

Integrated Resource Service Contract (IRSC)—Construction

OMB Approved No. 9000-0006

SOLICITATION OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (16 CFR 350)	RATING	PAGE OF 1	63 PAGES
2. CONTRACT NO. AG-8371-C-12-0001	3. SOLICITATION NO. AG-8371-S-11-0031	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.	
7. ISSUED BY USDA Forest Service, Southwest Regional Office -- AQM ATTN: Gilbert P. Massiatt -- Room 152 333 Broadway Blvd. S.E. Albuquerque, NM 87102		CODE	8. ADDRESS OFFER TO (If other than Item 7) Same as Block 7.		

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and **5 E-media** copies for furnishing the supplies or serviced in Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in **Room 152** until **2:30 PM** local time **August 12, 2011**
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-10. All Offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION

A. NAME: **Gilbert P. Massiatt**

B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS): **Email only gpmassiatt@fs.fed.us**

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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52-232-8)	10 CALENDAR DAYS	20 CALENDAR DAYS	30 CALENDAR DAYS	CALENDAR DAYS
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated.)	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE
	One	July 13, 2011	Two	August 9, 2011

15A. NAME AND ADDRESS OF OFFEROR Herman Hauck, President Pioneer Forest Products Corporation 2304 Colton Blvd. Billings, MT. 59102 DUNS 968796752	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN Herman Hauck, President Pioneer Forest Products Corporation 2304 Colton Blvd. Billings, MT. 59102 Email: pioneerlic@breanan.net
15B. TELEPHONE NO. (Include area code) 406-655-0624	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE <i>Herman Hauck</i>	18. OFFER DATE August 15, 2011

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: 10 U.S.C. 2304 (c) ()	41 U.S.C. 142(c) ()	23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM
24. ADMINISTERED BY (If other than Item 7)	CODE	25. PAYMENT WILL BE MADE BY Albuquerque Service Center 101B Sun Ave NE Albuquerque, NM 87109	CODE
26. NAME OF CONTRACTING OFFICER (Type or print) Gilbert P. Massiatt	27. UNITED STATES OF AMERICA <i>Gilbert P. Massiatt</i> (Signature of Contracting Officer)	28. AWARD DATE 5/18/2012	

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

NSN 7540_01_152_8064

33-133

STANDARD FORM 33 (REV. 4-85)

PREVIOUS EDITION NOT USABLE

Prescribed by GSA
FAR (48 CFR) 53.214(c)

Note: Pioneer's technical proposal and business plan are hereby incorporated into this contract.

Massiatt, Gilbert P -FS

From: Herman Hauck <pioneerllc@bresnan.net>
Sent: Friday, May 11, 2012 2:14 PM
To: Massiatt, Gilbert P -FS
Cc: Mike Cooley; Marlin Johnson
Subject: Request for Extension

Gilbert,

Per your request, Pioneer Associates hereby grants the U.S. Forest Service the right to extend our proposal to May 23rd, 2012.

Herman Hauck
Herman Hauck, CEO
Pioneer Associates
406-655-0624 / cell: 406-690-3559 / fax: 406-655-0625
pioneerllc@bresnan.net

Massiatt, Gilbert P -FS

From: Massiatt, Gilbert P -FS
Sent: Sunday, April 08, 2012 9:49 AM
To: Boyd, Carol -FS; Cole, Rufus -FS; Dwyer, Dennis -FS; Holt, Raymond G -FS; Maffei, Edward -FS; Buskirk, Roberta -FS
Subject: FW: Pioneer 0- Extension
Importance: High

Hi! For your information. Have a great day!

Gilbert P. Massiatt
Acquisition Management,
Deputy Director Regional Office, R3
(505) 842-3340 (office)
(505) 842-3111 (fax)
gpmassiatt@fs.fed.us



From: Herman Hauck [<mailto:pioneerllc@bresnan.net>]
Sent: Friday, April 06, 2012 11:35 AM
To: Massiatt, Gilbert P -FS
Cc: Mike Cooley; Marlin Johnson
Subject: Pioneer 0- Extension

Gilbert,

Per your requested dated 4/5/2012 requesting an additional extension, Pioneer hereby agrees to extend our proposal to May 15th, 2012.

Herman
Herman Hauck, CEO
Pioneer Associates
406-655-0624 / cell: 406-690-3559 / fax: 406-655-0625
pioneerllc@bresnan.net



U.S. Office (temporary) : 2304 Colton Blvd., Billings, MT 59102
406.655.0624 / Cell: 406.690.3559 / Fax: 406.655-0625
Email: pioneerllc@bresnan.net

January 23, 2012

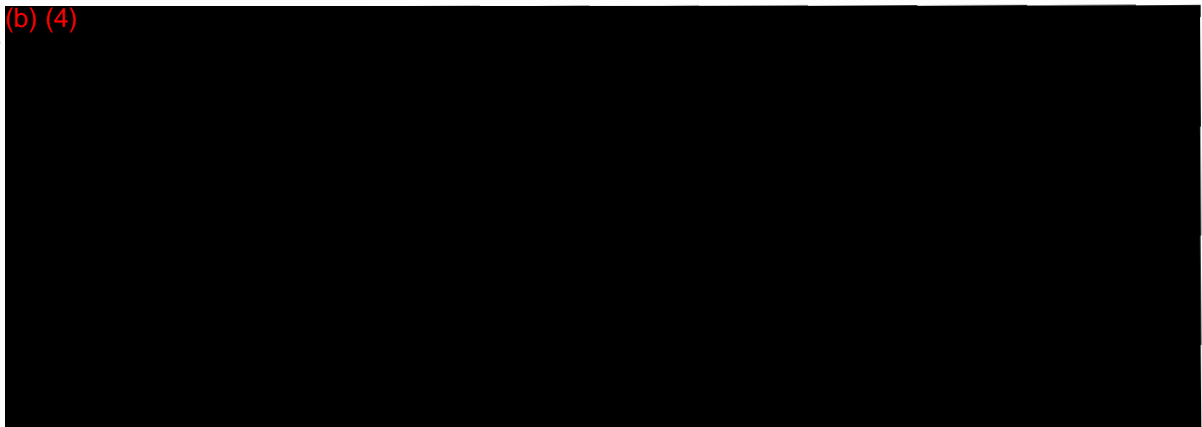
USDA Forest Service, R3 RO - AZM
ATTN: Gilbert P. Massiatt – Room 152
333 Broadway SE
Albuquerque, NM 87102

Reference Contract AG-8371-S-11-0031

Dear Mr. Massiatt:

Enclosed please find the Pioneer response to Amendment 006, Solicitation AG-8371-S-11-0031. This response becomes Appendix V, Financial. Following is some guidance on where each response is found along with some additional thoughts for your consideration by item requested:

1. Financial statements are attached in excel format.
2. Per agreement via phone, we are providing information for five years, not ten, in one excel spreadsheet with multiple tabs.
3. See attached excel spreadsheet, Investment Financing and Repayment.
4. Attached #4, letter from (b) (4)
5. (b) (4)



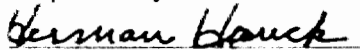
(b) (4)



6. Attached Operational Timeline.
7. Attached as Preliminary Summary.
8. Our plans for contract loggers is covered on Technical Proposal pages 8, 9, 10, 15 and top of 16, Operations, with referral to appendices. It is mentioned again on page 18, just above the "Optional Service Work" section. We know the scope of this project requires many loggers and we have plans to begin finalizing contracts with them as soon as we have the contract.

Let me know if you need additional clarification.

Respectfully,



Herman Hauck, President
Pioneer Associates, LTD

PART I – THE SCHEDULE
SECTION B – SERVICES AND PRICES

PROJECT: Phase 1 of Four Forest Restoration Initiative
Apache-Sitgreaves, Coconino, Kaibab, and Tonto National Forests

INTRODUCTION: The USDA Forest Service, Southwestern Region intends to award multi-year Requirements contract(s) for stewardship services under the authority of 16 USC 2104. The resulting contract(s) will be for a performance period **not to exceed 10 years encompassing three treatment areas (working circles)** totaling approximately 300,000 acres. **Government reserves the right to award each working circle separately or to award all the working circles to one contractor based on what the government believes to be in its best interest. This acquisition is open to large and small business.** This contract is being developed differently than what the Forest Service usually offers. **We describe the conditions we wish to achieve (See the below paragraph entitled, “intent of this contract” and the “Desired Conditions”, Section C.2). This solicitation is requiring all prospective offerors to tell us how they would achieve those conditions by writing the Performance Work Statement (PWS) for their proposal (See Section C.2 and Appendix A for more details).** We’re striving to balance the service work with product value. The areas included in the initial years of task orders will primarily be leave tree marked in our traditional fashion. In future years we expect to be moving to the majority of the acres identified using **designation by prescription (DXP).**

The Four Forest Restoration Initiative (4FRI) is a landscape level project that aspires to restore approximately 2.4 million acres of ponderosa pine forests on portions of the Apache Sitgreaves, Coconino, Kaibab, and Tonto National Forests in Northern Arizona over the next 20 years. Our vision is that we would offer a series of 3 contracts over this period which would implement restoration treatments on approximately 1 million acres of the entire landscape. The contract(s) resulting from this solicitation is intended to be the first step toward implementing this ambitious goal and is expected to include restoration treatments on about 300,000 acres over a maximum period of ten years. While our intent is to issue additional contracts in the future, there is no guarantee beyond the resulting contract(s). The resulting contract(s) will use task orders issued periodically that will be the contractual mechanism implementing work requirements, funding, and NEPA decisions. Some NEPA decisions have already been completed and those treatment units will provide the initial set of task orders that will be issued after award of the resulting contract(s). Environmental analysis for the remaining area of the resulting contract(s) is currently in progress with a Record of Decision expected in April 2012. **Task orders based on that decision will not be issued until all clearances are complete.**

The contract may be awarded to one contractor or be split among a maximum of three contractors **by working circle** (See Section entitled, **SCHEDULE OF ITEMS**, for more information on working circles). The break between goods and services, in terms of tree size class, will be established based on the business model for the successful contractor(s) as determined in the evaluation process. **Award of resulting contract(s) will be made on basis of best value to the government using the evaluation criteria listed in Section M of this solicitation.**

The **intent of this contract is** to begin restoring the ponderosa pine forest type to a condition more representative of historic conditions. Currently there are too many trees per acre and more expanses of even-aged stands than were present historically. These conditions have left forests that are susceptible to high intensity stand replacing crown fire and bark beetle infestations. **The end result of this contract is to leave a forest that is less susceptible to these risks. The desired outcome is a forest with groups of trees of similar size or age, fewer trees per acre, and openings between groups of trees.** The groups and openings will be well distributed across the landscape. This **first entry treatment is designed to begin the process of**

converting these dense, mostly even-aged stands to clumpier, open, uneven-aged stands of trees with a vigorous grass and forb understory.

The area covered under this contract is within the ponderosa pine dominated forests of Northern Arizona. Ponderosa pine is prevalent, but other species are present such as Gambel Oak, Juniper, and Pinyon Pine. More infrequently, species such as aspen, Southwestern White Pine, Douglas-fir, White Fir, and Blue Spruce may occur as individual trees. The Ponderosa Pine dominated forest vegetation community typically occurs with an understory of grasses and forbs although it sometimes includes shrubs.

SCHEDULE OF ITEMS:

Three (3) working circles are identified as – Tusayan (for Tusayan Ranger District), KaiCo (for Kaibab and Coconino National Forests), and TAS (for Tonto and Apache-Sitgreaves National Forests). See maps in Appendix E for the working circle delineation. The acres of treatment for all working circles **are estimates.** Final treatment acreages will not be known until the environmental analysis is completed. **Work will be specified in each task order.**

Tusayan working circle is comprised of the Tusayan Ranger District. It contains an estimated **12%** (36,000 acres) of the treatment area.

KaiCo is comprised of the Williams Ranger District of the Kaibab National Forest and the Flagstaff and Mogollon Rim Ranger Districts of the Coconino National Forest. This working circle comprises **almost 80%** (**240,000 acres**) of the projected work areas.

TAS is comprised of the Payson Ranger District on the Tonto National Forest and the Black Mesa Ranger District of the Apache-Sitgreaves National Forests. It **comprises 8%** (**24,000 acres**) of the treatment area.

Cancellation Ceiling (see FAR 52.217-2) – A cancellation ceiling is a requirement of multi-year contracts. It is calculated to cover the qualified non-recurring costs associated with delivering the services specified under this contract in the event that the contract is cancelled due to lack of funding. Industry has the opportunity to assist in the establishment of this ceiling. **The cancellation ceiling shall not be an evaluation factor.**

Contractors are strongly encouraged to submit their cost estimates of preproduction (start-up), labor learning, and other nonrecurring costs associated with the service treatments on NFS lands that will be incurred in the implementation of their proposed solution. **These estimates will be used to calculate the cancellation ceiling. Contractors may waive a cancellation ceiling entirely.**

PRICE ADJUSTMENTS - SERVICE WORK ONLY

Due to the volatility of **gasoline and diesel fuel prices** and the **change in wage rates** over the contract period, an **adjustment to the base price to treat slash will be taken into account.** Adjustments for fuel will be made in accordance with the Economic Price Adjustment Clause, located in Section I of this solicitation. The Consumer Price Index used for fuel will be based upon the calendar quarter that the contract is awarded. In addition, the Service Contract Act will be addressed as wages increase. Adjustments will be made as appropriate through the task orders.

Offerors will provide cost data in establishing their cost of removal of a **Green Ton (GT)** of material during harvest operations. Fuel prices will be shown in order to establish fuel price fluctuations impact on harvest activities.

NOTE: Changes in fuel prices will only affect those task orders issued after the fuel price change is accepted by the Contracting Officer through a contract modification.

SCHEDULE OF ITEMS BY WORKING CIRCLE

Each working circle shall be priced separately. **Offerors must provide prices for all three working circles.** Prices will be fixed over the term of the contract with adjustments for fuel and labor. Adjusted fuel prices will only affect those orders issued after the adjusted pricing becomes effective.

Due to the dynamics of the market place and the complexities involved in trying to determine the most efficient schedule of items model that most effectively meets the needs of potential contractors, offerors have the opportunity to determine some very important variables within this solicitation in order to maximize their market efficiencies.

Payments to the government for woody fiber will be based upon **Green Tons (GT)**, and must be priced below. Requirements for scaling can be found in Appendix B. Payments to the operator (in excess of Stewardship Credits) for services rendered for additional residual slash treatments to meet the desired condition will likewise be based upon GT, and must be priced below. The material will be measured through weight scaling. The contractor will be responsible for all costs of scaling. The agency is seeking prospective offerors who can affect the maximum working circle, maximum total annual volume removed, and maximum usage of individual trees at minimum cost. The following questions with your responses are required to determine the wood fiber value against the costs of services rendered to the government.

Associated Road Work The costs of road activities associated with harvesting shall be priced with the value of the Products. This includes all associated costs to construct and decommission temporary roads and complete pre-haul, haul, and post-haul maintenance necessary to remove Product volume. See Appendix C for road maintenance specifications.

Evaluation Scenarios: In order to be able to compare the total cost to the Government of the service items with product items the following scenarios will be used:

Working Circles: Tusyan = 36,000 acres, KaiCo = 240,000 acres, TAS = 24,000 acres

For each acre the following harvest levels will be used for each working circle:

5" – 8.9" =	1.288 CCF	Residue = .38 CCF*
9" – 11.9" =	2.078 CCF	Residue = .499 CCF
12" + =	6.071 CCF	Residue = 7.58 CCF
.1" – 4.9" =	1.746 CCF	

From past projects, Region 3 has found that the conversion of 1 CCF = 3.5 Green Tons for ponderosa pine is a convenient "rule of thumb". This is not the absolute conversion since green weight is complicated by subtle changes in moisture content and species.

Mileage for Road Maintenance for each for evaluation will be Tusyan Working Circle = 48 miles, KaiCo Working Circle = 320 miles, TAS Working Circle = 32 miles for a total of 400 miles.

**A BID BY
Pioneer Forest Products Corporation
A subsidiary of
Pioneer Associates, LTD.**

For Four Forest Restoration Initiative Solicitation # AG-8371-S-11-0031B.1

Tusayan Working Circle:

Item	Item	Unit/parameter	Response
1.1	Identify the desired contract length.	Number of years (1-10)	10 Years
1.2	Identify total number of acres of treatment within the Tusayan working circle you would want to contract based upon your processing facility(s) and business model.	Number of acres (up to 36,000)	36,000 <u>Acres</u>
1.3	Identify the minimum (dbh) timber size classes and diameter inside bark (dib) at small end you desire to remove.	Dbh/inches	7"
		Dib/inches	6", 8' min. length
1.4	The payment to the government will be based upon Green Ton. What is your offer for woody fiber as described in 1.3 above.	Dollars	\$0.80/GT
1.5	Identify offer to treat per Green Ton residual slash to meet desired condition. This is any work not included in 1.3 above.	Dollars	\$12.00/GT
	Percentage of Items 1.4 and 1.5 affected by fuel costs		17.00%

Item	Item	Unit	Specification Reference	Price
1.6	Road maintenance – high clearance road	mile	Appendix C , T-801, 802, 803, 805, 806, 807, 809, 810	\$450.00
1.7	Road maintenance – passenger car road	mile	Appendix C, T-801, 802, 803, 804, 806, 807, 809, 810	\$1,200.00
1.8	Road closure	mile	Appendix C, T-811	\$1,650.00
1.9	Treatment and Disposal of Danger Trees	mile	Appendix C, T-813	\$6,100*
	Subtotal Road Maintenance		Add 1.6 – 1.9	<u>\$9,400.00</u>

* Danger trees range from a few per mile to a full burn with everything dead, so specifics can be negotiated later depending on conditions.

B.2 KaiCo Working Circle

Item	Item	Unit/parameter	Response
2.1	Identify the desired contract length.	Number of years (1-10)	10 Years
2.2	Identify total number of acres of treatment within the KaiCo working circle you would want to contract based upon your processing facility(s) and business model.	Number of acres (up to 240,000)	240,000 <u>Acres</u>
2.3	Identify the minimum (dbh) timber size classes and diameter inside bark (dib) at small end you desire to remove.	Dbh/inches	6"
		Dib/inches	5", 8' min. length
2.4	The payment to the government will be based upon Green Ton. What is your bid for woody fiber as described in 2.3 above.	Dollars	\$3.50/GT
2.5	Identify bid to treat per Green Ton residual slash to meet desired condition. This is any work not included in 2.3 above.	Dollars	\$3.50/GT
	Percentage of Items 2.4 and 2.5 affected by fuel costs		17.00%

Item	Item	Unit	Specification Reference	Price
2.6	Road maintenance – high clearance road	mile	Appendix C , T-801, 802, 803, 805, 806, 807, 809, 810	\$450.00
2.7	Road maintenance – passenger car road	mile	Appendix C, T-801, 802, 803, 804, 806, 807, 809, 810	\$1,200.00
2.8	Road closure	mile	Appendix C, T-811	\$1,650.00
2.9	Treatment and Disposal of Danger Trees	mile	Appendix C, T-813	\$6,100.00*
	Subtotal Road Maintenance		Add 2.6 – 2.9	<u>\$9,400.00</u>

* Danger trees range from a few per mile to a full burn with everything dead, so specifics can be negotiated later depending on conditions.

B.3 TAS Working Circle

Item	Item	Unit/parameter	Response
3.1	Identify the desired contract length.	Number of years (1-10)	10 Years
3.2	Identify total number of acres of treatment within the TAS working circle you would want to contract based upon your processing facility(s) and business model.	Number of acres (up to 24,000)	24,000 <u>Acres</u>
3.3	Identify the minimum (dbh) timber size classes and diameter inside bark (dib) at small end you desire to remove.	Dbh/inches	6"
		Dib/inches	5", 8' min. length
3.4	The payment to the government will be based upon Green Ton. What is your bid for woody fiber as described in 3.3 above.	Dollars	\$2.70/GT
3.5	Identify bid to treat per Green Ton residual slash to meet desired condition. This is any work not included in 3.3 above.	Dollars	\$3.50/GT
	Percentage of Items 3.4 and 3.5 affected by fuel costs		17.00%

Item	Item	Unit	Specification Reference	Price
3.6	Road maintenance – high clearance road	mile	Appendix C , T-801, 802, 803, 805, 806, 807, 809, 810	\$450.00
3.7	Road maintenance – passenger car road	mile	Appendix C, T-801, 802, 803, 804, 806, 807, 809, 810	\$1,200.00
3.8	Road closure	mile	Appendix C, T-811	\$1,650.00
3.9	Treatment and Disposal of Danger Trees	mile	Appendix C, T-813	\$6,100.00*
	Subtotal Road Maintenance		Add 3.6 – 3.9	\$9,400.00

* Danger trees range from a few per mile to a full burn with everything dead, so specifics can be negotiated later depending on conditions.

SECTION C - DESCRIPTION AND SPECIFICATIONS

General Clauses and Provisions Pertaining To All Items

C.1 AGAR 452.211-72 STATEMENT OF WORK/SPECIFICATIONS (FEB 1988)

The Contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise specified), to perform the work as stated in **their Performance Work Statement (PWS) and Quality Control Plan (QCP)**. For details see **Statement of Objectives** in Appendix A and see optional road items listed in Section B.

C.2 DESIRED CONDITIONS

The following descriptions refer to the **condition of the treatments areas after all treatments have been completed**. The majority of the treatment areas will be Ponderosa Pine forests but some may occur in mixed conifer forests. Desired conditions are included for both forest types. The desired conditions are based on the existing Forest Plans and are consistent with those plans. The Kaibab, Coconino, and Apache-Sitgreaves National Forests are in the process of revising their Forest Plans. The Tonto National Forest is scheduled to start their revision in about 3 years. These revisions may result in a change to the desired conditions. If that occurs, the contract would be modified accordingly. **Photos of representative desired conditions are included in appendix E**. We will be **conducting a pre-bid meeting in June (See Section L for details)** to visit sites in both forest types that would show a range of conditions to be treated.

Ranges of values presented in desired conditions account for the natural variation in the composition and structure of a forest. Desired conditions may differ within a vegetation type due to variability in soils, elevation, or aspect. It may also be desirable to have different desired conditions within a vegetation type, such as a lower density of vegetation in the wildland urban interface (WUI) than outside of the WUI to achieve the desired fire behavior near private property and human occupancy. Any variation from the general conditions described below will be clearly identified in a task order.

After treatments, the Forest Service will determine if a contractor has met the desired conditions by visual methods of determining:

Remaining trees per acre

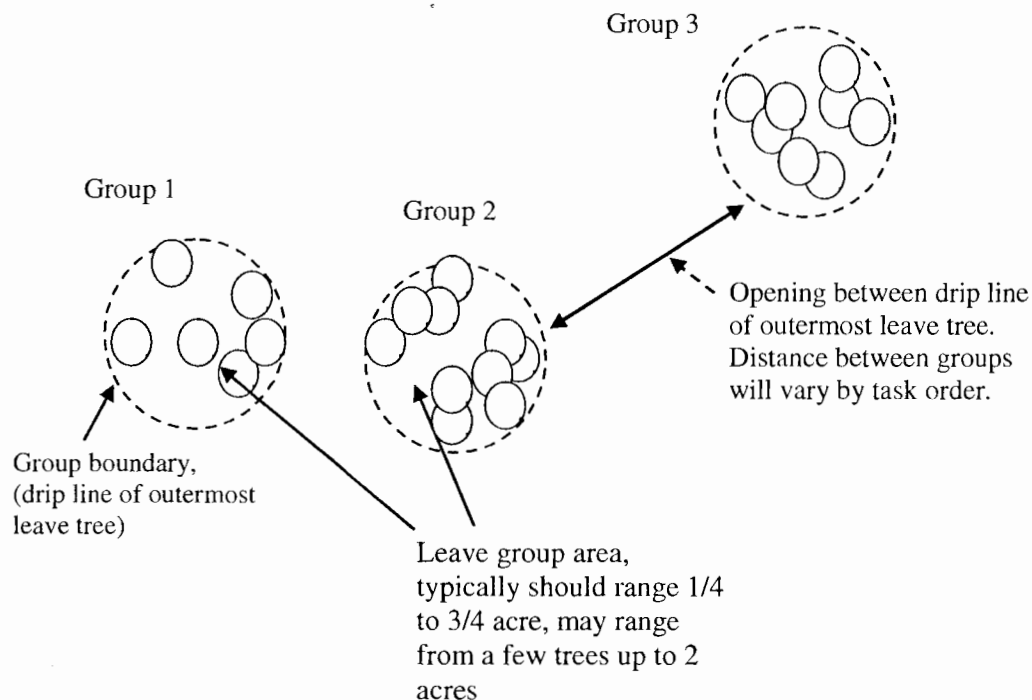
Amount of Coarse Woody Debris (see Appendix E for sample photos of coarse woody debris)

Size and distribution of groups

These descriptions apply at what we call a mid-scale, between 100 and 1,000 acres. This doesn't mean that every acre meets the description below, but a treatment unit, or combination of treatment units, meets these conditions.

The following figure graphically displays how groups of trees are envisioned to be arranged after treatment under this contract.

Figure 1 – Desired spatial arrangement of leave groups



Ponderosa Pine

The ponderosa pine forest vegetation community is dominated by ponderosa pine and commonly includes other species such as oak, juniper, and pinyon. More infrequently species such as aspen, Douglas-fir, white fir, and blue spruce may be present, and occur as individual trees. This forest vegetation community typically occurs with an understory of grasses and forbs although it sometimes includes shrubs.

The ponderosa pine forest vegetation community is composed of trees from structural stages ranging from young to old. Forest appearance is variable but generally uneven-aged and open; occasional areas of even-aged structure are present. The forest arrangement is in individual trees, small clumps, and groups of trees interspersed within variably-sized openings of grass/forbs/shrubs vegetation associations similar to historic patterns.

Openings typically range from 10 percent in more productive sites to 70 percent in the less productive sites. The size, shape, number of trees per group, and number of groups per area are variable across the landscape. Denser tree conditions exist in some locations such as north facing slopes and canyon bottoms. Tree groups are between 1/4 and 2 acres (typically 1/4 to 3/4 acres) in size with openings between groups. Groups at the mid-aged to old stages consist of 2 to approximately 40 trees per group.

While the ponderosa pine forest vegetation community is composed predominantly of vigorous trees, declining

trees are a component and provide for snags, top-killed, lightning- and fire-scarred trees, and coarse woody debris (>3 inch diameter), all well-distributed throughout the landscape. Ponderosa pine snags are typically 18 inches or greater at DBH and average 1 to 2 snags per acre. Where oak is present, large oak snags (>10 inches) are a well-distributed component. All snags not identified by the Contractor as a safety hazard shall be retained unless otherwise agreed to by the COR. Downed logs (>12 inches at mid-point, >8 feet long) average 3 logs per acre within the treatment unit.

To maintain soil productivity and general ecological integrity, coarse woody debris (CWD) shall be maintained across the project area. Coarse woody debris is defined as pieces of wood greater than 3" at the small end. The current Forest Plans call for 3-5 tons per acre of CWD to be retained following treatment. If there is more than 5 tons per acre before the treatment, the contractor shall remove all the material created by the treatment, but not the material that already exists, unless directed otherwise. In this case, a minimum of 3 tons per acre shall be left. Following treatment there shall be few, if any, slash piles left for disposal by the Forest Service.

Forest conditions in goshawk post-fledging family areas (PFAs) are similar to general forest conditions except these forests contain 10 to 20 percent higher basal area in the mid-aged to old tree groups than goshawk foraging areas and the general forest. Goshawk nest areas have forest conditions that are multi-aged but are dominated by large trees with relatively dense canopies. In goshawk foraging areas and post fledging areas (PFAs), groups of 3-5 reserve trees shall be retained within management-created openings greater than 1 acre in ponderosa pine except where the strong potential for wind-throw prevents the possibility of viable reserve trees, or insect and/or disease prevent the eventual development of regeneration into large trees. Approximately 5% of the area is within PFAs.

Dry Mixed Conifer

Dry mixed-conifer forests are dominated by mainly shade intolerant trees such as ponderosa pine, southwestern white pine, limber pine, quaking aspen, and Gambel oak, with a lesser presence of shade tolerant species such as white fir and blue spruce. Douglas-fir is common. Aspen may occur as individual trees or small groups. This forest vegetation community typically occurs with an understory of grasses, forbs, and shrubs.

The dry mixed conifer forest is composed of trees from structural stages ranging from young to old. Forest appearance is variable but generally uneven-aged and open; occasional areas of even-aged structure are present. The forest arrangement is in individual trees, small clumps, and groups of trees interspersed within variably-sized openings of grass/forbs/shrubs vegetation associations similar to historic patterns.

Openings typically range from 10 percent in more productive sites to 50 percent in the less productive sites. The size, shape, number of trees per group, and number of groups per area are variable across the landscape. Denser tree conditions exist in some locations such as north facing slopes and canyon bottoms. Tree groups are between ¼ and 2 acres (typically ¼ to ¾ acres) in size with openings between groups. Groups at the mid-aged to old stages consist of 2 to approximately 40 trees per group.

The dry mixed conifer forest vegetation community is composed predominantly of vigorous trees, but declining trees are a component and provide for snags, top-killed, lightning- and fire-scarred trees, and coarse woody debris (>3 inch diameter), all well-distributed throughout the landscape. Snags are typically 18 inches or greater at DBH and average 3 per acre. Downed logs (>12 inch diameter at mid-point, >8 feet long) average 5 per acre within the forested area of the landscape.

To maintain soil productivity and general ecological integrity, coarse woody debris (CWD) must be maintained across the project area. Coarse woody debris is defined as pieces of wood greater than 3" at the small end. In dry mixed conifer forest, our current Forest Plans call for 10-15 tons per acre of CWD to be retained following treatment. Revisions over the next couple of years may change this number but it will likely be to allow leaving

more material, not less. If there is more than 15 tons per acre before the treatment, the contractor shall remove all the material created by the treatment, but not the material that already exists, unless they want the additional material. In this case, a minimum of 10 tons per acre shall be left. If there is not currently 15 tons per acre, the contractor shall remove anything over 15 tons per acre. Following treatment, few if any, slash piles would be left for disposal by the Forest Service.

Trees typically occur in irregularly shaped groups and are variably-spaced with some tight clumps. Crowns of trees within the mid-aged to old groups are interlocking or nearly interlocking. Openings surrounding tree groups are variably-shaped and comprised of a grass/forb/shrub mix. Some openings contain individual trees. Trees within groups are of similar or variable ages and contain a variety of species. Tree groups are between ¼ and 2 acres (typically ¼ to ¾ acres) in size with openings between groups. Groups at the mid-aged to old stages consist of 2 to approximately 40 trees per group.

PROJECT DESCRIPTION

The intent of this contract is to conduct restoration at a landscape scale, at the least cost to the government, with maximum biomass utilization, and leaving quality results on the ground. The goal is to treat approximately 300,000 acres over the 10 year contract period. The intent of this contract is to ensure the availability of forest raw materials at a scale resulting in efficiencies that reduces cost to government to as close to zero as feasible.

(a) Description of Work – Phase 1 of the 4FRI is intended to promote restoration of forested lands within the Kaibab, Coconino, Apache-Sitgreaves, and Tonto National Forests in Arizona. Areas to be treated will be ponderosa pine dominated. Specific work activities are not specified since the offeror will describe how they propose to accomplish the work. Specifications for common work activities are included in Appendix A. The contract will include specific activities and the specifications for each based on the successful proposal(s). Other work may include road reconstruction and maintenance and treatment of activity and existing slash.

(b) Access – Access is by existing National Forest System Roads (NFSR) that are maintained to accommodate their intended use safely and in accordance with established maintenance prescriptions. Not all NFSRs are maintained by the Forest Service for passage of all vehicles under all weather conditions. Some NFSRs may be impassable for several days after heavy rain or snow-blocked during the winter months. All work areas, unless otherwise indicated on the task order, may be accessed by NFSRs that are maintained for high clearance two-wheel drive pickup during the regular operating season. The Forest Service assumes no obligation to plow snow or accomplish special maintenance to keep roads open during all conditions. Some road conditions may necessitate the use of a 4-wheel drive vehicle. During wet conditions, the Forest Service reserves the right to suspend harvest operations and/or to close roads to protect NFSRs from damage.

(c) Resulting Contract – This will be a Requirements Contract. It may be a split award by working circles or be awarded to one contractor. This means that the award can be made to one contract or to three contractors, one contractor per working circle. The government will determine the number of awards based on what is considered to be in its best interest.

(d) Project Location – The general location of this project is northern and eastern Arizona within the boundaries of the Kaibab, Coconino, Apache-Sitgreaves, and Tonto National Forests. Site specific locations will be provided on maps attached to each task order. It is anticipated that most of the task orders during the ten year contract term will be located within the area identified for the first EIS, displayed on “First EIS Area” map. The first task orders for the first several years use existing project areas on all four forests. See maps with titles that match the schedule displayed below.

The table below displays the projected schedule for the areas to be included in the first 3 years of task orders. The actual schedule is negotiable with the successful offeror(s) to best meet their business plan and the

government's needs. The size of the projects scheduled for 2013 and 2014 is approximate since the specific units have not been identified at this time.

Project Name	Forest	Approximate size (acres)	Year planned for treatment	Appendix E Map Reference
Bobs*	Coconino	2,000	2012	11
Elk Park*	Coconino	2,900	2012	12
Clark	Coconino	1,600	2012	13
Pomeroy*	Kaibab	1,740	2012	14
KA*	Kaibab	1,050	2012	14
Jack Smith/Schultz	Coconino	2,000	2013	15
East side	Coconino	1,700	2013	16
Weatherford*	Coconino	1,000	2013	17
Railroad	Coconino	250	2013	18
East Clear Creek	Coconino	4,700	2013	19
Community Tank	Kaibab	865	2013	20
Dogtown	Kaibab	1,700	2013	21
Upper Beaver	Coconino	2,000	2013	22
Munds Park	Coconino	400	2014	23
City	Kaibab	600	2014	24
McCracken #1 and #2	Kaibab	3,550	2014	25
Christopher	Tonto	1,000	2014	26
Myrtle	Tonto	1,000	2014	27
Timber Mesa	Apache-Sitgreaves	10,000	2014	28
Rim Lakes	Apache-Sitgreaves	5,000	2014	29

*These projects have been leave tree marked and cruised. Summary cruise data can be found in **Appendix E** with a link to all cruise data the offeror may analyze. These projects span across variable sites and provide a benchmark in which the offeror can analyze harvest levels, logging systems, and utilization specifications.

C.3 GENERAL CONSIDERATIONS

CONTRACTOR COORDINATION

The Forest Service will make efforts to coordinate task order start date, execution, and completion with the contractor in order to meet the contractor's needs for market timing to the extent that the task order implementation primarily meets the Forest Service's needs. The contractor will have the opportunity for input into task order creation. Additionally, the contractor will have access to all task order creation data if they so choose with the exception of information the Forest Service deems confidential. Forest Service retains all rights to order work as needed.

HARVEST ACTIVITIES

Harvest activities are designed with mechanized, ground-based systems being the most efficient method. Every task order will include National Forest acres which require felling, yarding, decking, and removal of trees. Project proposals must determine contract utilization dimensions and value of Product material. Wood fiber not identified as Product by the offeror shall be considered Slash. Slash generally has no value under the contract but rather has a cost to treat (in the woods or by removal). Each proposal shall define what is Product and what is Slash. **The volume is** to be priced per Green Ton and sold scaled, all volume removed shall be scaled at the operator's expense (See Appendix B).

ROAD WORK

Associated Road Work. The costs of road activities associated with harvesting shall be priced with the value of the Products. This includes all associated costs to construct and decommission temporary roads and complete pre-haul, haul, and post-haul maintenance necessary to remove Product volume. See Appendix C for road maintenance specifications. .

SLASH TREATMENTS

All acres under all task orders will require the slash treated in some fashion that minimizes cost yet meets our desired condition in restoring the land as outlined in Section B. In general, the smallest trees and the tops and limbs of larger, harvested trees, constitute the slash. The awarded proposal shall define what is Product and what is slash. Fuels treatments are intended to address activity fuels created from the harvest and precommercial thinning of forest vegetation. Most stands are healthy enough that existing biomass does not cause concern.

TIMBER DESIGNATION

All cutting methods will be some degree of thinning by cutting some trees and leaving others. The initial task orders will be predominately leave tree marked by the Forest Service. After the first couple of years, the task orders will be predominately designated, either by description or prescription. All leave tree marking will be done by the Forest Service.

Designation by Prescription: A method of designating trees for removal, without marking individual trees, by describing the desired end result of the treatment (the prescription). This is expected to be the predominate method of designating timber in the later years of the contract.

Designation by Description: A method of designating trees for removal, without marking individual trees, by describing the trees to be removed based on characteristics that can be verified after removal. This could be used when thinning only involves precommercial or zero value biomass material.

TREATMENT LIMITATIONS

Although the operator is encouraged to use the most efficient treatment process at their disposal, certain limitations exist with use of mechanical equipment and levels of harvest. Appendix A and B describe these limitations with regards to Service Work and Product harvest operations. Burning is not included in this contract.

Potentially all activity created woody fiber down to biomass is a harvestable product. Limits will be placed on how much fiber can be removed from areas treated. To maintain soil productivity and general ecological integrity, desired conditions for retained coarse woody debris (CWD), and snags must be maintained across the project area (see Desired Conditions section for more information). This retained CWD is a combination of existing and contract activity created material. All snags not identified by the Contractor as a safety hazard shall be retained unless otherwise agreed to by the CO. The Contractor is not obligated to move, treat, or otherwise manage existing pretreatment levels of biomass unless otherwise agreed to by the CO.

Operating in ponderosa forests in the southwest presents situations that exacerbate bark beetle activity that can lead to an increase in tree mortality. To keep the risk of increased bark beetle activity low, Contractor shall not cut material 3"+ diameter between January and June, unless such material is removed, short bucked or chipped/masticated and dispersed widely within 30 days. If activities occur during this period, slash shall be scattered rather than piled to facilitate quicker drying. Silviculturist will monitor for increased bark beetle activity. If activity increases, restriction period or other mitigation measures may become necessary.

C.4 DEFINITIONS

Definitions are found in Glossary

C.5 SPECIFICATIONS

Sample specifications for the Stewardship Activities, as identified in Section B.1, can be found in Appendix A. Specifications for timber removal can be found in Appendix B, and associated road maintenance specifications in Appendix C.

C.6 Prospective Contractors are to provide their Performance Work Statement (PWS); his/her vision on how to transform into the Forest Service's DESIRED CONDITIONS, and their Quality Control Plan, as part of their proposal package. See Statement of Objectives (SOO) in Appendix A, see how to put your proposal together in Section L, and see the evaluation process in Section M.

SECTION E - INSPECTION AND ACCEPTANCE

General Clauses and Provisions Pertaining To All Items

E.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

<http://www.usda.gov/procurement/policy/agar.html>

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

52.246-04 Inspection of Services – Fixed Price (AUG 1996)

52.246-12 Inspection of Construction (AUG 1996)

E.2 CONTRACTOR QUALITY CONTROL INSPECTION SYSTEM

The Contractor shall identify the quality control inspection system it will use to ensure that contract specifications will be achieved. At no time shall the contractor rely upon Government inspections to provide notification of unsatisfactory performance. The Contractor shall produce written inspection records in a format and at times and places satisfactory to the Contracting Officer. Inspection records shall be made available upon request of the Contracting Officer and be maintained until the date of contract closure. The Contracting Officer may observe the Contractor's inspection at any time and shall otherwise have unlimited access to the inspection data.

E.3 ACCEPTANCE

INSPECTION and ACCEPTANCE

Acceptable Quality Level:

Monitoring and Disincentives

The unit of work which stands alone for acceptance shall be the payment unit as described in Section A of Appendix B. For quality assurance, the government will conduct visual inspections, with random plots, on each payment unit to determine compliance with thinning and slash treatment specifications. Inspections will consist of a review of the trees cut and left in terms of tree condition and density, yarded, piled or otherwise treated slash. The Forest Service will determine if a contractor has met the desired conditions by visual methods of determining the following acceptance criteria:

- Remaining trees per acre
- Amount of Coarse Woody Debris (see Appendix E for sample photos of coarse woody debris)
- Size and distribution of groups

When work **is** satisfactory, it will be accepted. When work **is** unsatisfactory, the contractor will be responsible for any rework to comply with contract requirements.

If the contractor disagrees with the random walk thru results of the Forest Service, the contractor may request a formal systematic sample across the unit. A square grid of plots shall be installed representing a 1% sample of the work. If any one of the three acceptance criterion fail, the plot is not acceptable. Work Quality will be judged by the following formula:

Acceptable plots/Total number of plots X 100 = Work Quality %.

Where work quality is **less than 90%**, due to re-workable items, such as leaving too many trees or incomplete slash work, contractor shall rework the unit. The unit will be re-inspected, and if deficient items are repaired, work will be accepted. Where work quality is **less than 90%** due to too many trees cut, the pay will be reduced to a level equal to the work quality achieved. For example if, the work quality is 85% due to cutting too many trees, this cannot be repaired and the contractor's pay will be reduced to 85% of the pay rate for that pay item.

Calculation of Credit:

The credit rate will be calculated by multiplying the percentage quality rate by the unit (mile, acre, etc.) price.

When the percent of quality is 90 percent or greater, credit will be made at 100 percent of the unit price.

When the Government verification inspection **results find unacceptable work, credit will not be made until the work has been corrected to meet the specifications.** No additional credit or payment will be allowed for re-work of unacceptable work. **The Government may reduce payment for unacceptable work that is not correctable.**

E.4 GOVERNMENT QUALITY ASSURANCE SURVEILLANCE PLAN

Quality assurance surveillance plans specific to individual items is in the last attachment to this Request for Proposals (RFP).

SECTION F - DELIVERIES OR PERFORMANCE

General Clauses and Provisions Pertaining To All Items

F.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at these addresses:

<http://www.arnet.gov/far>

<http://www.usda.gov/procurement/policy/agar.html>

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

52.242-14 Suspension of Work (APR 1984)

52.242-17 Government Delay of Work (APR 1984)

52.247-55 F.O.B. Point for Delivery of Government-Furnished Property (JUN 2003)

F.2 52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within **10** calendar days after receipt of Notice to Proceed or **Task Order for specific work items**, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than or **as specified on each Task Order**. The time stated for completion shall include final cleanup of the premises.

Performance shall be made only as authorized by orders issued in accordance with the Ordering clauses. Except as this contract otherwise provides, the Government shall order all services within the scope that are required by Government activities specified in the Schedule only with the vendor holding this contract for the specified services. Timber Removal activities shall be scheduled and carried out in accordance with the Timber Removal Specifications in Appendix B and as approved by the Contracting Officer.

It is estimated that work will begin as negotiated on each task order. Actual date is negotiable based upon actual award date, prospective work and weather conditions.

Any restrictions on the Scheduling of Work for resource protection, etc. will be addressed in the Technical Specifications.

F.3 AGAR 452.211-74 PERIOD OF PERFORMANCE (FEB 1988)

The period of performance of this contract is from date of contract award through **not to exceed 10** years after date of contract award.

F.4 AGAR 452.236-75 MAXIMUM WORKWEEK – CONSTRUCTION SCHEDULE (NOV 1996)

Within 5 calendar days after receipt of a written request from the Contracting Officer, the Contractor must submit the following in writing for approval:

(a) A schedule as required by FAR clause 52.236-15 “Schedules for Construction Contracts” and

(b) The hours (including the daily starting and stopping times) and days of the week the Contractor proposes to carry out the work.

F.5 SCHEDULES AND REPORTS

Pursuant to contract requirements, the following submittals are required at time of Task Order issuance which will occur **during the Task Order Post Award Conference**.

<i>ITEM DESCRIPTION</i>	COPIES REQUIRED
Proposed progress schedule showing starting and completion dates of various phases of the work	2
List of proposed sub-contractors and their intended work. Sub-contractors must have Contracting Officers Written approval prior to starting work on the project. Submit on Standard Form 1413.	2
Traffic Control Plan, in accordance with Section 104	2
Soil Erosion and Water Pollution Control Plan, in accordance with Section 204	2
Designation of Contractor personnel describing responsibilities and authorities	2

All schedules and reports shall be submitted to: Contracting Officer.

SECTION G – CONTRACT ADMINISTRATION DATA

General Clauses Pertaining To All Items

G.1 PAYMENT

It is anticipated that funds will be exchanged in the performance of this contract because the value of the timber or other products will not completely offset the value of the work to be performed. Payment shall only be made under this clause to the extent that the work performed will not be offset by the timber or other products value during the contract period. When payment is made to the contractor for work performed, it will be made in accordance with FAR 52.232-1 – Payments, (Section I).

The value of work completed and timber or other products removed will be documented in a Stewardship Statement of Account produced by Timber Sale Accounting (TSA) monthly when harvesting operations are underway.

G.2 INCIDENTAL PAYMENT ITEMS

The intent of the contract is to provide for the complete performance of the project described in the contract. Unless otherwise provided, the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies and perform all work required to complete the project in accordance with drawings, specifications, and provisions of the contract. Payment for contract work will be made only for and under those pay items included in the Schedule of Items. All other work and materials will be considered as incidental to and included in the payment for items shown.

G.3 PRODUCT PAYMENT GUARANTEE

To guarantee payment for product in advance of cutting, Contractor may earn Stewardship Credits in advance of cutting, or provide a product payment guarantee in the form of an acceptable surety payment bond, irrevocable letter of credit (ILOC), cash, or a deposit in Federal Depository negotiable securities of the United States.

Scaled: Any earned stewardship credits and product payment guarantee together will maintain a minimum unobligated balance equal to the applicable charges for product the Forest Service estimates will be cut or removed in not less than 30 calendar days and not more than 60 calendar days, plus the value of any outstanding charges for product removed.

Blanket Payment Bond:

- a. Contractor may furnish an acceptable bond, or deposits securities, to guarantee payment for product from multiple contracts. Contractor shall not start cutting hereunder until this contract receives an allocation that will meet the obligation for product payment guarantee.
- b. The amount of such bond or deposited securities shall be allocated to such contracts by the Forest Service. The Contractor shall provide the contact information for the Forest Service representative administering the blanket payment bond to the Contracting Officer. The Forest Service representative administering the blanket payment bond will provide the Contracting Officer with documentation showing the allocation to this contract.
- c. When there is to be no product cutting or removal hereunder for 30 days or more and payment of current charges has been made, the allocation to this contract may be reallocated to other contracts at Contractor's request.

- d. Payment guaranteed with acceptable blanket payment bond for multiple contracts shall be provided utilizing Form FS-6500-12a Blanket Payment Bond.

G.4 REIMBURSEMENT FOR BOND PREMIUMS

The Contract Price includes the total amount for premiums that the Contractor attributes to the furnishing of the performance and/or payment bonds required by the contract. Reimbursement for bond premiums may be made in stewardship credits or cash.

G.5 STEWARDSHIP CREDITS

Stewardship Credits are credits that are earned and established when work listed in the B.1 Schedule of Supplies/Services has been performed and accepted. Stewardship credits shall be earned at the rate as shown in the Schedule. Earned credits may be used to pay for timber or other products value included in Schedule B.2. Unless otherwise indicated in the Schedules, credits will be earned based upon Actual Quantities accomplished and accepted.

G.6 ESTABLISHMENT OF STEWARDSHIP CREDITS

Notwithstanding references to payments in "Payment" clauses of this contract, payment for Stewardship Activities will be made with Product Value or other funding as indicated in the award document.

Stewardship Credits will be established on a monthly basis. Stewardship credits will be established for the number of units of each activity that have been completed and accepted. Acceptance may be for all, or a reasonable portion of, any specific activity.

Stewardship credits will not be established for work that is in progress that has not been accepted by the Forest Service. No credits will be established for work performed under terms of Schedule B.2.

G.7 CONTRACTOR CERTIFICATION

Monthly, as Stewardship Credits are established, the Contractor shall furnish the following certification (Contractor Certification - Earned Stewardship Credits) or credit will not be received.

CONTRACTOR CERTIFICATION - EARNED STEWARDSHIP CREDITS Phase I 4-Forest Restoration Initiative STEWARDSHIP PROJECT

I hereby certify, to the best of my knowledge and belief, that--

- (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) Payments to subcontractors and suppliers have been made, and timely payments will be made for the work activities covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code;
- (3) This request for progress payments/credits does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and
- (4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Name)

(Title)

(Date)

G.8 EXCESS STEWARDSHIP CREDITS

In the event there are excess (unused) established Stewardship Credits when all of the included timber or other products has been cut and removed the Forest Service, at its option, shall either add more timber or other products or make cash payment for the unused credits.

G.9 EXCESS TIMBER OR OTHER PRODUCTS VALUE

In the event the value of the included timber or other products exceeds the total value of all of the mandatory activities plus the ordered elective activities, the Contractor shall make cash payment for the excess timber or other products value.

G.10 REFUND OF EXCESS CASH

If at any time the credit balance of the Stewardship Statement of Account exceeds the charges for timber or other products removed to date and for timber or other products that the Forest Service estimates will be cut within the next 60 calendar days, any portion of such excess from cash in the account shall be refunded if requested by Contractor. If no cutting is planned within the next 60 calendar days, refund of the entire unencumbered cash balance may be made. After a refund, deposits shall be made to meet the requirements of the clause entitled, "PRODUCT PAYMENT GUARANTEE" before additional timber or other products may be cut.

G.11 FINAL PAYMENT - RELEASE OF CLAIMS

The Government shall pay the amount due the Contractor under this contract after—

- (1) Completion and acceptance of all work;
- (2) Presentation of a properly executed voucher; and
- (3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

General Clauses and Provisions Pertaining To All Items

H.1 AGAR 452.215-73 POST AWARD CONFERENCE (NOV 1996)

A post award conference with the successful offeror is required. It will be scheduled within 15 - 30 days after the date of contract award. The conference will be held at the Coconino or Kaibab NF Supervisor's Office, and will include discussion of contract terms and work performance requirements, work progress schedule and fire prevention/suppression and safety plans.

H.2 FAR 52.236-4 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. **The Government shall not be responsible** for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) - The indications of physical conditions on the drawings and in the specifications are the result of site investigations by visual observation.

(b) - Additional informational material made available to contractors including but not limited to: environmental documentation, timber cruise data, timber removal report and appraisal, maps, access permits, etc.

H.3 AGAR 452.237-74 KEY PERSONNEL (FEB 1988)

(a) The Contractor shall assign to this contract the following key personnel:

Overall Project Manager – supervising work in the timber removal specifications as well as other road work, maintenance and obliteration.

Individual Sub-Managers – Individuals supervising individual harvest units.

(b) During the first 90 days of performance, the Contractor shall make no substitutions of key personnel unless the substitution is necessitated by illness, death, or termination of employment. The Contractor shall notify the Contracting Officer within 15 calendar days after the occurrence of any of these events and provide the information required by paragraph (c) below. After the initial 90-day period, the Contractor shall submit the information required by paragraph (c) to the Contracting Officer at least 15 days prior to making any permanent substitutions.

(c) The Contractor shall provide a detailed explanation of the circumstances necessitating the proposed substitutions, complete resumes for the proposed substitutes, and any additional information requested by the Contracting Officer. Proposed substitutes should have comparable qualifications to those of the persons being replaced. The Contracting Officer will notify the Contractor within 15 calendar days after receipt of all required information of the decision on substitutions. The contract will be modified to reflect any approved changes of key personnel.

H.4 AGAR 452.236-72 USE OF PREMISES (NOV 1996)

(a) Before any camp, quarry, borrow pit, storage, detour, or bypass site, other than shown on the drawings, is opened or operated on USDA land or lands administered by the USDA, the Contractor shall obtain written permission from the Contracting Officer. A camp is interpreted to include a campsite or trailer parking area of any employee working on the project for the Contractor.

(b) Unless excepted elsewhere in the contract, the Contractor shall (i) provide and maintain sanitation facilities for the work force at the site and (i) dispose of solid waste in accordance with applicable Federal, State and local regulations.

H.5 AGAR 452.236-76 SAMPLES AND CERTIFICATES (FEB 1988)

When required by the specifications or the Contracting Officer, samples, certificates, and test data shall be submitted after award of the contract, prepaid, in time for proper action by the Contracting Officer or his/her designated representative. Certificates and test data shall be submitted in triplicate to show compliance of materials and construction specified in the contract performance requirements.

Samples shall be submitted in duplicate by the Contractor, except as otherwise specified, to show compliance with the contract requirements. Materials or equipment for which samples, certifications or test data are required shall not be used in the work until approved in writing by the Contracting Officer.

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 a conflict develops 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 equitable adjustment.

H.6 REQUIREMENTS OF RIGHTS-OF-WAY

Contractor's road construction and use on rights-of-way shall be confined to said 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. Said easements or right-of-way documents are available in the offices of the Forest Supervisor and District Ranger.

H.7 USE OF ROADS BY CONTRACTOR

Contractor is authorized to maintain roads, bridges, and other transportation facilities, as needed for harvesting included Timber or other products on National Forest and other lands where Forest Service has such authority per the specifications contained within Appendix C. The location and clearing widths of all Temporary Roads or facilities shall be agreed to before construction is started. Contractor is authorized to cut and use for construction without charge construction timber or other products designated by agreement.

Except as provided herein, Contractor is authorized to use existing National Forest roads, when such use will not cause damage to the roads or National Forest resources and when hauling can be done safely. If Contractor's use of an existing temporary or National Forest system road 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.

The Contract Area Map, provided with each task order, will show existing temporary or permanent roads 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.

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 the 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:

Restricted Road List

Road Number	Road Name	Termini		Map	Description of Restrictions
		From	To	Legend	
Per Task Order	All roads used for hauling	Per Task Order	Per Task Order	Per Task Order	Conflicts with campgrounds may cause week end and holiday restrictions from noon Friday till Monday or Tuesday morning. Conflicts with urban areas or schools may restrict time periods of the week day such as no haul between 11:00am to 1:00pm. Generally will allow harvest activities seven days a week. However, this is dependent upon each Task Order.

H.8 ROAD MAINTENANCE

Contractor shall maintain roads, commensurate with Contractor's use, in accordance with Road Maintenance Requirements and the Road Maintenance Specifications contained in Appendix C. 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 Progress Schedule.

H.9 TRAFFIC CONTROL PLAN

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 at otherwise agreed, flagmen and devices shall be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUCD) and as shown on Plans, Contract Area Map, Traffic Control Plan or in specifications attached hereto.

H.10 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 such use will not materially interfere with Contractor's Operations. Such third party use shall be contingent upon the third party paying a fair share of maintenance cost commensurate with such commercial use. Unless otherwise provided, Forest Service shall authorize other uses of roads constructed by Contractor hereunder only if:

- (a) Forest Service 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, the use during reconstruction and thereafter by Contractor shall be such as to reasonably accommodate such established use. Contractor shall have the right to use such reconstructed road without material additional interference from other users.

H.11 CONFORMITY WITH DRAWINGS AND SPECIFICATIONS

Unless working tolerances are specified, all work performed and materials furnished shall be in reasonably close conformity with lines, grades, cross sections, dimensions, and material requirements shown on the drawings, indicated in the specifications, or designated on the ground. "Reasonably close conformity" is compliance with reasonable and customary manufacturing and construction tolerances.

H.12 LOCAL MATERIAL SOURCES

(a) Designated Sources--Sources of local materials will be designated on the drawings. The Government assumes responsibility for the quality and quantity of material in the source. The Contractor shall determine the equipment and work required to produce the specified product.

The Contractor shall utilize all suitable material in the source. The designation of source will include the rights of the Contractor to use certain area(s) for plant site, stockpiles, and haul roads. Any Contractor royalty payment requirements will be stated below.

When materials are subject to weight measurement, the weight/volume relationship used for determination of designed quantities will be shown on the Drawings.

Should the designated source, due to causes beyond the control of the Contractor, contain insufficient suitable material, the Government will provide another source with an equitable adjustment in accordance with the Differing Site Conditions and Changes clauses.

(b) Contractor-Furnished Sources--When the material sources are not designated as provided above or the Contractor elects not to use designated sources, the Contractor shall be responsible for providing the specified product with no adjustment in contract price, unless weight/volume relationship differences between designated

source material and Contractor-furnished source material result in financial disadvantage to the Government. Quality testing shall be the responsibility of the Contractor. Test results shall be furnished to the Contracting Officer.

H.13 SAMPLES, TESTS, CITED SPECIFICATIONS

Reference made in the contract to specifications, standards, or test methods adopted by AASHTO, ASTM, GSA, or other recognized National technical associations, shall mean specifications, standards, or test methods (including interim or tentative issues) which are in effect on the date of the solicitation.

H.14 AGAR 452.236-76 SAMPLES AND CERTIFICATES (FEB 1988)

When required by the specifications or the Contracting Officer, samples, certificates, and test data shall be submitted after award of the contract, prepaid, in time for proper action by the Contracting Officer or his/her designated representative. Certificates and test data shall be submitted in triplicate to show compliance of materials and construction specified in the contract performance requirements.

Samples shall be submitted in duplicate by the Contractor, except as otherwise specified, to show compliance with the contract requirements. Materials or equipment for which samples, certifications or test data are required shall not be used in the work until approved in writing by the Contracting Officer.

H.15 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 at no additional cost to the Government. 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.

H.16 PROTECTION MEASURES NEEDED FOR PLANTS, ANIMALS, CULTURAL RESOURCES, AND CAVE RESOURCES

1. Areas, known by Forest Service prior to contract solicitation, 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, and shall be treated as follows:
 - a. Unless agreed otherwise, wheeled or track laying equipment shall not be operated in areas identified as needing special measures except on roads, landings, tractor roads, or skid trails. Contractor may be required to backblade skid trails and other ground disturbed by Contractor's Operations within such areas in lieu of cross ditching.
 - b. Unless agreed otherwise, trees will not be felled into areas identified as needing special measures.
 - c. Contractor shall conduct operations in a manner that does not damage or disturb identified areas. In the event that protective measures identified by the Forest Service are for any reason inadequate,

Contracting Officer may delay or interrupt Contractor's operations, under this Contract, and/or modify this Contract.

- d. Contractor shall immediately notify the Forest Service if its operations disturb or damage any area identified as needing special protection, and shall immediately halt its operations in the vicinity of such area until the Forest Service authorizes continued operations. In the event that Contractor's operations disturb or damage an area identified as needing special protection, then Contractor shall reimburse the Forest Service for the full cost and expense of any evaluative and remedial measures undertaken by the Forest Service in connection with such disturbance or damage. Such payment shall not relieve Contractor from civil or criminal liability under applicable law.
2. Nothing contained in this clause shall establish, or be deemed to establish any express or implied warranty on the part of the Forest Service that the Forest Service has identified all areas within the Contract Area requiring special protection, or that measures prescribed by the Forest Service for protection of such areas are adequate.
3. Following contract solicitation, additional areas needing special measures for protection may be discovered or identified; protective measures may be revised or newly prescribed; and, additional species of plants and/or animals may be added to federal lists of protected species. In such event, Contracting Officer may delay or interrupt Contractor's operations, under this Contract, and/or modify this Contract.
4. Discovery, by either the Contractor or the Forest Service, of additional areas, resources, species, or members of species needing special protection shall be promptly reported to the other party.

H.17 PROTECTION OF RESIDUAL TREES

Contractor's Operations shall not unnecessarily damage young growth or other trees to be reserved.

H.18 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.

H.19 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, contractors, 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.

H.20 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.

H.21 EQUIPMENT CLEANING

In order to prevent the spread of noxious weeds into the Contract Area, Contractor shall be required to clean all off-road logging and construction equipment prior to entry on to the Contract Area. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only logging and construction equipment so cleaned and inspected by the Forest Service will be allowed to operate within the Contract Area. All subsequent move-ins of equipment to the Contract Area shall be treated in the same manner as the initial move in. "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.

Contractor shall employ whatever cleaning methods are necessary to ensure that off-road equipment is free of noxious weeds. Equipment shall be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

Unless otherwise agreed, Contractor shall give the forest service at least 24 hours notice when equipment is ready for inspection. Notification will include an agreed upon location where the equipment will be available for inspection by the forest service.

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

H.22 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. The kinds and intensity of erosion control work done by Contractor shall be adjusted 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.

H.23 STREAMCOURSE PROTECTION

“Streamcourses” that are subject to provisions of this Section are shown on Contract 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.

H.24 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. 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.

H.25 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 by the Contracting Officer. Additional measures needed to protect such areas are provided elsewhere herein.

H.26 EMERGENCY FIRE PRECAUTIONS

Contractor will restrict operations in accordance with the following Emergency Fire Precaution Schedule. When there is a predicted change, Forest Service shall inform the Contractor by 6:00 pm, Mountain Standard Time (7:00 pm MDT), of the predicted change in the Industrial Fire Precaution Plan. The procedure for the Forest Service to notify the Contractor of a change shall be stated in the contract fire plan. The Contracting Officer may, after consultation with the Forest Supervisor, adjust the predicted Industrial Fire Precaution Plan for local weather conditions on Sale Area. Changes in the predicted Industrial Fire Precaution Plan shall be agreed to in writing.

EMERGENCY FIRE PRECAUTION SCHEDULE	
FIRE RESTRICTION/CLOSURE "STAGE"	
"STAGED" RESTRICTION LEVELS	INDUSTRIAL FIRE RECAUTION PLAN
NO RESTRICTIONS	A
STAGE I	B
STAGE II	C
STAGE III (PARTIAL FOREST CLOSURE) **	C or D
STAGE IV (TOTAL FOREST CLOSURE)	D
RED FLAG WARNING (Issued by National Weather Service)	D

**** Partial Forest Closure:** Contract areas which are outside the boundaries of the partial forest closure may continue to operate under Industrial Fire Precaution Plan "C" operating criteria as agreed upon between the CO and Contractor in writing. Contract areas within the boundaries of the proclaimed partial forest closure area are to operate under Industrial Fire Precaution Plan "D". Staged restriction levels are determined by the Line Officer in conjunction with Fire Management Officer(s) and Contracting Officer(s). The process is a mix of quantitative and subjective measures which allows Line Officers a broad level of discretion considering local conditions and issues when deciding to implement fire restrictions and/or area closures.

H.27 INDUSTRIAL FIRE PRECAUTION PLAN – DESCRIPTION

- A - Normal Fire Precautions: No fire guard required.
- B - Normal Fire Precautions except designated areas for smoking and warming or cooking fires require a written permit. Contractor will provide fire guard.
- C - All power saws and mechanical fellers except for mechanical fellers equipped with hydraulic shears will shut down from 9:00 am until 8:00 pm Mountain Standard Time (10:00 am to 9:00 pm MDT), except chainsaws may be used from 9:00 am until 2:00 pm Mountain Standard Time (10:00 am to 3:00 pm MDT), for limbing on landings cleared to mineral soil. Loading is authorized to continue from 12:00 noon until 2:00 pm, Mountain Standard Time (1:00 pm to 3:00 pm MDT), on landings cleared to mineral soil. Product removal vehicles must be out of the Sale Area to a surfaced road by 2:00 pm, Mountain Standard Time (3:00 pm MDT). Shutdown from 12:00 noon until 8:00 pm Mountain Standard Time (1:00 pm to 9:00 pm MDT); all machine treatment of slash; mechanical equipment used for shearing, bunching, or delimiting; skidding; cable yarding; blasting; welding; metal cutting; and clearing. Operations on mineral soil involving road excavation, watering, grading, surfacing, rock crushing, and/or other equipment maintenance may continue. No smoking, warming or cooking fires are permitted at any time. Contractor will provide fire guard.
- D - Shutdown all operations; except operations on mineral soil involving road excavation, watering, grading, gravel surfacing, and rock crushing may continue with special Forest Service permit. Contractor will provide fire guard.

Fire Precautions and Control

Contractor shall provide the personnel, tools and equipment to take the following precautionary measures:

SMOKING AND LUNCH FIRE RESTRICTIONS: Contractor shall prohibit smoking and building of camp and lunch fires by persons engaged in Contractor’s operations, except at established camps or in areas that Forest Service may designate. Smoking may be permitted at these designated areas only after all flammable material has been cleared to mineral soil. All fires and smoking materials shall be completely extinguished at end of lunch or smoking period.

FIRE TOOLS: Contractor shall furnish and maintain; i.e., cutting edges sharp, handles sanded and tightly fitted, clean of rust and foreign material; fire tools to be used only for suppressing forest fires. Each logging operation shall be provided with one firefighting tool per man to equip 100 percent of the personnel engaged in Contractor's operations. Approved firefighting tools are: double-bit axe; brushhook; pulaski; McLeod; and round-pointed, size 0 or larger lady shovel. The proper tool mix will be stipulated in the contract Fire Plan. These tools are required separate from, and in addition to, the tools required in the section, "Fire Tools on Equipment," and for Fire Guards. Fire tools for firefighting purposes for use of personnel engaged in all phases of the logging operations shall be located in the active operating area of the sale or as stated in the fire plan.

BURNING OF REFUSE: No camp refuse of slash or other debris, such as that resulting from clearing around camps or on right-of-way, shall be burned without the written consent of the Forest Service.

SPARK ARRESTERS AND MUFFLERS: Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard (Spark Arrester Guide) 5100-1a or the latest revision of Society of Automotive Engineers "medium size engine, SAE recommended practice J350" 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 purchased after 6/30/77 which must meet the performance levels set forth in the Society of Automotive Engineers "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended. Those purchased prior to the above date shall be equipped with an approved spark arrester/muffler containing a 0.023 inch mesh screen in good condition.
- (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 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.

POWERSAWS: During periods of use, each powersaw operator shall have readily available for use one long-handled round-pointed shovel and one chemical-pressurized fire extinguisher of not less than 8-ounce capacity by weight. Muffler, extinguisher, and shovel shall be maintained in good working order at all times. Any fueling or refueling of a powersaw shall be done in an area which has been cleared of material which will carry fire. Powersaws shall be moved at least 10 feet from the place of fueling or refueling before starting.

FIRE TOOLS ON EQUIPMENT: Each internal combustion fuel carrying truck, loader, skidder, heavy truck, and tractor shall be provided with one long-handled round-pointed shovel, and one 5-pound capacity ABC dry chemical fire extinguisher. Passenger carrying vehicles, including light pickup trucks shall be equipped with one (1) long-handled round-pointed shovel and one (1) ABC chemical fire extinguisher not less than 2 1/2 pounds capacity. Shovels and fire extinguishers shall be so mounted as to be readily reached from the ground.

INSPECTION REQUIREMENTS FOR INTERNAL-COMBUSTION ENGINES: Each internal-Combustion motor vehicle or item of equipment shall be inspected and approved in advance of use by Forest Service. Contractor shall require that all persons engaged in Contractor's operations submit all internal-combustion motors and equipment for inspection and approval prior to use in Contractor's operations on National Forest lands. Vehicles and equipment not approved for use shall be repaired to meet existing standards, reinspected, and approved by Forest Service prior to use.

BLASTING: Use of fuses in blasting shall not be permitted. A long-handled round-pointed shovel and 5-gallon backpack pump with attached handpump filled with water shall be available at all times. During periods when Fire Precaution Plan B or C is in effect, a fire guard shall remain on duty for at least one hour after blasting is finished and shall be equipped with a shovel and backpack. Blasting is prohibited under Fire Precaution Plan D.

TRACTOR LIGHTS: All crawler tractors and rubber-tired skidders suitable for fire suppression work, and with power source, shall be equipped with two (2) factory type headlights and one (1) backup light, or brackets mounted for portable self-contained battery operated lights. These portable lights shall be furnished and maintained by the Contractor at a location agreed by the Forest Service.

CABLE YARDING: Tail and corner blocks shall be located to prevent cables from rubbing against trees, snags, and down logs. Areas adjacent to tail and corner blocks shall be cleared of flammable material within a 5-foot radius. One 5-gallon standard backpack water container (filled at all times and with handpump attached), one shovel, and one pulaski, shall be maintained within 10 feet of each block.

GAS AND OIL STORAGE AND SERVICE AREAS: The location of equipment service areas and gas and oil storage areas shall be approved in writing by Contracting Officer. All areas shall be cleared of brush, litter, grass or other flammable debris for a radius of 50 feet.

WELDING: An area within a 10 foot radius shall be cleared down to mineral soil before welding operations are started. Prior to welding, Contractor shall have available a round-pointed long-handled shovel, a 5-gallon backpack pump filled with water with attached hand pump, and a 5-pound fire extinguisher at each welding site. A fire guard will remain on duty for at least one (1) hour after welding is completed during periods when Fire Precaution Plan B or C is in effect. Welding is prohibited under Fire Precaution Plan D.

FIRE GUARDS: Contractor shall designate at least one representative to train and supervise each woods-working group of men in fire prevention, detection, and suppression. Each such representative shall be named in the fire plan. To prevent, detect, and suppress fire, Contractor shall provide a trained fire guard at each operating area where power-driven equipment has been operated during the day. The fire guards shall constantly perform their duties during operating hours and for three (3) hours after the woodwork stops for the day, when the Fire Precaution Plan is Plan B, C, or D. Fire guard service on one operating area shall satisfy the requirements on adjacent areas if the travel time with available transportation is not in excess of ten (10) minutes to any of the other areas requiring such service. Each fire guard shall be physically able, vigilant, and trained to prevent, detect, and report any fires and to promptly and efficiently take suppression action with available required firefighting equipment and men on any fire that starts on project area. Each fire guard shall be equipped with a vehicle and a fire tool cache consisting of a cache box, 2 four-to-five gallon backpack pumps filled with water, 2 size 0 shovels, 2 Pulaskis, and 2 McLeod tools maintained in serviceable condition.

H.28 COMMUNICATIONS

Contractor shall furnish a serviceable telephone, radio-telephone or radio system connecting each operating side with Contractor's headquarters. A radio-equipped fire patrolman vehicle will satisfy this requirement if in operation during the time required. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service shall accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between Contractor's headquarters (or above stated alternative) and Forest Service via commercial or Forest Service telephone. The communications system shall be operable during Contractor's Operations and during the time fire patrolman service is required.

In the event no other means of communications will provide for prompt and reliable reporting of a fire, the Contracting Officer may allow use of a Forest Service two-way radio or Forest Service frequencies for emergency use only. The use of Forest Service frequencies will be by a written memorandum of agreement between the Contracting Officer and Contractor.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address:

<http://www.arnet.gov/far>

<http://www.usda.gov/procurement/policy/agar.html>

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

Pertaining To All Contract Items

- 52.202-1 Definitions (JUL 2004)
- 52.203-3 Gratuities (APR 1984)
- 52.203-5 Covenant Against Contingent Fees (APR 1984)
- 52-203-6 Restrictions on Subcontractor Sales to the Government (SEP 2006)
- 52-203-7 Anti-Kickback Procedures (OCT 2010)
- 52.203-8 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)
- 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)
- 52.203-12 Limitation on Payments to Influence Certain Federal Transactions (OCT 2010)
- 52.204-4 Printed/Copied Double-Sided on Recycled Paper (AUG 2000)
- 52.204-7 Central Contractor Registration (APR 2008)
- 52.204-9 Personal Identity Verification of Contractor Personnel (JAN 2011)
- 52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards (JUL 2010)
- 52.209-6 Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed For Debarment (DEC 2010)
- 52.211-18 Variation in Estimated Quantity (APR 1984)
- 52.215-2 Audit and Records--Negotiation (OCT 2010)
- 52.215-8 Order of Precedence--Uniform Contract Format (OCT 1997)
- 52.215-14 Integrity of Unit Price (OCT 2010)
- 52.217-2 Cancellation under Multiyear Contracts (OCT 1997)
- 52.219-8 Utilization of Small Business Concerns (JAN 2011)
- 52.219-9 Small Business Subcontracting Plan (Jan 2011)
- 52.219-14 Limitations on Subcontracting (DEC 1996)
- 52.219-16 Liquidated Damages--Subcontracting Plan (Jan 1999)
- 52.219-28 Post-Award Small Business Program Representation (APR 2009)
- 52.222-3 Convict Labor (JUN 2003)
- 52.222-4 Contract Work Hours and Safety Standards Act--Overtime Compensation (JUL 2005)
- 52.222-21 Prohibition of Segregated Facilities (FEB 1999)
- 52.222-26 Equal Opportunity (MAR 2007)
- 52.222-35 Equal Opportunity for Veterans (SEP 2010)
- 52.222-36 Affirmative Action for Workers with Disabilities (OCT 2010)
- 52.222-37 Employment Reports on Veterans (SEP 2010)
- 52.222-40 Notification of Employee Rights under the National Labor Relations Act (DEC 2010)
- 52.222-50 Combating Trafficking in Persons (FEB 2009)
- 52.222-54 Employment Eligibility Verification (JAN 2009)

- 52.223-2 Affirmative Procurement of Biobased Products under Service and Construction Contracts (DEC 2007)
- 52.223-6 Drug-Free Workplace (MAY 2001)
- 52.223-14 Toxic Chemical Release Reporting (AUG 2003)
- 52.225-13 Restrictions on Certain Foreign Purchases (JUN 2008)
- 52.227-1 Authorization and Consent (DEC 2007)
- 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (DEC 2007)
- 52.229-3 Federal, State, and Local Taxes (APR 2003)
- 52-232-8 Discounts for Prompt Payment (FEB 2002)
- 52.232-9 Limitation on Withholding of Payments (APR 1984)
- 52.232-17 Interest (OCT 2010)
- 52.232-18 Availability of Funds (APPR 1984)
- 52.232-23 Assignment of Claims (JAN 1986)
- 52.232-33 Payment by Electronic Funds Transfer – Central Contractor Registration (OCT 2003)
- 52.233-1 Disputes (JUL 2002)
- 52.233-3 Protest after Award (AUG 1996)
- 52.233-4 Applicable Law for Breach of Contract Claim (OCT 2004)
- 52.236-2 Differing Site Conditions (APR 1984)
- 52.236-3 Site Investigation and Conditions Affecting the Work (APR 1984)
- 52.236-5 Material and Workmanship (APR 1984)
- 52.236-6 Superintendence by the Contractor (APR 1984)
- 52.236-7 Permits and Responsibilities (NOV 1991)
- 52.236-8 Other Contracts (APR 1984)
- 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements (APR 1984)
- 52.236-10 Operations and Storage Areas (APR 1984)
- 52.236-12 Cleaning Up (APR 1984)
- 52.236-13 Accident Prevention (NOV 1991)
- 52.237-11 Accepting and Dispensing of \$1 Coin (AUG 2007)
- 52.242-13 Bankruptcy (JUL 1995)
- 52.244-6 Subcontracts for Commercial Items (DEC 2010)
- 52.245-2 Government Property (Fixed-Price Contracts) (AUG 2010)
- 52.253-1 Computer Generated Forms (JAN 1991)

Pertaining to Service Contract Items Only

- 52.222-41 Service Contract Act of 1965, as amended (NOV 2007)
- 52.222-43 Fair Labor Standards Act and Service Contract Act—Price Adjustment (Multiple Year and Option Contracts) (SEP 2009)
- 52.232-1 Payments (APR 1984)
- 52.232-11 Extras (APR 1984)
- 52.232-25 Prompt Payment (OCT 2008)
- 52.237-2 Protection of Government Buildings, Equipment, and Vegetation (APR 1984)
- 52.243-1 Changes – Fixed Price (AUG 1987) ALT I (APR 1984)
- 52.246-25 Limitation of Liability - Services (FEB 1997)
- 52.248-1 Value Engineering (OCT 2010)
- 52.249-2 Termination for Convenience of the Government (Fixed-Price) (MAY 2004)
- 52.249-8 Default (Fixed-Price Supply and Service) (APR 1984)

Pertaining to Construction Items Only

- 52.222-6 Davis-Bacon Act (JUL 2005)
- 52.222-7 Withholding of Funds (FEB 1988)

- 52.222-8 Payrolls and Basic Records (JUN 2010)
- 52.222-9 Apprentices and Trainees (JUL 2005)
- 52.222-10 Compliance with Copeland Act Requirements (FEB 1988)
- 52.222-11 Subcontracts (Labor Standards) (JUL 2005)
- 52.222-12 Contract Termination - Debarment (FEB 1988)
- 52.222-13 Compliance with Davis-Bacon and Related Act Regulations (FEB 1988)
- 52.222-14 Disputes Concerning Labor Standards (FEB 1988)
- 52.222-15 Certification of Eligibility (FEB 1988)
- 52.222-21 Prohibition of Segregated Facilities (FEB 1999)
- 52.222-27 Affirmative Action Compliance Requirements for Construction (FEB 1999)
- 52.227-4 Patent Indemnity--Construction Contracts (DEC 2007)
- 52.228-2 Additional Bond Security (OCT 1997)
- 52.228-11 Pledges of Assets (SEP 2009)
- 52.228-12 Prospective Subcontractor Requests for Bonds (OCT 1995)
- 52.228-14 Irrevocable Letter of Credit (DEC 1999)
- 52.228-15 Performance and Payment Bonds – Construction (OCT 2010)
- 52.232-5 Payments under Fixed-Price Construction Contracts (SEP 2002)
- 52.232-27 Prompt Payment for Construction Contracts (OCT 2008)
- 52.236-11 Use and Possession Prior to Completion (APR 1984)
- 52.236-15 Schedules for Construction Contracts (APR 1984)
- 52.236-16 Quantity Surveys (APR 1984)
- 52.236-17 Layout of Work (APR 1984)
- 52.236-21 Specifications and Drawings for Construction (FEB 1997)
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- 52.243-4 Changes (JUN 2007)
- 52.246-21 Warranty of Construction (MAR 1994)
- 52.248-3 Value Engineering – Construction (OCT 2010)
- 52.249-2 Termination for Convenience of the Government (Fixed-Price)(MAY 2004) Alt I (SEP 1996)
- 52.249-10 Default (Fixed Price Construction) (APR 1984)
- 52.253-1 Computer Generated Forms (JAN 1991)

II. AGRICULTURE ACQUISITION REGULATION (48 CFR CHAPTER 4) CLAUSES

Pertaining To All Contract Items

- 452.237-75 Restrictions Against Disclosure (FEB 1988)
- 452.237-77 Emergency Response (NOV 1996)

FULL TEXT CLAUSES PERTAINING TO ALL CONTRACT ITEMS

I.2 52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (APR 2010)

(a) *Definitions.* As used in this clause—

“Agent” means any individual, including a director, an officer, an employee, or an independent Contractor, authorized to act on behalf of the organization.

“Full cooperation”—

(1) Means disclosure to the Government of the information sufficient for law enforcement to identify the nature and extent of the offense and the individuals responsible for the conduct. It includes providing timely and

complete response to Government auditors' and investigators' request for documents and access to employees with information;

(2) Does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not require—

(i) A Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine; or

(ii) Any officer, director, owner, or employee of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; and

(3) Does not restrict a Contractor from—

(i) Conducting an internal investigation; or

(ii) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.

“Principal” means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (*e.g.*, general manager; plant manager; head of a division or business segment; and similar positions).

“Subcontract” means any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract.

“Subcontractor” means any supplier, distributor, vendor, or firm that furnished supplies or services to or for a prime contractor or another subcontractor.

“United States,” means the 50 States, the District of Columbia, and outlying areas.

(b) *Code of business ethics and conduct.*

(1) Within 30 days after contract award, unless the Contracting Officer establishes a longer time period, the Contractor shall—

(i) Have a written code of business ethics and conduct; and

(ii) Make a copy of the code available to each employee engaged in performance of the contract.

(2) The Contractor shall—

(i) Exercise due diligence to prevent and detect criminal conduct; and

(ii) Otherwise promote an organizational culture that encourages ethical conduct and a commitment to compliance with the law.

(3)(i) The Contractor shall timely disclose, in writing, to the agency Office of the Inspector General (OIG), with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of this contract or any subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed—

(A) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or

(B) A violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(ii) The Government, to the extent permitted by law and regulation, will safeguard and treat information obtained pursuant to the Contractor's disclosure as confidential where the information has been marked “confidential” or “proprietary” by the company. To the extent permitted by law and regulation, such information will not be released by the Government to the public pursuant to a Freedom of Information Act request, 5 U.S.C. Section 552, without prior notification to the Contractor. The Government may transfer

documents provided by the Contractor to any department or agency within the Executive Branch if the information relates to matters within the organization's jurisdiction.

(iii) If the violation relates to an order against a Governmentwide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the Contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract.

(c) Business ethics awareness and compliance program and internal control system. This paragraph (c) does not apply if the Contractor has represented itself as a small business concern pursuant to the award of this contract or if this contract is for the acquisition of a commercial item as defined at FAR 2.101. The Contractor shall establish the following within 90 days after contract award, unless the Contracting Officer establishes a longer time period:

(1) An ongoing business ethics awareness and compliance program.

(i) This program shall include reasonable steps to communicate periodically and in a practical manner the Contractor's standards and procedures and other aspects of the Contractor's business ethics awareness and compliance program and internal control system, by conducting effective training programs and otherwise disseminating information appropriate to an individual's respective roles and responsibilities.

(ii) The training conducted under this program shall be provided to the Contractor's principals and employees, and as appropriate, the Contractor's agents and subcontractors.

(2) An internal control system.

(i) The Contractor's internal control system shall—

(A) Establish standards and procedures to facilitate timely discovery of improper conduct in connection with Government contracts; and

(B) Ensure corrective measures are promptly instituted and carried out.

(ii) At a minimum, the Contractor's internal control system shall provide for the following:

(A) Assignment of responsibility at a sufficiently high level and adequate resources to ensure effectiveness of the business ethics awareness and compliance program and internal control system.

(B) Reasonable efforts not to include an individual as a principal, whom due diligence would have exposed as having engaged in conduct that is in conflict with the Contractor's code of business ethics and conduct.

(C) Periodic reviews of company business practices, procedures, policies, and internal controls for compliance with the Contractor's code of business ethics and conduct and the special requirements of Government contracting, including—

(1) Monitoring and auditing to detect criminal conduct;

(2) Periodic evaluation of the effectiveness of the business ethics awareness and compliance program and internal control system, especially if criminal conduct has been detected; and

(3) Periodic assessment of the risk of criminal conduct, with appropriate steps to design, implement, or modify the business ethics awareness and compliance program and the internal control system as necessary to reduce the risk of criminal conduct identified through this process.

(D) An internal reporting mechanism, such as a hotline, which allows for anonymity or confidentiality, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(E) Disciplinary action for improper conduct or for failing to take reasonable steps to prevent or detect improper conduct.

(F) Timely disclosure, in writing, to the agency OIG, with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of any Government contract performed by the Contractor or a subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed a violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 U.S.C. or a violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(1) If a violation relates to more than one Government contract, the Contractor may make the disclosure to the agency OIG and Contracting Officer responsible for the largest dollar value contract impacted by the violation.

(2) If the violation relates to an order against a Governmentwide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract, and the respective agencies' contracting officers.

(3) The disclosure requirement for an individual contract continues until at least 3 years after final payment on the contract.

(4) The Government will safeguard such disclosures in accordance with paragraph (b)(3)(ii) of this clause.

(G) Full cooperation with any Government agencies responsible for audits, investigations, or corrective actions.

(d) *Subcontracts.*

(1) The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts that have a value in excess of \$5,000,000 and a performance period of more than 120 days.

(2) In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(End of clause)

I.3 52.203-14 DISPLAY OF HOTLINE POSTER(S) (DEC 2007)

(a) *Definition.*

"United States," as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) *Display of fraud hotline poster(s).* Except as provided in paragraph (c)—

(1) During contract performance in the United States, the Contractor shall prominently display in common work areas within business segments performing work under this contract and at contract work sites—

(i) Any agency fraud hotline poster or Department of Homeland Security (DHS) fraud hotline poster identified in paragraph (b)(3) of this clause; and

(ii) Any DHS fraud hotline poster subsequently identified by the Contracting Officer.

(2) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

(3) Any required posters may be obtained as follows:

<i>Poster(s)</i>	<i>Obtain from</i>
<hr/>	
<hr/>	

(Contracting Officer shall insert—

(i) Appropriate agency name(s) and/or title of applicable Department of Homeland Security fraud hotline poster); and

(ii) The website(s) or other contact information for obtaining the poster(s).)

(c) If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a hotline poster, then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

(d) *Subcontracts*. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed \$5,000,000, except when the subcontract—

- (1) Is for the acquisition of a commercial item; or
- (2) Is performed entirely outside the United States.

(End of clause)

I.4 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (JAN 2011)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database at <http://www.ccr.gov>.

(b) (1) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(2) The Contractor will have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, *i.e.*, for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3)(i) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600. (ii) As required by section 3010 of Public Law 111- 212, all information posted in FAPIS on or after April 15, 2011, except past performance reviews, will be publicly available.

I.5 52.210-1 MARKET RESEARCH (APR 2011)

(a) *Definition*. As used in this clause—

“Commercial item” and “nondevelopmental item” have the meaning contained in Federal Acquisition Regulation 2.101.

(b) Before awarding subcontracts over the simplified acquisition threshold for items other than commercial items, the Contractor shall conduct market research to—

(1) Determine if commercial items or, to the extent commercial items suitable to meet the agency's needs are not available, nondevelopmental items are available that—

- (i) Meet the agency's requirements;
 - (ii) Could be modified to meet the agency's requirements; or
 - (iii) Could meet the agency's requirements if those requirements were modified to a reasonable extent;
- and
- (2) Determine the extent to which commercial items or nondevelopmental items could be incorporated at the component level.

(End of clause)

I.6 52.216-4 ECONOMIC PRICE ADJUSTMENT—LABOR AND MATERIAL (JAN 1997)

(a) The Contractor shall notify the Contracting Officer if, at any time during contract performance, the rate of pay for labor (including fringe benefits) or the unit prices for material shown in the Schedule either increase or decrease. The Contractor shall furnish this notice within 60 days after the increase or decrease, or within any additional period that the Contracting Officer may approve in writing, but not later than the date of final payment under this contract. The notice shall include the Contractor's proposal for an adjustment in the contract unit prices to be negotiated under paragraph (b) of this clause, and shall include, in the form required by the Contracting Officer, supporting data explaining the cause, effective date, and amount of the increase or decrease and the amount of the Contractor's adjustment proposal.

(b) Promptly after the Contracting Officer receives the notice and data under paragraph (a) of this clause, the Contracting Officer and the Contractor shall negotiate a price adjustment in the contract unit prices and its effective date. However, the Contracting Officer may postpone the negotiations until an accumulation of increases and decreases in the labor rates (including fringe benefits) and unit prices of material shown in the Schedule results in an adjustment allowable under paragraph (c)(3) of this clause. The Contracting Officer shall modify this contract (1) to include the price adjustment and its effective date and (2) to revise the labor rates (including fringe benefits) or unit prices of material as shown in the Schedule to reflect the increases or decreases resulting from the adjustment. The Contractor shall continue performance pending agreement on, or determination of, any adjustment and its effective date.

(c) Any price adjustment under this clause is subject to the following limitations:

(1) Any adjustment shall be limited to the effect on unit prices of the increases or decreases in the rates of pay for labor (including fringe benefits) or unit prices for material shown in the Schedule. There shall be no adjustment for—

- (i) Supplies or services for which the production cost is not affected by such changes;
- (ii) Changes in rates or unit prices other than those shown in the Schedule; or
- (iii) Changes in the quantities of labor or material used from those shown in the Schedule for each item.

(2) No upward adjustment shall apply to supplies or services that are required to be delivered or performed before the effective date of the adjustment, unless the Contractor's failure to deliver or perform according to the delivery schedule results from causes beyond the Contractor's control and without its fault or negligence, within the meaning of the Default clause.

(3) There shall be no adjustment for any change in rates of pay for labor (including fringe benefits) or unit prices for material which would not result in a net change of at least 3 percent of the then-current total contract price. This limitation shall not apply, however, if, after final delivery of all contract line items, either party requests an adjustment under paragraph (b) of this clause.

(4) The aggregate of the increases in any contract unit price made under this clause shall not exceed **10** percent of the original unit price per **three year period**. There is no percentage limitation on the amount of decreases that may be made under this clause.

(d) The Contracting Officer may examine the Contractor's books, records, and other supporting data relevant to the cost of labor (including fringe benefits) and material during all reasonable times until the end of 3 years after the date of final payment under this contract or the time periods specified in Subpart 4.7 of the Federal Acquisition Regulation (FAR), whichever is earlier.

(End of clause)

I.7 52.216-18 ORDERING (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from award date of contract(s) through contract end date.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of clause)

I.8 52.216-19 ORDER LIMITATIONS (OCT 1995)

(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than \$25,000.00 [insert dollar figure or quantity], the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) *Maximum order.* The Contractor is not obligated to honor—

(1) Any order for a single item in excess of \$3,000,000.00 ;

(2) Any order for a combination of items in excess of \$6,000,000.00 ; or

(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.

(c) If this is a requirements contract (*i.e.*, includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.9 52.216-21 REQUIREMENTS (OCT 1995)

(a) This is a requirements contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies or services specified in the Schedule are estimates only and are not purchased by this contract. Except as this contract may otherwise provide, if the Government's requirements do not result in orders in the quantities described as "estimated" or "maximum" in the Schedule, that fact shall not constitute the basis for an equitable price adjustment.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. Subject to any limitations in the Order Limitations clause or elsewhere in this contract, the Contractor shall furnish to the Government all supplies or services specified in the Schedule and called for by orders issued in accordance with the Ordering clause. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(c) Except as this contract otherwise provides, the Government shall order from the Contractor all the supplies or services specified in the Schedule that are required to be purchased by the Government activity or activities specified in the Schedule.

(d) The Government is not required to purchase from the Contractor requirements in excess of any limit on total orders under this contract.

(e) If the Government urgently requires delivery of any quantity of an item before the earliest date that delivery may be specified under this contract, and if the Contractor will not accept an order providing for the accelerated delivery, the Government may acquire the urgently required goods or services from another source.

(f) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; *provided*, that the Contractor shall not be required to make any deliveries under this contract after 30 DAYS AFTER CONTRACT COMPLETION DATE].

(End of clause)

I.10 52.217-7 OPTION FOR INCREASED QUANTITY—SEPARATELY PRICED LINE (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within the body of the task order as it is executed. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

I.11 52.223-18 CONTRACTOR POLICY TO BAN TEXT MESSAGING WHILE DRIVING (SEP 2010)

(a) *Definitions.* As used in this clause—
"Driving"—

(1) Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise.

(2) Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

“Text messaging” means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.

(b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, dated October 1, 2009.

(c) The Contractor should—

(1) Adopt and enforce policies that ban text messaging while driving—

(i) Company-owned or -rented vehicles or Government-owned vehicles; or

(ii) Privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government.

(2) Conduct initiatives in a manner commensurate with the size of the business, such as—

(i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

(ii) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

(d) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts that exceed the micro-purchase threshold.

(End of clause)

PERTAINING TO SERVICE ONLY

I.12 52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

*This Statement is for Information Only:
It is not a Wage Determination*

Employee Class	Monetary Wage	Fringe Benefits
Heavy Equipment Operator WG-8	\$21.31/hr	*
Crew Leader GS-5	\$15.00/hr	*
Forestry Tech GS-5	\$15.00/hr	*
Laborer GS-3 or GS-4	\$11.95 or \$13.41/hr	*

*FRINGE BENEFITS: Life, Accident and Health Insurance and Sick Leave Programs - 5.1 percent of basic hourly rate.
Paid Holidays - 10 per year: New Year's Day, Martin Luther King, Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day

Vacation - 13 days paid vacation per year up to 3 years of service, 20 days after 3 years of service, and 26 after 15 years of service. Retirement - 7 percent basic hourly rate.

I.13 FAR 52.246-20 WARRANTY OF SERVICES (MAY 2001)

(a) *Definition.* "Acceptance," as used in this clause, means the act of an authorized representative of the Government by which the Government assumes for itself, or as an agent of another, ownership of existing and identified supplies, or approves specific services, as partial or complete performance of the contract.

(b) Notwithstanding inspection and acceptance by the Government or any provision concerning the conclusiveness thereof, the Contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects in workmanship and conform to the requirements of this contract. The Contracting Officer shall give written notice of any defect or nonconformance to the Contractor *_ within 30 days from the date of acceptance by the Government*]. This notice shall state either--

- (1) That the Contractor shall correct or reperform any defective or nonconforming services; or
- (2) That the Government does not require correction or reperformance.

(c) If the Contractor is required to correct or reperform, it shall be at no cost to the Government, and any services corrected or reperformed by the Contractor shall be subject to this clause to the same extent as work initially performed. If the Contractor fails or refuses to correct or reperform, the Contracting Officer may, by contract or otherwise, correct or replace with similar services and charge to the Contractor the cost occasioned to the Government thereby, or make an equitable adjustment in the contract price.

(d) If the Government does not require correction or reperformance, the Contracting Officer shall make an equitable adjustment in the contract price.

PERTAINING TO CONSTRUCTION ONLY

I.14 FAR 52.225-9 BUY AMERICAN ACT – CONSTRUCTION MATERIALS (SEP 2010)

(a) *Definitions.* As used in this clause—

“Commercially available off-the-shelf (COTS) item”—

- (1) Means any item of supply (including construction material) that is—
 - (i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);
 - (ii) Sold in substantial quantities in the commercial marketplace; and
 - (iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and
- (2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 (46 U.S.C. App. 1702), such as agricultural products and petroleum products.

“Component” means an article, material, or supply incorporated directly into a construction material.

“Construction material” means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems,

such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Cost of components” means—

(3) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(4) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Domestic construction material” means—

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if—

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or

(ii) The construction material is a COTS item.

“Foreign construction material” means a construction material other than a domestic construction material.

“United States” means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference.

(1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by providing a preference for domestic construction material. In accordance with 41 U.S.C. 431, the component test of the Buy American Act is waived for construction material that is a COTS item (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows:

none

[Contracting Officer to list applicable excepted materials or indicate “none”]

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that—

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including—

- (A) A description of the foreign and domestic construction materials;
- (B) Unit of measure;
- (C) Quantity;
- (D) Price;
- (E) Time of delivery or availability;
- (F) Location of the construction project;
- (G) Name and address of the proposed supplier; and
- (H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON

Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
<i>Item 1:</i>			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
<i>Item 2:</i>			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]

I-15 52.225-20 PROHIBITION ON CONDUCTING RESTRICTED BUSINESS OPERATIONS IN SUDAN—CERTIFICATION (AUG 2009)

(a) *Definitions.* As used in this provision—

“Business operations” means engaging in commerce in any form, including by acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities, personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

“Marginalized populations of Sudan” means—

(1) Adversely affected groups in regions authorized to receive assistance under section 8(c) of the Darfur Peace and Accountability Act (Pub. L. 109-344) (50 U.S.C. 1701 note); and

(2) Marginalized areas in Northern Sudan described in section 4(9) of such Act.

“Restricted business operations” means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person (as that term is defined in Section 2 of the Sudan Accountability and Divestment Act of 2007) conducting the business can demonstrate—

(1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

(2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;

(3) Consist of providing goods or services to marginalized populations of Sudan;

(4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;

(5) Consist of providing goods or services that are used only to promote health or education; or

(6) Have been voluntarily suspended.

(b) *Certification.* By submission of its offer, the offeror certifies that the offeror does not conduct any restricted business operations in Sudan.

(End of provision)

I.16 52.228-13 ALTERNATIVE PAYMENT PROTECTIONS (JUL 2000)

(a) The Contractor shall submit one of the following payment protections:

Payment Bond

Irrevocable Letter of Credit

(b) The amount of the payment protection shall be 100 percent of the contract price.

(c) The submission of the payment protection is required within 30 days of contract award.

(d) The payment protection shall provide protection for the full contract performance period plus a one-year period.

(e) Except for escrow agreements and payment bonds, which provide their own protection procedures, the Contracting Officer is authorized to access funds under the payment protection when it has been alleged in writing by a supplier of labor or material that a nonpayment has occurred, and to withhold such funds pending resolution by administrative or judicial proceedings or mutual agreement of the parties.

(f) When a tripartite escrow agreement is used, the Contractor shall utilize only suppliers of labor and material that signed the escrow agreement.

I.17 52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least 12% percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

J.1 LIST OF ATTACHMENTS

The following attachments are made a part of this solicitation and any resultant contract.

1. Appendices

Appendix A - Statement of Objectives, 14 pages

Appendix B - Timber Removal Project Terms and Specifications, 18 pages

Appendix C – Road Maintenance, 24 pages
Specification List for Road Maintenance,
Special Project Specifications (SPS) for Road Maintenance,
Road Maintenance Requirements Specification Table,
Contract Road Maintenance Requirements Summary Table,
Drawings for Road Maintenance,

Appendix D – There is no Appendix D for this project.

Appendix E- Miscellaneous Support, Reference, and Maps, 12 pages
-Glossary
-Link to photo series of Coarse Woody Debris
-Link to photos of desired conditions
-Shelf stock cruise data with link to raw data
-General Vicinity Maps and Shelf Stock Project Maps

2. Wage Determination No:

Number	Revision	Date	Pages
1977-0211	37	11-04-2010	4
AZ100013		02-04-2011	10

3. Last attachment is the QASP Example, 2 pages

4. Website for Additional Data: <http://www.fs.usda.gov/goto/4fri/rfp>

Appendix A

STATEMENT OF OBJECTIVES

The intent of this contract is to begin restoring the ponderosa pine forest type to a condition more representative of historic conditions. Currently there are too many trees per acre and more expanses of even-aged stands than were present historically. These conditions have left forests that are susceptible to high intensity stand replacing crown fire and bark beetle infestations. The end result of this contract is to leave a forest that is less susceptible to these risks. The desired outcome is a forest with groups of trees of similar size or age, fewer trees per acre, and openings between groups of trees. The groups and openings will be well distributed across the landscape. This first entry treatment is designed to begin the process of converting these dense, mostly even-aged stands to clumpier, open, uneven-aged stands of trees with a vigorous grass and forb understory.

The restoration will be conducted at a landscape scale, at the least cost to the government, with maximum biomass utilization, and leaving quality results on the ground. The goal is to treat approximately 300,000 acres over the 10 year contract period and to ensure the availability of forest raw materials at a scale resulting in efficiencies that reduces cost to government to as close to zero as feasible.

The area covered under this contract is within the ponderosa pine dominated forests of Northern Arizona. Ponderosa pine is prevalent, but other species are present such as Gambel Oak, Juniper, and Pinyon Pine. More infrequently, species such as aspen, Southwestern White Pine, Douglas-fir, White Fir, and Blue Spruce may occur as individual trees. The Ponderosa Pine dominated forest vegetation community typically occurs with an understory of grasses and forbs although it sometimes includes shrubs.

DESIRED CONDITIONS

The following descriptions refer to the **condition of the treatments areas after all treatments have been completed**. The majority of the treatment areas will be Ponderosa Pine forests but some may occur in mixed conifer forests. Desired conditions are included for both forest types. The desired conditions are based on the existing Forest Plans and are consistent with those plans. The Kaibab, Coconino, and Apache-Sitgreaves National Forests are in the process of revising their Forest Plans. The Tonto National Forest is scheduled to start their revision in about 3 years. These revisions may result in a change to the desired conditions. If that occurs, the contract would be modified accordingly. **Photos of representative desired conditions are included in appendix E**. We will be **conducting a pre-bid meeting in June (See Section L for details)** to visit sites in both forest types that would show a range of conditions to be treated.

Ranges of values presented in desired conditions account for the natural variation in the composition and structure of a forest. Desired conditions may differ within a vegetation type due to variability in soils, elevation, or aspect. It may also be desirable to have different desired conditions within a vegetation type, such as a lower density of vegetation in the wildland urban

interface (WUI) than outside of the WUI to achieve the desired fire behavior near private property and human occupancy. Any variation from the general conditions described below will be clearly identified in a task order.

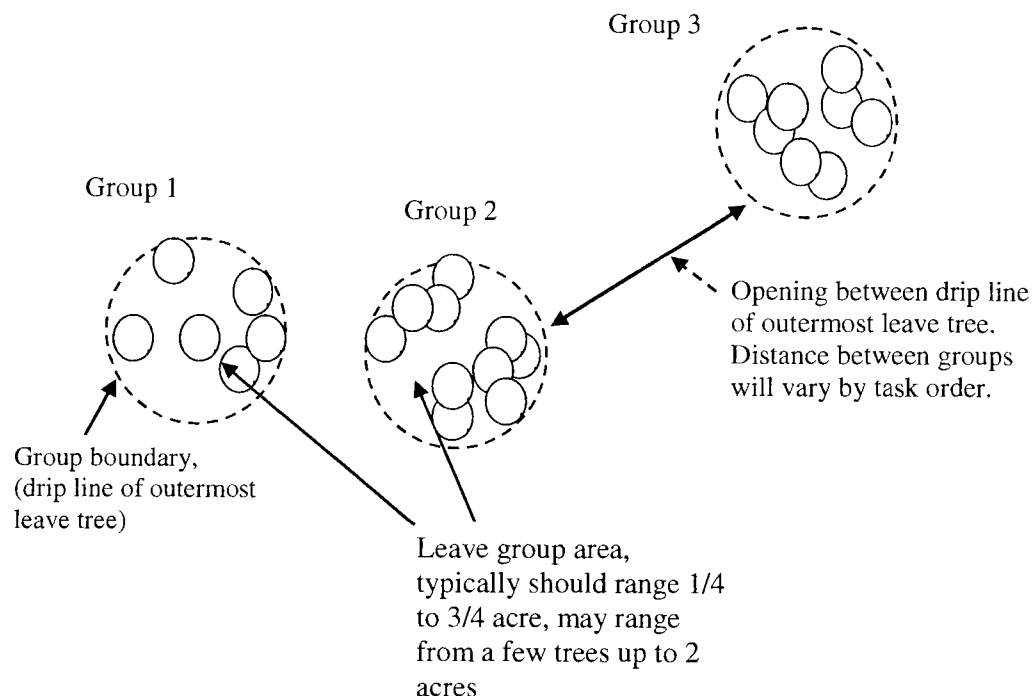
After treatments, the Forest Service will determine if a contractor has met the desired conditions by visual methods of determining:

- Remaining trees per acre
- Amount of Coarse Woody Debris (see Appendix E for sample photos of coarse woody debris)
- Size and distribution of groups

These descriptions apply at what we call a mid-scale, between 100 and 1,000 acres. This doesn't mean that every acre meets the description below, but a treatment unit, or combination of treatment units, meets these conditions.

The following figure graphically displays how groups of trees are envisioned to be arranged after treatment under this contract.

Figure 1 – Desired spatial arrangement of leave groups



Ponderosa Pine

The ponderosa pine forest vegetation community is dominated by ponderosa pine and commonly includes other species such as oak, juniper, and pinyon. More infrequently species such as aspen, Douglas-fir, white fir, and blue spruce may be present, and occur as individual trees. This forest vegetation community typically occurs with an understory of grasses and forbs although it sometimes includes shrubs.

The ponderosa pine forest vegetation community is composed of trees from structural stages ranging from young to old. Forest appearance is variable but generally uneven-aged and open; occasional areas of even-aged structure are present. The forest arrangement is in individual trees, small clumps, and groups of trees interspersed within variably-sized openings of grass/forbs/shrubs vegetation associations similar to historic patterns.

Openings typically range from 10 percent in more productive sites to 70 percent in the less productive sites. The size, shape, number of trees per group, and number of groups per area are variable across the landscape. Denser tree conditions exist in some locations such as north facing slopes and canyon bottoms. Tree groups are between $\frac{1}{4}$ and 2 acres (typically $\frac{1}{4}$ to $\frac{3}{4}$ acres) in size with openings between groups. Groups at the mid-aged to old stages consist of 2 to approximately 40 trees per group.

While the ponderosa pine forest vegetation community is composed predominantly of vigorous trees, declining trees are a component and provide for snags, top-killed, lightning- and fire-scarred trees, and coarse woody debris (>3 inch diameter), all well-distributed throughout the landscape. Ponderosa pine snags are typically 18 inches or greater at DBH and average 1 to 2 snags per acre. Where oak is present, large oak snags (>10 inches) are a well-distributed component. All snags not identified by the Contractor as a safety hazard shall be retained unless otherwise agreed to by the COR. Downed logs (>12 inches at mid-point, >8 feet long) average 3 logs per acre within the treatment unit.

To maintain soil productivity and general ecological integrity, coarse woody debris (CWD) shall be maintained across the project area. Coarse woody debris is defined as pieces of wood greater than 3" at the small end. The current Forest Plans call for 3-5 tons per acre of CWD to be retained following treatment. If there is more than 5 tons per acre before the treatment, the contractor shall remove all the material created by the treatment, but not the material that already exists, unless directed otherwise. In which this case, a minimum of 3 tons per acre shall be left. Following treatment there shall be few, if any, slash piles left for disposal by the Forest Service.

Forest conditions in goshawk post-fledging family areas (PFAs) are similar to general forest conditions except these forests contain 10 to 20 percent higher basal area in the mid-aged to old tree groups than goshawk foraging areas and the general forest. Goshawk nest areas have forest conditions that are multi-aged but are dominated by large trees with relatively dense canopies. In goshawk foraging areas and post fledging areas (PFAs), groups of 3-5 reserve trees shall be retained within management-created openings greater than 1 acre in ponderosa pine except where the strong potential for wind-throw prevents the possibility of viable reserve trees, or

insect and/or disease prevent the eventual development of regeneration into large trees. Approximately 5% of the area is within PFAs.

Dry Mixed Conifer

Dry mixed-conifer forests are dominated by mainly shade intolerant trees such as ponderosa pine, southwestern white pine, limber pine, quaking aspen, and Gambel oak, with a lesser presence of shade tolerant species such as white fir and blue spruce. Douglas-fir is common. Aspen may occur as individual trees or small groups. This forest vegetation community typically occurs with an understory of grasses, forbs, and shrubs.

The dry mixed conifer forest is composed of trees from structural stages ranging from young to old. Forest appearance is variable but generally uneven-aged and open; occasional areas of even-aged structure are present. The forest arrangement is in individual trees, small clumps, and groups of trees interspersed within variably-sized openings of grass/forbs/shrubs vegetation associations similar to historic patterns.

Openings typically range from 10 percent in more productive sites to 50 percent in the less productive sites. The size, shape, number of trees per group, and number of groups per area are variable across the landscape. Denser tree conditions exist in some locations such as north facing slopes and canyon bottoms. Tree groups are between $\frac{1}{4}$ and 2 acres (typically $\frac{1}{4}$ to $\frac{3}{4}$ acres) in size with openings between groups. Groups at the mid-aged to old stages consist of 2 to approximately 40 trees per group.

The dry mixed conifer forest vegetation community is composed predominantly of vigorous trees, but declining trees are a component and provide for snags, top-killed, lightning- and fire-scarred trees, and coarse woody debris (>3 inch diameter), all well-distributed throughout the landscape. Snags are typically 18 inches or greater at DBH and average 3 per acre. Downed logs (>12 inch diameter at mid-point, >8 feet long) average 5 per acre within the forested area of the landscape.

To maintain soil productivity and general ecological integrity, coarse woody debris (CWD) must be maintained across the project area. Coarse woody debris is defined as pieces of wood greater than 3" at the small end. In dry mixed conifer forest, our current Forest Plans call for 10-15 tons per acre of CWD to be retained following treatment. Revisions over the next couple of years may change this number but it will likely be to allow leaving more material, not less. If there is more than 15 tons per before the treatment, the contractor shall remove all the material created by the treatment, but not the material that already exists, unless they want the additional material. In this case, a minimum of 10 tons per acre shall be left. If there is not currently 15 tons per acre, the contractor shall remove anything over 15 tons per acre. Following treatment, few if any, slash piles would be left for disposal by the Forest Service.

Trees typically occur in irregularly shaped groups and are variably-spaced with some tight clumps. Crowns of trees within the mid-aged to old groups are interlocking or nearly interlocking. Openings surrounding tree groups are variably-shaped and comprised of a grass/forb/shrub mix. Some openings contain individual trees. Trees within groups are of similar

or variable ages and contain a variety of species. Tree groups are between ¼ and 2 acres (typically ¼ to ¾ acres) in size with openings between groups. Groups at the mid-aged to old stages consist of 2 to approximately 40 trees per group.

EXAMPLE SPECIFICATIONS FOR PERFORMANCE WORK STATEMENTS

The specifications listed below are the standard specifications the Forest Service uses for these specific work items. These are provided as examples for you to consider when completing your performance work statements.

Precommercial Thinning

This class of material will be designated to be cut or left, by prescription or with Forest Service tracer paint when the product material has been designated (usually down to 5" dbh).

In the case of "Designation by Prescription", the Forest Service will supply the contractor with cutting guidelines and may sample mark up to 5 acres. The cutting guidance will include instruction on leave tree spacing, arrangement and the types of trees that must be cut. The operator will work through the sample mark then proceed to cut the remainder of the unit with or without non-tracer paint marking at the expense of the contractor.

Precommercial thinning will reduce crown density, raise crown base height and reduce crown fire potential. The intent is to leave variable spaced groups and clumps of healthy trees. Cutting guidelines will vary between task orders due to varying site conditions, including insect and disease processes.

Other Requirements:

1. Cut trees shall be completely severed. Cutting shall be below the lowest live limb unless prevented by natural obstacles.
2. Stump height shall not exceed 6 inches in height on the uphill side unless cutting is obstructed by natural obstacles. Stumps shall be horizontal as possible to avoid sharp spikes. Product materials require a 12" stump height maximum (see Appendix B).
3. Cut trees shall be cleared away from unit boundaries, roads, telephone lines, established trails, stock driveways, fence lines, established land corners, stream or watercourses by a prescribed distance. Each task order will provide specific guidance.
4. No cut trees shall be permitted to suspend above the ground by a leave tree.
5. If operations cause damage to any posted monuments, fences or other improvements the COR will be notified immediately. Contractor will be responsible for restoration or replacement cost. Each task order will provide a map of these improvements to protect.
6. Operations will be conducted to avoid damage to leave trees and other resources.
7. Special mitigation will be employed between January and May to suppress bark beetle activity namely a 30 day requirement to treat or remove fresh-cut vegetation.

Felling Damaged Trees

Damaged or destroyed trees are all trees which are over 3 feet in height that are knocked down or damaged to the extent that mortality or serious deterioration will occur, and such trees partially pushed over so as to result in permanent lean and visible damage to the root system, all as a result of the Contractor's operation. Such damaged or destroyed trees shall be felled and further treated by the slash treatment method specified in the Task Order. Materials of merchantable species meeting the minimum piece specifications of would be removed and utilized by the Contractor.

Slash Treatments

In the case that all slash (residue or biomass) is not skidded to approved landings and removed, vegetative biomass larger than 1 inch in diameter and 3 feet long resulting from Contractor's operations in the cutting of green trees is created fuel (slash), and must be treated according to Task Order specifications or accepted method proposed by offeror.

Snags (if they are required to be felled) and dead and down woody material larger than 3” in diameter and 4 feet long existing on the site prior to Contractor’s operations are existing slash.

Task order unit information will describe what slash treatments are to be done, and whether the treatment is to include created slash, existing slash, or both. Any variations in the slash disposal methods listed below will be described in the Task Order information. The information to be filled in the general descriptions below will be described in the Task Order information.

By agreement in writing, certain slash may be left for fuel wood. When the specified treatment is by a combination of methods, slash not treated by one of the methods shall be treated by the other(s).

Slash treatment along roads shall be accomplished without affecting the proper functioning of channels leading to and from drainage structures.

Material meeting utilization specifications, Appendix B, Division A, accumulated at landings and disposal sites shall be decked and removed by Contractor. Other slash accumulated at landings and disposal sites shall be kept separate from merchantable material and treated by the method described in Task Order information.

All vegetative debris (residue or slash) associated with construction of temporary roads construction such as unutilized timber, brush and grubbed stumps is construction slash. Measures to be taken by Contractor for treatment of construction slash will be described in specific task orders as part of the road work.

Forest Service and Contractor shall jointly develop a schedule for completion of slash treatment on the various portions of the Project Area prior to Contractor's Operations. Slash treatment plan may be made a part of the annual operating plan.

General descriptions of slash treatment measures that may be taken by Contractor for treatment of created slash are set forth below. This is not an all inclusive list of alternatives.

Chipping

Chipping work consist of altering the structure of activity or residual slash that has been lopped, bucked and scattered, hand piled, or machine piled. In the chipping process slash is forced through a chipping machine, reducing the larger pieces of slash to small chips that are spread over the site to be burned at a later date, left on site to naturally decompose, or transported of the site. The following specifications shall be followed in a chipping operation:

- (a) Contractor shall use an approved chipping machine to chip slash 10 feet in length.
 - (1) Chipping from a landing site shall be done by a commercial chipper
 - (2) Scattered chips throughout an area shall be done by a chipper that can easily be towed that will not cause resource damage.
- (b) Slash specified in the task order up to 10 inches in diameter shall be processed through a chipping machine.
- (c) Chips shall be scattered to a loose depth less than 1 inch, unless specified.
- (d) Chips shall be spread on bare soil and rocks. Chips spread in understory vegetation are acceptable if there are no areas of bare soil or rocks and approved with the task order.
- (e) Chips shall not be spread under trees crowns where possible and never allowed to lie against tree boles.
- (f) Contractor shall not spread chips to the extent that the understory is matted down, suppressing grasses and forbs.

Removal of slash

This method removes slash to a designated landing where it will be disposed of there or transported off the National Forest. This method of treatment, in conjunction with dozer piling, is common when whole tree yarding is conducted because the tops and limbs are removed to a designated landing, attached to the Product.

Logging Slash shall be moved or hauled off the National Forest, or to approved locations shown on Project Area Map and designated on the ground where it shall be piled.

Short-bucking

This method is used as an alternative to piling, where piling of green slash is not acceptable due to risk of bark beetle brood creation. All cut coniferous boles over 4” small-end diameter that will not be removed from the contract area, or chipped or buried, shall be bucked to a maximum length of 16”, and the resulting pieces shall be scattered apart to receive full sunlight.

Note: May be required in combination with lop and scatter to mitigate bark beetle issues.

Hand piling

Slash to be piled generally constitutes material from 1 inch diameter up to and including 9 inches in diameter. There may be some units where larger slash may need to be piled. All of the following apply for hand piling:

- (a) All activity slash created by thinning operation exceeding 1 foot in length will be piled.
- (b) Piles shall be constructed by hand to facilitate full consumption when they are burned.
- (c) All piles shall be built and compacted by laying limbs, stems, cut boles, and other slash so there are no air spaces. Each pile shall include an area of kindling for prompt ignition and to aid in combustion of larger slash. These fuels shall be placed in the center or bottom of the pile. The piles will be constructed so that they will burn after a snow event or rainstorm.
- (d) Specifications on size of piling slash will be provided in the Detailed Information Sheet.
- (e) As a minimum all slash shall be bucked to the pile diameter.
- (f) The minimum pile size will be 6 feet high and 7 feet in diameter. The pile diameter will be symmetrical to each side, in a circle shape. The minimum distance between piles will be the pile height. Measurement is taken at the bottom of the pile for pile size and distance. The maximum size of the piles will be determined by the opening dimension of the residual forest canopy and tree susceptibility to crown scorch or mortality.
- (g) All material will be contained within the general contour of the pile and any material protruding out 2 feet or more will be sawed off and placed back on the pile.
- (h) The government may designate maximum, minimum, or both pile sizes when it determines this is required to meet resource objectives.
- (i) The piles will be constructed so that there will be a break in residual slash around the pile of at least 10 feet. This is needed to protect wildlife features such as logs. This is also needed to prevent fire from spreading when piles are burned.
- (j) Piles shall be located so that burning will not damage standing live trees or physical improvements such as fences, poles, buildings, signs, tables, grills or cattle-guards.
- (k) Piles shall not be located on roads, bearing survey markers, in drainage ditches, or within stream-courses

- (l) On the south and west side of yellow bark trees, yellow pines, larger than 16” dbh, piles will not be constructed within 25 feet of the tree.
- (m) Piles will be located outside the drip-line of trees where possible. Forest canopy openings will be utilized for acceptable piling areas.
- (n) The following is a list of preferred pile placements that the contractor will follow:
 - a. Outside of the drip-line of trees on the south west side of an opening.
 - b. In the center of large openings.
 - c. Outside of the drip-line of trees on the downhill to middle of an opening on a slope.

Note: Handpiling is used only sparingly where machines cannot operate or pose a safety issue. Often used on steep pitches, within WUI's, or adjacent to streams.

Machine piling

Machine piling refers to Dozer piling and/or Grapple piling. All machines for piling of slash shall follow these provisions:

- (a) All activity slash created by thinning operation exceeding 2 foot in length shall be piled.
- (b) Piles shall be constructed by machine to facilitate full consumption when they are burned.
- (c) Machine piles shall be compacted by pushing slash from all sides towards the center of the pile or stacking slash to avoid air pockets in the center. The piles will be constructed so that they will burn after a snow event or rainstorm.
- (d) Piling shall be accomplished in a manner that will prevent the accumulation of dirt in the piles.
- (e) Specifications on size of piling slash will be provided in the Detailed Information Sheet.
- (f) As a minimum all slash shall be bucked to the pile diameter.
- (g) The minimum pile size will be 8 feet high and 9 feet in diameter. The pile diameter will be symmetrical to each side in a circle shape. Measurement is taken at the bottom of the pile for pile size and distance. The maximum size of the piles will be determined by tree canopy opening size and tree susceptibility to crown scorch or mortality.
- (h) A machine pile will not exceed a diameter of 25 feet and pile height shall not be less than one-third the average diameter of the pile.

- (i) The government may designate in detailed information sheet maximum, minimum, or both pile sizes when it determines this is required to meet resource objectives.
- (j) All material will be contained within the general contour of the pile and slash which protrudes 4-feet or more from outer edge of the pile shall be bucked off and placed in the pile. The 4 feet of non compacted pile will not count in pile height.

Machine Pile Placement:

- (a) The minimum distance between piles shall be the pile height.
- (b) If conditions make it impractical to locate piles where damage to live trees and physical improvements can't be avoided, a space may be cleared in a location designated and agreed to by the Government or constructed adjacent to less desirable, smaller trees.
- (c) It shall be the government's discretion if the contractor's pile placement is unacceptable. A pile shall be relocated, consolidated or a space shall be cleared to prevent residual tree mortality.
- (d) The piles will be constructed so that there will be a break in continuous fuels around the pile of at least 10 feet. This shall be done to prevent fire from spreading and protecting wildlife features, such as logs, when piles are burned.
- (e) Piles shall not be located on roads, bearing survey markers, in drainage ditches, or within stream-courses.
- (f) Piles shall not be constructed within 20 feet of unit boundaries.
- (g) On the south and west side of yellow bark trees, yellow pines larger than 16" dbh and 16" dbh oak, piles will not be constructed within 35 feet of the tree.
- (h) Piles will be located 10 feet outside the drip-line of trees where possible. Forest/stand canopy openings will be utilized for acceptable piling areas.
- (i) The following is a list of preferred pile placement that the contractor will follow:
 - (1) Outside of the drip-line of trees on the south west side of an opening.
 - (2) In large openings, close to the center to guarantee zero mortality
 - (3) On a slope, outside of the drip-line of trees on the downhill to middle of an opening.

Machine piling and lopping

Concentrations of slash marked on the ground by the Forest Service shall be machine piled by a tractor equipped with a brush rake as per Machine Piling Specifications. The remaining slash, not in concentrations, shall be lopped and scattered as per specification for "Lopping."

Acceptable Equipment.

- (a) Piling will be accomplished with a crawler tractor not to exceed overall width of 10 feet (crawler tractors will not be larger than a D-6 and the work can typically be accomplished using a tractor size comparable to a John Deere 450).
- (b) Tractor will be equipped with a brush blade having teeth extending a minimum of 11 inches below the frame.
- (c) The teeth shall number at least 8 and no more than 14. The teeth shall be of sufficient strength so that they shall not bend or break through normal slash piling.
- (d) Other types of machines to aid in piling operation will not be required. If the contractor strives to use other equipment, such as forwarders, grapplers, ect., clearance from the Contracting Officer would need to be obtained by the contractor.

Location of Piles. Landings, temporary roads, and natural openings shall be utilized so that piles are located such that burning will not damage standing live trees, leave snags, or physical improvements such as fences, utility lines and poles, buildings, signs, tables, grills, and cattle guards or other improvements. The minimum spacing between piles shall be equivalent to one and one-half the diameter of the adjacent pile. If conditions make it impractical to locate piles where damage to live trees and physical improvements can be avoided, a space shall be cleared in a location designated by Forest Service. Slash within partial cut areas and road construction clearings shall be moved to take advantage of previously constructed or natural clearings in order to minimize the construction of new clearings. Slash shall not be moved more than 120 feet to achieve the location requirement. Piles shall not be made on permanent roads. The minimum allowable distance of location of piles from the high water marks of live streams, intermittent or ephemeral stream courses, or drainage ditches is:

75 feet on low erosion potential areas – identified in Unit Information.

150 feet on mod/high erosion potential areas – identified in Unit Information.

Construction of Piles. Machine piles shall be compacted by pushing slash from all sides towards the center of the pile. A machine pile will not exceed an average diameter of 25 feet and pile height shall not be less than one-third the average diameter of the pile. All slash which protrudes 4 feet or more from outer edge of the pile shall be bucked off and placed on the pile. Piling shall be accomplished in a manner that will prevent the accumulation of dirt in the piles.

Logs and tops from felled trees within leave groups of trees inside or outside the cutting unit shall be yarded out of such leave groups to approved locations and piled. Where there is danger of damaging leave trees, long material shall be end lined out of leave tree groups.

Landing piling

Landing Piling occurs with whole tree logging where residue accumulates at a landing. Construction and location of residue piles will be in accordance with Machine Piling Specifications.

Grapple piling

This contract includes projects that require the services of a tracked hydraulic excavator to perform grapple piling of slash. The work consists of using a grapple on a hydraulic excavator to "lift and pile" activity slash. Grapples generally create taller and well stacked piles that will shed snow and will provide better combustion. The following provisions will be followed when grapple piling:

- (a) Piling will be accomplished with a hydraulic excavator which shall meet the following requirements:
 - (1) The machine must have a minimum reach of at least 10 feet from center of machine to perform the work described in the scope of the contract.
 - (2) Sufficient size, weight, and horsepower to provide safe and efficient operation.
 - (3) Must have sufficient horsepower to have the ability to move logs up to 40-inch diameter and 30 feet in length when logs obstruct travel routes within the unit.
 - (4) Track-type undercarriage
 - (5) Shall be capable of working on slopes up to 30 percent.
 - (6) Shall be equipped with a hydraulic attachment mechanism of not less than 36 inches in width capable of constructing piles that are compact and free of dirt and rocks. Equipment must be equipped with a grapple and not a bucket with thumb.
 - (7) Cannot exceed ground pressure of 6 pounds per square inch.
 - (8) Acceptable equipment shall have the ability to lift and pile slash with a minimal amount of soil disturbance, while avoiding picking up dirt.
- (b) All Standards and Requirements in Machine piling apply in grapple piling operations.
- (c) The Contractor may substitute, during the course of the contract, a like piece of equipment, provided that the substitute equipment meets specifications and requirements and provided that such equipment is made available for substitution at no cost to the Government and is cleared by the Contracting Officer. (See note below)
- (d) Equipment shall operate on surfaces that will not expose additional soil by operations. Unnecessary abrupt turns that cause soil damage shall be avoided. Contractor shall be responsible for damages due to negligence.

Note: Grapple piling is a common practice near residential homes or where landings are becoming choked from whole tree operations. Modifications of this technique using grapple skidders may be acceptable.

Scattering

Contractor shall remove all slash greater than 2 inches in diameter and/or 3 feet long, a minimum of 5 feet away from each leave tree 5 inches dbh and larger. Slash shall be placed upslope from, or along the upslope from, or along the contour from, leave trees. Slash shall not be placed down slope from leave trees.

Lopping

Slash shall be treated by limbing or severing, or both, and scattered as necessary to place slash within 3 feet of the ground over entire area of cutting unit. Occasional slash which exceeds the maximum height, not to exceed 5 percent of slash to be lopped and scattered, is acceptable. When agreed in writing between Contractor and Forest Service, crushing or chopping with mechanized equipment is permissible, where residual trees will not be excessively damaged and ground conditions are suitable.

Note: Harvesting with precommercial thinning followed by lopping and scattering is a common practice associated with whole tree or tree/log length skidding under light to moderate slash conditions outside designated WUIs.

Pullback

Used for cases where some slash or woody materials (like loop and scatter) will be left on-site, to reduce fire danger to specific resources when broadcast burned later. Location of slash will be a minimum of 5 feet away from boundaries, drainages, private lands, roads, fences, utilities, burner trench edges, trees over 5"DBH/DRC, and other improvements or resources as specified.

Crushing

Mastication work consist of altering the structure of activity or residual slash that is standing(live or dead), has been loped, bucked and scattered, hand piled, or machine piled. The mastication process shall reduce larger pieces of slash to broken up material that is spread over the site to be burned at a later date, left on site to naturally decompose, or transported off the site. The following specifications shall be followed in a mastication operation:

- (a) Mastication will be accomplished with a machine which shall meet the following requirements:
 - (1) Ground pressure shall not exceed a maximum of 7.5 psi.
 - (2) Machine width maximum shall not exceed 12 feet.
 - (3) Machine shall be equipped with a masticating or mulching head. The machine must have a boom capable of reaching at least 10 feet from center of machine to perform the work described in the scope of the contract.
- (b) All slash and other vegetative debris shall meet the following specifications:
 - (1) No vegetative slash or debris shall be more than 8 inches deep as measured from the

ground level.

- (2) No individual pieces of slash or vegetative debris shall be greater than 4 feet in length.
- (3) All boles or pieces up to 10 inches in diameter shall be masticated.
- (4) All cut vegetation shall be kept within unit boundaries. Any cut vegetation falling into ditches, roads, road banks, trails or adjacent units shall immediately be removed.
- (5) Specified brush, saplings or seedlings within the work areas shall be masticated to within 2' of leave trees without damage to the leave trees.
- (6) No masticated or cut material shall lean against or be suspended by a leave tree.

Mastication

Mastication work consist of altering the structure of activity or residual slash that is standing (live or dead), has been loped, bucked and scattered, hand piled, or machine piled. The mastication process shall reduce larger pieces of slash to broken up material that is spread over the site to be burned at a later date, left on site to naturally decompose, or transported off the site. The following specifications shall be followed in a mastication operation:

- (a) Mastication will be accomplished with a machine which shall meet the following requirements:
 - (1) Ground pressure shall not exceed a maximum of 7.5 psi.
 - (2) Machine width maximum shall not exceed 12 feet.
 - (3) Machine shall be equipped with a masticating or mulching head. The machine must have a boom capable of reaching at least 10 feet from center of machine to perform the work described in the scope of the contract.
- (b) All slash and other vegetative debris shall meet the following specifications:
 - (1) No vegetative slash or debris shall be more than 8 inches deep as measured from the ground level.
 - (2) No individual pieces of slash or vegetative debris shall be greater than 4 feet in length.
 - (3) All boles or pieces up to 10 inches in diameter shall be masticated.
 - (4) All cut vegetation shall be kept within unit boundaries. Any cut vegetation falling into ditches, roads, road banks, trails or adjacent units shall immediately be removed.
 - (5) Specified brush, saplings or seedlings within the work areas shall be masticated to within 2' of leave trees without damage to the leave trees.
 - (6) No masticated or cut material shall lean against or be suspended by a leave tree.

Note: This is a common practice where slash is moderate to heavy. Mastication may not be allowed where residential homes are adjacent to the treatment areas.