

**Border III - Sierra Vista Ranger District Woody Brush/Tree Mastication
Statement of Work and Request for Proposals
Coronado National Forest, AZ**

Background and Statement of Work:

The National Forest Foundation (NFF), the Forest Service, and local community partners are working together to improve watershed conditions and wildlife habitat on the Coronado National Forest that have been degraded by natural and anthropogenic causes. Restoration is imperative to maintain a healthy watershed and provide appropriate habitat for wildlife. Across this landscape, fuels have accumulated and have the potential to contribute to uncharacteristic fire behavior. One priority project in this larger landscape involves forest restoration treatments on the Sierra Vista Ranger District, located in Cochise County.

The purpose of this Request for Proposal (RFP) is to engage professional forestry contractors to provide bids for mastication treatment occurring in the Border 3 Project area (see Appendix A). The project covers approximately 931 acres. Proposals should include a total price per acre; for example, mobilization, mechanical equipment, direct and indirect labor, should be already included in your unit price. A Quality Control Plan is to be submitted with quotation. If the price exceeds the available budget, NFF may request work to be done on some but not all of the requested acres.

The NFF will select a contractor and be responsible for administering the contract. All work must meet Forest Service standards, Coronado National Forest project prescriptions and follow all NFF contract agreements. NFF example agreements are available upon request.

Information Requested

If interested in this project, please provide a bid for the above statement of work by providing approach, work experience, and cost. Please also include your capacity for this project and efficiency in coconducting tree thinning and mastication projects in the past, if any.

This is a request for proposals only and quotations furnished are not offers. This request does not commit the National Forest Foundation to pay any costs incurred in the preparation of submission of the quotation or to contract for supplies or services.

General Specifications

1. Description of Work – This Request for Proposals is for restoration services related to mastication of woody tree and brush species (both live and dead) across 931 acres following a thin-from-below approach to promote a more open oak savannah structure. 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, or to naturally decompose. Work shall adhere to the specifications listed further below as well as the additional detailed specifications found in Appendix B.

The Contractor shall identify which efforts and materials they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work described. The Contractor shall perform all work in a safe and conscientious manner.

- (a) Project Location- The Border III project is located on the Sierra Vista Ranger District of the Cornado National Forest in Southeastern Arizona (See Appendix A.). Located southwest of Sierra Vista AZ, the project is located along the southern foothills of the Huachuca Mountains in close proximity to the international border with Mexico and west of Cornado National Monument.

Georeferenced maps for use in mapping applications such as Avenza PDF Maps are available for download [HERE](#).

(<https://drive.google.com/drive/folders/1ZUJ0uIAv0VSkAV444QPSKq8nVs0iT-UF?usp=sharing>)

- (b) Work Schedule- Work may commence upon a signed contract and a pre-work conference. All work shall be complete no later than April 30, 2022.

Pricing Schedule

Contacto shall price work according to the schedule below. Prevailing wages are required per conditions of funding sources. A bid sheet is included for use in Appendix E.

| Description | Unit | Unit Cost | Quantity | Total Cost |
|---|------|-----------|----------|------------|
| Item 1. Mastication of woody tree and brush (Per specifications & Cutting Guide) | Acre | | 931 | |

Other Project Requirements and Specifications

- (a) Utilities –There are no sanitation, water, electrical or housing services available. The Contractor shall make its own arrangements for temporary facilities if needed. Nearest available water, with limited facilities, are the Cornado National Monument located approximately 6 miles east of the project site or Parker Canyon Lake Marina approximately 12 miles northwest of the project site.

- (b) Specifications – Project work shall be accomplished in accordance with the following general specifications (additional detailed specifications are found in Appendix B):

1. Thin/masticate from below leaving trees in a 30-60 foot spacing and a residual basal area within a range of 80-200 sqft/acre. Emory, Arizona and silver leaf oak are the PREFERRED species for retention.

2. Brush species are to be masticated and include catclaw acacia, mesquite, manzanita and shrub oak.
3. Leave species include pines of ANY size (Chihuahua, Pinyon, and Apache), and leave all brush species not listed above.
4. Dead trees (snags), Oaks 12" DRC and less, Junipers 14" DRC and less are TO BE CUT unless they appear to be occupied by wildlife.
5. Stumps should be at the lowest level possible not exceeding 4" in height or 4" above natural obstacles.
6. Retain wildlife snags over 12" DRC in oak/pine and over 14" in juniper.
7. All boles and branches up to 10" diameter shall be masticated.
8. Slash/chips shall be no more than 8" deep as measured from the ground level and with no pieces greater than 4 feet in length.
9. No mastication operation in riparian drainages. Leave a 20-30 foot buffer from the edges of riparian areas

Contractor Qualifications

- (a) References – Please provide three professional references.
- (b) Past Experience – Please provide a brief explanation of previous work experience implementing mastication projects and work with land management agencies.

Insurance Requirements

Upon selection of the winning bid, chosen contractor will be asked to affirm that it has and shall maintain State minimum workers' compensation insurance coverage for its employees, if any. The selected contractor shall also maintain broad form general liability, property damage, and automotive liability insurance in the minimum amount of \$1,000,000 for bodily injury, death, or damage to property of any person and \$2,000,000 for bodily injury, death, or damage to property of more than one person. The Contractor shall name NFF an Additional Named Insured and provide NFF with documentation evidencing such coverages.

Performance Security

Chosen contractor shall post cash, a letter of credit, bond, or other financial security that is easily convertible into cash in a form acceptable to the NFF in its sole determination in the amount of 5% of the amount due to contractor, not to exceed \$50,000 dollars, to assure completion of the work required under this Agreement and payment of all amounts lawfully due to all persons supplying or furnishing to the Contractor or Contractor's subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. As work is completed in integrated component parts, inspected, approved and, if applicable, conveyed to NFF, the Performance Security shall be released in a proportional amount, unless a lesser amount of release is necessary to maintain 5% Performance Security.

Site Visit

A pre-bid site visit will occur on Friday August 27, 2021. We will gather at 09:00 AM in the Montezuma Pass Overlook parking lot which is located along W. Montezuma Canyon Road near the western edge of Coronado National Monument. From there we will caravan to the project location.

Click [HERE](#) or (<https://goo.gl/maps/QaDputEgNkHmy4xk6>) to view the meeting location in Google Maps.

Bid Submission

Submit bids via email to Mark Brehl (mbrehl@nationalforests.org) by September 10, 2021.

A bid sheet is provided in Appendix D for your convenience, should you choose to use it.

Point of Contact

For questions about the details of producing the bid, please contact:

Mark Brehl
National Forest Foundation – Arizona Program Forestry Supervisor
(928) 853-7578
Mbrehl@nationalforests.org

Contractor Selection Process

The NFF will use the Evaluation Factors below to review each submitted bid. Based on the outcomes of that selection process, the NFF will notify successful and unsuccessful bidders by September 24, 2021 and will prepare a separate contract document.

Evaluation Factors and Relative Importance

Level 3 Criteria

- Price / cost
- Equipment and contractor capability
- Timing of when contractor can begin and/or finish the project
- Past performance, references, and USFS feedback

Level 2 Criteria

- Technical proposal / proposed approach to project
- Overall strategic benefits to meeting NFF goals and grant needs, requirements, and timelines

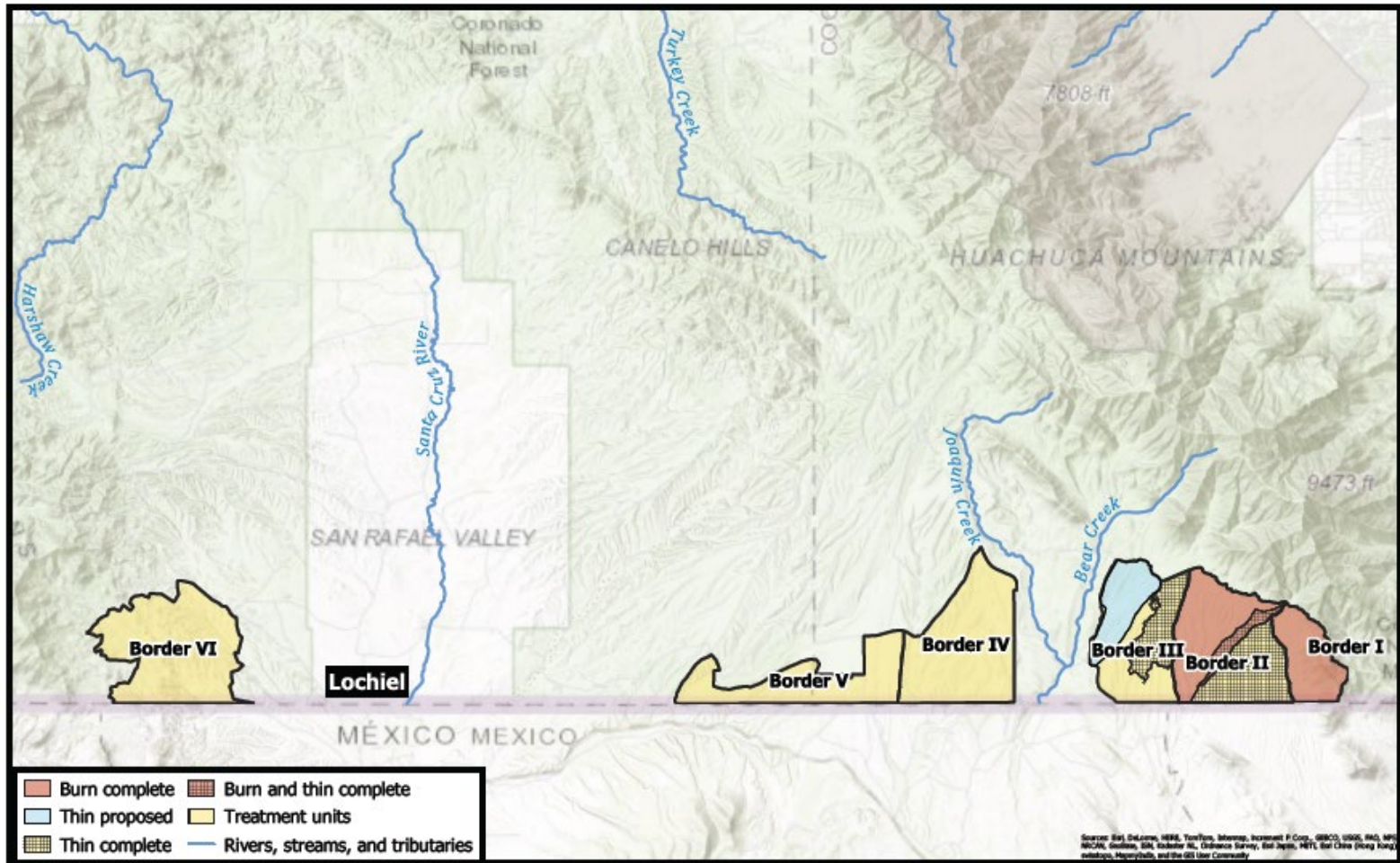
Level 1 Criteria

- Benefits to the local community
- Relationship to local community

Equal Opportunity Provider

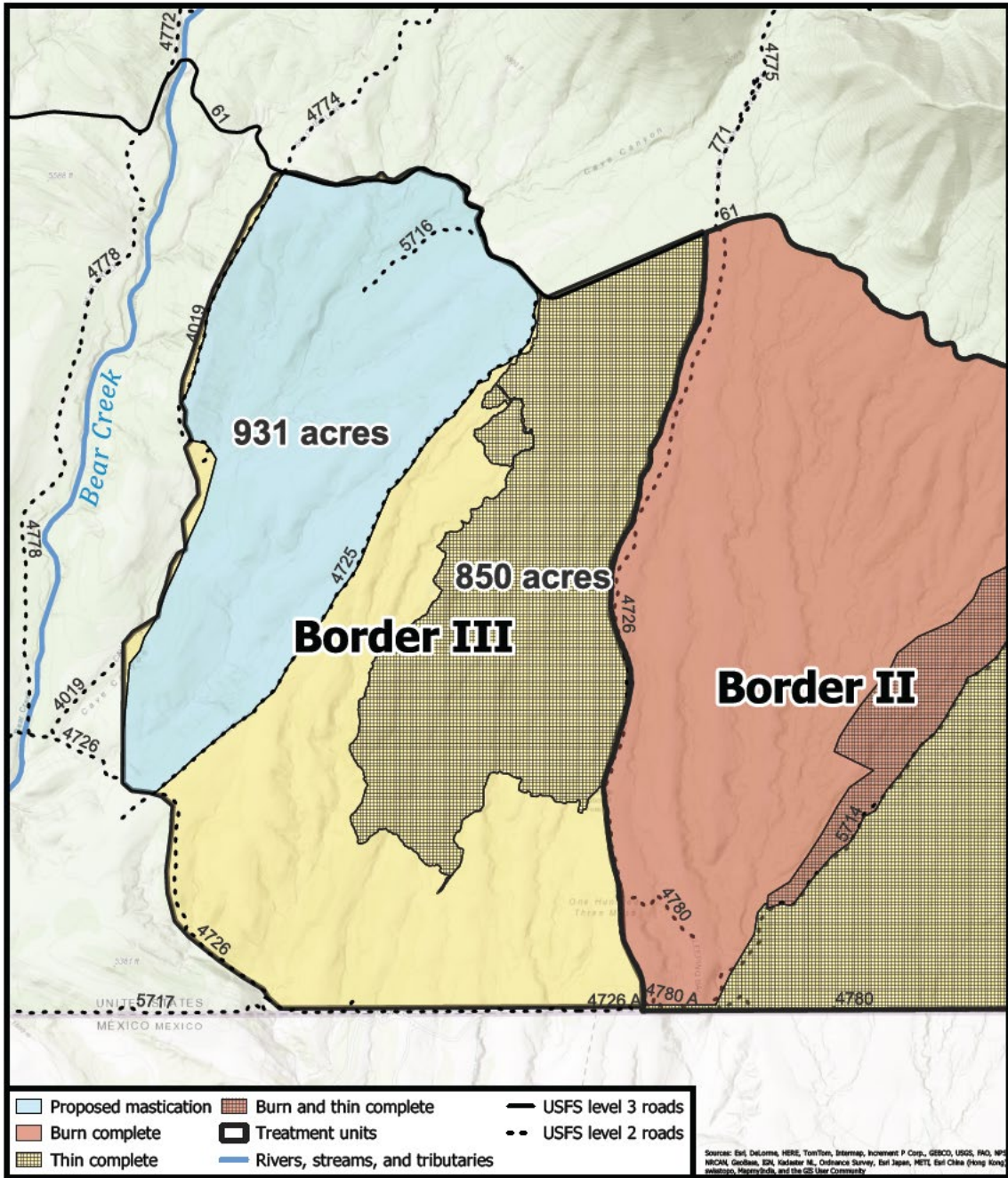
In accordance with Federal law and U.S. Department of Agriculture policy, the National Forest Foundation is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs, or disability.

APPENDIX A. PROJECT AREA MAPS



Vicinity Map - Border Restoration Projects

Project Area Map – Border III



APPENDIX B. DETAILED CUTTING GUIDE & TREATMENT PRESCRIPTION

Objectives: Mastication work consists of altering the structure of live or dead vegetation to reduce juniper and oak encroachment, and to enhance and promote an open oak savannah vegetative structure. 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, or to naturally decompose.

Existing Conditions: Fuels have accumulated due to fire suppression, past grazing, and disruption to the hydrologic process, and have the potential to contribute to uncharacteristic fire behavior. Woody brush and trees species have increased in density and proportions with size classes deviating from the natural range of variability leading to loss of herbaceous species.

Detailed Prescription:

The mastication treatment will occur in the Border 3 Project area (see attached map).

The topography within the treatment area consists of wide flat areas interspersed with secondary and tertiary water channels that vary from 5%-30% in slope. Vegetation also varies across the unit with more tree and shrub density closer to the steam beds and becoming sparser as the topography gets flatter.

Mastication will be accomplished with a machine which shall meet the following requirements:

- Ground pressure shall not exceed a maximum of 7.5 psi.
- Machine with maximum shall not exceed 12 feet.
- Machine shall be equipped with a masticating or mulching head.

All slash and other vegetative debris shall meet the following specifications:

- No vegetation slash or debris shall be more than 8 inches deep as measured from the ground level.
- No individual pieces of slash or vegetative debris shall be greater than 4 feet in length.
- All boles or pieces up to 10 in diameter shall be masticated.
- All cut vegetation shall be kept within unit boundary. Any cut vegetation falling into ditches, roads, road banks, trails or adjacent units shall be immediately removed.
- Specified brush, saplings or seedlings within the work area shall be masticated to within 2' of leave trees without damage to the leave trees.
- No masticated or cut material shall lean against or be suspended by a leave crop tree.

Mastication and Activity Slash:

Mastication with 30 to 60 foot leave tree spacing. Emory, Arizona and silver leaf oak are the PREFERRED species and should be retained in favor of other species. If a 'leave tree' is equal to or less than the designated diameter limit for cutting, it must be a quality tree. Trees must be thinned to provide spacing of approximately 30-60 feet between leave trees. Retain basal area ranging from 80-200 square feet per acre.

- For oak species only, leave trees can range from 4" Diameter at Root Collar (DRC) and up should be a quality tree.
- Brush species of catclaw, mesquite, manzanita and shrub oak are treated.
- Arizona, emory, and silver leaf oaks: 9" DRC and less / all species of juniper: 12" DRC and less, are treated provided 30 to 60 foot spacing between selected leave trees.
- Leave species include pines of ANY size (Chihuahua, Pinyon, and Apache), and leave all brush species not listed above.
- Dead trees (snags), Oaks 12" DRC and less, Junipers 14" DRC and less are TO BE CUT unless they appear to be occupied by wildlife.
- Stumps should be at the lowest level possible not exceeding 4" in height or 4" above natural obstacles.

Resource Protection:

Operator will avoid mastication in riparian drainages. These areas commonly consist of Cottonwood, Arizona Sycamore and Arizona Madrone tree species and will be designated on the ground.

- Leave a 20-30 foot buffer from the edges of the riparian drainages.
- Do not disturb agave and cactus species.
- Retain wildlife snags over 12" DRC in oak/pine and over 14" in juniper.

Cadastral survey markers (brass caps), benchmarks, project markers, and other markers and stakes are required to be protected from damage or removal. In the case of destruction or removal, NFF is responsible for replacing the markers.

No natural or man-made features that may be of a historic or prehistoric value will be disturbed. The NFF/third-party contractor will notify the Coronado National Forest when a suspected feature is discovered and will avoid the feature(s) until cleared by the Coronado National Forest personnel. Known areas requiring protection and avoidance will be identified on the ground and on the unit map. The nature of the identification will be noted on the unit map.

The Contractor shall operate machinery only on Forest Service administered lands. Privately owned lands near the perimeter of the treatment unit will be identified on the ground and the unit map provided at time of service. The nature of the identification will be noted on the unit map.

APPENDIX C. Equipment and Services

For this project activity, there will be no Government-furnished property or material. A contractor will be responsible for the following:

Fueling

Fueling equipment will be inspected and approved prior to contract startup. Joint inspections will include checking for evidence of oil/fuel leaks of all piping, oil/fuel lines, hydraulic lines and seals, fill tanks, and other sources of leaks. All evidence of leaks will be investigated and repaired prior to equipment operation on the job site. All non-manual fueling equipment will have an automatic shut-off switch installed to avoid accidental fuel releases.

Individual fuel tanks greater than 501 gallons may only be used within a spill containment pit.

The spill containment pit shall be constructed at a site designated by the NFF representative. The pit shall be lined with an approved impermeable liner and shall be capable of containing a released volume of 1.5 times the tank volume.

Hazardous Materials

Compliance with all applicable State and Federal regulations pertaining to the handling and disposal of hazardous materials. Disposal of hazardous materials is not permitted on site or on federal land. Failure to meet this condition can result in the NFF/third-party contractor being liable for the cost of reclamation, including clean up and disposal of contaminated soil.

Minor, incidental leaks from fittings, seals or ruptured hoses will not subject the NFF/third-party contractor to remedial requirements; however, continued leaks will require repair to eliminate/minimize the impact of hazardous materials. Maintenance and repairs that require the draining of lubricants or other fluids may be conducted on site only if the fluids are captured, containerized, and removed from public lands for proper disposal.

Spark Arrestors

The NFF/third-party contractor shall not operate any internal combustion engine on any timber, brush or grass covered land, including trails or roads without a spark arrestor maintained in effective working order and meeting the guidelines set forth in the National Wildfire Coordinating Group Publication NFES 1363 and 2363.

Work may be suspended or modified when the Coronado National Forest personnel identifies conditions that represent an unacceptably high fire risk, such as very dry fuels, high winds, increased incidence of wildfires, erratic fire behavior, or Red Flag conditions.

Fire Plan

The Contractor shall provide a fire prevention and control plan prior to project initiation for the prevention and control of fires on the Contract Area. Such plans shall include a detailed list of personnel and equipment for implementing the plan.

Fire Precautions

Specific Fire Precautionary Measures shall be applicable during Contractor's Operations in "Fire Precautionary Period" May 1st – November 15th NFF may change the dates of Fire Precautionary Period by advance written notice, as required by the Cornado NF, if justified by unusual weather or other conditions. Required tools and equipment listed below shall be kept in serviceable condition and immediately available for firefighting at all times during Contractor's Operations in Fire Precautionary Period. Operations shall cease during Red Flag Warnings, Critical Fire Weather Days and shall adhere to the Cornado National Forests Industrial Fire Plan.

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 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.

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.

Personnel

Contractor will identify an onsite project representative and designee as needed to ensure safety, quality performance and coordinate all activities and communication.

**APPENDIX D.
Border III - Sierra Vista Ranger District Woody Brush/Tree Mastication**

**Bid Sheet
Schedule of Items**

| Item No. | | \$/Acre | ACRES | AMOUNT |
|--|---|---------|-------|--------|
| Please indicate your per acre rate for each item. | | | | |
| 01 | Border 3 – Woody Tree and Brush Mastication | | 931 | \$ |
| | | | | |
| TOTAL | | | | |

Name of Contractor

Signature

Date

With your bid sheet please include your Quality Control Plan and provide a description of your general operating plan including the proposed schedule, equipment and numbers of personnel you will rely on to complete this project on time and to specification.