designated depth and width. Pulverize all material to a size one and one half times the maximum sized aggregate or to 1½ inches, whichever is greater. Mix, spread, compact, and finish the material according to Section 322.

303.09 Acceptance. Road reconditioning work will be evaluated under Subsections 106.02 and 106.04.

Measurement

303.10 Measure the Section 303 items listed in the Schedule of Items according to Subsection 109.02 and the following as applicable.

Measure ditch reconditioning and shoulder reconditioning by the mile, by the station or foot horizontally along the centerline of the roadway for each side of the roadway.

Measure roadbed reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, by the station, or by the square yard.

Payment

303.11 The accepted quantities will be paid at the contract price per unit of measurement for the Section 303 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

303.06_nat_us_08_05_2008

303.06 Aggregate Surface Reconditioning.

Delete and replace with the following:

303.06 Asphalt and Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 6 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Subsection 301.05, Subsection 321.05, or Subsection 322.05 as applicable.

For asphalt surfaces, clean the existing surface of all loose material, dirt, or other deleterious substances by approved methods. Remove and dispose of unsuitable material that shows evidence of distress, excess asphalt material, or settlement in the roadbed. Patch the areas with approved material that conforms to and is compatible with the adjacent pavement structure. Perform the patch work according to Section 301, 404, 430, or other sections as applicable for the layer or courses being repaired. Clean and seal cracks in the existing asphalt surface according to Subsection 414.05. Correct surface irregularities exceeding 6 inches in depth with a specified aggregate. Place and compact the aggregate according to Subsections 301.04 and 301.05. Prelevel other dips, depressions, sags, excessive or nonexistent crown, or other surface irregularities with asphalt concrete according to Section 404. Spread and compact the asphalt concrete in layers parallel to the grade line not to exceed 2 inches in compacted depth.

Delete Table 303-1 and replace with the following:

**Table 303-1
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	
Existing Roadway	Measured and tested for conformance (106.04)	Moisture-density Method D	—	AASHTO T 99 (1)	1 per each mixture or change in material	Processed material before incorporating in work	Yes, when requested	Before using in work	
		Moisture-density Method E	—	R-1 Marshall	"	"	"	"	
		Moisture-density Method F	—	AASHTO T 180(1)	"	"	"	"	"
		Moisture-density Method G	—	R-1 Marshall	"	"	"	"	"
		In-place density & moisture content	—	AASHTO T 310 or other approved procedures	1 per 3000 yd ²	In-place	—	Before placing next layer	

(1) Minimum of 5 points per proctor.

303.10 Measurement

Modify the second paragraph as follows:

Measure ditch reconditioning and shoulder reconditioning by the mile, station, or foot horizontally along the centerline of the roadway for each side of the roadway.

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.

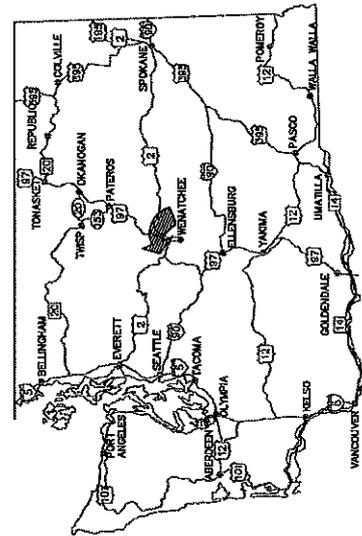
UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE



REGION 6
OKANOGAN - WENATCHEE NATIONAL FORESTS
Wenatchee River Ranger District

CONSTRUCTION DRAWINGS FOR

Low Pole T.S.



KEY MAP OF WASHINGTON SHOWING LOCATION OF PROJECT

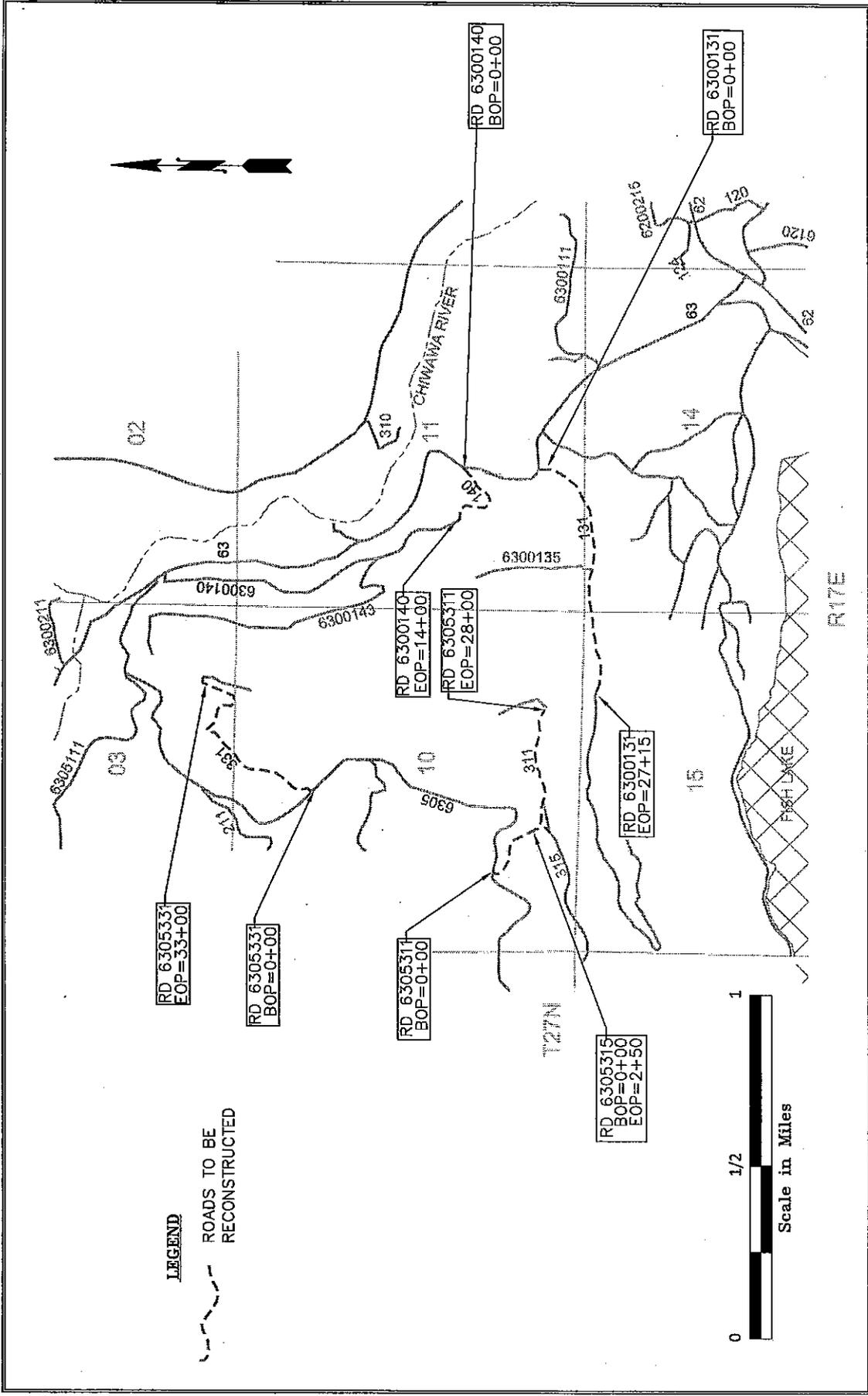
INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE
2	VICINITY MAP
3	ESTIMATE OF QUANTITIES
4	NOTES, SYMBOLS & TYPICAL DETAILS
5	ROAD STRUCTURE DETAILS
6	CLEARING DETAILS
7	DRAIN DIP DETAILS
8	WORK DESCRIPTIONS

ROAD NO.	LENGTH MILES	RECONST./CONST.	SHEET NO.
6300131	0.51	RECONST	8
6300140	0.27	RECONST	8
6305311	0.53	RECONST	8
6305315	0.05	RECONST	8
6305331	0.63	RECONST	8

TOTAL CONSTRUCTION 0 MILES
TOTAL RECONSTRUCTION 1.99 MILES

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE R-6 PACIFIC NORTHWEST REGION		Reviewed and Approved By District Ranger _____ Forest Engineer _____	Recommended and Approved By Zone Engineer _____ Date _____	Designed By _____ Reviewed By _____ Date _____	Sheet Title Sheet 1
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Notes, Symbols & Typical Details

DISPOSAL OF MERCHANTABLE TIMBER (TIMBER MEETING UTILIZATION STANDARDS):
Merchantable timber (timber meeting Utilization Standards) shall be decked in locations shown on drawings, within reach of standard loading equipment.

To meet minimum tree specifications, trees must be equal or exceed 7-inches DBH and contain at least one minimum piece. Such timber shall be felled and bucked into log lengths not exceeding 52 ft. Pieces (logs) shall also be considered as meeting Utilization Standards, and be required to be decked, when such pieces would have met Utilization Standards if bucking lengths were varied to include such material. Merchantable timber shall be limbed and bucked. Log decks shall be free of slash and debris. Material not meeting Utilization Standards, including any material remaining after deck removal, shall be disposed of as other construction slash pursuant to Specification 201.04.

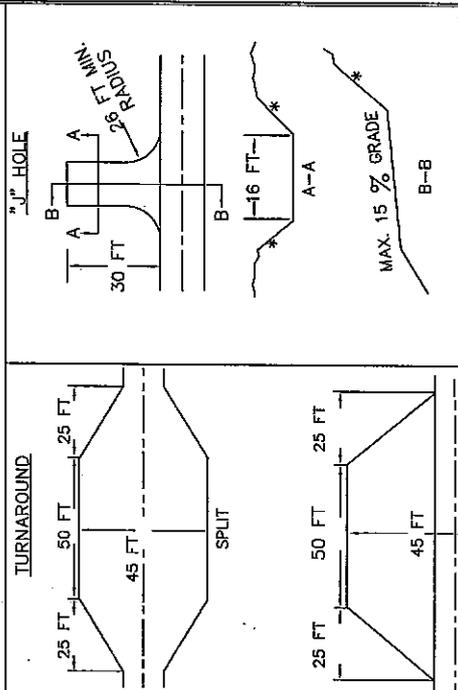
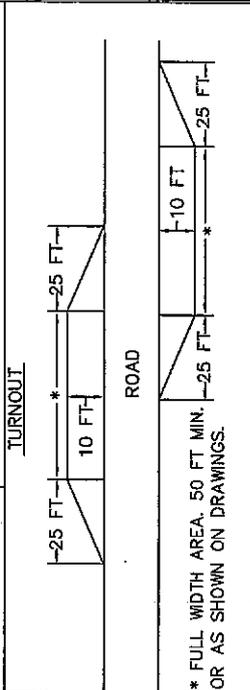
MINIMUM UTILIZATION STANDARDS:

SEE AT.2- Volume Estimate and Utilization Standards.

DISPOSAL OF UNMERCHANTABLE TIMBER: Logs not meeting Utilization Standards which are suitable for use as firewood, may be scattered and decked. Material not suitable for firewood shall be treated by other slash methods.

STAKES: All stakes shall have the following minimum nominal dimensions. Hubs shall be 2 in. X 2 in. X 8 in. Guard, reference, slope, and other stakes shall be 0.3 in. X 1.5 in. X 18 in. Lath shall be 0.4 in. X 1.5 in. X 3 ft. Other dimensions and materials may be used, such as steel reinforcing bars and metal pins, if approved by the Engineer. The color of paint or flagging, as well as the colors for use on stakes for clearing, reference, structures, and slope staking shall be fluorescent orange. Other colors may be used if approved in writing by the Engineer.

SYMBOLS	DESCRIPTION
BOP, EOP	BEGINNING OF PROJECT, END OF PROJECT
CW	CURVE WIDENING
FW	FULL WIDTH AREA*
TO, TOR, TOS	TURNOUT LEFT/RIGHT/SPLIT
V	DRAIN DIP
LOD	LEAD-OUT DITCH
↖ & ○	CULVERT (EXISTING)
↘ & ●	CULVERT (INSTALL)



**U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION**

District
**WENATCHEE RIVER
RANGER DISTRICT**

Not To Scale

Forest
**Okanogan-Wenatchee
National Forests**

Project
Low Pole T.S.

Sheet Title
**Notes, Symbols &
Typical Details**

Sheet
4

Road Structure Details

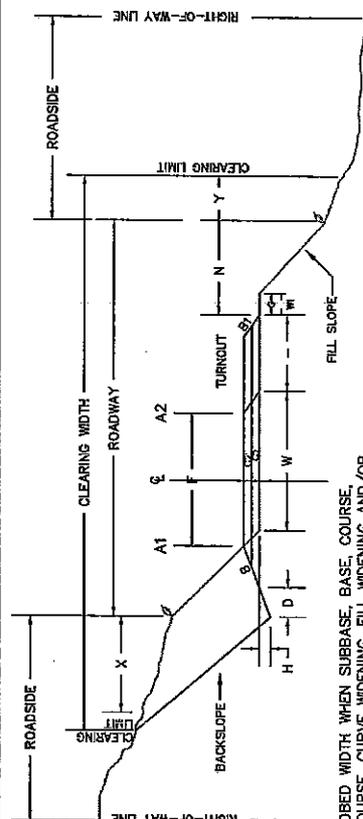
- (1) CURVE WIDENING, WHEN SPECIFIED, SHALL BE ADDED TO THE INSIDE OF THE CURVE.
- (2) ROADBED WIDTH, FILL WIDENING, TURNOUT LENGTHS, FILL AND BACKSLOPE RATION SHALL BE AS SPECIFIED IN CONSTRUCTION STAKING NOTES AND/OR DRAWINGS.
- (3) SEEDING, FERTILIZING AND/OR MULCHING AREA INCLUDES N, X & Y SHOWN ON THE TYPICALS AND ALL OTHER AREAS DISTURBED BY CONSTRUCTION (INCLUDES BURN BAYS AND DECKING AREAS).
- (4) TURNOUTS, TURNAROUNDS AND CURVE WIDENING SHALL BE SURFACED TO THE SAME DEPTH AS THE TRAVELED WAY AND TO THE DIMENSIONS SPECIFIED IN CONSTRUCTION STAKING NOTES AND/OR DRAWINGS.
- (5) ROADBED TEMPLATE TYPES ARE SHOWN ON THE DRAWINGS AND SHALL BE CONSTRUCTED TO THE FOLLOWING TOLERANCE:
 OUTSLOPE (OUT): 0 TO 5 %
 INSLOPE (IN): 2 TO 5 %
 CROWN (CR): 2 TO 4 %
- (6) FINISHING ROADBED:
 ROCKS PROTRUDING MORE THAN 4 INCHES ABOVE THE SURFACE SHALL BE REDUCED TO THE FINISHED SURFACE OR REMOVED. NO OVERSIZE MATERIAL SHALL BE LEFT ON THE SHOULDERS OR IN THE DITCHES. OVERSIZE MATERIAL IS DEFINED AS ROCKS 2 INCHES OR GREATER IN DIMENSION.
- (7) DITCHES ARE TO BE CONSTRUCTED/RECONSTRUCTED WHERE NOTED ON THE WORK DESCRIPTION SHEETS OR PLAN AND PROFILE SHEETS.

(SP) CONSTRUCTION TOLERANCE, WHERE CONSTRUCTION STAKES ARE NOT SPECIFIED AND CLEARING LIMIT MARKING IS THE ONLY CONTROL REQUIRED, THE FOLLOWING SHALL GOVERN, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. CRUB STUMPS WITHIN THE ROADWAY AND IN ACCORDANCE WITH FP-03 SPEC. 201.05

ROADBED WIDTH: as shown in column "W", plus curve widening, turnout widths, and fill widening.
 CENTERLINE ALIGNMENT - 50 FOOT MINIMUM RADIUS CURVE.
 GRADE - CHANGE BETWEEN GRADES SHALL BE UNIFORM AND NOT EXCEED 10 PERCENT IN 25 FEET.
 MAXIMUM GRADE: - 10 PERCENT FAVORABLE
 - 15 PERCENT ADVERSE

FILL - NATURAL CATCH OBTAINED USING SIDE CAST CONSTRUCTION METHOD.

BACKSLOPE - COMMON 2 H : 1 V, ON FLAT GROUND, CUTS UNDER 3 FEET
 COMMON 1 H : 1 V, UNDER 55% TO 3/4 H : 1 V, OVER 55%
 RIPPLE 1/2 H : 1 V
 SOLID 1/4 H : 1 V



W1 - EXTRA ROADBED WIDTH WHEN SUBBASE, BASE, COURSE, SURFACE COURSE, CURVE WIDENING, FILL WIDENING AND/OR TURNOUTS ARE SPECIFIED.

ROAD NUMBER	SEGMENT	STATION TO STATION	STATION	CLEARING IS GREATER THAN 10 FT. BEYOND SHOULDER		FINISH ROADBED		ROADBED WIDTH		FILL WIDENING		DITCH DIMENSIONS		TRAVELED WAY WIDTH		PAVEMENT STRUCTURE		SLOPE RATIO
				A1	A2	W	R	G	D	H	F	C1	C2	B	BT			
6300 131		0+00	27+15	5	1	SP	6d	14				3	1					
6300 140		0+00	14+00	5	1	SP	6d	14										
6305 311		0+00	28+00	5	1	SP	6d	14										
6305 315		0+00	2+50	5	1	SP	6d	14										
6305 331		0+00	33+00	5	1	SP	6d	14										

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 FOREST SERVICE
R-6
 PACIFIC NORTHWEST REGION

District
**WENATCHEE RIVER
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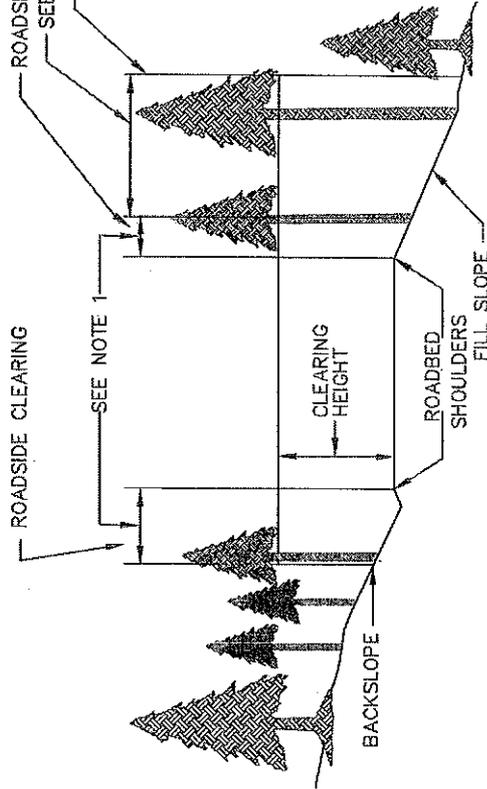
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**Okanogan-Wenatchee
 National Forests**

Project
Low Pole T.S.

Sheet Title
**Road Structure
 Details**

Sheet
5

CLEARING DETAILS

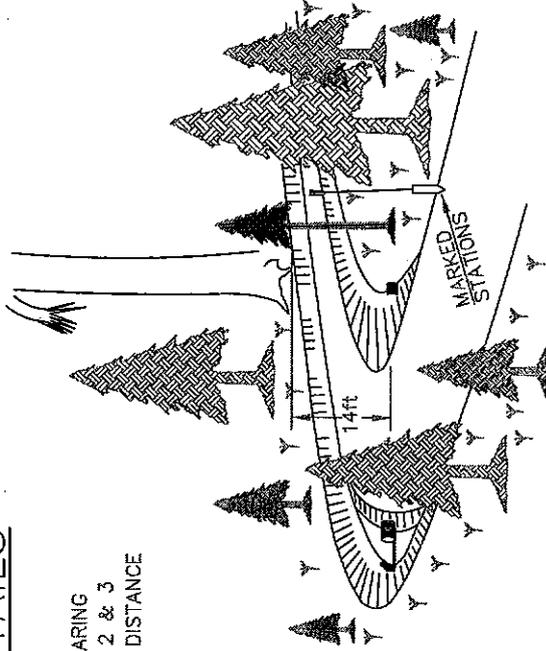


CLEARING LIMITS TYPICAL

NO SCALE

NOTES

1. ALL CONIFERS, HARDWOODS AND BRUSH WITHIN 1 FOOT OF THE OUTSIDE SHOULDER OF THE ROAD AND 5 FEET FROM THE BOTTOM OF THE DITCH OR INSIDE SHOULDER SHALL BE REMOVED.
2. THE AREA OF SIGHT DISTANCE CLEARING WILL BE FROM THE ROADSIDE CLEARING LIMIT, TO A LINE OF SIGHT BETWEEN THE BEGINNING AND ENDING STATIONS MARKED ON THE GROUND. CONIFERS WITHIN THIS AREA SHALL BE THINNED TO APPROXIMATELY A 12 FEET TRUNK SPACING, EXCEPT WHERE MARKED WITH PAINT OR FLAGGING FOR REMOVAL TO AN ALTERNATE SPACING. ALL HARDWOODS & BRUSH WITHIN THESE LIMITS SHALL BE REMOVED.



SIGHT DISTANCE TYPICAL

NO SCALE

3. BRANCHES ON REMAINING CONIFERS SHALL BE TRIMMED FROM GROUND LEVEL TO A CLEARING HEIGHT LIMIT 14 FEET ABOVE THE ROADBED OR TO A LIMIT OF 60% OF THE TREE'S HEIGHT, WHICHEVER IS LESS. LIMBS OF VEGETATION SHALL BE CUT SO AS TO NOT PROTRUDE WITHIN THE CLEARING LIMITS.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE



R-6

PACIFIC NORTHWEST REGION

District

WENATCHEE RIVER
RANGER DISTRICT

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National Forests

Project Low Pole T.S.

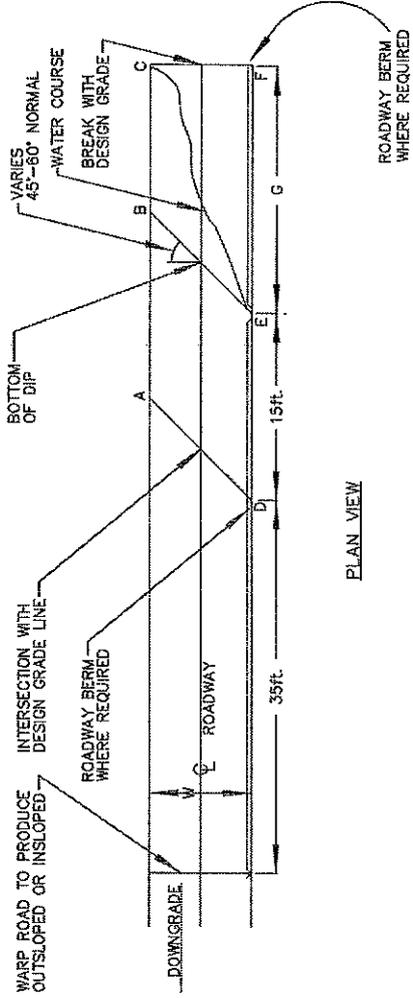
Sheet Title

Clearing Details

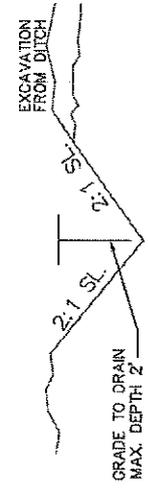
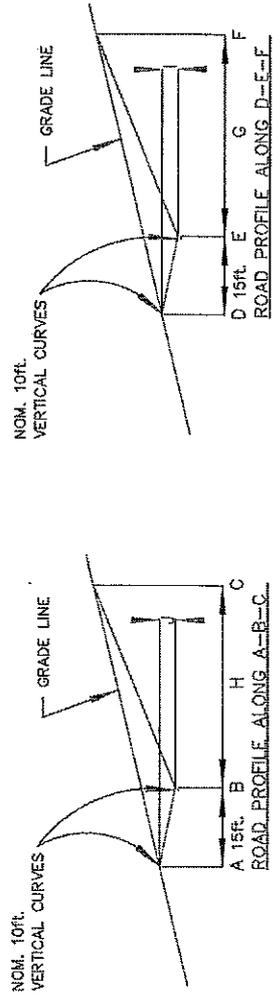
Sheet

6

DRAIN DIP DETAILS



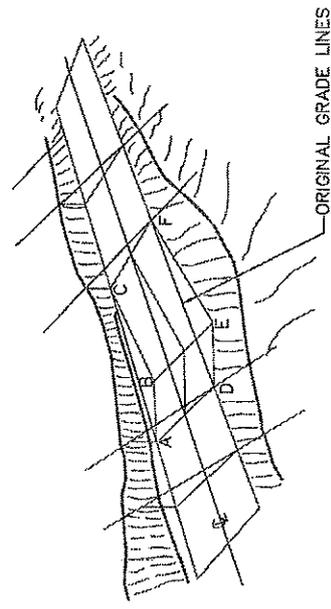
PLAN VIEW



TYPICAL SECTION LEAD-OFF DITCH

ALL NUMBERS ARE IN FEET UNLESS STATED OTHERWISE

%	W=12ft. TO 14ft.						W=24ft.					
	LENGTH		DEPTH		LENGTH		DEPTH		LENGTH		DEPTH	
	G	H	I	J	G	H	I	J	G	H	I	J
UNDER 3	82	50	0.66	0.30	74	50	1.15	0.30				
7	72	60	0.66	0.20	84	60	1.25	0.20				
9	82	70	0.66	0.10	94	70	1.31	0.10				



PERSPECTIVE VIEW

NOTE: PLAN SHOWN IS FOR OUTSLOPED DRAIN DIP. DIPS MAY BE EITHER INSLOPED OR OUTSLOPED. WHEN INSLOPED, DIPS SHALL DISCHARGE INTO A CULVERT, DROP INLET, OVSERIDE DRAIN OR ONTO NATURAL GROUND. THE MINIMUM CROSS GRADE FROM "B" TO "E" IS 4% GREATER THAN THE ORIGINAL ROAD GRADE.

Road no.: 6300131

Sta. Work Description
(FT)
0+00 Begin Road Reconditioning.
Begin Clearing
Begin Recondition Ditch Left and
Right.

0+89 End Ditch Reconditioning Right.

1+99 End Ditch Reconditioning Left.

18+18 Reshape existing Water bar and
30ft Lead Out Ditch.

20+86 Reshape existing Drain Dip.
Reshape Ditch Right.

27+15 End Ditch Right.
End Clearing.
End Road Reconditioning.

Road no.: 6300140

Sta. Work Description
(FT)
0+00 Begin Road Reconditioning.
Begin Clearing.

14+00 End Road Reconditioning.
End Clearing.

Road no.: 6305311

Sta. Work Description
(FT)
0+00 Begin Road Reconditioning.
Begin Clearing.

28+00 End Road Reconditioning.
End Clearing.

Road no.: 6305331

Sta. Work Description
(FT)
0+00 Begin Road Reconditioning.
Begin Clearing.

40+00 End Road Reconditioning.
End Clearing.

Road no.: 6305315

Sta. Work Description
(MI)
0.00 Begin Road Reconditioning.
Begin Clearing.

2.21 End Road Reconditioning.
End Clearing.

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FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION



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National Forests
Project Low Pole T.S.

Sheet Title

Work Descriptions

Sheet

8

TRAFFIC CONTROL PLAN AND SPECIFICATIONS PURSUANT TO G.3.3 SAFETY

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

Part I. Signing and Other Warning Methods:

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

<u>MINIMUM LETTER SIZE AND LEGEND</u>	<u>MINIMUM SIZE AND SHAPE</u>	<u>WHEN AND WHERE REQUIRED</u>
1. LOGGING OPERATIONS NEXT 0.0MILES (4" letters)	24" (rectangle) 36"	Min. 100 ft. outside of any continuous work areas, on roads listed in K-F.3.1# and trails listed in Part II.
2. LOGGING OPERATIONS (3" letters)	24" (diamond) 24"	To be used in conjunction with "Logging Operations Next 2.0 Miles" and where work area is not continuous.
3. FOR LOGGING USE ONLY (3" letters)	24" (diamond) 24"	Required where roads listed in K-F.3.1# and temporary roads intersect with K-F.3.1# 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 K-F.3.1# 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) 36"	Use in conjunction with "Logging Operations Next 2.0 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 Contractor road maintenance operations on roads listed in Schedule K-F.3.1#.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS - G.3.3 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 1/2 inch wide, inset 1/2 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.

Contractor shall furnish flag 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 KT-FT.3.1# and temporary roads, Contractor may temporarily block the road in lieu of furnishing flag personnel.

(b) Barricades. On roads listed in K-F.3.1#, if Contractor'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, Contractor 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 feet 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 K-F.3.1#, Contractor 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 - G.3.3 SAFETY (continued)

Part II. Specific Requirements:

Sign #1 - Logging Operations Next 2.0 miles will be posted at the junction of Chiwawa River Road(6200) and Meadow Creek(6300); Logging Operations Next 2.2 Miles at junction of 6300 and 6305 (Pole Ridge); Logging Operations Next 1.0 Mile at junction 6202 and 6200; Logging Operations Next 1.6 Miles at junction 6601(BPA Powelines)and River Road and Logging Operations Next 1.0 Mile at junction of 6604 and S.R.207.

Sign #3 - "For Logging Use Only" post at intersections of 6305 (Pole Ridge) and 6305311; 6305 and temp road to Subdivision 5; 6305 and 6305331; 6300 (Meadow Creek) and 6300140 (Subdivision 2); 6300 and 6300131 (Subdivisions 10,13); 6300 and 6300135 (Subdivisions 7,9); 6604 and 6604111 Subdivision 20; 6601 and 6601210 (Subdivisions 21,22).

Sign #4 - "Trucks" will be posted when log haul begins. Post at junction of Chiwawa River Road(6200) and the junction with Chiwawa Loop Road, junction of 6200 and 6300 (Meadow Creek); junction of 6300 and 6305 (Pole Ridge); junction 6601 and River Road and junction 6604 and S.R. 207.

Sign #5 - "End Logging Operations" will be placed at the same locations as Sign 1 but face the opposite direction.

Sign #6 - "Tree Falling Ahead" is required 200 feet in advance of cutting operations in units 1,2,10 along 6300(Meadow Creek); 200 feet in advance of unit 12 along 6305311; 200 feet in advance of units 9,10,13 adjacent to 6300131; 200 in advance of units 3,4 on 6305331; 200 feet in advance of unit 21 on 6601 and 200 feet in advance of units 21,22 along 6601210.

Sign #7 - "Road Machinery Ahead" will be required 200 feet in advance of road maintenance activities on 6200,6300,6305, 6604 and 6601 roads.

Contractor and Forest Service agree to the above stated requirments of the Traffic Control Plan:

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

AD-3030-FS

U.S. DEPARTMENT OF AGRICULTURE

**REPRESENTATIONS REGARDING FELONY CONVICTION
 AND TAX DELINQUENT STATUS FOR CORPORATE APPLICANTS**

Note: You only need to complete this form if you are a corporation. A corporation is any entity that has filed articles of incorporation in one of the 50 States, the District of Columbia, or the various territories of the United States including American Samoa, Federated States of Micronesia, Guam, Midway Islands, Northern Mariana Islands, Puerto Rico, Republic of Palau, Republic of the Marshall Islands, or the U.S. Virgin Islands. Corporations include both for profit and non-profit entities.

The following statement is made in accordance with the Privacy Act of 1974 (5 U.S.C. 552(a), as amended). The authority for requesting the following information is sections 433 and 434 of the Consolidated Appropriations Act, 2012, P.L. 112-74, and subsequent similar provisions. The information will be used to confirm applicant status concerning entity conviction of a felony criminal violation, and/or unpaid Federal tax liability status.

According to the Paperwork Reduction Act of 1985 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0505-0025. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

1. APPLICANT'S NAME	2. APPLICANT'S ADDRESS (Including Zip Code)	3. TAX ID NO. (Last 4 digits)
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- 4A. Has the Applicant been convicted of a felony criminal violation under Federal law in the 24 months preceding the date of application? YES NO
- 4B. Has any officer or agent of Applicant been convicted of a felony criminal violation for actions taken on behalf of Applicant under Federal law in the 24 months preceding the date of application? YES NO
- 4C. Does the Applicant have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability? YES NO

Providing the requested information is voluntary. However, failure to furnish the requested information will make the applicant ineligible to enter into a contract, memorandum of understanding, grant, loan, loan guarantee, or cooperative agreement with USDA.

PART B – SIGNATURE		
5A. APPLICANT'S SIGNATURE (BY)	5B. TITLE/RELATIONSHIP OF THE INDIVIDUAL IF SIGNING IN A REPRESENTATIVE CAPACITY	5C. DATE SIGNED (MM-DD-YYYY)

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Assistant Secretary for Civil Rights, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

AD-3031-FS

U.S. Department of Agriculture
ASSURANCE REGARDING FELONY CONVICTION
OR TAX DELINQUENT STATUS FOR CORPORATE APPLICANTS

NOTE: *The following statement is made in accordance with the Privacy Act of 1974 (5 USC 55a – as amended). The authority for requesting the following information for Forest Service is in sections 433 and 434 of the Consolidated Appropriations Act 2012, P.L. No. 112-74, and subsequent similar provisions. The information will be used to document compliance with appropriations restrictions.*

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 0505-0025. The time required to complete this information collection is estimated to average 3 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud, privacy, and other statutes may be applicable to the information provided.

This award is subject to the provisions contained in the Consolidated Appropriations Act, 2012, P.L. No. 112-74, Division E, Sections 433 and 434 regarding corporate felony convictions and corporate federal tax delinquencies.

Accordingly, by accepting this award the recipient acknowledges that it: (1) does not have a tax delinquency, meaning that it is not subject to any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, and (2) has not been convicted (or had an officer or agent acting on its behalf convicted) of a felony criminal violation under any Federal law within 24 months preceding the award, unless a suspending and debarring official of the United States Department of Agriculture has considered suspension or debarment of the recipient corporation, or such officer or agent, based on these convictions and/or tax delinquencies and determined that suspension or debarment is not necessary to protect the interests of the Government. If the recipient fails to comply with these provisions, the awarding agency will annul this agreement and may recover any funds the recipient has expended in violation of sections 433 and 434.

APPLICANT'S SIGNATURE (BY)

TITLE/RELATIONSHIP OF THE INDIVIDUAL IF SIGNING IN A REPRESENTATIVE CAPACITY

BUSINESS NAME

DATE SIGNED (MM-DD-YYYY)

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Assistant Secretary for Civil Rights, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 977-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

Introduction: The objective of this project is to manage stocking and species composition to reduce the risk of high severity wildfire by reducing surface, ladder and crown fuels; protect and enhance late-successional species habitat; improve sustainability of forest vegetation consistent with fire adapted landscapes; increase tree growth and vigor; diversify species age and composition; lessen susceptibility to insect and disease outbreaks; and decrease point source sedimentation impacts from existing roads.

Mandatory Stewardship Project Number 001 - Tree Marking Designation by Prescription (DxPre) Specifications

The end result is to retain the *best available trees* to the specified stocking level and/or other *desired condition* as summarized within the Low Pole DxPre Specifications (see **Attachment B**). The Contract Area Map (CAM) specifies the locations for marking.

The contractor shall use non-tracer orange paint to mark designated leave trees.

End results specific requirements:

1. Special features to buffer will be tracked by latitude and longitude using a GPS - NAD83 map datum. Government will provide known locations.
2. Contractor will provide any additions or changes made in same format.

Payment will be based on acres marked.

Mandatory Stewardship Project Number 002 - Road Decommissioning

The end result is to decommission the following road.

6300141: 0.5 mile (from the junction of Rd 6300000).

End results specific requirements:

1. The roadbed is cleared of trees and slash.
2. All drainage devices, including culverts, are removed and properly disposed of off-site.
3. De-compact to a depth of at least 18 inches or as otherwise agreed to by the contracting administrator and contractor, and reshape road surface to provide drainage for erosion control with minimal subsoil material brought to the surface.
4. Restore natural contour and drainage features.
5. Seed all disturbed areas as directed by the contract administrator.
6. The roadbed is effectively closed as appropriate to site conditions to discourage motor vehicle use.
7. The entrance is effectively closed by berm, large boulders, or obliteration.

Optional Stewardship Project Number 003 - Tree Marking Designation by Prescription (DxPre) Specifications

The end result is to retain the *best available trees* to the specified stocking level and/or other *desired condition* as summarized within the Low Pole DxPre Specifications (see *Attachment B*).

The contractor shall use non-tracer orange paint to mark designated leave trees.

End results specific requirements:

1. Special features to buffer will be tracked by latitude and longitude using a GPS - NAD83 map datum. Government will provide know locations.
2. Contractor will provide any additional or changes made in same format.

Payment will be based on entire unit 23 marked, 248 acres

Optional Stewardship Project Number 004 - Road Closure/Decommissioning

The end result is to decommission up to 4 mile of designated roads. Locations are to be determined post-harvest.

End results specific requirements:

1. The roadbed is cleared of trees and slash.
2. All drainage devices, including culverts, are removed and properly disposed of off-site.
3. De-compact to a depth of at least 18 inches or as otherwise agreed to by the contracting administrator and contractor, and reshape road surface to provide drainage for erosion control with minimal subsoil material brought to the surface.
4. Restore natural contour and drainage features.
5. Seed all disturbed areas as directed by the contract administrator.
6. The roadbed is effectively closed as appropriate to site conditions to discourage motor vehicle use.
7. The entrance is effectively closed by berm, large boulders, or obliteration.

Payment will be based on actual number of miles of roads decommissioned and closed.

GENERAL SPECIFICATIONS FOR ALL PROJECTS

The Contractor may use yarding equipment, mechanical treatments, hand treatments, or other methods to reduce slash.

DEFINITIONS

Basal Area (BA): The cross-sectional (sq. ft) area of trees measured at DBH. Basal Area is typically determined by a wedge prism, angle gauge or relaskope.

Best Available Trees: See 'Desirable Trees' below.

Contract Administrator: The delegated on-site inspector. The duties and responsibilities of the CA are defined in the letter of designation issued by the Contracting Officer.

Clumps: 2-8 leave trees with crowns within 5' of one another.

Crown ratio or live crown ratio (LCR): is the portion of the tree bole supporting live, healthy foliage and is expressed as a percent of the actual tree height.

Crown class: is the description of the relative position of the tree crown with respect to competing vegetation surrounding the tree. The Crown Class for each tree is determined in the context of its immediate environment, trees or shrubs that are competing for sunlight or moisture with the subject tree.

Damage: Defect or deformity of a tree resulting from agents such as wind, snow, animals, insects, disease, and equipment, and evidenced by such things as dead or broken tops or boles, crooks, and deep scars or damage to the bark on more than ¼ of the circumference of the tree.

DBH (Diameter at Breast Height): A point on the bole of a tree 4.5 feet above the ground measured on the uphill side.

Desired Condition: Includes any applicable direction within the marking plan.

DWD or CWD: Down Woody Debris/Course woody debris consisting chiefly of dead and down material prior to operations.

Hawksworth Mistletoe Rating: Divide the crown of the tree into 6 sections. Rate each section for presence of mistletoe. The sum of the sections equals the Hawksworth Mistletoe Rating.

Height to Diameter Ratio: The relationship between dbh and height. Trees that are overly tall for their diameter size generally have a poor height to diameter ratio. These trees usually bend over once nearby trees have been removed. A 50' height and 6" dbh is 100:1 ratio.

IRTC: Integrated Resource Timber Sale Contract

Ladder Fuel Reduction: Cutting and/or removal of small diameter (<5.0 DBH) trees growing under other more desirable trees to reduce risk of fire moving from the ground to the tree crowns.

Leave Trees: Trees not designated for removal or other prescribed treatment.

Overstory Removal (HOR): Removal of the overstory trees with the intent of managing the understory.

Period of Performance: (also Performance Period or Contract Time). The number of calendar days allowed in the contract for completion of contract work.

Piling: Use of mechanized equipment to concentrate slash for fall/winter burning.

Quality Assurance: The actions taken by the Government to assess the results to determine that they meet contract requirements. The methods for quality assurance are described in the Quality Assurance Surveillance Plan (QASP).

Quality Control: Those actions taken by a Contractor to control the production of outputs to ensure that they conform to the contract requirements.

Shelterwood Harvest (HSH): Silvicultural method designed to retain 16-20+ overstory trees/acre, sufficient to produce a new age class of desirable trees.

Slash (created): Boles, branches and limbs produced by the Contractor's operations.

Selection Harvest (HSL): Selection of individual trees or small groups of trees designed to retain a stand with high forest cover while simultaneously providing for an orderly development of trees with a range of ages and/or size classes.

Severe insect or disease problems: Trees with **mistletoe** in more than half the crown. Brooms, cankers, and swellings on stems and branches are indicators of mistletoe. Mistletoe is common in western larch.

Trees showing symptoms of **root disease** should be removed. Frequently these trees are Douglas fir near a root disease centers (an area of dead broken off trees). Indicators of root disease include a white fungus growing between the bark and the wood, resin flow at the base of the tree and or a lighter color crown with fewer needles, when compared to other Douglas fir in the area. Fading crowns and/or sap flow from the bole of Douglas-fir and grand fir. **Blister Rust** is common in western white pine. Symptoms of blister rust include heavy resin flow on the stem from a diamond shaped wound, dead branches and/or a dead top. Grand fir with **scolytus** scars on both sides of the tree. Numerous pitch tubes where **beetles** have bored into tree (usually lodgepole). Symptoms of mountain pine beetles are small red to yellowish pitch tubes (less than one-fourth inch) and boring dust in bark crevices and round the base of the tree. Symptoms of Ips beetles are dead tops and group killings without pitch tubes.

Severe mechanical defects: heavy leans, v-shaped forks, sharp crooks, bear damage or bird peck girdling the tree, broken trees with few live branches remaining.

Stream course: The area along a stream with riparian vegetation and other riparian characteristics. Stream courses are noted on the Contract Area Map. Protection of streamcourses is outlined in the IRTC.

Thinning (HTH): Selection of individual trees designed to retain a stand with high forest cover. Leave-trees are generally those with 'desirable' characteristics and meet the prescribed spacing and/or BA retention requirements.

Trees not expected to live for 10 years: Trees with red needles, few live branches or other indicators of recent or expected tree mortality.

Trees per acre (TPA): A method of determining stocking level. The number of live trees >4" dbh per acre.

Vegetative Screen: Available vegetation such as shrubs, seedlings, saplings, full crown and/or wolfy trees. When designated, available vegetation is to be retained at a level sufficient to screen at least 90% of a large animal at 200 feet.

Vigor/Growth: Relative health and growth of forest trees. Leave-tree preference shall favor trees possessing relatively high vigor/growth, free of disease and defect over trees with relatively poor vigor and growth, regardless of specie preference. For example, a PP with a relatively healthy crown will be favored over and a similarly-sized DF with a faded crown. If the two trees possessed similar vigor/growth characteristics, the PP shall be the preferred leave-tree.

Wildlife tree and snags: Live or dead trees retained for wildlife.

CONTRACTOR WORK REQUIREMENTS AND STANDARDS

Locked gates: In cases where units are behind locked gates, the Contractor shall close and lock gates after entering or exiting each gate and will be subject to all other restrictions of administrative use. The Contractor shall be permitted to drive from the locked gate to the unit with only the minimum number of vehicles necessary for efficient transport of the crew and equipment as well as product removal.

Leave trees: 1) all snags and wildlife trees that do not pose a hazard to operations as defined by the Washington State Labor and Industry standards, or are not identified for removal in the fireline construction end products specifications shall be considered leave trees and left uncut. 2) All designated leave trees both in the treatment units and in the Optional Units shall be left uncut and undamaged. Operations shall be conducted in such a manner so as to minimize damage to any leave trees during operations. See the IRTC for details related to damage and/or cutting of commercial timber within the project area.

Unless otherwise approved by the Contracting Officer, green biomass trees removed under the Mandatory and Optional work items shall be completely severed below the lowest live limb and within six (6) inches of the ground at an angle parallel to the slope, except when prevented by natural obstacles. A live limb is a limb of any size that has green needles attached. Cut trees shall be secured so they do not roll down hill and shall not be hung up on other trees or vegetation.

Slash Treatment: Treatments of slash is to include slashing, bucking, dispersion, commercial off-site removal, chipping, or piling. Slash created and/or trees dropped by the Contractor's operations outside the unit boundaries will be pulled back onto Forest Service property unless agreed to in writing by the Forest Service.

Resource Protection: The Contractor shall exercise extreme care to prevent damage to existing facilities, developments, and resources in all aspects of the contract work.

CONTRACTUAL ARRANGEMENT

(a) This is a contract for the Mandatory and Optional services specified and effective for the period stated in the Contractor's Proposal and made a part of this contract. The quantities of services specified in the Schedule are estimates only and are not purchased by this contract, except as orders are placed in accordance with the ordering clauses. Minimum and maximum quantity requirements, if any, are as stated in A4.3 STEWARDSHIP CREDITS.

(b) Performance shall be made only as authorized by the Contracting Officer in writing in the form of a Cutting Unit Release. Timber Removal activities within the Optional Units shall be scheduled and carried out in accordance with the Contractor's proposal, as approved by the Contracting Officer and in accordance with all relevant provisions of the 2400-13 Contract provisions.

(c) Subject to any limitations in this contract, the Contractor agrees to furnish to the Government the services specified in the Schedule and called for by Task Orders/Cutting Unit releases, issued by the Contracting Officer. The Contractor shall furnish to the Government the services specified in A4.3 STEWARDSHIP CREDITS, up to and including the quantity as shown in A4.3.

(d) The Government will obtain performance of all services in the Schedule exclusively from the Contractor, until such time as the Government requires performance and the contractor is unable to provide.

ORDERING OF STEWARDSHIP CREDIT MANDATORY AND OPTION WORK ACTIVITIES.

(a) Authorized Ordering Officials: The following individuals are designated as Ordering Officials under this contract and are authorized to place orders within their respective levels of authority: Susan Rinke, Contracting Officer.

(b) Ordering Procedure. The Government will determine which Stewardship Credit Work Activity Items are required and place orders with the Contractor to provide the item as specified. Reasonable time will be negotiated at time of order to allow for mobilization. Performance period will be agreed to at the time the contract is signed, or as otherwise mutually agreed at time of order.

(c) Contractor Obligation. Upon issuance of a Work Order/Cutting Unit Release order, the order becomes a binding contract under all terms and conditions of this contract and the Contractor is obligated to meet the requirements of the order as accepted. Return of the signed order and/or delivery and operation of ordered equipment constitutes acceptance. Failure to accept a work order for Work Activities Items in the Schedule may constitute partial default of the contract.

(d) Documentation. Facsimile documentation of order and acceptance is acceptable insofar as the documentation thus received is clearly legible. Return of the signed task order to the Ordering Official, by hard copy or FAX, documents acceptance of the order.

INSPECTION AND ACCEPTANCE

A. UNSATISFACTORY PERFORMANCE

If the work is determined to have major defects, the Government will immediately notify the Contractor in writing and order improvement of the quality of future work. If the defects requiring action are not corrected within two consecutive workdays after receipt of notice in writing of unsatisfactory work, the Contractor's right to proceed may be suspended and the contract considered in breach. Repeated failure to perform work at an acceptable quality level shall also be considered breach of contract.

B. REWORK AND REINSPECTION AFTER REWORK

When inspection results show a defect and the deficiency is correctable, payment will not be made until the deficiency has been corrected. Re-inspection after rework will be made in the same manner as the first inspection.

C. INSPECTION

CONTRACTOR QUALITY CONTROL PLAN

A. Quality Control Plan

The Contractor shall provide a Quality Control Plan (QCP) as part of the technical proposal. The Plan must demonstrate how the Contractor shall assure that quality of performance meets the objectives and requirements of the contract. The QCP shall specify:

- How quality will be monitored to ensure performance standards are met.
- How the work will be supervised.
- How results of the monitoring will result in quality performance.
- Identify the personnel responsible for performing quality control.

B. Contractor Quality Control Inspection

The Contractor shall assure that performance meets contract specification prior to requesting the Government to inspect for payment or acceptance. Upon completion of a unit, the Contractor shall contact the Contract Administrator to set a mutually agreed upon date for inspection of completed work. The Contract Administrator may observe the Contractor's inspection at any time and shall otherwise have unlimited access to the inspection data.

GOVERNMENT-QUALITY ASSURANCE SURVEILLANCE PLAN

The Government will conduct inspections of each unit to determine work quality. Initial inspections will normally consist of a 100 percent visual inspection preferably in conjunction with the contractor or the contractor's field representative and will be based on adherence to contract technical specifications. If visual inspection shows that the work is inadequate, final inspections and payment will not be made until the deficiency has been corrected by the Contractor. It is clearly defined here to be the complete responsibility of the contractor to monitor all work and to request final inspections based upon their knowledge that the work has been complete to the contract defined specifications.

The Government will install a series of circular plots to determine final payment results. Plots will be randomly located throughout each sub-item to obtain a representative sample of the work. Plots may be established within units that are being worked on at option of the Government if needed to determine if work is actually within the contract defined limits. If these plots are found to be acceptable they, may be added to plots taken after the remaining portion of the unit is completed and used to determine the compliance rating/percentage for the unit.

Re-inspection of Work Activities upon Contractor Request

If original inspection results are unacceptable to Contractor and a second inspection is requested without rework, the same inspection procedure will be used following a different plotline. If the second inspection shows less than 5 percent variance from the first inspection, the Contractor shall pay the cost of the second inspection, and results of the second inspection will be used in determining payment. Re-inspection requests shall be in writing and submitted within three (3) calendar days of the original inspection notification.

MEASUREMENT AND PAYMENT**MEASUREMENT**

All linear and area measurements under this contract are measured on a horizontal plane within the established boundaries. Boundaries are marked with paint, flagging and tags in the commercial units.

Re-measurement. The Contractor may at any time after award request re-measurement of any sub-item. The request must be in writing within 10 days after completion of a unit or pay item. The Government's re-measurement of the unit/sub item will be made within established boundaries.

If re-measurement indicates a variance of 5 percent or less in the acreage stated in the list of services, there will be no adjustment in acres and the Contractor shall pay for the actual cost of re-measurement.

If re-measurement results in a variance greater than 5 percent in the acreage stated in the list of services, payment shall be based on the re-measured acreage and the Government shall pay for the re-measurement.

The Government reserves the right to charge for cutting of designated reserve trees under the thinning tree selection criteria at the Damage tree rates as outlined in K-G.3.2 - Protection of Reserve Trees.

Acceptable Quality Level

Description	Defect		Allowable Defects		Required Action	
	Major	Minor	Major	Minor	Major	Minor
Quality Control Plan	Non-compliance with the approved plan.	Non-compliance with the approved plan.	0	0	Suspend work until in compliance	Suspend work until in compliance
	Non-compliance with pre-approved stream crossing sites.	N/A	0	N/A	Repair and stabilize	N/A
Use of Ground based equipment	Mechanical felling treatments do not occur under dry soil conditions and using a single-pass scenario.	N/A	0	N/A	Detrimental soil conditions will be repaired	N/A
	Non-compliance with pre-approved excavated skid trails.	N/A	0	N/A	Repair, reshape and stabilize	N/A
	Mechanical yarding equipment not confined to trails.	N/A	0	N/A	Detrimental soil conditions will be repaired	N/A
	Mechanical equipment located on trails averaging less than 40 feet.	N/A	0	N/A	Detrimental soil conditions will be repaired	N/A
	Equipment operating in riparian habitat conservation area (RHCA)	N/A	0	N/A	Repair and stabilize	N/A
Detrimental soil conditions exceeding forest plan standards occur.	N/A	0	N/A	Detrimental soil conditions will be repaired	N/A	

Description	Defect		Allowable Defects		Required Action	
	Major	Minor	Major	Minor	Major	Minor
	Non-compliance with pre-approved mechanical operations on slopes >35% (except for short pitches of 200 feet up to 45% slope).	Non-compliance with pre-approved mechanical operations on slopes >35% (except for short pitches of 200 feet up to 45% slope).	0	1	Detrimental soil conditions will be repaired	Repair and stabilize if there is more than 1 occurrences
	Heights exceeding 12 inches except next to obstructions.	Heights exceeding 6 inches except next to obstructions.	0	<10% stumps/acre	Stump heights will be reduced to 6 inches	N/A
Stump Heights	Stumps contain lower live limbs.	N/A	0	N/A	Live limbs will be removed	N/A
	Ladder fuels or slash exceeds 12 inches in height.	N/A	0	N/A	Reduce slash height	N/A
Lopping and/or Scattering	Slash less than 10 inches large end diameter not scattered outside RHCA.	N/A	0	N/A	Disperse slash outside RHCA or 50 feet from stream channel	N/A
	Piles containing material exceeding 12 inches diameter on the small end and exceeding 16 feet in length.	N/A	0	N/A	Remove material and scatter away from a pile to be burned.	N/A

Description	Defect		Allowable Defects		Required Action	
	Major	Minor	Major	Minor	Major	Minor
	Piles are placed closer than 10 feet from the bole of a tree, snag, or ditch	N/A	0	N/A	Move pile	N/A
Mechanical Piling	Piles are placed on any improvement such as road, fence, sign, etc.	N/A	0	N/A	Move pile	N/A
	Pile is placed outside unit e.g. Riparian Habitat Conservation Areas	N/A	0	N/A	Move pile	N/A
	Except as noted to close skid trails and roads, piles contain soil and /or foreign material that would retard burning.	N/A	0	N/A	Remove soil and re-pile.	N/A
	Piles are not tightly compacted.	N/A	>5%	<=5%	Compact or re-pile	N/A

Performance Work Statements					
End Result	Tasks and Critical Subtasks	Quality Standard	Acceptable Quality Level	Method of Monitoring	Incentives/ Disincentives
Project 003					
<p>Unless otherwise stated within the comments (col 5 of the DxPre table), the criteria within the DxPre Table shall be met by retaining the trees described to be leave tree marked.</p> <p>The contractor shall furnish all labor, equipment, supervision, transportation, supplies, and incidentals to perform the work described in this contract.</p>	<p>•Old trees are retained.</p> <p>•Retained trees are in a random pattern using combinations of small openings (or gaps of variable sizes), clumps (variable number of trees), individual trees, and complex patches to meeting average BA/Acre.</p> <p>•Retain Coarse woody debris already on the ground that is within the desired fuel loadings. Especially important to retain are large diameter tree structures that cannot be recreated in the managed stand.</p>	<p>•Leave tree mark meets standard in DxPre specifications.</p> <p>•Gaps do not exceed 2 acre in size on an individual basis.</p> <p>•Conifer encroachment <20.0" DBH is cut 50-100 feet from aspen tree or stand.</p> <p>•Existing large diameter coarse wood debris and wildlife trees are retained at prescribed levels.</p> <p>•Wildlife trees: All snags that do not pose a safety hazard shall be retained unless otherwise agreed to in writing. Trees with bird holes or large nests (that can be safely operated around) should be retained regardless of other direction.</p>	<p>90% acceptable level of performance.</p>	<p>Review contractor's Quality Control Plan and perform periodic on-site ocular estimates.</p>	<p>Re-work when below standard.</p> <p>No payment will be made for less than 90% acceptable quality level.</p>

Performance Work Statements					
End Result	Tasks and Critical Subtasks	Quality Standard	Acceptable Quality Level	Method of Monitoring	Incentives/ Disincentives
Project 004 Road Decommissioning	<ul style="list-style-type: none"> •The roadbed is cleared of trees and slash. •All drainage devices, including culverts, are removed and disposed of off-site. •De-compact to a depth of at least 18 inches or as otherwise agreed to by the contracting administrator and contractor, and reshape road surface to provide drainage for erosion control with minimal subsoil material brought to the surface. •Restore natural contour and drainage features. •Seed area with grass mixture (KT-GT.6.0#) •The roadbed is effectively closed as appropriate to site conditions to discourage motor vehicle use. •The entrance is effectively closed by berm, large boulders, or obliteration. 	<ul style="list-style-type: none"> •All culverts/drainage devices removed. •Road entrance is effectively closed to discourage motorized travel. •All material discourages motorized travel. •Scarification done to prepare site for seeding. •Site adequately drained. •Application of grass seed meets KT-GT.6.0#. 	90% acceptable level of performance.	Review contractor's Quality Control Plan and perform periodic on-site ocular estimates.	<p>Re-work when below standard.</p> <p>No payment will be made for less than 90% acceptable quality level.</p>

1. **DxPre Specifications:** Unless otherwise stated within the comments (col 5 of the DxPre table), the criteria within the DxPre Table (Item 3) shall be met by retaining the trees described to be marked within the Leave Tree Guidelines (Item 2). The DxPre Specifications are met when the marking or cutting meets the DxPre Specifications.
2. **Leave-Tree Guidelines:** Italicized groups of words are defined in definitions portion of Attachment A.

Abbreviations; Rx= Silvicultural Prescription. i.e. HTH(*thinning* All HTH are from below d/D=.8), HSL (*selection harvest*) or combination of these. TPA = *Trees per acre*. BA = *Basal area*, expressed as square feet per acre (ft²/ac). SP= *Species* including PP (*ponderosa pine*), DF (*Douglas-fir*), WWP (*Western white pine*), LP (*lodgepole pine*), WL (*western larch*), WRC (*western red cedar*) ES (*Engelmann spruce*), GF (*grand fir*), WH (*western hemlock*), AF (*alpine fir*), QA(*quaking aspen*). DF Dwarf Mistletoe= *Douglas-fir DMT*.

Canopy Status	Tree Class	Leave Category	Crown Ratio	Crown Vigor	DF DMR	Bark Beetle Attacks	General Marking Guidelines
Overstory	1-A	Desirable	50% +	Healthy	< 1	None	Leave unless competing with larger 1-A tree.
	1-B	Satisfactory	35% +	Generally Healthy	< 2	Few and Unsuccessful	Leave unless competing with larger 1-B or 1-A tree.
	1-D	Undesirable	< 35%	Poor Health	> 2	Many or Successful	Cut as part of gap or leave as part of clump or ghost.
Understory	2-C	Acceptable	50% +	Healthy	< 1	None	Leave if not competing with 1-A or 1-B tree.
	2-F	Unacceptable	< 50%		> 0	Any	Cut unless wildlife tree.

I. Leave Tree Marking:

- A. The **stump mark** shall be a minimum size of 6 inches long and 2 inches wide. It shall be placed at the base of every leave tree and on the downhill side. Place in a crevice on downhill side, if one is available.
- B. A horizontal **band** at least 2" wide must encircle the tree between 5 feet and 7 feet above the ground.
- C. Paint marks shall be visible for a distance of at least 100' in all directions until harvest operations are complete.

II. Mark to leave:

- A. **ALL old trees**, as determined by scoring keys in *Identifying Old Trees and Forests in Eastern Washington* by Robert Van Pelt September 2008 http://www.dnr.wa.gov/ResearchScience/Topics/ForestResearch/Pages/lm_oldgrowth_guides.a_spx. Rating of 8 or higher for PP (page 90) and 9 or higher for DF (page 130). For GF, WRC, WH, and other species with no scoring key use individual species (pages 133-158). western white pine as determined by thick platy bark.
- B. **ALL Wildlife Trees** having a dbh ≥ 25": Trees with bird holes, large nests, live snags and trees with more cull material than sawlog material. Cull material defined as 51% or more of the tree does not contain 8 foot logs that are 40% sound.
- C. **ALL** PP having the most desirable (D1) characteristics. Trees with D1 characteristics do not have any indicator of disease or poor form and they are not crowded. These shall be retained regardless of stocking level.
- D. Generally leave all Mature trees with rating of 6-7 for PP and 7-8 for DF as determined using Van Pelt's key. Can remove as follows, otherwise clump:
 - DBH < 25"**: Younger age (< 150 yrs) Can remove if competing with old tree or larger 1-A or 1-B tree, otherwise clump.
 - DBH > 25"**: Can remove 1-D trees if competing with a larger old or mature 1-A/ 1-B tree, otherwise clump or ghost. Can remove 1-B tree if competing with old/ mature 1-A tree: 1-B tree is 20-21" and 1-A tree is Diameter +4".
- E. In order to meet the Stocking Level (Col. 3 of the DxPre Table) first mark trees defined as Most Desirable (D1) followed by trees defined as Less Desirable (D2).

1. Most Desirable Trees/Suitable: Trees that possess the following characteristics shall be the first choice for desirable leave trees:

- a. **Dominant and Co-dominant Preferred Species:** These trees are taller on the average when compared to other trees in the unit. The Preferred Species are in order of preference PP, WL, WWP, DF LP and WRC. WRC is not a preferred species in areas dominated by PP. When the preferred species does not possess desirable tree characteristics, *vigor/growth* is given preference.
- b. **Health:** With the exception of WL and WWP, foliage shall be dark green in color. The crown shall cover one third or more of the tree all the way around it. Healthy trees are free of *severe insect or disease problems* and are not stressed. See definition of Severe Insect or Disease Problems in Appendix A.
- c. **Straight Bole:** The bole or stem of the tree shall be relatively straight and have a single terminal leader.
- d. **Free of Physical Damage:** Trees shall not have physical damage from fire, animals or weather on more than one-fourth of the circumference of the bole or more than three feet of length of the bole.
- e. In addition to above described healthy dominant/co-dominant preferred species, healthy WWP > 4" dbh are also Most Desirable Trees.

2. Less Desirable Leave Trees also Suitable: When the average basal area of most desirable leave trees cannot be achieved with trees that possess the most desirable characteristics, the Contractor shall select trees with less desirable characteristics in the priority listed below:

- a. **Minor Defect:** Preferred species with minor defect such as a minor crook, a small amount of animal damage, or mistletoe < *Hawksworth rating* 3.
- b. Intermediate preferred species followed by dominate or co-dominant ES, WH, & GF having desirable tree characteristics.
- c. Intermediate non-preferred species (GF,WH,SAF,ES) having desirable tree characteristics. Intermediate trees are approx. ½ the height of dominate/co-dominant trees.
- d. **Other Live Trees:** Trees other than insect or disease damaged trees with at least 30% live crown and *height to diameter ratio* ≤ 1:100.
- f. **Forked Trees:** Those trees with two or more terminal leaders.
- g. **Physical Damage:** Trees that have physical damage on less than half the bole circumference and less than three feet in length. Physical damage may be caused by equipment, falling trees, lightning, wind, animals, etc.

III. Vary the Density:

A. The characteristics of available trees shall determine stocking level at most locations.

In areas with mandatory leave trees (described in II.A.B.C), the stocking level may be high. How high will depend on how many of these trees exist. In areas with Most Desirable trees the basal area may be 20-60 ft²/ac higher than required average providing only Most Desirable and mandatory trees are marked. The amount of required leave trees and Most Desirable Trees will determine how many Less Desirable trees should be marked.

B. There may be units where the stocking level will not be achieved due to a lack of suitable leave trees. This is acceptable providing the suitable trees are marked to leave. Suitable trees are those with characteristics described in E1 or E2 (above). Unsuitable trees are described in IV (below).

C. In general, retain a higher BA within mesic microsites and in stands dominated by WRC and WH; lower BA on dry sites within stands or dominated by DF and PP

IV. Leave Tree Marking: Do Not Mark A-I (below): An exception shall be made for required leave trees (II.A.B.C). Where clumps are required an exception would be made for E.

A. Hardwoods, or trees < 7" dbh.

B. Trees not expected to live for 10 years.

C. Trees with severe insect or disease problems

D. Species listed as Do Not Retain (Col 4).

E. Other species within 30' (stem to stem) of healthy Dominant or Co-dominant PP, WL or WWP. This may be an individual or several of these species. i.e. Healthy PP, WL, WWP should be marked within 30' and beyond.

F. WL and DF with a *Hawksworth Mistletoe* rating of 3 or more. See definition in Attachment A.

G. Conifer trees with a poor height to diameter ratio. See definition in Attachment A.

H. Trees within 50' of an Aspen stands.

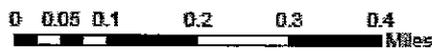
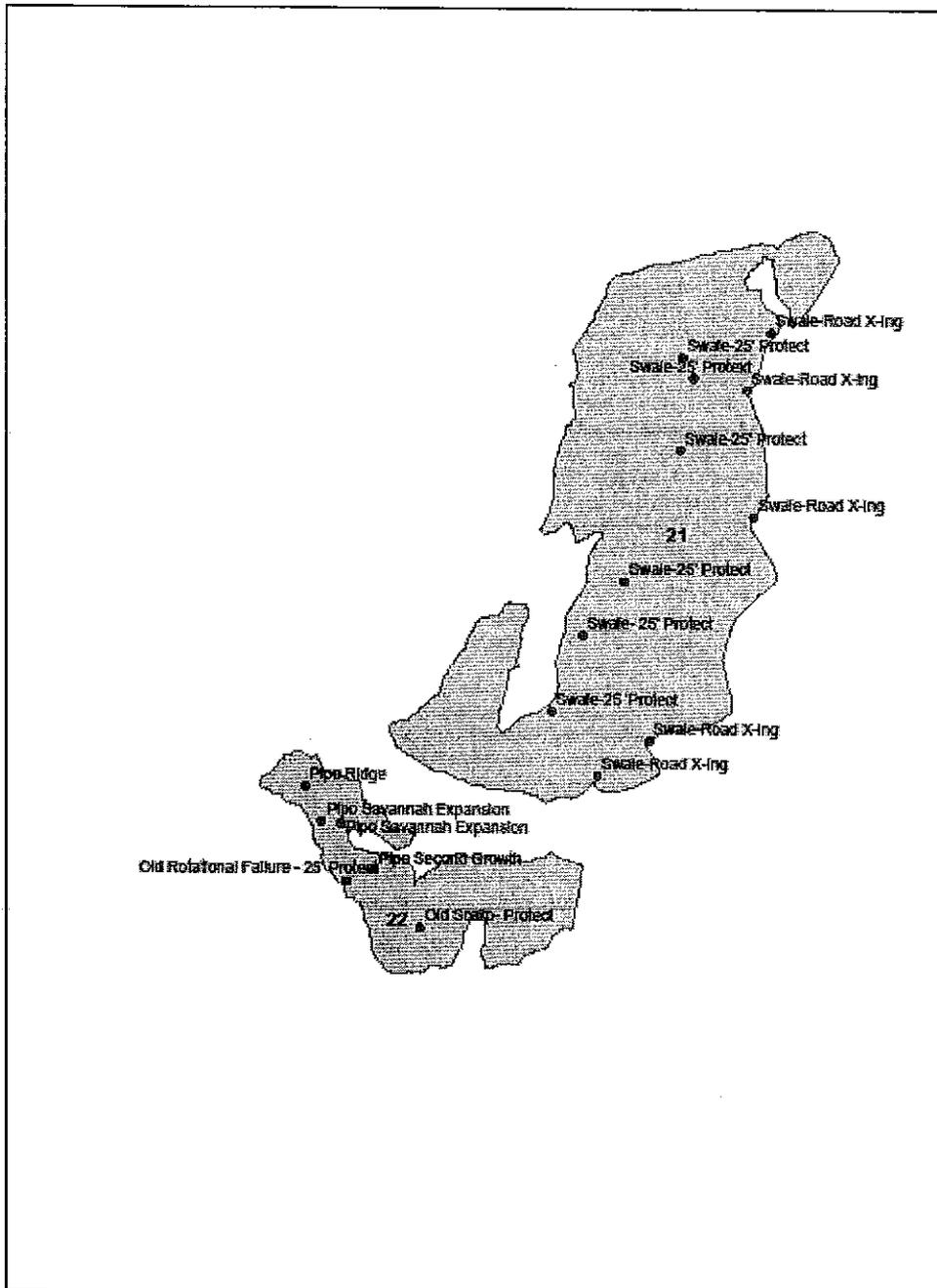
I. WRC in areas dominated by PP and/or DF (i.e. dry sites)

3. DxPre Table

Subdivision No. (Col 1)	Acres (Col 2)	Unit-average residual stocking (Col. 3)	Do Not Retain (Col 5)	Comments (Col. 6) *See Footnote																					
21	90	100 ft ² /ac	GF <30" dbh; except green culls can be counted as both a leave tree and as a wildlife tree.	<p>In addition to the Leave-Tree Guidelines: apply variable density thinning from below (d/D=.8) as described in General Marking Guide (Attachment C). Apply riparian, course woody debris and snag design criteria. Leave 2-3 clumps per acre. Site mostly dry.</p> <p>Irregular spacing should be dictated by pattern of existing dominant trees. Vary spacing as mosaic of site quality and tree diameter changes. Where tree diameters are ≥ 25-inches diameter breast height, retain up to 120 ft²; where tree diameters are ≤ 14-inches diameter breast height, tighten spacing to 70 ft².</p> <p>Existing blowdown/ windthrow is very heavy. Priority removal of dead and down green DF due to high levels of DF beetle activity.</p> <p>Older fire remnant legacy ponderosa pine exists on the overstory with an 80+ year age class of fire regeneration below it.</p> <p>Special Features: Buffer 25' Either side of swale. Top and bottom of the swales in the unit are flagged pink/black candy stripe.</p> <table border="1"> <thead> <tr> <th>Top of Feature</th> <th>Lat.</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>Dry Swale 1-21</td> <td>47_46'_03.1"</td> <td>120_41'_07.5"</td> </tr> <tr> <td>Dry Swale 2-21</td> <td>47_46'_01.9"</td> <td>120_41'_06.5"</td> </tr> <tr> <td>Dry Swale 3-21</td> <td>47_45'_57.7"</td> <td>120_41'_07.7"</td> </tr> <tr> <td>Dry Swale 4-21</td> <td>47_45'_46.7"</td> <td>120_41'_15.9"</td> </tr> <tr> <td>Dry Swale 5-21</td> <td>47_45'_49.9"</td> <td>120_41'_12.3"</td> </tr> <tr> <td>Dry Swale 6-21</td> <td>47_45'_42.3"</td> <td>120_41'_18.5"</td> </tr> </tbody> </table> <p>Watchouts: DF with DMT.</p>	Top of Feature	Lat.	Long	Dry Swale 1-21	47_46'_03.1"	120_41'_07.5"	Dry Swale 2-21	47_46'_01.9"	120_41'_06.5"	Dry Swale 3-21	47_45'_57.7"	120_41'_07.7"	Dry Swale 4-21	47_45'_46.7"	120_41'_15.9"	Dry Swale 5-21	47_45'_49.9"	120_41'_12.3"	Dry Swale 6-21	47_45'_42.3"	120_41'_18.5"
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22	23	90 ft ² /ac	GF <30" dbh; except green culls can be counted as both a leave tree and as a wildlife tree.	<p>In addition to the Leave-Tree Guidelines: apply variable density thinning from below (d/D=.8) as described in General Marking Guide (Attachment C). Apply riparian, course woody debris and snag design criteria. Leave 2-3 clumps per acre. Site mostly dry.</p> <p>Irregular spacing should be dictated by pattern of existing dominant trees. Vary spacing as mosaic of site quality and tree diameter changes. Where tree diameters are ≥ 25-inches diameter breast height, retain up to 120 ft²; where tree diameters are ≤ 14-inches diameter breast height, tighten spacing to 70 ft².</p> <p>Special Features: Buffer 50' Top of Scarp</p> <table border="1"> <thead> <tr> <th>Top of Feature</th> <th>Lat.</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>Scarp 1-22</td> <td>47_45'_32.2"</td> <td>120_41'_36.2"</td> </tr> <tr> <td>Scarp 2-22</td> <td>47_45'_29.5"</td> <td>120_41'_29.7"</td> </tr> </tbody> </table> <p>Watchouts: DF with DMT.</p>	Top of Feature	Lat.	Long	Scarp 1-22	47_45'_32.2"	120_41'_36.2"	Scarp 2-22	47_45'_29.5"	120_41'_29.7"												
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Timber Subject to Agreement				
23	248	120 ft ² /ac	<p>GF <30" dbh; except green culls can be counted as both a leave tree and as a wildlife tree.</p>	<p>In addition to the Leave-Tree Guidelines: apply variable density thinning from below (d/D=.8) as described in General Marking Guide (Attachment C). Apply riparian, course woody debris and snag design criteria. Leave 2-3 clumps per acre. Dry site.</p> <p>Irregular spacing should be dictated by pattern of existing dominant trees. Vary spacing as mosaic of site quality and tree diameter changes. Where tree diameters are ≥ 25-inches diameter breast height, retain up to 160 ft²; where tree diameters are ≤ 14-inches diameter breast height, tighten spacing to 70 ft².</p> <p>Wildlife- Goshawk timing restrictions apply. Botany- Two CYFA sites to protect.</p>

Low Pole Unit Reconnaissance Points



LOW POLE GENERAL MARKING GUIDE

Michelle Satterfield, Silviculturist,
May, 2013

This general implementation and marking guide was designed to be used with the unit prescriptions and the unit summary table.

Species abbreviations used throughout:

AF = subalpine fir
GF = grand fir
DF = Douglas-fir
ES = Engelmann spruce
LP = lodgepole pine
PP = ponderosa pine
RC = western red cedar
WH = western hemlock
WL = western larch
WP = western white pine

Table of Contents

Old Trees, Spatial Patterning, Live Crown Ratio (LCR)	2
Implementing Group Selection (See Figures 1 & 2 for photo examples).....	4
Implementing Commercial Thinning (See Figures 7 & 8 for preferred leave trees).....	4
Implementing Supplemental Marking (See Figure 7 for preferred leave trees).....	5
Implementing Untreated Patches	5
Implementing SKIPS (See Figure 5 for an example)	6
Implementing GAPS (See Figure 6 as an example)	7
Table Guidelines.....	8
Example Photos / Artwork	10
Definitions	14

LOW POLE GENERAL MARKING GUIDE

Old Trees, Spatial Patterning, Live Crown Ratio (LCR)

As Determined by scoring keys in *Identifying Old Trees and Forests in Eastern Washington* by Robert Van Pelt September 2008

http://www.dnr.wa.gov/ResearchScience/Topics/ForestResearch/Pages/lm_oldgrowth_guides.aspx.

Retain ALL Old Trees: Rating of 8 or higher for PP (page 90) and 9 or higher for DF (page 130). For GF, WRC, WH, and other species with no scoring key use individual species (pages 133-158). Western white pine as determined by thick platy bark.

Mature Trees: Generally leave all Mature trees with rating of 6-7 for PP and 7-8 for DF as determined using Van Pelt's key. Can remove as follows, otherwise clump:

DBH < 25": Younger age (< 150 yrs) Can remove if competing with old tree or larger 1-A or 1-B tree, otherwise clump.

DBH > 25": Can remove 1-D trees if competing with a larger old or mature 1-A/ 1-B tree, otherwise clump or ghost. Can remove 1-B tree if competing with old/ mature 1-A tree: 1-B tree is 20-21" and 1-A tree is Diameter +4".

Spatial Patterning: To achieve desired spatial patterning, stands should include a combination of clumps, gaps, and complex patches (Figure 1). Incorporate into treatment prescriptions these three components of horizontal pattern:

1. **Clumps:**

- Clumps are defined as two or more trees in close enough proximity that their crowns are interlocking.
- Clump sizes should range from about 0.01 acres to 0.5 acres (Harrod et al. 1999).
- Vary the number of trees left in each clump.

2. **Canopy gaps/group openings:** These range in size depending on fire regime and occur on up to a third of the stand. In NEPA, HSL group openings are planned to be planted with fire tolerant tree species; openings need to be 3 to 5 acres each or in close proximity to be feasible and allow control of brush competition.

3. **Complex patches:** Complex patches are those with more structural and species complexity than the surrounding area. Patch characteristics include large snags, soft down logs, and mistletoe brooms. Utilize micro-sites, topography, and existing conditions to select locations to leave complex patches.

Non-Forest inclusions within units: Occasionally there will be small patches of non-forest or very low productivity forest land within units. These inclusions are variable in size and physical characteristics. Rock outcrops, talus slopes, and shallow soils may be evident. In these areas no trees should be marked for removal within 30 to 50 feet of these areas

Plantations: "Blending" or softening edge to incorporate structural variations (edge effects) between existing young stands (plantations) and new treatment units is a key objective of treatments this entry.

Wildlife Trees: All snags that do not pose a safety hazard shall be retained unless otherwise agreed to in writing. Trees with bird holes or large nests (that can be safely operated around) should be retained regardless of other direction. See General Marking Guide for required minimums.

LOW POLE GENERAL MARKING GUIDE

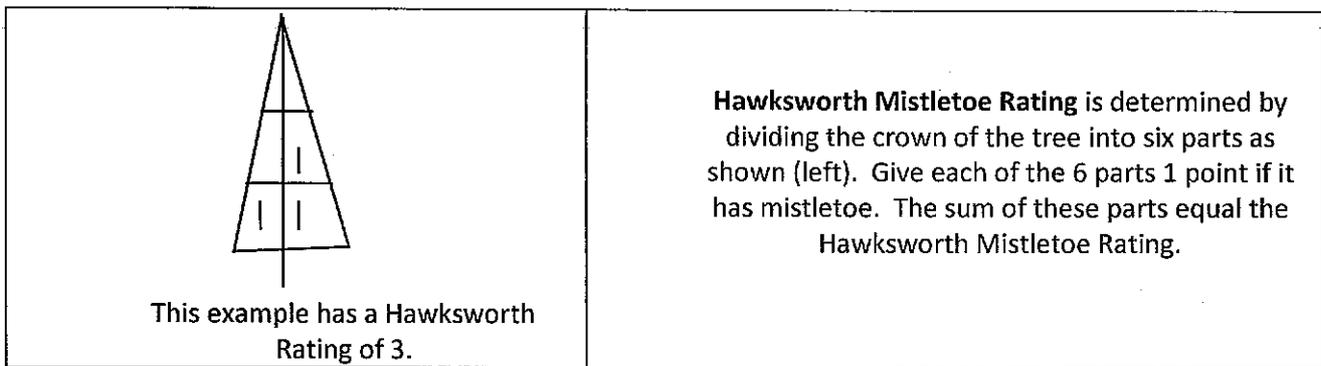
Select Trees: Where possible, remove all merchantable trees. Manage stand density retaining 40 to 70 square feet basal area of the largest diameter trees with the best physical traits within a one acre area surrounding the select tree.

Course Woody Debris and Down Logs: All dead down material is required to stay unless otherwise agreed to in writing. Recent down trees will be marked and cruised. December, 2012 storm created down and damaged Douglas-fir that will have priority for removal to reduce risk of Douglas-fir beetle killing large diameter or old Douglas-fir trees.

Untreated Patches or skips are untreated areas or no activity areas left to provide hiding cover for mule deer, buffer plants. Especially important are those legacies or stand structures that cannot be re-created in the managed stand. To help maintain long-term ecological diversity and other management objectives a number of areas are deferred from harvest treatment this entry and serve as a component of the retention of structural legacies.

Species Selection: Priority for removal is grand fir. The Contractor shall first retain preferred species having the largest and most *desirable tree* characteristics. When the preferred species does not possess desirable tree characteristics, *vigor/growth* is given preference. The preferred species for all DxPre Units are PP with over 40% live crown ratio, DF Largest with over 50% live crown ratio, WP Retain western white pine with no evidence of blister rust and successfully pitching out beetle and RC left as small group. Generally these 3 species have equal preference, over the remaining species (LP, ES, WH, and AF) with GF last. Red Cedar is an exception whose preference may vary depending on unique attributes of the area.

Priority for removal Douglas-fir with; a) Hawksworth Mistletoe rating of 3 or more (see diagram below). b) A height to diameter ratio > 100:1. For example a 50' height and a 6" dbh is 100:1 ratio. 60' height: 6" dbh is 120:1 ratio and should be removed. c) < 25% crown. Care should be takes in determination between epicormic branching and mistletoe.



LOW POLE GENERAL MARKING GUIDE

Implementing Group Selection (See Figures 1 & 2 for photo examples)

What is group selection? A regeneration cutting method designed to maintain and perpetuate a multi-aged structure by removing some trees in small groups. See Figures 1 & 2 for examples.

Table 1 Specifications for Group Selection

Attribute	Specification
Leave trees	<ul style="list-style-type: none"> • Leave all old trees. • Leave all <i>good vigor (healthy)</i> PP / WL /WWP(see Figure 7). • DO NOT Douglas-fir leave trees infected with dwarf mistletoe in the group selection areas.
Minimum size	<ul style="list-style-type: none"> • 2 acres (minimum size to ensure implementation success for planting)
Maximum size	<ul style="list-style-type: none"> • 5 acres (see Table 7 for a guide on determining size)
Minimum distance between group selection	<ul style="list-style-type: none"> • A width equal to two co-dominant / dominant tree heights.
Locations	<ul style="list-style-type: none"> • GPS the group selection locations > 2 acres to track them for site preparation and planting.

Placement - Select areas with one or more of the following conditions:

- *Poor vigor* trees (see Figure 7), which includes trees with: Live crown ratios <30%; Height-to-diameter ratios over 80 (tall, skinny trees – noodles); Chlorotic, fading or otherwise unhealthy crowns; and/or Dwarf mistletoe infection centers);
- *Aspen clones* that have 3 or more aspen trees;
- Widely spaced *good vigor* (see Figure 7), ponderosa pine (PP), and/or Douglas-fir (DF), western larch (WL) , Western White Pine (WP) that are within an area of *poor vigor* trees;
- Grand fir or small cedar that are the result of past removal of large larch, Douglas-fir, or cedar (for example: you see large stumps, but the current stand is dominated by a lot of small subalpine fir); and / or

Marking

- Leave all old trees and all *healthy* PP. Ok to retain PP with Hawksworth's dwarf mistletoe ratings unless expected to die in next 10 years.'

Implementing Commercial Thinning (See Figures 7 & 8 for preferred leave trees)

Table 2 Specifications for Commercial Thinning (for use in units with basal area targets)

Attribute	Specification
Leave trees	<ul style="list-style-type: none"> • Leave all trees old tree. • Leave the best available trees per acre needed to meet the basal area / TPA target.
Desired leave trees	<ul style="list-style-type: none"> • <i>Dominant</i> and <i>co-dominant</i> crown classes (see Figures 7 & 8) • <u>1st priority</u>: Trees with <i>good vigor (healthy)</i>; <u>2nd priority</u>: Trees with <i>fair vigor</i> • Order of species preference: PP / WL > WP>DF >RC > ES > WH > LP > AF > GF
Basal area target or Trees per Acre (TPA) target	<ul style="list-style-type: none"> • Unit prescriptions list the basal area target or trees per acre target. (See Table 9 for a spacing / basal area tatum and see Table 12 for TPA / spacing tatum) • Basal area targets and TPA targets don't apply to: clearing zone around aspen and large PP / WL; Gaps used to address forest health issues.
Acceptable basal area range	<ul style="list-style-type: none"> • Basal area / TPA may vary within the unit by 50% but the unit average should be about what is specified as the target target. should be about 100 ft²/acre.

LOW POLE GENERAL MARKING GUIDE

Implementing Supplemental Marking (See Figure 7 for preferred leave trees)

Supplemental Marking for Leave Trees

Objective: Supplement the DxD designations in order to:

- 1) Retain desirable trees that would otherwise be cut as the spacing designation is applied; and
 - 2) Retain occasional clumps of trees so the spatial pattern is similar to Figure 4.
- Desirable trees include all good vigor western larch and ponderosa pine. *Good vigor* Douglas-fir trees are desirable within units where there are abundant subalpine fir, cedar or lodgepole trees. Within some units desirable trees include *good vigor* western red cedar, Engelmann spruce, and subalpine fir. Unit prescriptions specify which trees to retain.
 - Use Figure 7 to help you judge whether the tree has *good vigor*.

Supplemental Marking for Cut Trees

Objective: Supplement the DxD designations in order to:

- 1) Cut undesirable trees that would otherwise be retained when the spacing designation is applied.
- Undesirable trees: *poor vigor* trees, especially ones with dwarf mistletoe infections.

NOTE: Assessing tree vigor of shade-tolerant species like RC/ES/AF/GF will be a little more difficult than for PP/WL/DF. Assess the tree's crown volume, overall appearance, and position relative to neighbors. Hint: Shade-tolerant trees beneath the deep shade of other shade-tolerant trees likely will not have good vigor.

Implementing Untreated Patches

Why leave untreated patches? Patches of untreated areas are left to provide hiding cover for mule deer.

Table 3 Specifications for Untreated Patches

Attribute	Specification
Leave trees	<ul style="list-style-type: none"> • Leave the best available hiding cover for mule deer.
Minimum size	<ul style="list-style-type: none"> • ½ acre
Maximum size	<ul style="list-style-type: none"> • 1 acre (maximum size doesn't apply to areas excluded due to other reasons)
Target percent of NEPA unit	<ul style="list-style-type: none"> • 10% of NEPA Unit • Areas that were excluded due to sensitive soils, wetland/riparian areas, or inoperability count toward the untreated patch target.
Locations	<ul style="list-style-type: none"> • GPS the untreated patch locations to track them for the contract.

Placement – Place in areas with the following conditions (follow the order of priority until the target is met):

1. Mule deer hiding cover – this consists of small conifer trees and/or dense shrubs in patches about ½ acre or larger in size that hide 90 percent of an adult deer at a distance of 200 feet or less;
2. Patches of overstory western red cedar or Engelmann spruce; and/or
3. Single snags or groups of snags over 16" dbh. Use the untreated patches to protect large snags (>16" dbh).

To the extent practicable, **DON'T** place untreated patches within 100 feet of quaking *aspen clones* or within 50 feet of large (>21" dbh) ponderosa pine or western larch. Quaking aspen, PP, and WL do not tolerate crowding.

LOW POLE GENERAL MARKING GUIDE

Implementing SKIPS (See Figure 5 for an example)

What is a skip? Skips are small inclusions within a unit that is left unthinned.

Why use skips? Skips help to maintain some species diversity and structural diversity, both of which may be eliminated when contract clauses such as designation by spacing are used. Within some stands, Engelmann spruce and western red cedar naturally grow in clumps with 2 or more strata present. Designation by spacing reduces this natural clumpiness and usually creates one canopy layer. The Kettle Face landscape was below the historic range of variability for late structure in mesic stands. Eastside Screens direction is to move early and middle structure stands toward applicable late structure. Applicable late structure for stands with spruce and cedar would have a portion of these stands in clumps and multi-strata. The unthinned inclusions would also provide snag recruitment.

Table 4 Specifications for Skips

Attribute	Specification
Leave trees	<ul style="list-style-type: none"> Any – see preferences below.
Minimum size	<ul style="list-style-type: none"> 1/20th acre (see Table 10 for a guide on determining size)
Maximum size	<ul style="list-style-type: none"> ½ acre or as otherwise specified in the Unit's prescription (see Table 10 for a guide on determining size)
Targets	<ul style="list-style-type: none"> Try to get some dispersion of the skips throughout the unit Try to get a mix of sizes Be mindful of how skips could disrupt skidding patterns
Locations	<ul style="list-style-type: none"> GPS the skip locations if it will help to track them during the contract.

Placement – Place in areas with the following conditions:

1. Areas dominated by medium to large (16" dbh and larger) overstory RC / ES / AF (see Figure 5);
 - a. An area dominated by overstory RC / ES / AF is one where more than 70% of the overstory trees are RC / ES / AF.
2. Areas with large snags (>16" dbh);
3. Areas with large (>16" diameter) downed logs; and/or
4. Larger areas dominated by lodgepole pine.

To the extent practicable, **DON'T** place skips within 100 feet of quaking *aspen clones* or within 50 feet of large (>21" dbh) ponderosa pine or western larch. Quaking aspen, PP, and WL do not tolerate crowding.

LOW POLE GENERAL MARKING GUIDE

Implementing GAPS (See Figure 6 as an example)

What is a gap? A gap is a break in the canopy that results from harvest or tree death (small pockets of beetle kill, dwarf mistletoe, root rot, and/or storm damage). Harvest created gaps are just small group selections.

Why use gaps? Like skips, gaps also help provide structural diversity. Shrubs, grass, herbaceous, and small trees regenerate and/or reinvigorate in gaps. Additionally, putting in gaps helps to eliminate and/or reduce disease issues that contribute to fuels buildup. A designation by spacing contract clause would not address the small pockets of diseased trees – in fact, designation by spacing could result in leaving heavily mistletoe infected trees over smaller but healthier trees.

Table 5 Specifications for Gaps

Attribute	Specification
Leave trees	<ul style="list-style-type: none"> • Leave all trees above 21" dbh. • Leave all <i>good vigor (healthy)</i> PP / WL. • In mesic units where DF / RC / ES are not abundant in the overstory, leave all of the good vigor trees of these species within the gap.
Minimum size	<ul style="list-style-type: none"> • No minimum size
Maximum size	<ul style="list-style-type: none"> • 2 acre or as otherwise specified in the Unit's prescription (see Table 11 for a guide on determining size)
Minimum distance between gaps	<ul style="list-style-type: none"> • A width equal to two co-dominant / dominant tree heights. • Note: co-dominant / dominant trees in the project area generally average 80 to 110 feet in height, so in most cases the minimum distance between gaps will be about 200 feet.
Sideboards	<ul style="list-style-type: none"> • Unit prescriptions specify the maximum percentage of the unit that can be in gaps.
Locations	<ul style="list-style-type: none"> • GPS the gap locations if it will help to track them during the contract.

Placement – Place in areas with the following conditions:

- Dwarf mistletoe infection centers – sometimes dwarf mistletoe is isolated to infection centers instead of dispersed throughout a unit;
- Large (>21" dbh) Douglas-fir infected with dwarf mistletoe that are surrounded by shorter Douglas-fir – placing a gap around these large trees would isolate them and help to reduce spread throughout unit;
- Patches of tall and skinny trees (wet noodles) – these are prone to storm damage. These tall, skinny trees will have poor live crown ratios (These are all of the trees designated "D" in Figure 7);
- Root disease centers; and
- Patches of mature lodgepole pine.

LOW POLE GENERAL MARKING GUIDE

Table Guidelines

Table 6 Guide for determining size of regeneration harvest size

Acres	Dimensions (square) Length x Width in feet	Acres	Dimensions (square) Length x Width in feet
2 ac.	~300 feet x 300 feet	9 ac.	~630 feet x 630 feet
3 ac.	~360 feet x 360 feet	10 ac.	~660 feet x 660 feet
4 ac.	~420 feet x 420 feet	11 ac.	~690 feet x 690 feet
5 ac.	~470 feet x 470 feet	12 ac.	~720 feet x 720 feet
6 ac.	~510 feet x 510 feet	13 ac.	~750 feet x 750 feet
7 ac.	~550 feet x 550 feet	14 ac.	~780 feet x 780 feet
8 ac.	~590 feet x 590 feet	15 ac.	~810 feet x 810 feet

Table 7 Example of how clumping of leave trees affects average leave tree spacing in a shelterwood

SHELTERWOOD										
Target leave trees per acre	20 Trees per Acre (TPA)									
Number of trees per clump	1	2	3	4	5	6	7	8	9	10
Spacing in feet	47	66	81	93	104	114	123	132	140	148

Note: Bottom line = when you *clump* you need to widen your spacing. It is unacceptable to leave trees at a uniform spacing of 47 feet – doing that would cause too much dispersed shade.
Shaded area = desired clumping in shelterwood areas that don't have 20 TPA of good vigor PP / WL / DF.
 *Good vigor PP / WL / DF usually won't be in *clumps* larger than 4 trees.

Table 8 Basal area / Spacing Tatum Aid for Commercial Thinning

Use this table as a guideline and vary spacing up to 50% to leave the largest, healthiest trees											
BA/ac	60 sq. ft.		70 sq. ft.		80 sq. ft.		90 sq. ft.		100 sq. ft.		BA/ac
	Avg. Spacing	Avg. TPA	Avg. Spacing	Avg. TPA							
Inches	Feet	#	Feet	#	Feet	#	Feet	#	Feet	#	Inches
22"+	44	25	41	27	38	30	36	34	34	38	22"+
20"	40	28	37	32	34	37	32	41	31	46	20"
18"	36	34	33	40	31	45	29	51	28	57	18"
16"	32	43	29	50	28	57	26	64	25	72	16"
14"	28	56	26	65	24	75	23	84	22	94	14"
12"	24	76	22	89	21	102	20	109	20	109	12"
10"	20	109	20	109	20	109	20	109	20	109	10"

Note: Spacing guideline shows a minimum spacing of 20 feet minimize logging damage.
 Spacing (ft) = $(43,560/N)^{.5}$, N = BA/.005454D², N = trees per acre, BA = basal area per acre, D = diameter at height.
 When spacing between trees of different diameter classes, average the spacing distance; e.g., 16" and 10" dbh:
 (28 ft + 18 ft)/2 = 23 ft spacing

LOW POLE GENERAL MARKING GUIDE

Table 9 Sizes of SKIPS (radius in feet and acreage)

Radius of skip (ft)	Size in acres
25	0.05 (~1/20 th)
35	0.10 (~1/10 th)
60	0.25 (~1/4 th)
85	0.50 (~1/2)

Note: in stands where an orange painted tree designates a 25 foot not cut zone, one orange painted tree would result in a 1/20th acre skip (the minimum skip size)

Table 10 Sizes of GAPS (radius in feet and acreage)

Radius of gap (ft)	Size in acres
50	0.20 (~1/5 th)
60	0.25 (~1/4 th)
70	0.35 (~1/3 rd)
85	0.50 (~1/2)
100	0.75 (~3/4)
120 (maximum size)	1 acre

Note: in stands where a yellow painted tree designates a 50 foot cut zone, one yellow painted tree would result in a 1/5th acre skip.

Table 11 Trees per acre / Spacing Tatum

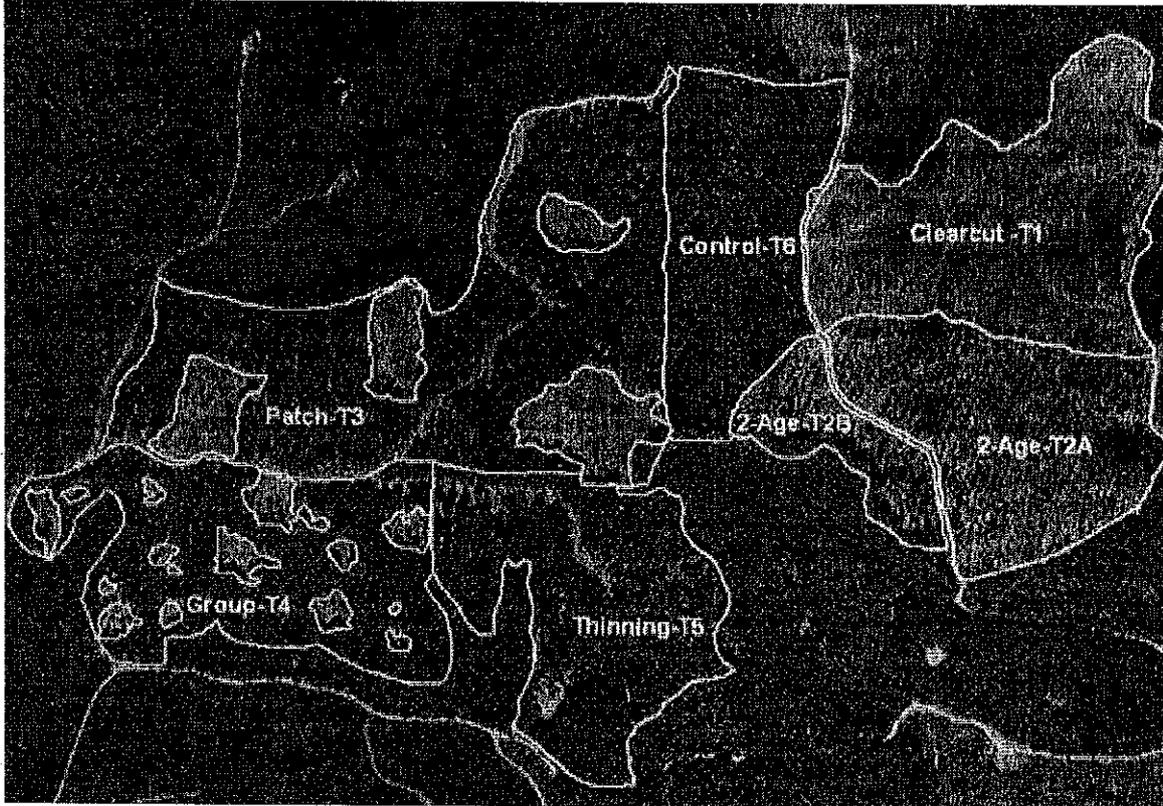
Target Trees per Acre (acceptable range)	Average Spacing for Unit in feet	Acceptable Range of Spacing in feet*
30 (15-45 TPA)	38'	31-54'
40 (20-60 TPA)	33'	27-47'
50 (25-75 TPA)	30'	24-42'
60 (30-90 TPA)	27'	22-38'
70 (35-105 TPA)	25'	20-38'
80 (40-120 TPA)	23'	20-35'
90 (45-135 TPA)	22'	18-31'
100 (50-150 TPA)	21'	17-30'
110 (55-165 TPA)	19'	16-27'

*Note: minimum spacing for the range can be closer where trees are in a clump or when leave the best available tree.

LOW POLE GENERAL MARKING GUIDE

Example Photos / Artwork

Figure 1: Example of different silvicultural methods: Group-T4 = group selection (photo shows openings up to 1.5 acres); 2-age-T2A/B = shelterwood with reserves (photo shows 15 trees per acre in uniform distribution); Patch-T3 = patch cutting (photo shows openings 1.5 to 5 acre); Thinning-T5 = commercial thinning. *Note: our group selection is sort of a fusion of the group selection and patch cutting shown in this photo.



LOW POLE GENERAL MARKING GUIDE

Figure 2: Graphic of group opening size determination with relatively tall tree heights.

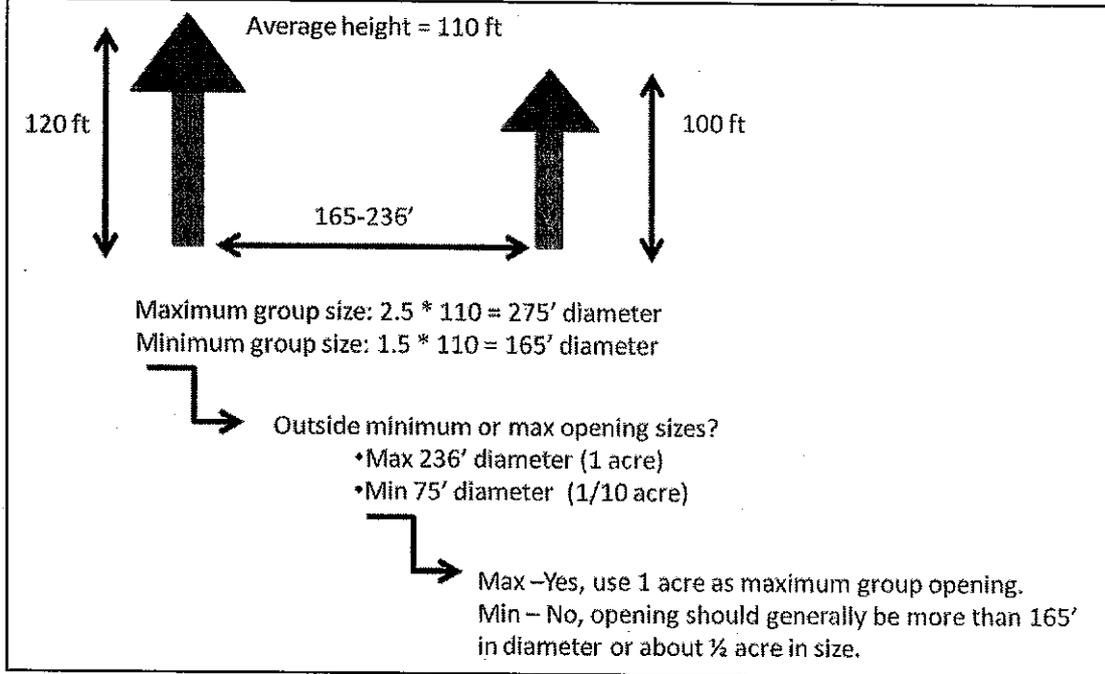


Figure 3: Example of shelterwood unit. Portions of the variable density marking will look similar. Some of the trees are about 100 feet apart, which resulted in some 1/2 acre gaps without trees. This photo was taken in fall (notice how just a few trees can shade a lot of the ground).



LOW POLE GENERAL MARKING GUIDE

Figure 4: Examples of desired and unacceptable leave tree spatial patterns in Shelterwood areas.

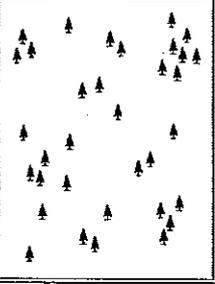
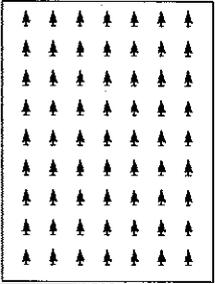
DESIRED SPATIAL PATTERN Variable with clumps & gaps	UNACCEPTABLE SPATIAL PATTERN Uniform
	

Figure 5: The area in the dashed box provides an example of a good candidate for a SKIP within a cedar stand. The trees in the artwork are western red cedar and western hemlock (artwork by Robert Van Pelt 2008) – to make this figure work for our area, imagine in your mind's eye that the darker colored trees are subalpine fir or Engelmann spruce.

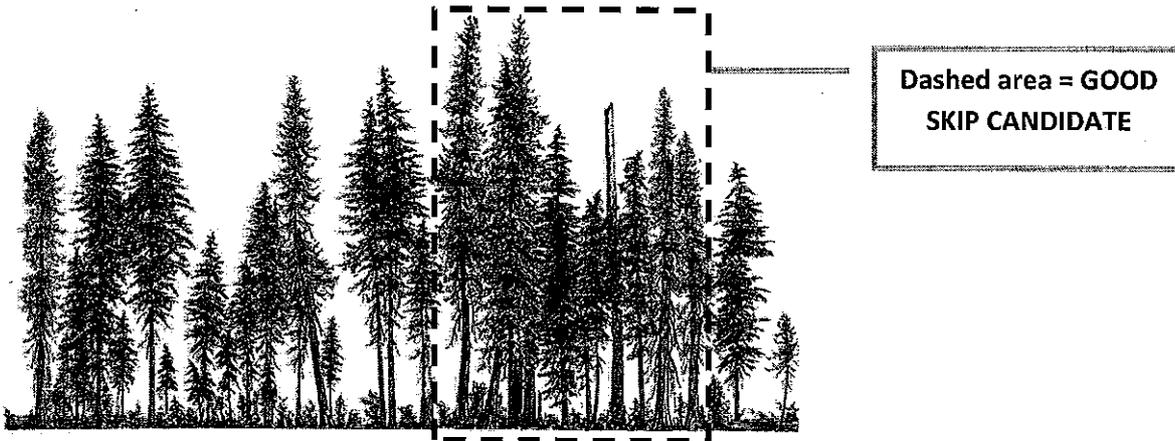
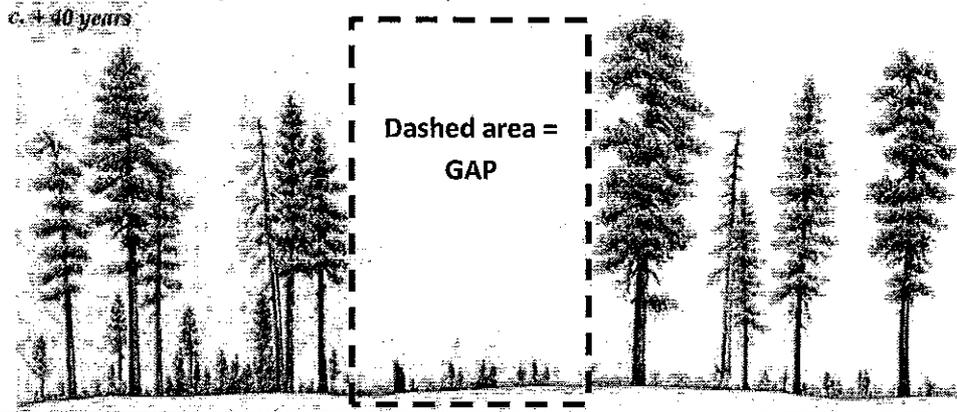
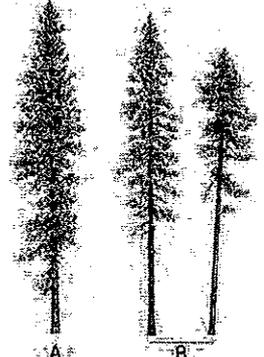
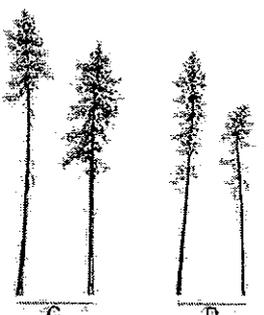
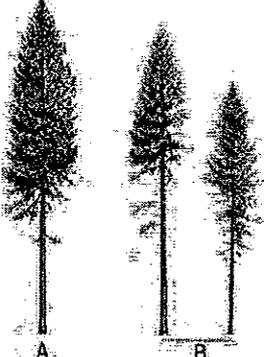
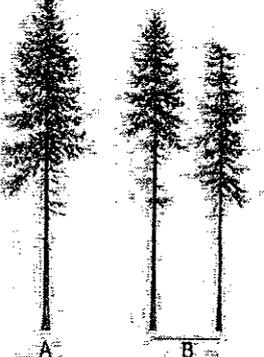
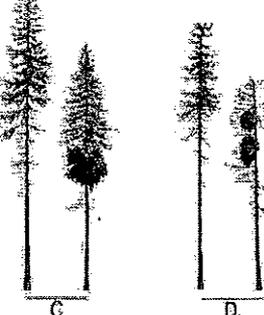


Figure 6: The area in the dashed box provides an example of a GAP. The artwork represents a dry stand with ponderosa pine and Douglas-fir (artwork by Robert Van Pelt 2008).



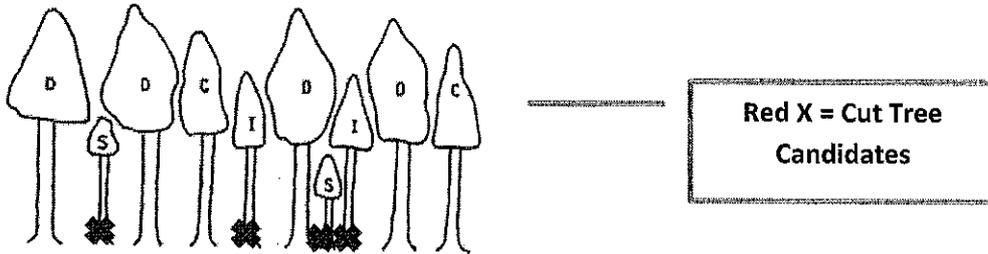
LOW POLE GENERAL MARKING GUIDE

Figure 7: Examples of vigor classes. Artwork by Robert Van Pelt 2008.

	PREFERRED LEAVE TREES <i>A = good vigor</i> <i>B = fair vigor to good vigor</i> <i>(usually dominant / co-dominant)</i>	CUT TREE CANDIDATES <i>C and D = poor vigor</i> <i>(usually suppressed / intermediate)</i>
Ponderosa pine	 A B	 C D
Western larch	 A B	 C D
Douglas-fir	 A B	 C D
<p>NOTE: Artwork not available for other species – use this artwork along with crown volume to judge vigor of other species.</p>		

LOW POLE GENERAL MARKING GUIDE

Figure 8: Examples of crown classes. D = dominant; C = co-dominant; I = intermediate; S = suppressed. Red X = easy cut tree candidates.



Definitions

Aspen Clones – three (3) or more live aspen trees greater than 5.0 inches dbh (6.0 inches diameter stump height) that are within 20 feet of each other.

Canopy gap – sky is visible overhead because of space between tree crowns. Example: for there to be a gap of 35 feet between canopies the distance between tree trunks might be as wide as 50 feet.

Chlorotic – the foliage is yellowish or pale green in color.

Clump – two or more trees with touching or near touching crowns.

Crown Class – a category of tree based on its crown position relative to those of adjacent trees. Types of crown class are the following:

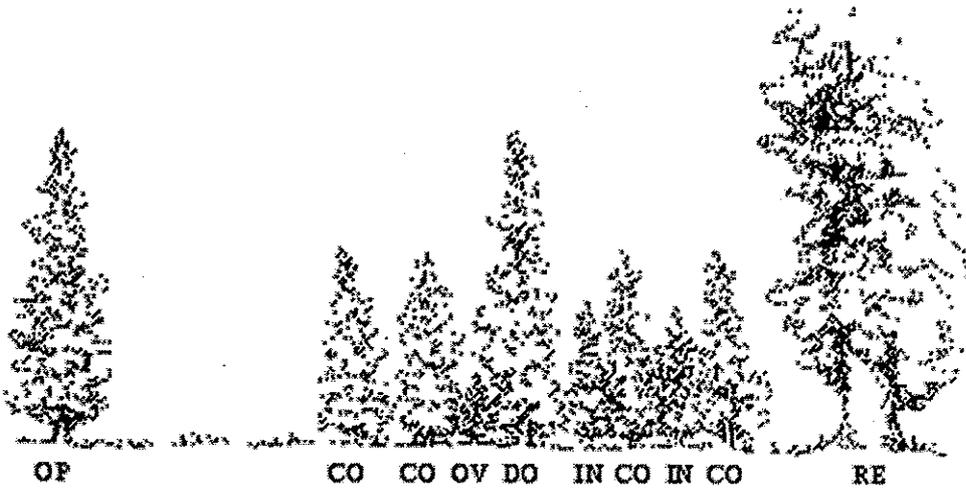
Codominant – a tree whose crown helps to form the general level of the main canopy in even-aged stands or, in uneven-aged stands, the main canopy of the tree's immediate neighbors, receiving full light from above and comparatively little from the sides.

Dominant – a tree whose crown extends above the general level of the main canopy of even-aged stands or, in uneven-aged stands, above the crowns of the tree's immediate neighbors and receiving full light from above and partial light from the sides.

Intermediate – a tree whose crown extends into the lower portion of the main canopy of even-aged stands or, in uneven-aged stands, into the lower portion of the canopy formed by the tree's immediate neighbors, but shorter in height than the codominants and receiving little direct light from above and none from the sides.

Suppressed (overtopped) – a tree whose crown is completely overtopped by the crowns of one or more neighboring trees — note the vigor of overtopped (suppressed) trees varies from high to low depending on individual circumstances.

**LOW POLE
GENERAL MARKING GUIDE**

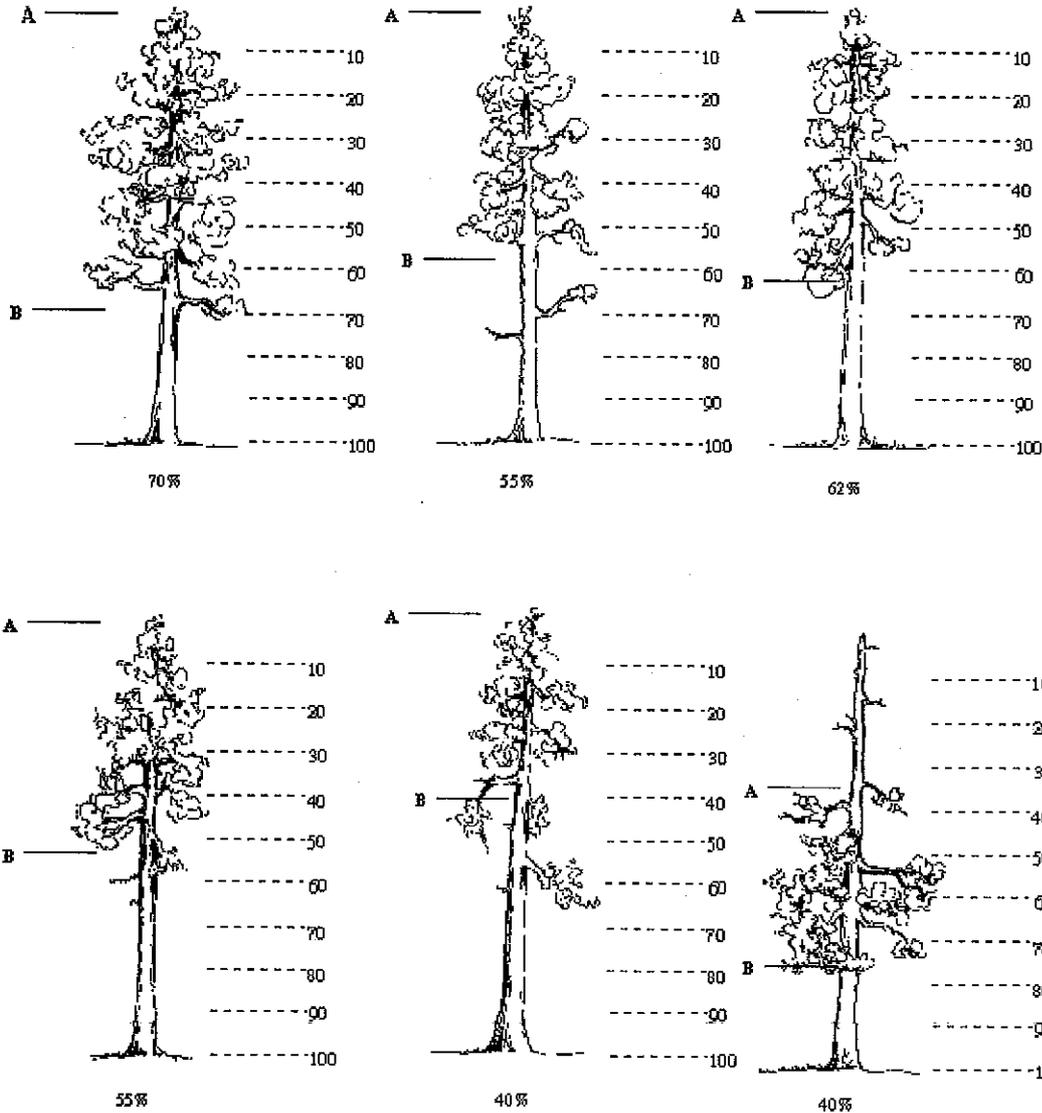


Damaged – trees with physical damage such as bark missing from the trunk or evidence of beetle attack (as evidenced by frass or boring dust).

Diseased – trees with dwarf mistletoe, root disease (as evidenced by bleeding base or fading crown), or other disease condition.

Live Crown Ratio (LCR) – the ratio of live crown length to tree height.

LOW POLE GENERAL MARKING GUIDE



Crown ratio is the portion of the tree bole supporting live, healthy foliage and is expressed as a percent of the actual tree height. The distance between A and B is the existing crown length.

Shade-tolerant Trees – Shade-tolerant species are species that are able to thrive in the shade, and in the presence of natural competition by other plants. Examples include: western red cedar, Engelmann spruce, grand fir, and subalpine fir.

Vigor (see Figures 7 & 8 for examples)

Poor Vigor – trees with one or more of the following: <30% LCR, fading or chlorotic crowns, Hawkworth's dwarf mistletoe rating of 3 or greater, root disease, successful bark beetle attack, and/or height-to-diameter (HT'/DBH') ratios greater than 80 (tall, skinny trees or noodles).

Fair vigor – trees with >30% LCR, free of root disease, and free of dwarf mistletoe infections (or with Hawkworth's dwarf mistletoe rating of 2 or less).

Good vigor (healthy) – trees with healthy appearing crowns, >40% LCR, and free of damage and disease.

**LOW POLE
GENERAL MARKING GUIDE**

LOW POLE GENERAL MARKING GUIDE

General Tree Marking Guide

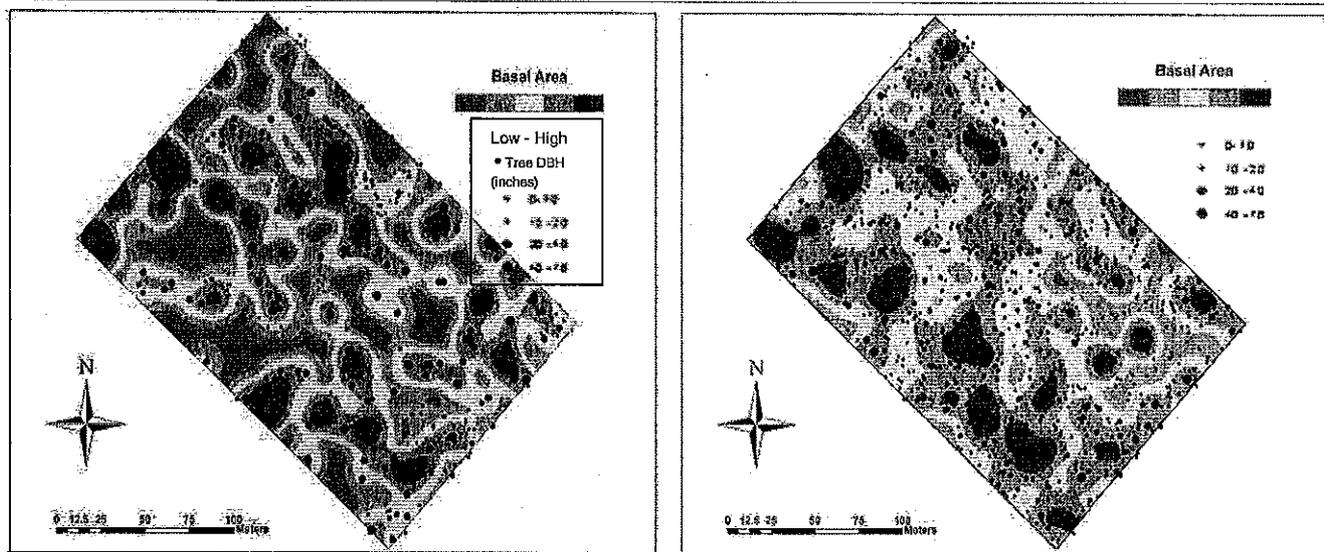
Objective: Retain a residual stand of fire tolerant tree species, stand structure and size to restore forest complexity and resilience to fire.

On June 17, 2010 the Okanogan Wenatchee National Forest established a Large and Old Tree Policy for all Fiscal Year 2011 Timber Sales and Stewardship Contracts. The interim direction provides guidance for defining large and old trees, and for achieving desired spatial pattern and density. It is in the Draft version of the Okanogan-Wenatchee NF Restoration Strategy.

Using historical stands as a guide to move toward spatial patterns for restoring forest complexity and resilience to fire, the **Commercial Thinning** prescription will primarily be a variable density thinning from below ($d/D=.8$)¹ emphasizing irregular spacing by creating gaps/openings & groups or clusters of trees/clumps (size & number based on historical stand data and existing stand conditions), among group variation (thin to variable basal area/SDI/ density targets) and within group variation (retain largest/"best" trees regardless of crown spacing). Forest structure is un-even at the landscape level; composed of single layer, even-aged stands or patches. Densities are approximations and would vary around the target densities. Retention and growth of large fire tolerant tree species (PP, DF) is emphasized. On dry sites the residual stand will be primarily ponderosa pine and Douglas-fir at an average of 33-67 trees per acre in groups of trees and individual trees and openings moving toward the 1929 spatial patterns. On mesic sites and microsites with dry sites target basal area will be between 50 and 125 square feet per acre. There will be 30 to 80 residual trees per acre that range from 23 to 38 feet in spacing. Grand fir has priority for removal. Target basal area will be between 50 and 125 square feet per acre. There will be 30 to 80 residual trees per acre that range from 23 to 38 feet in spacing. Grand fir has priority for removal.

The **Selection System, Uneven-aged Management** prescription the target basal area will be between 90 and 125 square feet per acre. Grand fir has priority for removal. There will generally be 30 to 80 residual trees per acre that range from 38 to 23 feet in spacing. Grand fir has priority for removal. The northern units of Low Pole are productive mesic sites.

Figure 1: Example of Basal area heterogeneity (Erick E Knapp et al, Pacific SW Research Station, 2009 Methods of Cutting Study, Stanislaus-Tuolumne Experimental Forest established 1929) 1929 2008



¹d= Average diameter of tree cut. D= Average diameter of the stand.

LOW POLE GENERAL MARKING GUIDE

Table 1: Target stocking levels for hot-dry and warm-dry sites

Average diameter of residual trees contributing to target stocking	Target SDI	Approximate range of average trees per acre	Average range of basal area per acre
7 to 12 inches	60	50 to 60	30 to 40 ft ²
13 to 18 inches	60 to 70	30 to 40	50 ft ²
19 inches and larger	80 to 90	30 to 80	60 to 80 ft ²

On **average dry sites** (PP and/or DF dominant overstory trees) the target basal area will be between an average of **40 and 80** square feet per acre. There will generally be an average range of 30 to 50 residual trees per acre with spacing quite variable based on existing stand conditions, location of large trees, clumps, gaps and complex patches. Thinning from below would usually remove 40 to 60 percent of the existing basal area from fully stocked stands. Most dominant trees of the desired species would be retained. Usually some codominant trees would be retained to meet density targets. Target stocking level for hot-dry warm-dry sites is stand density index (SDI) 60-90. On **moderate more productive sites microsites** the average basal area per acre retained would increase, **generally 80 to 120 square feet per acre**. **Canopy gaps** (openings) would range in size depending on fire regime and occur on up to a third of the stand. **Clumps** are defined as two or more trees in close enough proximity that their crowns are interlocking. Clump sizes should range from about 0.01 acres to 0.5 acres (Harrod et al. 1999). Clumps of old large diameter trees would be retained at existing SDI providing adjacent area are reduced to achieve overall density objectives. The sizes of clumps retained would vary within the unit. **Complex patches** are those with more structural and species complexity than the surrounding area. Patch characteristics include large snags, soft down logs, and mistletoe brooms. Utilize micro-sites, topography, and existing conditions to select locations to leave complex patches. In some stands, complex patches are not present and time will be required for them to develop.

The target stocking level for more productive warm-mesic and cool-dry sites is stand density index (SDI) 80-120. Target average basal areas will be 70 to 90 square feet per acre. The desired range of vigorous conifer stocking by size class for these types of sites is displayed in the following table:

Table 2: Target stocking level for more productive warm-mesic, mesic series/transitional and cool-dry sites

Average diameter of residual trees contributing to target stocking	Target SDI	Approximate range of average trees per acre	Average range of basal area per acre
7 to 12 inches	80 to 90	70 to 90	40 to 50 ft ²
13 to 18 inches	100	40 to 70	60 to 70 ft ²
19 inches and larger	110 to 120	30 to 40	80 to 90 ft ²
Mesic Series DF/GF transitional	110 to 190	30 to 80	90 to 125 ft ²

Priority for selection of leave trees based on existing pattern, tree health, species composition:

- 1) Keep all **old** trees (thick bark/deep furrows, often established before 1900/generally >150 years at least 20" in diameter) Van Pelt book *Identifying Old Trees and Forests in Eastern Washington*, September 2008. http://www.dnr.wa.gov/ResearchScience/Topics/ForestResearch/Pages/lm_oldgrowth_guides.aspx.
 - a. Rating of 8 or higher for PP (page 90) and 9 or higher for DF (page 130). For GF, WRC,WH,and other species with no scoring key use individual species (pages 133-158). Western white pine as determined by thick platy bark.
 - b. Retain (unthinned) clumps of old trees and large/old tree structure and defective trees in grouped/clumped or clustered arrangement. In these clumps, if some ponderosa pine trees are

LOW POLE GENERAL MARKING GUIDE

smaller diameter but same cohort (disturbance), retain as part of clump. Acre density targets can be exceeded providing adjacent patches are reduced by the same amount.

- c. Retain all PP ≥ 30 -inches DBH.
- 2) ALL PP having the most desirable (D1) characteristics. Trees with D1 characteristics do not have any indicator of disease or poor form and they are not crowded. These shall be retained regardless of stocking level.
- 3) Grand fir has priority for removal.
- 4) Emphasize retention of the existing large tree (≥ 28 " dbh in Low Pole) component while meeting fuel objectives and target densities.
 - a. Maintain 12-15 trees per acre of the largest conifers available with the best form and vigor by considering growth, dbh, height, and live crown ratio, with the least amount of mistletoe, mechanical damage, or defect.
 - b. Vary tree clump/cluster size (number of trees) from 1 to 10+ within units to retain combinations of small, moderate, large and even groups of trees using existing locations of old trees and retaining replacement clumps of younger trees.
 - c. Give PP enough room (generally ≥ 25 -28" dbh in Lowpole Project Area). To OPEN UP AROUND OLD AND LARGE INDIVIDUAL PP consider fuel ladder and trees ability to survive fire disturbance. Taking out younger (<150 year old) dominant/codominant DF is an option **if** the young/large DF has a long crown and would be a fuel ladder. Old and or large DF would be left nearby if the PP is released on three sides and the DF does not have a fuel ladder (a fuel ladder would include dead or live crown within 10-feet of ground). Remove most UNDERSTORY TREES (ladder fuels and moisture competitors) that are within about 1 to 2 driplines of large diameter ponderosa pine trees- this includes all grand fir and excess Douglas-fir that are not old.
- 5) CREATE SPATIAL PATTERN OF LEAVE TREES: Irregular spacing is desired. Densities are approximations and would vary around the target densities. Leaving the largest diameter trees with the healthiest crowns is more important than spacing. Dominant PP or DF with healthy live crowns (full green needles, LCR > 50%) should only be marked for cutting where too many of them exist relative to the prescribed density targets.
 - a. CLUMPS are several trees in close proximity with interlocking crowns. For diversity within the unit and to retain character of the natural stand, clumps of 2 to 10+ trees closely spaced (1' to 8' apart), patches of healthy regeneration or clumps of old trees would be left. Trees that fork below DBH count as two trees; leave both or take both trees forked below DBH. When a clump is selected to retain do not thin mature (>20 " dbh, age 150+) PP or mixed PP/DF. Feature the largest diameter trees with the healthiest live crown ratios where possible.
 - b. In CANOPY GAPS (fewer than about 0-5 TPA) created opening between 1/10 to 1 ac will be created and occur on up to a third of the stand. Examples of gaps include: patches of intermediate trees (especially DF); patches of closed canopy trees where LCR <35% especially when near remnant PP; patches of unhealthy regeneration (latent dmt, etc); where DF mistletoe or root rot buffers are create, etc.
 - c. COMPLEX PATCHES are those with more structural and species complexity than the surrounding area. Patch characteristics include large snags, soft down logs, and mistletoe brooms. Utilize micro-sites, topography, and existing conditions to select locations to leave complex patches. In some stands, complex patches are not present and time will be required for them to develop.
- 6) Because inter-tree spacing is not a primary criterion, the resulting stand can be quite variable. VARY residual density thinning targets by species, site stockability, microsite (dry or mesic), and objective. At the stand scale, the density target should leave the majority of dominant trees in good condition. Outside clumps, open residual trees up on all sides so that no crowns are touching.
- 7) THIN FROM BELOW retaining enough of the largest trees (usually the next oldest cohort) with live crown ratios (LCR) ≥ 35 % to meet the density objective. Favor BEST LIVE CROWN RATIO.
 - a) Ponderosa pine needs a minimum of 40 percent live crown to be competitive in mixed conifer stands. In areas where existing ponderosa pine have less than 40 percent live crown ratio, leave trees if needle length is long and live crown volume is high (dense foliage).
 - b) Largest Douglas-fir with over 50% live crown ratio.

LOW POLE GENERAL MARKING GUIDE

- 8) OPEN RESIDUAL TREES UP SO THAT CROWNS ARE NOT TOUCHING.
- 9) Priority for selection of cut trees: GF has priority for removal. Overtopped and suppressed trees of all species, PP with LCR <25%, DF with LCR <20%, DF DMT rating >4, Trees with active bark beetle attacks, DF and GF with fading crowns adjacent to root disease infections.
- 10) CONFINE Douglas-fir dwarf mistletoe. Isolate or kill in place infected old Douglas-fir and isolate retained infected young Douglas-fir. At the margin of removed or retained trees, a dwarf-mistletoe free zone (DMZ) would be created by removing most apparently clean Douglas-fir for up to 50 feet. This would be to remove trees with incipient, undetectable infection.
- 11) GF has priority for removal. CONFINE Grand Fir leave trees to wet areas or moist upland microsites, upland transition from flood-plains, usually clumped, to individuals mixed with DF. GF are thin bark and susceptible to low-intensity fires and units are scheduled for prescribed fire. Van Pelt page 133-144 Figure 125 for upper crowns of old grand fir.
- 12) Don't discriminate against trees with POOR FORM until about 5% of the residual stand has poor form. A healthy forked tree is better than a small codominant tree or an understocked clump. When too many nice dominant trees are present, and then discriminate against the tree with poor form.
- 13) LAMINATED ROOT DISEASE Laminated root rot centers would contain 3 or more adjacent symptomatic trees. Multiple tree laminated root rot centers have a much greater potential to contribute to disease spread than single tree infections. Where laminated root disease centers exist, designate for removal all Douglas-fir and grand fir within 50 feet of trees killed by or with crown symptoms of laminated root.
- 14) Retain wildlife trees. These are retained mistletoes infected trees, live trees with dead, broken, forked tops or obvious sign of use. Retain in small clumps when possible.
- 15) Mark to facilitate yarding and cutting. Do not mark to cut "branch bound" trees. If trees are forked below DBH and clearly part of the same root collar leave both or cut both.
- 16) In areas where the leave tree diameters are 4.0" to 8.0" DBH use a Diameter + 8 foot spacing. PP 18 to 20 foot spacing combined with leaving some in clumps.
- 17) Retain all HARDWOOD TREES. Reduce conifer encroachment in aspen clones and promote clone expansion. Most conifers, estimated to be less than 100 years of age or less than 20" dbh, would be removed within about 75 feet of existing ASPEN stands to help reverse conifer encroachment and allow aspen expansion.
- 18) Retain a few of each of the existing tree species that occur in the stand.

NON-FOREST INCLUSIONS WITHIN UNITS: Occasionally there will be small patches of non-forest or very low productivity forest land within units. These inclusions are variable in size and physical characteristics. Rock outcrops, tallus slopes, and shallow soils may be evident. In these areas no trees should be marked for removal within 30 to 50 feet of these areas.

SELECT TREES: Protect all Select Trees from logging and yarding damage and fire treatments. Remove or modify ground and ladder fuels adjacent to the select tree to increase chance of survival in the event of a wildfire or during site preparation burn activities.

Leave trees should have **GOOD GENETIC QUALITIES:** Good diameter and height growth evidenced by dominance and codominance within a particular age group; evidence of resistance to insects and pathogens, few branches per whorl with little or no branching between whorls.

Where they exist, retain all healthy and moderate quality western white pine.

Example of Marking: Retain a mix of basal areas (20 ft² to 90 ft²) leaving clumps of trees combined with individual tree selection. Create irregularly shaped group opening (¼ to 5 acres in size) where dead/dying or poor quality trees exist. Average residual basal area will vary between 60 ft² (areas poor quality leave trees or insects/disease) and 80 ft² (areas where the manageable component is good condition).

General Tree Marking Guide For Selection Harvest

Individual tree vigor should determine retention priority. The removal of selected trees from specified size and age classes over the entire stand in order to meet a predetermined goal of size or age distribution and species composition in remaining stand. The result of this treatment is a fully stocked stand that exhibits a variety of

LOW POLE GENERAL MARKING GUIDE

stocking density, and may have small openings created where a new crop of seedlings will become established. Cutting methods that develop and maintain uneven-aged stands are Single Tree Selection - The removal of selected trees from specified size and age classes over the entire stand in order to meet a predetermined goal of size or age distribution and species composition in the remaining stand; Group Selection - The removal of small groups of trees to meet a predetermined goal of size distribution and species in the remaining stand. Up to 50 percent of the existing trees would be harvested in each unit, with up to 25 percent emphasizing regeneration objectives using group openings. This treatment will move early structural stage stands to middle, or maintain stands as middle structure by allowing the understory to develop or be released by treatment. Similar to the HTH, this treatment will accelerate the growth of the residual overstory trees moving the stand more rapidly toward late structural stage.

This silvicultural system calls for conversion of even-age stands over an 80 year time frame, putting 25% of the area in a regeneration status every 20 years. The remaining portions of the stands receive an improvement cut with each entry. Openings provide for regeneration large group openings 3 to 5 acres in size or small group openings less than 1½ acres in size. Individual tree selection will be used in stands with an existing uneven-age size class distribution. Opening less than 2 acres in size promote shade tolerant vegetation.

General Tree Marking Guide For Regeneration Harvest

Forest Plan standards and guides (C-41) require that about 15% of the area associated with each regeneration unit would be retained as standing green trees. Outside of unit to be marked, about 70% of these trees would be retained in unharvested patches (GTR) of at least one half acre, unit size permitting. About 30% of these trees would be left as scattered green trees (5 to 10 TPA) within the unit. This even-age regeneration system cuts the majority of the stand. Retain all old trees.

Where available, large leave (20"+dbh) trees help create a more complex stand structure in the new stand while also helping to soften the visual impact. Favor fire tolerant species and those with thick bark that could with stand a fire. If available, approximately five to ten trees per acre of the larger, healthier ponderosa pine, and if necessary, larger, healthier (disease-free) Douglas-fir, would be retained. Lodgepole pine can be retained in small groups (2-5 trees) or as individuals if windfirm. Where insufficient dominant/codominant leave trees exist, based on logging system design, site preparation needs, and topography, small groups of trees may be left.

Some dwarf mistletoe infected trees over 20" dbh would be retained in clumps of more than 2 or 3. Isolated individuals would generally be removed to prevent widespread infection of Douglas-fir regeneration. To protect susceptible tree regeneration from dwarf mistletoe infection, placement of mistletoe leave trees would be along lower edges of unit or stressed or killed by a variety of methods (leaving slash levels adjacent to tree, torching large broom near ground, varying lighting patterns to help kill or stress the tree to increase susceptibility by secondary agents) to minimize spread.

Snag Recruitment

The desired future condition is to retain snags and down wood at levels within the natural range of variability to contribute to the viability of species dependent on this habitat.

Table 1: Snag Density Retention Levels (landscape level natural range of variability)

Land-use Allocation	Snag Size (dbh – in)			Total
	10-14	15-19	>20	
Dry Forest Type				
Matrix	1.2	1.1	0.9	3.2
LSR/MLSA	2.8	2.0	1.3	6.1
Mesic Forest Type				
Matrix	3.0	2.2	0.7	5.9
LSR/MLSA	9.3	2.0	1.7	13.0

LOW POLE GENERAL MARKING GUIDE

The largest snags with the best longevity should be retained for wildlife trees. An obvious hazard tree (logger safety) should not be counted toward meeting snag targets.

Favor leaving Douglas-fir snags greater than 28-inches DBH over beetle killed PP less than 28-inches DBH. Favor retaining a mix of dead trees, dead topped trees, green trees with dead/decayed parts or severely deformed trees.

Green Douglas-fir with large DMT brooms and limb deformities can be used for wildlife trees. Leave isolated from other DF trees to limit spread of infection. DO NOT retain in regeneration units (refer to unit marking guide for exceptions where it is desired to kill most of these trees by prescribed fire). If torching is desired (wildfire or underburn) pile fuels to promote severely stressing or promoting secondary attacks to kill the tree before susceptible regeneration is approximately 4.5 feet in height.

When possible retain old persistent snags (no bark) and consider lighting methods, protection buffer or pullback. Low vigor trees that will die soon can be used for wildlife trees, especially those with low commercial value such as grand fir with heavy Indian paint (cull) or evidence of woodpecker or nest use.

Grouping of snag recruitment trees is preferred over marking individual trees. Groups should be spaced no further than 5 acres apart. In some stands laminated root disease centers can be left to serve for snag recruitment. An unthinned green tree buffer can be left to reduce logger safety concerns. This would work well where lodgepole pine or ponderosa pine surrounds the root rot pocket.

Down Material

In dry forest, an average of at least 3 to 10 tons per acre would be retained. In mesic forest, an average of at least 5 to 10 tons per acre would be retained. Logs greater than 10 inch diameter and greater than 16 feet long would be counted, as well as standing dead trees expected to fall in the short term.

Preference for logs left un-harvested are those of large diameter and those which have large, intact root wads that are of little risk to developing a brood of bark beetles.

Existing down logs, snags and green wildlife recruitment trees should meet down log goals of 160 linear feet per acre, providing down logs are not bucked and piled to reduce fuels. The majority of the fuels treatment is leave tops of trees attached (LTA) removing most of the larger down material to landing piles. Care should be taken to maintain down material to ensure long term site productivity; not over simplify the forest floor; and to retain these structural elements to incorporate into the managed stand.

Buffers Adjacent to Sensitive Plant Populations

Marking for plant buffers has been done within units. Should additional plants be found during marking of unit, make contract inspector or COR aware of locations.

Aquatic Conservation Areas- Riparian Reserves

Unit layout would address known streams. Should a stream be located during layout apply the following buffers:

For Intermittent Streams: There would be no silvicultural treatment or planned ignition within one "drip line" on the outside edge of the inner gorge, or within 50 feet of the stream channel.

For Perennial Non-Fish Bearing Streams: No silvicultural treatment or planned ignition would occur within 50 feet of these streams to maintain vegetative ground cover and prevent erosion next to the stream.

For Fish Bearing Streams: No silvicultural treatment or planned ignition would be allowed within 100 feet of fish bearing streams. Treatment would be precluded within the inner 100 feet of the reserve to maintain vegetative ground cover and prevent erosion next to the stream.

LOW POLE GENERAL MARKING GUIDE

Basal Area/Spacing Tatum Aid:

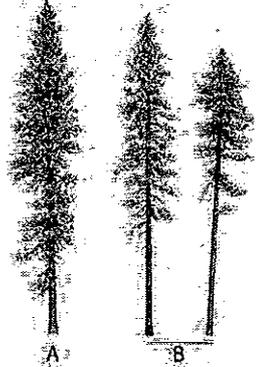
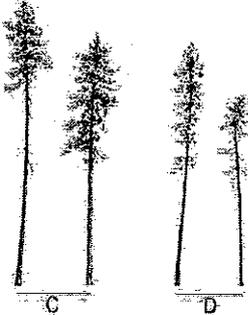
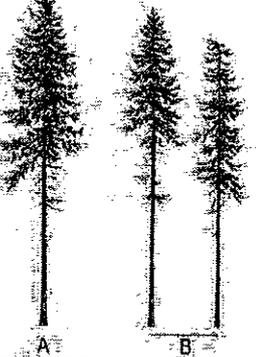
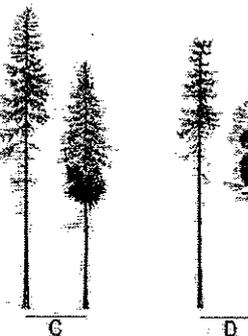
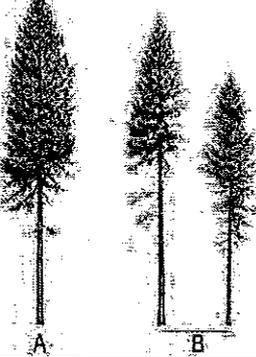
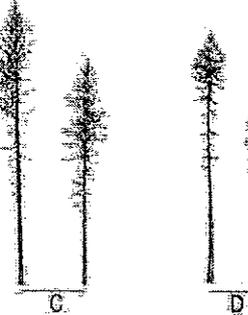
BA/ac	60 sq. ft.		70 sq. ft.		80 sq. ft.		90 sq. ft.		100 sq. ft.		110 sq. ft.		120 sq. ft.		BA/ac
Leave-tree Dbh	Bole-to-bole Spacing	Average # Trees per Acre.	Bole-to-bole Spacing	Average # Trees per Acre.	Bole-to-bole Spacing	Average # Trees per Acre.	Bole-to-bole Spacing	Average # Trees per Acre.	Bole-to-bole Spacing	Average # Trees per Acre.	Bole-to-bole Spacing	Average # Trees per Acre.	Bole-to-bole Spacing	Average # Trees per Acre.	Leave-tree Dbh
In.	Ft.	#	In.												
22"+	44'	23	41'	26	38'	30	36'	34	34'	38	32'	42	31'	45	22"+
20"	40'	27	37'	32	34'	37	33'	41	31'	46	29'	50	28'	55	20"
18"	36'	34	33'	40	31'	45	29'	51	28'	57	26'	62	25'	68	18"
16"	32'	43	29'	50	28'	57	26'	64	25'	72	24'	79	23'	86	16"
14"	28'	56	26'	65	24'	75	23'	84	22'	94	21'	103	20'	112	14"
12"	24'	76	22'	89	21'	102	19'	115	18'	127	18'	140	17'	153	12"
10"	20'	110	18'	128	17'	147	16'	165	15'	183	15'	202	14'	220	10"
8"	16'	172	15'	201	14'	229	13'	258	12'	287	12'	315	11'	344	8"
6"	12'	306	12'	357	10'	408	10'	459	9'	510	9'	561	8'	612	6"
5"	10'	441	9'	515	9'	588	8'	662	8'	735	7'	809	7'	882	5"

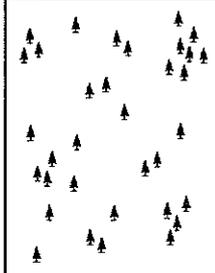
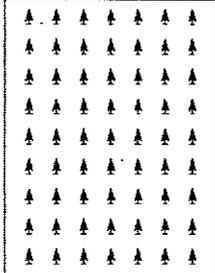
A silviculturist shall be available to marking crew to provide guidance. Sample plots shall be taken and documented as part of the prescription card. The check plots should include leave species, DBH, crown diameter, purpose of leave tree (e.g. snag recruitment, down log, etc.). If contracted, Contractor is responsible for meeting target densities. Track all trees >20" marked to leave.

Michelle Satterfield, Silviculturist

February 2013

LOW POLE GENERAL MARKING GUIDE

	PREFERRED LEAVE TREES A = good vigor B = fair vigor to good vigor	CUT TREE CANDIDATES C and D = poor vigor
Ponderosa pine		
Douglas-fir		
Western larch		
<p>NOTE: Leave all old (≥ 150 years) remnant trees regardless of vigor. Retain PP0 >30" dbh. Use this artwork along with crown volume to judge vigor of other species.</p>		

DESIRED SPATIAL PATTERN Variable with clumps & gaps	UNACCEPTABLE SPATIAL PATTERN Uniform
	

LOW POLE GENERAL MARKING GUIDE

Source: Smith 1962. - MODIFIED

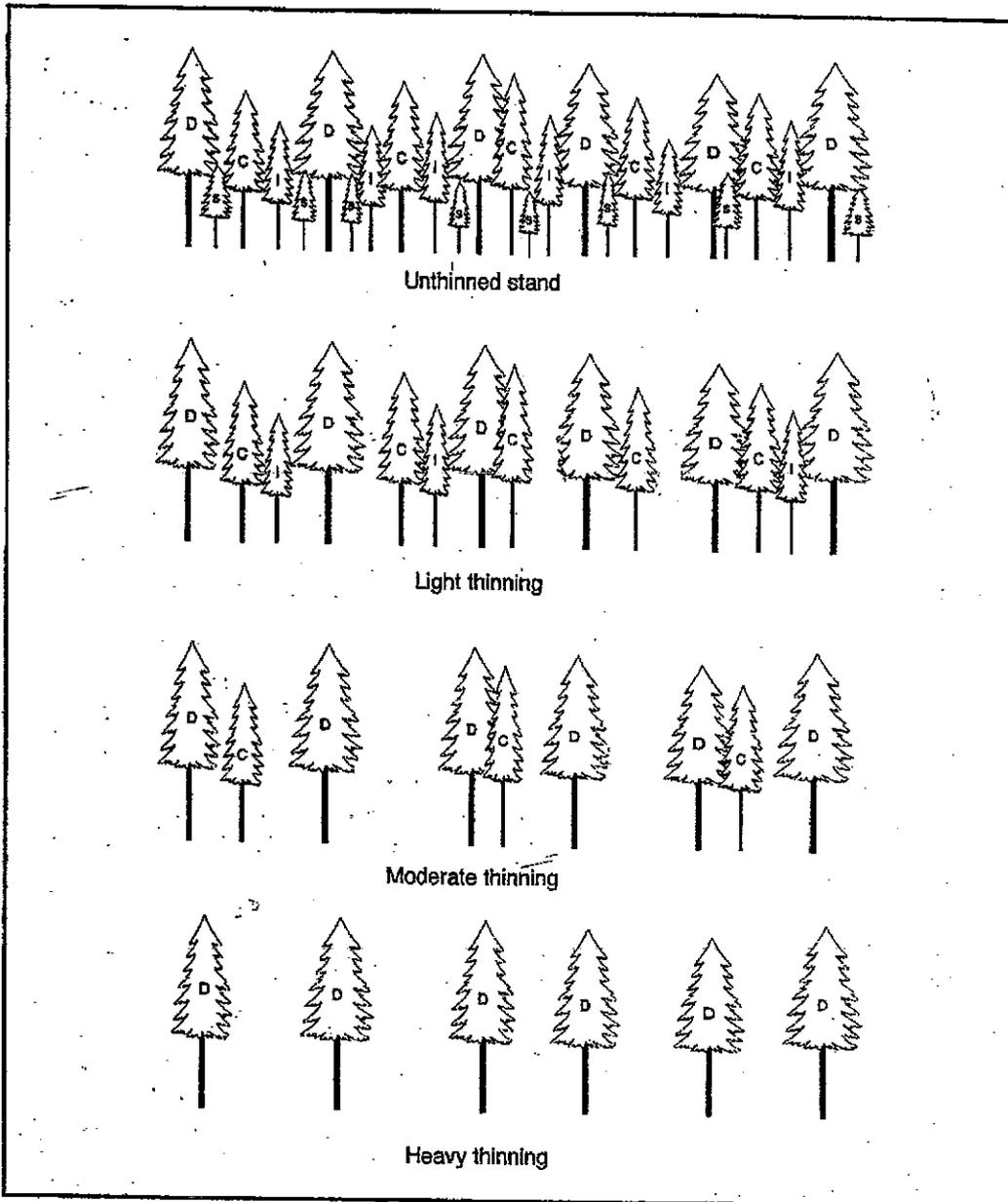


Figure 1—A conifer stand containing a mixture of dominant (D), codominant (C), intermediate (I), and suppressed (S) trees thinned from below (low thinning) to three different intensities.

THINNING FROM BELOW & CROWN CLASS GRAPHIC

LOW POLE GENERAL MARKING GUIDE

Mapped Spotted Owl Critical Habitat to retain 60% Canopy Cover

