SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS

OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER: 1167836

PAGE 1 OF 70

2. CONTRACT NO.

3. AWARD/ EFFECTIVE DATE

4. ORDER NUMBER

5. SOLICITATION NUMBER: 127EAV26Q0068

6. SOLICITATION ISSUE DATE: 07/01/2026

7. FOR SOLICITATION INFORMATION CALL:

a. NAME: MA ESTRELLITA DASMARINAS

b. TELEPHONE NUMBER (No collect calls): 951-405-3988

8. OFFER DUE DATE/LOCAL TIME: 07/27/2026 0900 PS

9. ISSUED BY CODE 7EAV

USDA-FS CSA SOUTHWEST 5
333 BROADWAY BLVD SE
ALBUQUERQUE NM 87102-3498

10. THIS ACQUISITION IS ☐ UNRESTRICTED OR ☒ SET ASIDE: 100.00 % FOR:

☒ SMALL BUSINESS
☐ HUBZONE SMALL BUSINESS
☐ SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS (SDVOSB)
☐ WOMEN-OWNED SMALL BUSINESS (WOSB)
☐ ECONOMICALLY DISADVANTAGED WOMEN-OWNED SMALL BUSINESS (EDWOSB)
☐ 8(A)

NORTH AMERICAN INDUSTRY CLASSIFICATION STANDARD (NAICS): 562910

SIZE STANDARD: 1000

11. DELIVERY FOR FREE ON BOARD (FOB) DESTINATION UNLESS BLOCK IS MARKED
☒ SEE SCHEDULE

12. DISCOUNT TERMS

13a. THIS CONTRACT IS A RATED ORDER UNDER THE DEFENSE PRIORITIES AND ALLOCATIONS SYSTEM - DPAS (15 CFR 700) ☐

13b. RATING

14. METHOD OF SOLICITATION
☒ REQUEST FOR QUOTE (RFQ) ☐ INVITATION FOR BID (IFB) ☐ REQUEST FOR PROPOSAL (RFP)

15. DELIVER TO CODE 8371

SOUTHWESTERN REGION
333 BROADWAY SE
ALBUQUERQUE NM 87102

16. ADMINISTERED BY CODE

17a. CONTRACTOR/ OFFEROR CODE FACILITY CODE

Contractor:
UIE:
Address:
POC Name:
POC Email:
POC Phone No.:

TELEPHONE NO.

☐ 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18a. PAYMENT WILL BE MADE BY CODE

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED ☐ SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	Reference Solicitation No. 127EAV26Q0068 Project Title: Arivaca Abandoned Mine Lands (AML) Safety Closure Unit: Coronado National Forest Project Description: This project is to remediate physical safety hazards for 60 abandoned mine features within the Arivaca Abandoned Mine Lands (AML) Remediation Project. *(Use Reverse and/or Attach Additional Sheets as Necessary)*				

25. ACCOUNTING AND APPROPRIATION DATA

26. TOTAL AWARD AMOUNT *(For Government Use Only)*

☒ 27a. SOLICITATION INCORPORATES BY REFERENCE (FEDERAL ACQUISITION REGULATION) FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA ☒ ARE ☐ ARE NOT ATTACHED.

☐ 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA ☐ ARE ☐ ARE NOT ATTACHED.

☐ 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED.

☐ 29. AWARD OF CONTRACT: REFERENCE _____ OFFER DATED _____. YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR

31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)*

30b. NAME AND TITLE OF SIGNER *(Type or print)*

30c. DATE SIGNED

31b. NAME OF CONTRACTING OFFICER *(Type or print)*: MA ESTRELLITA G. DASMARINAS

31c. DATE SIGNED

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	Performance Location: Nogales Ranger District (RD) of the Coronado National Forest in Santa Cruz County, Arizona. Set-Aside: 100 Total Small Business Forest Service Representatives: COR: Maria Mcgaha, maria.mcgaha@usda.gov CO: Ma Estrellita Dasmarinas, maestrellita.dasmarinas@usda.gov Delivery: 02/26/2027 Period of Performance: 09/28/2026 to 02/26/2027				
0001	Arivaca AML Safety Closures. See Statement of Work (SOW) for details.				

32a. QUANTITY IN COLUMN 21 HAS BEEN

☐ RECEIVED ☐ INSPECTED ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE
	32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE

33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT	37. CHECK NUMBER
☐ PARTIAL ☐ FINAL			☐ COMPLETE ☐ PARTIAL ☐ FINAL	

38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		42a. RECEIVED BY *(Print)*	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE	42b. RECEIVED AT *(Location)*	
		42c. DATE REC'D *(YY/MM/DD)*	42d. TOTAL CONTAINERS

Federal Acquisition Regulation (FAR) and United States Department of Agriculture Acquisition Regulation (AGAR) Clauses and Provisions

The clauses and provisions contained herein are applicable to any order awarded as a result of this solicitation. The terms and conditions set forth herein supersede all other terms and conditions. Acceptance of the order in accordance with (IAW) FAR 12.201-1(b)(2) constitutes acceptance of all terms and conditions contained herein.

As part of the Revolutionary FAR Overhaul (RFO), system updates may lag policy updates. The System for Award Management (SAM) may continue to require entities to complete representations based on provisions that are not included in this solicitation. Contracting officers will rely on representations from offers based on provisions in the solicitation. Entities are not required to, nor are they able to, update their entity registration to remove these representations in SAM.

52.252-2 Clauses Incorporated by Reference Feb 1998

This solicitation 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 the clause may be accessed electronically at Internet address https://www.acquisition.gov/far-overhaul/far-part-deviation-guide/far-overhaul-part-52

52.212-4 Terms and Conditions—Commercial Products and Commercial Services (Nov 2025)
☐ Alternate I (Nov 2025) of 52.212-4
52.203-17 Contractor Employee Whistleblower Rights (Nov 2023)
52.203-19 Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (Jan 2017)
52.222-50 Combating Trafficking in Persons (Nov 2025)
☐ Alternate I (Nov 2025) of 52.222-50
52.226-8 Encouraging Contractor Policies to Ban Text Messaging While Driving (May 2024)
52.232-39 Unenforceability of Unauthorized Obligations (Jun 2013)
52.232-40 Providing Accelerated Payments to Small Business Subcontractors (Mar 2023)
52.233-3 Protest After Award (Sep 2025)
52.233-4 Applicable Law for Breach of Contract Claim (Sep 2025)
52.240-91 Security Prohibitions and Exclusions (Nov 2025)
☐ Alternate I (Nov 2025) of 52.240-91
52.244-6 Subcontracts for Commercial Products and Commercial Services (Nov 2025)

The following clauses are applicable if checked:

☐ 52.203-6 Restrictions on Subcontractor Sales to the Government (Jun 2020) with Alternate I (Nov 2021) of 52.203-6
☐ 52.203-13 Contractor Code of Business Ethics and Conduct (Nov 2021)
☐ 52.204-9 Personal Identity Verification of Contractor Personnel Jan 2011
☒ 52.204-13 System for Award Management—Maintenance (Nov 2025)

☐ 52.204-91 Contractor identification (Nov 2025)
☒ 52.209-6 Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Sep 2025)
☐ 52.209-9 Updates of Publicly Available Information Regarding Responsibility Matters (Sep 2025)
☒ 52.209-10 Prohibition on Contracting with Inverted Domestic Corporations (Sep 2025)
☐ 52.219-4 Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Nov 2025)
☒ 52.219-6 Notice of Total Small Business Aside (Nov 2025)
☐ Alternate I (Mar 2020).
☐ 52.219-8 Utilization of Small Business Concerns (Nov 2025)
☐ 52.219-9 Small Business Subcontracting Plan (Nov 2025)
☐ Alternate III (Nov 2025) of 52.219-9.
☐ Alternate IV (Nov 2025) of 52.219-9
☐ 52.219-14 Limitations on Subcontracting (Nov 2025)
☐ 52.219-16 Liquidated Damages—Subcontracting Plan (Nov 2025)
☐ 52.219-33 Nonmanufacturer Rule (Nov 2025)
☒ 52.222-3 Convict Labor (June 2003)
☒ 52.222-19 Child Labor—Cooperation with Authorities and Remedies (Nov 2025)
☒ 52.222-35 Equal Opportunity for Veterans (Nov 2025)
☐ Alternate I (Jul 2014) of 52.222-35
☒ 52.222-36 Equal Opportunity for Workers with Disabilities (Nov 2025)
☐ Alternate I (Jul 2014) of 52.222-36
☒ 52.222-37 Employment Reports on Veterans (Nov 2025)
☒ 52.222-40 Notification of Employee Rights Under the National Labor Relations Act (Dec 2010
☒ 52.222-41 Service Contract Labor Standards (Aug 2018)
☒ 52.222-42 Statement of Equivalent Rates for Federal Hires (May 2014)

☐ 52.222-43 Fair Labor Standards Act and Service Contract Labor Standards -- Price Adjustment (Multiple Year and Option Contracts) (Aug 2018)
☐ 52.222-44 Fair Labor Standards Act and Service Contract Labor Standards -- Price Adjustment (May 2014)
☐ 52.222-51 Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Requirements (May 2014)
☐ 52.222-53 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services-Requirements (Nov 2025)
☒ 52.222-54 Employment Eligibility Verification (Nov 2025)
☐ 52.222-62 Paid Sick Leave Under Executive Order 13706 (Jan 2022)
☒ 52.222-90 Addressing DEI Discrimination by Federal Contractors (Apr 2026)
☒ 52.223-2 Reporting of Biobased Products Under Service and Construction Contracts (Nov 2025)

☐ 52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008)
☐ Alternate I (May 2008) of 52.223-9
☐ 52.223-11 Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons (Nov 2025)
☐ 52.223-12 Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners (Nov 2025)
☐ 52.223-23 Sustainable Products and Services (Nov 2025)
☐ 52.224-3 Privacy Training (Jan 2017)
☐ Alternate I (Jan 2017) of 52.224-3
☐ 52.225-1 Buy American-Supplies (Nov 2025)
☐ Alternate I (Oct 2022) of 52.225-1
☐ 52.225-3 Buy American--Free Trade Agreements--Israeli Trade Act (Nov 2025)
☐ Alternate II (Nov 2025) of 52.225-3.
☐ Alternate III (Nov 2025) of 52.225-3.
☐ Alternate IV (Oct 2022) of 52.225-3
☒ 52.225-5 Trade Agreements (Nov 2023)
☐ 52.225-19 Contractor Personnel in a Designated Operational Area or Supporting a Diplomatic or Consular Mission outside the United States (May 2020)
☐ 52.225-26 Contractors Performing Private Security Functions Outside the United States (Oct 2016)
☐ 52.226-4 Notice of Disaster or Emergency Area Set-Aside (Nov 2007)
☐ 52.226-5 Restrictions on Subcontracting Outside Disaster or Emergency Area (Aug 2025)
☐ 52.229-12 Tax on Certain Foreign Procurements
☐ 52.232-29 Terms for Financing of Purchases of Commercial Products and Commercial Services (Nov 2021)
☐ 52.232-30 Installment Payments for Commercial Products and Commercial Services (Nov 2021)
☒ 52.232-33 Payment by Electronic Funds Transfer— System for Award Management (Oct 2018)
☐ 52.232-34 Payment by Electronic Funds Transfer—Other Than System for Award Management (Jul 2013)
☐ 52.232-36 Payment by Third Party (Nov 2025)
☐ 52.237-2 Protection of Government Buildings, Equipment, and Vegetation (Apr 1984)
☐ 52.237-3 Continuity of Services (Jan 1991)
☐ 52.240-92 Security Requirements (Nov 2025)
☐ 52.240-93 Basic Safeguarding of Covered Contractor Information Systems (No 2025)
☐ 52.247-64 Preference for Privately Owned U.S.-Flag Commercial Vessels (Nov 2025)
☐ Alternate I (Apr 2023) of 52.247-64.
☐ Alternate II (Nov 2021) of 52.247-64

Other Applicable Clauses

52.237-2 Protection of Government Buildings, Equipment, and Vegetation (Apr 1984)
52.245-1 Government Property (Sep 2021)
☐ Alternate I (Sep 2021) of 52.245-1
52.245-2 Government Property
52.245-9 Use and Charges

AGAR Clauses

452.203-71 Anti-Discrimination and Diversity, Equity, and Inclusion (DEI) Compliance (May 2026)

(a) By entering into this contract, the contractor certifies that:

(1) It is compliant with all applicable Federal anti-discrimination laws and the Equal Protection principles of the U.S. Constitution, and it will remain compliant for the duration of the contract.

(2) Neither it nor any subcontractor or teaming partner operates or funds any program, policy, or initiative that promotes DEI in a manner that violates any applicable Federal anti-discrimination laws, including but not limited to Title VI and VII of the Civil Rights Act of 1964, or the Equal Protection principles of the U.S. Constitution, and the contractor and any subcontractor or teaming partner will not do so for the duration of the contract.

(b) If the contractor participates in, facilitates, or funds programs that implicate Title VI of the Civil Rights Act of 1964 or Title IX of the Education Amendments of 1972, as amended, including but not limited to grants to or for schools, colleges, universities, 4-H programs, non-governmental organization (NGO) programs, sports programs, and education-related grants to prisons or other

detention facilities, the contractor certifies that it will remain compliant with those laws, including the requirements set forth in Executive Order 14168, Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government, and Executive Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity.

(c) The contractor affirms that the above requirements are conditions of payment that go to the essence of the contract and are therefore material terms of the contract. Payments under the contract are predicated on compliance with the above requirements, and therefore the contractor is not eligible for funding under the contract or to retain any funding under the contract absent compliance with the above requirements.

(d) This certification reflects a change in the Government's position regarding the materiality of the foregoing requirements and therefore any prior payment of similar claims does not reflect the materiality of the foregoing requirements to this contract.

(e) Submission of a knowing false statement relating to contractor's compliance with the above requirements and/or eligibility for the contract may subject the contractor to liability under the False Claims Act, 31 U.S.C. § 3729, and/or criminal liability, including under 18 U.S.C. §§ 287 and 1001.

(f) The contractor must include the provisions of this clause in all subcontract solicitations.

(g) Failure on the part of the contractor or its subcontractors to comply with the terms of this clause may be grounds for the Contracting Officer to terminate this contract for default.

(End of Clause)

AGAR 452.203-72 Unenforceable Supplier Terms (MAY 2026)

(a) Definitions.

Supplier terms mean provisions customarily drafted by vendors of supplies or services and intended to create a binding legal obligation on the end user. The term applies:

1. Regardless of the format or style of the document. For example, supplier terms may appear in standard terms of sale or lease, Terms of Service (TOS), End User License Agreement (EULA), or another similar legal instrument or agreement, and may be presented as part of a proposal or quotation responding to a solicitation for a contract or order or otherwise become effective after the contract date.

2. Regardless of the media or delivery mechanism used. For example, supplier terms may be presented as one or more paper documents or may appear on a computer or other electronic device screen during a purchase, software installation, other product delivery, registration for a service, or another transaction.

(b) Applicability. When any supply or service acquired under this contract is subject to supplier terms, the supplier terms are deemed part of the contract only to the extent they are consistent with this clause. Supplier terms that conflict with any part of this clause, the contract, or Federal law are void and will not be considered incorporated into a contract, even if they are physically present in a contract documentation or systems. In the event of any inconsistency between supplier terms and this contract, this clause and the terms of the Government contract must govern and supersede any supplier terms in all cases.

(c) Authorization Required. Notwithstanding any other provision, no supplier terms must be binding on the Government unless the term is expressly authorized on the USDA Supplier Terms Authorization Form signed by the Contracting Officer, and the completed Authorization Form has been incorporated into the contract.

(d) Unenforceable Terms. Any supplier terms that impose obligations or restrictions inconsistent with applicable Federal law are unenforceable against the Government and deemed stricken from the agreement. This includes, but is not limited to, any clause that:

(1) Requires the Government to pay future fees, penalties, interest, legal costs, early-termination fees, cancellation fees, minimum purchase commitments, true-up payments, seat-count minimums, usage minimums, continued-use charges, or any other financial obligation not expressly authorized by the contract.

(2) Requires the Government to indemnify the contractor or any other entity.

(3) Restricts the Government's ability to obtain similar supplies or services from another source.

(4) Imposes any penalty, financial or otherwise, based on the Government's decision not to exercise an option.

(5) Subjects the United States Government to the laws of any U.S. state, territory, district, municipality, or foreign nation, except where Federal law expressly permits such application.

(6) Requires dispute resolution in a forum or venue other than one prescribed by applicable Federal law.

(7) Establishes a period of limitations for bringing an action that differs from that provided by applicable Federal law.

(8) Grants the contractor rights to use, mine, access, aggregate, analyze, or otherwise exploit Government data, usage data, or metadata.

(9) Deems the Government to have accepted initial or revised terms based on silence, continued performance, or failure to object.

(10) Grants the supplier the right to audit Government facilities, systems, records, or use of the product or service, except as expressly authorized by the contract and applicable Federal law.

(11) Requires the Government to accept supplier security requirements, network access requirements, monitoring, penetration testing, or other technical or security measures.

(12) Permits the supplier to suspend, degrade, or terminate access to products or services based on alleged non-payment, alleged breach, automated security triggers.

(13) Limits the Government's right to use, install, access, test, evaluate, or transfer the licensed product or service in any manner consistent with the contract and Federal law.

(14) Requires the Government to store, process, maintain, or transmit data in a particular geographic location, or permits the supplier to transfer Government data outside the United States, except as expressly authorized by applicable Federal law.

(15) Authorizes the supplier to use the Government's name, seal, trademark, logo, or any reference to the Government as an end user or customer for marketing, publicity, promotional activities, press releases, or similar purposes.

(16) Incorporates by reference, or requires the Government to accept, terms or conditions imposed by any third party, subcontractor, or upstream service provider, unless such terms are expressly incorporated into the contract by bilateral modification.

(17) Limits, conditions, or negates the contractor's performance obligations, service levels, or remedies through a supplier-provided service level agreement (SLA).

(18) Uses Government data, usage data, metadata, prompts, content, or interactions to train, fine-tune, improve, or derive any artificial intelligence, machine learning, or automated decision-making model.

(19) Subjects the Government to automated decision-making, automated risk scoring, automated content moderation, or any algorithmic process that may affect access, performance, or rights under the contract.

(20) Utilizes artificial intelligence or algorithmic tools that produce decisions, recommendations, or outputs affecting contract performance without providing transparency, explainability, auditability, and bias-mitigation consistent with applicable Federal law and policy.

(21) Profiles, tracks, or analyzes Government user behavior, preferences, communications, or interactions for personalization, marketing, or algorithmic optimization purposes.

(e) Non-binding Actions. Neither the Government nor any Government authorized end user is deemed to have consented to any term, condition, or clause by virtue of its inclusion in the supplier agreement or through the use of clickwrap, browsewrap, "I agree" mechanisms, or similar means. Execution of such mechanisms does not bind the Government or its authorized end users to any unenforceable terms.

(f) End user. The supplier agreement must bind the ordering activity as the end user to the extent it does not conflict with the terms of this clause, but it must not bind or impose personal liability on any Government employee or any person acting on behalf of the Government in their personal capacity.

(g) Law and disputes. The supplier agreement is governed by Federal law.

(h) Statutory exception. This clause does not apply to indemnification or any other payment by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

(i) Continued performance. The supplier or licensor must not unilaterally revoke, terminate, or suspend any rights granted to the Government except as allowed by the contract. If the supplier or licensor believes the ordering activity to be in breach of the supplier agreement, it must pursue its rights under the Contract Disputes Act or other applicable Federal statute while proceeding diligently with performance, pending final resolution of any dispute in accordance with the Disputes Clause at FAR 52.212-4(d) or FAR 52.233-1, as applicable.

(j) Arbitration. Binding arbitration must not be used unless specifically authorized by agency guidance.

(k) Equitable or injunctive relief. Equitable or injunctive relief, including the award of attorney fees, costs, or interest, may be awarded against the United States Government only when explicitly provided by statute (e.g., the Prompt Payment Act or the Equal Access to Justice Act).

(l) Revisions to supplier agreements. Any revisions to the supplier agreement must be incorporated into the contract using a bilateral modification. Unilateral revisions are not binding on the Government.

(m) No automatic renewals. If any license or service tied to periodic payment is provided under the supplier agreement (e.g., annual software maintenance or annual lease term), such license or service must not renew automatically upon expiration of its current term without prior express written consent from an authorized Government representative.

(n) Indemnification. Any clause of the supplier agreement requiring the supplier or licensor to defend or indemnify the end user is amended to provide that the U.S. Department of Justice has the sole right to represent the United States in any such action, in accordance with 28 U.S.C. 516.

(o) Taxes or surcharges. Any taxes or surcharges which the supplier or licensor seeks to pass along to the Government as end user will be governed by the terms of the associated Government contract or order and must be submitted to the Contracting Officer for a determination of applicability prior to invoicing unless specifically agreed otherwise.

(p) Non-assignment. The supplier agreement may not be assigned, nor may any rights or obligations thereunder be delegated, without the Government's prior approval, except as expressly permitted by FAR 52.212-4(b) or FAR 52.232-23, as applicable.

(q) Confidential information. If the supplier agreement includes a confidentiality clause, such clause is amended to state that neither the agreement nor the contract price list, as applicable, must be deemed "confidential information." Issues regarding release of "unit pricing" will be resolved consistent with the Freedom of Information Act. Notwithstanding anything in the supplier agreement to the contrary, the Government may retain any confidential information as required by law, regulation, or its internal document retention procedures for legal, regulatory, or compliance purposes; provided, however, that all such retained confidential information will continue to be subject to the confidentiality obligations of the supplier agreement.

(r) Conflict with Federal law. If any other language, provision, or clause of the supplier agreement conflicts or is inconsistent with Federal law or the terms and conditions of this contract, such language, provisions, or clauses will be considered null and void and will not be binding on the United States Government.

(End of Clause)

452.204–70 Modification for Contract Closeout (Apr 2026)
(a) If unliquidated funds in the amount of $1000 or less remain on the contract, the Contracting Officer (Contracting Officer) may issue a unilateral modification for deobligation. The contractor will receive a copy of the modification but is not required to provide a signature. The Contracting Officer will immediately proceed with contract closeout upon completion of the period of performance, receipt and acceptance of supplies or services, and final payment.

(b) For commercial contracts not exceeding the simplified acquisition procedure threshold under FAR 12.001(c), if more than $1,000 in unliquidated funds remain at closeout, the Contracting Officer will issue a bilateral deobligation modification. Only the modification requires the contractor's signature, though a Release of Claims may be requested. If the required documents are not returned within 60 days, the Contracting Officer will issue a unilateral modification and proceed with closeout once performance is complete, acceptance is confirmed, and final payment is made.

(c) For all other non-commercial or non–cost-reimbursement contracts, if more than $1,000 in unliquidated funds remain at closeout, the Contracting Officer will issue a bilateral deobligation modification and a Release of Claims, both requiring contractor signature. If these documents are not returned within 120 days, the Contracting Officer will issue a unilateral modification u and proceed with closeout upon completion of performance, acceptance, and final payment.
(End of Clause)

Solicitation Information

Award Type

It is anticipated that a Firm-Fixed Price contract will be awarded as a result of this synopsis/solicitation. The estimated Period of performance is 28 September 2026 – 26 February 2027.

The Government intends to make one award from this solicitation. Therefore, to be considered responsive, contractors must submit pricing for all items.

Evaluation and Basis for Award

Award will be based on FAR Part 13 Simplified Acquisition Procedures (SAP). Request for Quotation (RFQ) shall use Best Value principles under SAP. Technical approach and past performance when combined are more important when compared to price.

Award will not necessarily be made to the lowest-priced offeror. Tradeoffs will not be conducted.

FAR 52.212-2 Evaluation - Commercial Products and Commercial Services (Nov 2025)

(a) Evaluation factors. The Government will award a contract resulting from this solicitation to the responsible Offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors will be used to evaluate offers:

FACTOR 1: Technical Approach:
The technical approach will evaluate the ability of the offeror to provide a sound and compliant approach that meets all requirements and shows a thorough understanding of them. It is the contractor's responsibility to ensure their quotation clearly demonstrates their capability to meet these requirements. All offerors must provide the following minimum information and documentation with their quotations to be considered responsive and have their offers evaluated:

- Ability of the offeror to meet the schedule requirements listed in the Statement of Work (SOW).
- Ability to demonstrate qualified personnel to perform work in the Statement of Work. Include personnel resumes.
- Ability to demonstrate technical experience with similar work

FACTOR 2: Past Performance:
The Government may utilize any references provided by the Contractor, along with information available from past contracts/orders with the USDA and any information found using sources such as Federal Government sources or the Contractor Performance Assessment Reporting System (CPARS) to determine if the Contractor has acceptable or neutral Past Performance. Past Performance will be evaluated using the following rating system:

- Acceptable: The contractor shows a demonstrated ability to meet contract requirements in prior or current contracts, including quality of work, timeliness, cost control, business relations, and adherence to contract terms.

- Neutral: Offeror does not have a past performance record.

- Unacceptable: The contractor has a documented history of failing to meet contract requirements, including poor quality, missed deadlines, cost overruns, lack of responsiveness, or unethical behavior.

Price:
The offeror shall provide pricing as requested in the Schedule of Items (Excel spreadsheet – DO NOT CONVERT TO PDF). Failure to propose pricing for all individual line items may result in a quotation being excluded from further consideration. The offeror's quotation will be evaluated in accordance with FAR 12.204, to determine if it is fair and reasonable.

(b) Options (if applicable). The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. The evaluation of options does not obligate the Government to exercise the option(s).

(c) Notice of award. A written notice of award or acceptance of an offer furnished to the successful Offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.
(End of provision)

52.252-1 Solicitation Provisions Incorporated by Reference Feb 1998
This solicitation incorporates one or more solicitation provisions 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. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer.
In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):
https://www.acquisition.gov/far-overhaul/far-part-deviation-guide/far-overhaul-part-52

52.212-1 Instructions to Offerors - Commercial Products and Commercial Services (Nov 2025)

FAR 52.212-1 is amended as follows:

To be considered for award, vendors must include the following:

a. Completed and signed SF 1449 and Schedule of Items (SOI) in excel format (DO NOT CONVERT TO PDF).

b. Technical Approach (Max 20 pages)
c. Past Performance (Max 10 pages)

Period for acceptance of offers.
The Offeror agrees to hold the prices in its offer firm for **90 calendar days** from the date specified for receipt of offers.

Questions
Questions shall be submitted via email to maestrellita.dasmarinas@usda.gov and are due no later than 17 July 2026 at 5:00 PM Pacific Time. This will ensure enough time to respond before the solicitation period ends. Please include the solicitation name and number as the subject line of the email.

Site Visit: Scheduled for 16 July 2026, at 09:00 AM (AZ Time) At the Arivaca Mercantile located at 17180 W. Arivaca Rd, Arivaca, AZ 85601.
Please RSVP NLT 14 July 2026 by 1200 PM PST with maestrellita.dasmarinas@usda.gov and abigail.watson@usda.gov. POC at the site visit will be Ms. Abigail Watson and cell phone number is (985)273-1975.

52.203-18 Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements-Representation (Jan 2017)
52.209-2 Prohibition on Contracting with Inverted Domestic Corporations - Representation (Sep 2025)
52.209-11 Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law (Sep 2025)
52.240-90 Security Prohibitions and Exclusions Representations and Certifications (Nov 2025)

The following provisions are applicable if checked:

☒ 52.203-11 Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (Sep 2024)
☒ 52.204-7 System for Award Management—Registration (Nov 2025)
☐ Alternate I (Nov 2025) to 52.204-7
☐ 52.204-90 Offeror Identification (Nov 2025)
☐ 52.207-6 Solicitation of Offers from Small Business Concerns and Small Business Teaming Arrangements or Joint Ventures (Multiple-Award Contracts) (Aug 2024)
☐ 52.209-12 Certification Regarding Tax Matters (Oct 2025)
☐ 52.219-2 Equal Low Bids (Nov 2025)
☐ 52.222-18 Certification Regarding Knowledge of Child Labor for Listed End Products (Feb 2021)
☐ 52.222-48 Exemption from Application of the Service Contract Labor Standards for Maintenance, Calibration, or Repair of Certain Equipment–Certification (Nov 2025)
☐ 52.222-52 Exemption from Application of the Service Contract Labor Standards for Certain Services-Certification (Nov 2025)
☐ 52.222-56 Certification Regarding Trafficking in Persons Compliance Plan (Oct 2020)

☐ 52.223-4 Recovered Material Certification (May 2008)
☐ 52.225-2 Buy American Certificate (Oct 2022)
☐ 52.225-4 Buy American-Free Trade Agreements-Israeli Trade Act Certificate (Nov 2025)
☐ 52.225-6 Trade Agreements-Certificate (Feb 2021)
☐ 52.226-3 Disaster or Emergency Area Representation (Nov 2007)
☐ 52.229-11 Tax on Certain Foreign Procurements—Notice and Representation (Jul 2025)

Other Applicable FAR Provisions
52.237-1 Site Visits (Apr 1984)

AGAR Provisions

452.203-70 Anti-Discrimination and Diversity, Equity, and Inclusion (DEI) Certification (Dec 2025)

(a) By submission of its offer, the offeror certifies that:

(1) It is compliant with all applicable Federal anti-discrimination laws and the Equal Protection principles of the U.S. Constitution.
(2) Neither it nor any proposed subcontractor or teaming partner operates or funds any program, policy, or initiative that promotes DEI in a manner that violates any applicable Federal anti-discrimination laws, including but not limited to Title VI and VII of the Civil Rights Act of 1964, or the Equal Protection principles of the U.S. Constitution.

(b) If the offeror participates in, facilitates, or funds programs that implicate Title VI of the Civil Rights Act of 1964 or Title IX of the Education Amendments of 1972, as amended, including but not limited to grants to or for schools, colleges, universities, 4-H programs, non-governmental organization (NGO) programs, sports programs, and education-related grants to prisons or other detention facilities, by submission of its offer, the offeror certifies that it is compliant with those laws, including the requirements set forth in Executive Order 14168, Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government, and Executive Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity.

(c) The offeror affirms that the above requirements are conditions of payment that go to the essence of the contract and are therefore material terms of the contract. Payments under the contract are predicated on compliance with the above requirements, and therefore the offeror will not be eligible for funding under the contract or to retain any funding under the contract absent compliance with the above requirements.

(d) This certification reflects a change in the Government's position regarding the materiality of the foregoing requirements and therefore any prior payment of similar claims does not reflect the materiality of the foregoing requirements to this contract.

(e) Submission of a knowing false statement relating to offeror's compliance with the above requirements and/or eligibility for the contract may subject the offeror to liability under the False Claims Act, 31 U.S.C. § 3729, and/or criminal liability, including under 18 U.S.C. §§ 287 and 1001.

(f) Failure on the part of the offeror or its subcontractors to comply with the terms of this clause may be grounds for the Contracting Officer to terminate the contract for default.
(End of Provision)

Arivaca Abandoned Mine Lands (AML) Safety Closures
Solicitation No: 127EAV26Q0068

NOTICE FOR FILING AGENCY PROTESTS
United States Department of Agriculture (USDA) Protest Procedures

The United States Department of Agriculture (USDA) is committed to fair, transparent, and efficient acquisitions. Interested parties with concerns about this solicitation are encouraged to seek resolution through the following USDA procedures.

Tier 1: Contracting Officer Concern Resolution

Submission: Interested parties with concerns about either the solicitation or subsequent award should first submit their concern directly to the Contracting Officer, providing sufficient detail to allow the Contracting Officer to understand and assess the issue.

Process: The Contracting Officer will review the concern, seek clarification as needed, and engage with the interested party to attempt prompt resolution.

Review Timeline: The Contracting Officer will make every effort to provide a response or resolution within 10 business days of receiving the concern.

Effect on Award or Performance: Tier 1 engagement is not considered an official notification of filing an agency protest and does not pause solicitation deadlines, delay award decisions, or suspend contract performance.

Next Steps: If the matter cannot be resolved at Tier 1, the interested party may file a written agency protest under Tier 2.
USDA encourages all parties to seek resolution with the Contracting Officer before filing an agency protest.

Tier 2: Agency Protest

If concerns cannot be resolved at Tier 1, an interested party may file a written agency protest with either the Contracting Officer or the USDA Independent Review Authority. The decision by the USDA Independent Review Authority is an alternative to a decision by the Contracting Officer. The USDA Independent Review Authority will not consider an appeal of the Contracting Officer's decision on an agency protest.
The protest must state whether the protester elects review by the Contracting Officer, by the UDSA Independent Review Authority. If no election is stated, the Contracting Officer will decide the protest.

Required Information: Protests shall include the information set forth in FAR 33.104-4 (a)(3). Failure to submit the required information may result in a delay or dismissal of the protest.

Submission: Agency protests should be submitted electronically to SPE.inquiry@usda.gov and the Contracting Officer.

Timeliness: Protests must be filed within the timeframes specified in FAR 33.104.

Effect on Award or Performance: Contract awards or performance will be suspended during the protest period unless justified in writing for urgent and compelling reasons or determined to be in the best interest of the Government.

Review Timeline: USDA strives to resolve agency-level protests within 35 business days of receipt.

Election of Forum: By filing a protest with USDA, the protesters agree not to file a protest on the same matter with the Government Accountability Office (GAO) or any other external forum while the agency protest is pending. If such a protest is filed externally, the USDA agency protest will be dismissed.

Questions: Questions regarding this notice or protest procedures should be directed to the Contracting Officer identified in this solicitation.

STATEMENT OF WORK
Arivaca Abandoned Mine Lands (AML) Safety Closures
Nogales Ranger District
Coronado National Forest

TASKS

I. Project Description:

This Statement of Work (SOW) outlines all work necessary to remediate physical safety hazards for 60 abandoned mine features within the Arivaca Abandoned Mine Lands (AML) Remediation Project. The mine features are located within the Nogales Ranger District (RD) of the Coronado National Forest in Santa Cruz County, Arizona. A spreadsheet with relevant mine feature information is included as Attachment 1. The Bat Conservation International (BCI) prepared the bat survey report shown in Attachment 2. Features are located near the town of Arivaca, Arizona.

The Forest Service is proposing a safety remediation project to secure these features by methods including polyurethane foam (PUF) closures, fences, and construction of grates and bat compatible gates and cupolas. Attached Map 1 and Map 2 show the mine features locations.

Access

Roads to the subject mines range from good to very poor, and are passable using 4-wheel drive, high clearance vehicles. An ATV may be required in some sections of the roads. Most of the mine sites are less than a half of a mile from roads thus foot travel will be necessary. Access to the operations would be gained from existing State and National Forest System Roads. Primary access to the project area is from the town of Arivaca, Arizona. Closure equipment and supplies would use these routes as far as vehicular travel is authorized and then carried overland by foot beyond the end of the roads to the project sites.

North Area Mines

The North Area Mines as shown on Map 1 are primarily accessed from NFSR 216 (Tres Bellotas Rd and adjacent collector roads. Access routes vary from improved dirt roads to 4x4 rough dirt roads.

South Area Mines

The South Area Mines as shown on Map 2 are accessed from both NFSR 216 (Tres Bellotas Rd) and NFSR 39 (Ruby Rd).

Specifications

The following features require special attention, above and beyond the specifications in the contract, to protect valuable historic, biological and/or visual resources:

1. General – Work on all features may be done during the time interval of **October 1, 2026, through February 26, 2027**.
2. A pre-bid site visit is scheduled for July 16, 2026, at 09:00 a.m. (AZ time) at the Arivaca Mercantile located at 17180 W. Arivaca Rd., Arivaca, AZ 85601.

II. Bid Items:

C 4.6.1.1 Exclude Wildlife

Twenty-two (22) mine features must be closed using the procedures specified in section C 4.6.1.1 of the Schedule. In all cases, the contractor shall take appropriate actions (visual inspections) to ensure that wildlife is not trapped by any closure technique. In addition, for the following listed features, the Contractor shall use smoke bombs to expel remaining bats or other animals before backfilling or closing a mine feature and cover the entrances of designated mine features with tarps or other barricades after the animals have exited and remove the barricades following closure. The Contractor shall provide sufficient numbers and sizes of tarps, polyethylene sheets or other satisfactory covers for this purpose.

C 4.8 Closure Using Polyurethane Foam (PUF)

Twenty-two (22) mine features must be closed using the procedures specified in section C 4.8 of the Schedule. In all cases, the contractor shall take appropriate actions (visual inspections) to ensure that wildlife is not trapped by any closure technique.

C 4.11 Install Bat Grates and Cupolas

Thirteen (13) mine features must be closed using the procedures specified in section C 4.11 of the Schedule.

C 4.12 Closure with Barbed Wire Fence

Twenty-five (25) mine features must be closed using the procedures specified in section C 4.12 of the Schedule.

Contract Time:

Period of Performance: 28 September 2026 – 26 February 2027.
All tasks and deliverables (reports) are due by 26 February 2027.

Deliverables:

Written reports shall be delivered in the following formats:

The final deliverable consists of two electronic copies of a technical bound report and two electronic files with report file documenting the entire project. The technical report shall be submitted to each of the contacts listed below. Digital color photographs shall be included in the report. The color photographs will depict for each feature, the remediation process before, during, and after remediation. The color photographs shall be labeled with location description and date-taken on each photograph. The report and photographs shall be provided bound and in electronic format. Photographs are to be in (*.jpg) format and the report document will be in a Microsoft Word™ format.

The report is to be a summation of the work performed, including volumes of material moved and any problems encountered and solved. It shall include <u>recommendations for future projects</u> of a similar nature.

Contacts:

The contractor shall submit and/or coordinate all deliverables to the following Government representatives:

Abigail Watson
Government Technical Monitor
Coronado National Forest
300 W. Congress St.
Tucson, AZ 85701
520-388-8396
abigail.watson@usda.gov

Maria McGaha, P.E.
Regional Environmental Engineer
Southwestern Regional Office
333 Broadway Blvd, SW
Albuquerque, NM 87102
505.842.3836
maria.mcgaha@usda.gov

SPECIAL PROJECT SPECIFICATIONS

These specifications pertain to the physical closure of shafts, adits and tunnels using earthen backfill and/or polyurethane foam. It also includes fencing of AML features, the fabrication and installation of bat-friendly grates and the restoration or removal of structures, abandoned equipment and debris. It may also include regrading and revegetation of disturbed areas and the decommissioning or obliteration of roads. These specifications contain items that may not pertain to this specific project. **No company logos, signs or brands of any kind are permitted on installed structures other than markings denoting steel of a US origin.**

The contractor shall furnish all labor, personnel, facilities, equipment, supervision, transportation, materials, supplies, and services (except as may be expressly set forth in this contract as furnished by the government), incidentals, and otherwise do all things necessary for, or incident to, the satisfactory performance of this contract. Under this contract, the contractor shall provide the items of work required in the Statement of Work and Schedule to remediate physical safety hazards associated with Abandoned Mine Lands (AML).

Background

Numerous abandoned mine features are located on National Forest System Lands administered by the Forest Service. These features pose potential physical safety hazards to our publics and employees. There is a need to remediate these features to protect the public from dangerous abandoned mine workings (sometimes referred to as "features"). The purpose of this contract is to secure remediation services in a manner that ensures the remediation measures taken care of the highest quality and executed with the highest regard for employee safety.

DEFINITIONS AND ACRONYMS

Definitions.

Adit – A horizontal mining excavation similar to a tunnel but closed at one end.
Access point. The point identified for access to AML areas.
Contract Time. See Period of Performance.

Contracting Officer's Representative (COR). The COR is the on-site contract administrator for the Contracting Officer (CO). The duties and responsibilities of a COR are defined in the letter of designation issued by the Contracting Officer.
Hazardous Material means a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (see 49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in part 173 of subchapter C of this chapter.
Period of Performance (also Performance Period or Contract Time). All calendar days allowed for completion of contract work. Includes all days of the week including weekends and holidays.

Polyurethane Foam. Polyurethane foam or "PUF" is a commercially available product consisting of a two-part chemical process

Quality Assurance. The actions taken by the Government to assess the Contractor's results to determine that they meet contract requirements. The methods for quality assurance are described in the Quality Assurance Surveillance Plan (QASP).
Quality Control. Those actions taken by a Contractor to control the production of outputs to ensure that they conform to the contract requirements. The methods for inspecting for quality control are described in the Contractor's Quality Control Plan (QCP).
Stope. A large underground mine opening created by the extraction of ore. Stopes were often excavated to the surface and cause large holes similar to shafts but long and narrow. Occasionally the ground above a stope will subside to the surface and create a dangerous opening.
Acronyms.

ACRONYM	Definition
ACI	American Concrete Institute
AML	Abandoned Mine Lands
ASTM	American Society for Testing and Materials
ATV	All-Terrain Vehicle
AWS	American Welding Society
BAE	Biological Assessment and Evaluation
CMP	Corrugated Metal Pipe
CO	Contracting Officer
COR	Contracting Officers Representative
EPA	Environmental Protection Agency
FAR	Federal Acquisition Regulations
FSH	Forest Service Handbook
FSM	Forest Service Manual
FS	U.S.D.A. Forest Service

ACRONYM	Definition
HASP	Health and Safety Plan
HAZMAT	Hazardous Materials
HDPE	High Density Polyethylene
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
OSHA	Occupational Safety and Health Administration
PUF	Polyurethane Foam
QA	Quality Assurance
QCI	Quality Control Inspector
QCP	Quality Control Program
QP	Qualified Person (Mine Safety)

CONTRACTOR WORK REQUIREMENTS AND STANDARDS

Road Access.

The Contractor may access the areas from National Forest System (NFS) roads indicated on project maps.

Site Access.

The Contractor may transport equipment, supplies and personnel from roads to the AML features at the Contractor's discretion consistent with any restrictions on motorized or other vehicle types specified in Attachment A and with COR approval. Access into work areas may be limited in many cases. The contractor should consider using small vehicles such at All Terrain Vehicles (ATVs) to accomplish the work. Closure work will be conducted via existing NFS roads. When abandoned mine features are located away from existing NFS roads, features will be accessed on foot.

Air Transport.

Air Operations are not allowed without prior approval.

Locked Gates.

In cases where AML features are behind locked gates, the Contractor shall close and lock gates after entering or exiting each gate and will be subject to all other restrictions of administrative use. The Contractor is permitted to drive from the locked gate to the access point with only the minimum number of vehicles necessary for efficient transport of the crew

Orders and Delivery.

The Contractor is responsible for purchasing and transporting all necessary supplies and equipment to the AML areas.

Backfill Closure.

This work shall consist of backfilling mine openings with on-site material and revegetation of disturbed areas as designated in the SOW or by the COR.

Materials:

Backfill material shall be on-site common fill or other materials as designated by the SOW or by the CO. Riprap shall be a minimum of two-foot (2') diameter, hard, durable and well graded rock. The material used should be sized to prevent large voids from occurring in the backfill. If drainpipe is required in the SOW, it must be six-inch (6") SDR- 35 or schedule 40 perforated PVC, ABS or HDPE drainpipe. If cement is required in the SOW, it shall be Type II Portland cement conforming to ASTM C150.

Backfilling Shafts, Stopes and Subsidence Features:

Prior to backfilling a shaft, stope or subsidence feature, all wood, garbage, cribbing, or other materials as directed in the SOW or by the COR shall be removed from the mine opening. All trash and debris shall be hauled to an approved disposal site. Articles not specifically listed for removal in the SOW or by the COR are subject to the provisions of section 0 of this document.

Shafts, stopes, and subsidence features shall be backfilled using a graded backfill technique. First, riprap shall be placed in the opening to a minimum thickness of twelve feet (12'). In water filled openings riprap shall be placed in the opening until visible from the top of the feature. In either case, the remaining fill shall be graded and may be obtained on site as directed in the TO or by the COR. However, the final one foot (1') of fill material shall be comparable to the surrounding surface material.

The Contractor may use on-site riprap materials with the approval of the CO. The final surface of the backfilled opening shall be mounded a minimum of three feet (3') above the original ground level to allow for settlement. Material used for backfilling shall be compacted as directed in the SOW or by the COR using multiple passes with available heavy equipment.

Adit Backfilling

Prior to backfilling adits, the Contractor must remove all wood, garbage, cribbing, or other materials as directed in the SOW or by the COR. All trash and debris shall be hauled to an approved disposal site. Articles not specifically listed for removal in the SOW or by the COR are subject to the provisions of section 0 of this document.

Adits shall be backfilled with a minimum of fifteen feet (15') of fill measured from the inner top of the fill to the outer top of the fill. There shall be no spaces between the top of the fill and the roof of the adit that exceeds three inches (3') and there shall be no space between the top of the fill and the roof of the adit at the portal. The innermost three feet (3') of the backfill shall consist entirely of rock. The remainder shall consist of large rocks (rip-rap) mixed with fill. The outermost one foot (1') of backfill shall be comparable to the surrounding surface material. In certain situations, a tamping device or fabricated ram may be required to place the necessary rock. Where acceptable rock is not available or where directed in the SOW or by the COR a soil-cement mixture may be used.

The soil cement will consist of on-site soil and Portland-cement in a ratio of 20:1 (20 units of soil to 1 unit of cement). The on-site materials must be well-graded and specified in the SOW or approved by the COR. Material used must not be acidic or toxic in nature. Soil materials and Portland-cement shall be thoroughly blended prior to placement. This may be done by machine or by hand. The entire length of the backfill except for the last three feet 3 feet shall be composed of soil-cement materials. The last three feet (3') shall be composed of backfill material suitable for plant growth.

Where there is a water discharge from the adit to be backfilled, a six-inch diameter (6') diameter drainpipe shall be placed at the bottom of the fill. The drainpipe shall be covered with at least six inches (6") of compacted fill prior to backfilling the adit. The ends of the pipe must extend at least five feet (5') beyond the edges of the fill.

Closure Using Cable-nets

This work shall consist of installing a cable netting closure within an adit or over a shaft or stope including clearing and grubbing excavation of loose material trimming of the adit or shaft, furnishing and securing the cable netting and revegetation of disturbed areas in accordance with these specifications and Standard Drawing Numbers 6 and 13.

Materials

Cable used in the net shall consist of ¼" 7x7-14 preformed galvanized aircraft cable, 7000 pounds tensile strength. Swaged cable clamps shall be brass, stainless or non- corrosive metal and swaged to the cable in the net weaving process. Brass oval sleeve clamps or galvanized steel wire rope clamps will be used in creating the cable end loops.

Rock bolts used to anchor the net shall be the expansion type with minimum pullout strength of 2,000 pound at an embedment depth of 4.5inches. Anchor Bars shall be "Number 6" (3/4") rebar (in accordance with ASTM A-615 grade 60) anchored a minimum depth of 8 inches (8") into competent rock with an epoxy-resin or an interference fit in drilled holes in solid rock Cement shall be Type II Portland cement conforming to ASTMC150 unless otherwise approved by the COR Water used for mixing cement shall be potable.

Installation

The ¼" cable shall be woven in a grid with six inch (6") openings unless a bat-accessible opening is specified in the SOW in which case 6"x 24" metal framed openings will be required. At all cable intersections, swaged cross cable clamps shall be placed to lock the intersection in position.

Every cable along the exterior edge of the net shall be looped over and clamped to itself using brass or stainless steel oval sleeve clamps or galvanized/plated wire rope clips to form a loop for attachment to an anchor. If wire rope clips are used the nuts must be tack welded after tightening.

The cable netting shall be attached to anchor bars or rock bolts installed securely in competent rock. The ends of the anchors shall have continuous rings welded on or be formed to provide a continuous solid eye for cable attachment. A minimum three feet (3') of setback will be provided from the edge of the opening.

On sites where the surface material is incompetent, caissons shall be used for anchor points. Caissons will be excavated a minimum three feet (3') deep and will have a minimum six inch diameter column. A three-foot long three quarter inch (3/4") diameter eye bolt will be centered in the caisson leaving the top three inches 3 exposed. Welding of eyes must be done prior to stringing cable as welding near cables can seriously reduce cable strengths.

Drainage Berms shall be constructed of uncompacted waste rock or excavated material to direct runoff away from the opening. All areas including access routes and work areas that are disturbed by the Contractor or as directed in the TO or by the COR must be revegetated.

Closure Using Polyurethane Foam (PUF)

A PUF closure consists of installing a bottom form, then installing PUF to specifications and backfilling over the PUF to the specified level with common fill. Drainage pipes, access ways and locking grated access doors may be required as specified in the SOW. Revegetation of disturbed areas may also be specified in the SOW.

PUF Safety, Handling and Transport

Materials shall be stored per the manufacturer's specifications. All safety precautions outlined by the Polyurethane Division of the Society of Plastics Industries, NFPA, OSHA, EPA, and the manufacturer's MSDS shall be observed. MSDS and technical Data Sheets shall be on-site and available at all times. There shall be no welding smoking or open flames within 25 feet of PUF application. A minimum 15-pound class ABC fire extinguisher must be on site during foam application. The Contractor shall follow all applicable federal, state and local regulations for transport and use of PUF and all associated chemicals required for preparation, installation and cleanup. It is the Contractor's sole responsibility to obtain any necessary permits for the transportation or application of PUF. In the event of a component leak or accidental discharge of PUF, the Contractor shall follow the procedures listed in section 0 of this document.

PUF shall be applied by workers wearing an organic respirator mask and safety glasses or goggles, However, State or Federal regulations requiring additional equipment shall supersede these specifications.

An oxygen meter must be used to test air before and during installation of the bottom forms. The oxygen meter will be supplied by the Contractor. The oxygen meter shall continuously monitor oxygen levels and have an audible warning If the oxygen content falls below 19.5% then all personnel must withdraw from the working area in the mine until the oxygen content increases to safe levels. Any remedy for increasing oxygen content of the working area and/or providing ventilation from the surface must be determined in consultation with federal and state mine safety and health authorities.

The Contractor shall be responsible for any lost or damaged equipment. In addition, damages or claims arising from PUF overspray shall be the responsibility of the Contractor.

Bottom Forms

A bottom form and cross members may consist of any commonly available building materials capable of sustaining an initial lift of two to four feet of PUF. Examples of acceptable bottom forms and cross members include but are not limited to the following:

CROSS MEMBER	BOTTOM FORM
Rebar, expanded metal, fence materials	Plywood
Wood planks, 2X4's, etc.	Cardboard
Dowels	Plastic sheeting
Cardboard	Paneling, carpet, drywall

Any combination of the above materials will be acceptable. Alternate bottom forms will be acceptable upon approval by the COR.

When a form or "false bottom" is used to support the initial layers of foam, the bottom form and cross members may consist of any commonly available, non-toxic building materials capable of sustaining an initial lift of two to four feet of PUF. Acceptable cross member materials include, but are not limited to, reinforcing steel, 2x4's, dowels, cardboard tubes, and fabric air-inflated plugs. Acceptable bottom form materials include, but are not limited to, plywood, cardboard, paneling, and carpeting. Any combination of the above materials will be acceptable. Alternate bottom forms shall be reviewed with the COR prior to use.

The formwork shall be installed at the depth in accordance with the manufacturer's formula. The depth shall be approved by the COR prior to any formwork.

All bottom forms shall be completed prior to the application of any PUF. The Contractor shall provide the COR with the installed depth to bottom forms for PUF closures. Any breach in the bottom form caused by rock fall or other reason shall be repaired prior to the arrival of PUF applicators at that site. The Contractor shall be responsible for the integrity of the bottom form and the loss of any polyurethane should it fail.

PUF Quality, Quantity, Preparation.

PUF is required to have a minimum installed density of 185 pounds per cubic foot (pcf) and the installed PUF characteristics shall conform to the following standards:

PUF CHARASTICS	STANDARD	SPECIFICATION
Density	1.85 pcf, nominal	
Closed cell content	90%	ASTM D-2856
Compressive strength	25 psi	ASTM D-1621
Water absorption	1% (vol)	ASTM D-2127
Exothermic reaction rate	Low	ASTM D-2127
Fire resistance		ASTM D-1692

The PUF shall be water blown boxed or barrel sets. Installation by hand or mechanical application is allowed, but application by any method shall be in accord with the PUF

manufacturer's recommendation. PUF used in mine closures shall not contain chlorinated fluorocarbons (CFC's). The COR shall approve the contractor's choice of PUF prior to installation. With COR approval, the contractor may use PUF on hand providing installation occurs prior to the end of the manufacturer's designated shelf life.

Unless otherwise specified, the depth of PUF (in vertical openings or thickness of PUF in horizontal openings) shall be at a minimum, 1.5 times the largest dimension of the opening. In circular or near circular features, the minimum thickness or depth of PUF shall be 1.5 times the diameter (or average diameter) of the feature.

PUF may be mixed by hand or prepackaged polyurethane foam maybe used. If a proportioning unit is used, the unit shall be capable of maintaining a minimum temperature of 125 F. The hose shall maintain or increase component temperature from the Proportioner. In all instances, PUF application must not exceed the maximum Proportioner specifications.

A spray gun used in conjunction with the Proportioner shall be capable of mixing plural components in the proper ratio at a minimum acceptable output of four pounds per minute and have a mechanically self-cleaning design.

PUF Installation:

When installing PUF, debris, dirt, and loose rock in the mine opening shall be cleared to ensure proper adhesion of the PUF to the surface of the mine opening. Unless otherwise specified in the SOW, trash and other items shall be taken to a permitted landfill or scrap yard. Mine equipment such as skips or carts shall not be embedded in PUF unless otherwise specified. Under no circumstances shall foreign material be placed in the PUF unless specifically authorized by the COR or listed in the TO. Non-PUF materials must be non- toxic and non-hazardous and must not compromise the strength or water saturation characteristics of the PUF.

PUF shall be applied in lifts with a maximum rise of 1.5 feet. Installed PUF lifts shall pass through the tack-free stage before the next lift is applied. At no time shall sprayed or poured PUF penetrate the surface of the rising foam from a previous lift.

PUF shall be applied in such a manner that the entire void is filled and that shadow zones or voids are not created in the PUF plug. The PUF shall be applied so that the temperature does not reach unsafe levels or exceed manufacturer's specifications. At the discretion of the COR/PI, PUF temperatures may be monitored and PUF application shall cease if excessive heating or off-ratio foam is detected. If either of these conditions exist, the contractor shall remedy off-ratio foam and demonstrate proper quality PUF to the COR before application resumes.

If off-ratio PUF is observed, the applicator must stop and the imbalance corrected. Correction and determination of the foam ratio shall be done on a plastic sheet away from the work area. Any lift of off-ratio PUF comprising over two percent (2%) of the intended PUF column height shall be removed. An amount of off-ratio PUF less than two percent (2%) of the specified volume may remain in-place if allowed to cool, providing the outer perimeter of off-ratio PUF is removed.

PUF shall not be applied during rain unless the foam is protected with a physical barrier. PUF shall not be applied to surfaces with running water.

Remedial action for such situations shall be specified by the COR or specified in the SOW. Polyurethane foam may be applied to a debris plug but shall not be applied directly to a debris plug. In all instances, PUF must be applied to a bottom form of known physical and chemical properties.

Upon reaching the specified grade level for application of PUF, the Contractor shall undertake cleanup of PUF operations. The Contractor shall clean the site of all PUF fragments and over-spray. PUF over-spray greater than 1/8-inch thick on timbers or historic materials must be scraped or ablated to 1/8-inch minus to permit ultraviolet degradation of the over-sprayed polyurethane. Tools and equipment shall be cleaned in such a manner as to avoid injury to vegetation or wildlife. Handling of chemicals used in cleanup shall comply with all applicable local, State and Federal regulations. Damages or claims arising from PUF overspray shall be the responsibility of the Contractor

To protect the PUF from vandalism, if the site is to be left unattended, two to six inches of fill shall be uniformly shoveled over the foam as soon as possible after the last layer of PUF has solidified. No sooner than 96 hours after PUF application, the remaining void above the PUF plug shall be backfilled. The first two-foot lift of fill shall be placed by hand, bucket, or chute to lower the velocity of impact against the PUF. With approval of the COR, this fill may be placed by streaming from heavy equipment such as a loader bucket. Unless approved by the COR, the minimum cover shall be 2 feet of common fill.

Unless otherwise specified or directed by the COR, common fill above PUF closures shall be nearby loose material with no pieces larger than six inches in diameter, free of debris or trash, and containing no materials classified as toxic or hazardous. The use of riding vibratory compaction equipment shall be prohibited above PUF closures and vibrations due to other construction equipment operations shall be kept to a minimum in these areas.

Quality Control

Periodic checks of the quality of PUF applied shall be made by the COR/PI. The main check on quality will be visual. Acceptable PUF shall be tan/white to buff in color with no vesicles and a smooth to coarse orange peel surface. Any one of the following conditions shall cause PUF application to cease and efforts to correct the of-ratio condition begin.

Condition	Possible Cause
Dark PUF Color Smooth & Glassy Friable or brittle Improper density	Excess A Component
Light in Color to White Bad cell structure Mottled appearance Blowholes or pinholes	Excess B Component

Slow Rise Poor cell structure Frequent equipment clogging Slow cure rate Poor physical properties	Bad or outdated supplies

At any time during PUF application the COR/PI may call for a density test. The Contractor shall fill a container provided by the COR/PI for this purpose and the sample will be tested for density. The density of the sample shall be within eight percent (8%) of the nominal two 2 pound per cubic foot density with a minimum installed density of 1.85 pounds per cubic foot. Density tests indicating PUF installed is not within the minimum specified shall cause corrective action resulting in PUF within the acceptable nominal range less deviation due to barometric pressure changes from STP (Standard Temperature and Pressure). Density tests of PUF shall be conducted at no additional cost to the government.

At the discretion of the COR/PI, density tests may be taken in the center of the cavity to which PUF is being applied. A sampling box may be lowered into the cavity to take a representative sample of PUF just above the level of installed polyurethane. At the option of the COR/PI up to three one cubic foot (1pcf) samples of PUF may be taken from the job site for analysis at the governments expense. This material shall be provided at no additional cost.

At the option of the COR/PI up to three samples of up to 100 cubic inches in volume may be taken for on-site tensile strength testing. This material shall be provided at no additional cost. If tests indicate that PUF density is less than 1.85 pounds per cubic foot the COR/PI may require the Contractor to remove and replace the PUF or add additional PUF at the Contractors expense.

Closure Using Corrugated Steel Pipe

This work shall consist of installing a corrugated steel pipe (CSP) adit closure including clearing and grubbing, excavation of loose material, and trimming of the adit, furnishing all necessary materials including a drainage pipe (when necessary) and a grated access door.

Materials

Corrugated Steel Pipe (CSP) shall consist of 12 gauge galvanized steel pipe with helical or annular corrugations. The pipe must be free of rust, gaps in seams, holes, and deformations that reduce the inside diameter by more than two inches (2”).

When concrete is used to anchor the CSP, the concrete shall have a minimum rated compressive strength of 3500 psi at 28 days. Structural steel used in the fabrication of the grated closure, shall conform to the requirements of ASTM A-36 all-purpose steel.

When required, drain pipes shall be six inch (6”) SDR-35 schedule 40 perforated ABS or HDPE drain pipe. Durable rock shall consist of rock which gives off a ringing sound when struck with a hammer.

Clearing and Grubbing

The work site shall be cleared and grubbed of debris loose rocks and other items which interfere with construction as approved by the CO. All garbage and debris shall be disposed of at an approved disposal site as directed by the CO.

Excavation and Installation

The adit opening shall be cleared of loose rock and debris to create a planar bedding surface for the CSP. Any material placed in the floor of the adit to bed the pipe shall consist of material less than four inches (4") in diameter. After installation of the CSP, the space between the pipe and the adit walls shall be backfilled with unclassified material the entire length of the CSP except the front three feet 3 of backfill which shall consist of concreted durable rock The rock to be concreted shall be a minimum of four inches (4") in diameter. PUF may be substituted for concrete with the consent of the COR.

If the adit is draining water, a six inch (6") diameter drain pipe shall be installed beneath the CSP. The drain pipe must extend a minimum of five feet 5 beyond each end of the CSP.

Grated Access Door Installation

After placement of the CSP, the grated access door shall be welded in place. Unless otherwise specified, the grated access door shall be a bat-friendly design meeting the specifications listed herein. The grate may be welded or bolted in place. Sufficient space shall be provided for the door to open smoothly to provide full access to the CSP.

Closure by Cast-in-Place Concrete

This work shall consist of construction of cast-in-place concrete slab or plug over vertical or near vertical mine openings. In some instances, as specified in the TO, a corrugated steel pipe may be placed in the plug to permit ingress/egress to the mine This work includes clearing and grubbing, excavation of slab footings, furnishing and installing of forms, reinforcing steel, and concrete and revegetation of disturbed areas.

Materials

Cement shall be Type II Portland cement conforming to ASTM C 150 unless otherwise approved by the COR. Fine and coarse aggregate shall conform to ASTM C-33. Water shall be potable.

Admixtures shall conform to ASTM C-494. Calcium chloride will not be permitted.

Reinforcing steel shall be made of deformed new billet stock and shall conform to ASTM A-615, Grade 60. All reinforcing steel shall be free from heavy rust scale or other coatings that will destroy or reduce the bond.

Corrugated Steel Pipe culvert shall consist of a 36 inch 12-gauge galvanized steel pipe with helical or annular corrugations. The pipe must be free of rust, gaps in seams, holes, and deformations which reduce the inside diameter of the pipe by more than two (2") inches.

Corrugated metal stay-in-place forms shall be made of high-strength, fully-hardened steel conforming to ASTM A-496, Grade E, with a galvanized coating conforming to ASTM A-515, Class G60.

Drain Pipe shall be two inch (2") schedule 40 PVC drain pipe

Installation

The work site shall be cleared and grubbed of vegetation, debris, loose rocks and other items which interfere with construction except items designated by the COR/PI. All trash and debris shall be disposed of at an approved disposal site.

Mine openings to be closed with a cast-in-place cap must be excavated to competent bedrock. The Contractor is responsible for site inspections and any testing or exploration necessary to insure that the bid adequately reflects excavation conditions including any hand trimming and leveling required. The perimeter of the mine opening must be excavated to a minimum ledge width of two feet (2') on competent bedrock. Forms for cast-in-place concrete caps must be constructed using corrugated metal stay-in-place forms (bridge decking) and steel or wood beams. Alternative materials may be used for forming if the Contractor demonstrates to the COR that the alternative forms are capable of withstanding the loads applied by the concrete. The Contractor shall be responsible for reinstalling the cap should alternative materials fail to adequately support the concrete.

Forms shall be mortar tight and sufficiently rigid to prevent distortion due to the pressure of the concrete and other loads incidental to the concrete operations including vibration. If a vertical culvert is specified, an opening must be cut in the formwork where the culvert is to be set.

Reinforcing steel shall be laid over the formwork using plastic chairs or equivalent to support the steel three inches (3") above the formwork. If a vertical culvert is installed in the shaft, the vertical culvert must be installed prior to pouring the concrete. Reinforcing steel must be tied together. Welding of reinforcing steel is not allowed.

The concrete shall be poured to a thickness specified in the Drawings. The concrete may be mixed at the work site or delivered as ready mix at the Contractors option. If the concrete is mixed on site, equipment and mixing procedures shall conform to ACI 301 Chapter 7. If ready mix is used it shall be mixed and transported in accordance with ASTM C-94. The concrete mix shall be designed to produce a minimum 4000 psi concrete at the 28 day test. If hot weather concreting is done it shall conform to the requirements of ACI-305. If cold weather concreting is done it shall conform to the requirements of ACI-306. The rate of depositing concrete in forms shall be controlled to prevent deflection of the form panels. The concrete shall be thoroughly compacted to prevent the formation of voids in the cap.

Quality Control

The Contractor shall take sample specimens of the concrete in cylindrical containers in accordance with ASTM C-31, at the point of deposit as follows:

One sampling event consisting of a minimum of four cylinder samples shall be taken and paid for by the Contractor. The samples shall be taken in accordance with ASTM C-172. All four sample cylinders will be taken at the same time, one cylinder to be used for a seven-day test (7), two for twenty eight (28) day tests, and the fourth for a fifty-six (56) day test.

If required by the COR, the average of the twenty eight (28) day test result will be used for determining acceptance. The fifty six (56) day test may be used as a referee sample. These tests shall be performed at the Contractors expense in accordance with ASTM C- 39 by a materials testing laboratory of the Contractors choice with the concurrence of the COR. The COR may require additional random samples. Testing of any additional samples will be done at the governments' expense.

Culverts, Grates and Drainage

If a vertical culvert is specified, the culvert shall be secured from the opening in the slab to the surface. The bottom of the culvert will be resting on the horizontal member of the formwork. Backfill material shall be placed in two foot (2') lifts. Backfill material shall be compacted as much as practicable. The culvert must extend a minimum of one foot (1') above the backfilled surface.

A grated access door must be fabricated according to the specification for grated access doors required for Corrugated Steel Pipe closures. On mine sites with acid producing materials and where specified in the TO, a 30 inch diameter, corrugated HDPE pipe shall be used instead of a corrugated steel pipe. The HDPE pipe must extend from the form to two feet (2') above ground level.

When HDPE pipe is used, in order to install a steel locking grate, a 36 inch diameter corrugated steel pipe three feet (3') in length must be placed over the top of the HDPE pipe. The annular space between the outside of the HDPE pipe and the inside of the steel pipe must then be filled with either a sand and cement mix, coarse common fill, or polyurethane foam. If common fill is used it must contain over 50% gravel or larger particles. The locking grate must be attached to the steel pipe prior to placement over the HDPE pipe.

If the cast-in-place cap is greater than eight feet (8') below ground surface the cap must be backfilled. The cast in place cap must reach a minimum compressive strength of 3000 psi within seven (7) days before backfilling can occur. However it will be the Contractors responsibility to correct any closures when the concrete does not reach a minimum compressive strength of 4000 psi at 28 days.

Backfill material shall be placed in the opening in two foot (2') lifts. The material shall be compacted as much as is practicable. If the cap is less than eight feet (8') below the ground surface, the edges of the excavation shall be graded to a maximum 5:1 (HV) with maximum encroachment onto the concrete cap of three feet (3') unless otherwise specified. Drainage berms must be constructed to divert runoff from the mine opening.

Closure with Adjustable Bat-friendly Grates and Bat Cupolas

This work will consist of fabricating and installing a special grate consisting of steel bars with an inset series of spaces to allow for bat ingress and egress while providing protection for the public.

Closure with Adjustable Bat-friendly Grate

This design is adjustable for both height and width. Drawings provided indicate a 2ft upright footing supporting a main upright 4'-6" in length. This combination provides height adjustment from 4'-6" to 6'-0" with a 6" penetration of the main upright into the upright footing.

Drawings provided indicate a 48" main crossbar with 18" spacers. This combination provides a width adjustment from 4'-0" to '-0" with a 6" penetration of the main crossbar and the spacer. Drawings are provided to illustrate the design, construction and installation of the adjustable bat-friendly grate structure.

Main Components of the adjustable bat-friendly grate design are:

a. Upright footing- 3 ½" x 3 ½" x **3/8"** Hollow Structural Section (HSS); Refer to Section J 2.0 Exhibits, Illustration 2.2 Upright Footing, Detail Sheet 1

b. Main Upright- 2 ½" x 2 ½" x 5/16" HSS; Refer to Section J 2.0 Exhibits, Illustration 2.2 Upright Footing, Detail Sheet 1

c. Rock Bolts- 5/8" round steel 12" long; Refer to Section J 2.0 Exhibits, Illustration 2.2 Upright Footing, Detail Sheet 1

d. Pipe- 2" diameter steel pipe; Refer to Section J 2.0 Exhibits, Illustration 2.2

Removable Bar and Lock, Detail Sheet 2

The proposed design should accommodate a typical adit with dimensions less than or equal to 6'x6' but greater than 4'x4'. When building multiple grates in the same vicinity, the height of the upright footing and the length of the main crossbar should be chosen so that the total amount of adjustment will accommodate the largest number of installations. However, the following design adjustments must be observed:

a. For main crossbar widths of 8' a third upright assembly (upright footing and main upright) must be installed and for every additional 4' in length thereafter.

b. Main crossbars may extend in length of up to 8'. For main crossbars of 8 feet or greater, crossbars shall be constructed of 48" lengths joined at each upright assembly.

c. Only one section of removable bar is required per installation.

Upright assembly installation:

a. Determine the position of the upright footings and pre-drill holes for rock bolt installation. Rock bolt locations must be on the mine-side of the grate.

b. Slide the main upright into the upright footing and stand the upright assembly in place.

c. The main upright must be placed so that when the hangers are installed, they face into the mine and away from the portal.

d. Bolt the upright footing to the floor using the lowest grate bar. Bolts should be placed on 1' centers.

e. Extend the main upright to the adit roof and locate the position of the rock bolt in the adit roof. Lower the upright and drill the required hole.

f. Extend the main upright to the roof and bolt in place. Then weld the flanges of the main upright to the sides of the upright footing.

Crossbars installation:

a. Cross Structural Members- 3" x 3" x 3/8" Hollow Structural Section (HSS); Refer to Section J 2.0 Exhibits, Illustration 2.3 Bat Cupola Typical Design

b. Access Door- 45" x 45" EMS 3 Expanded Metal Mesh (EMS 3) and other components as specified in drawings; Refer to Section J 2.0 Exhibits, Illustration 2.3 Bat Cupola Typical Design, Detail Sheet A, Bat Cupola Door

c. Door Lock- To be furnished by USFS (government). Refer to Section J 2.0 Exhibits, Illustration 2.3 Bat Cupola Typical Design, Detail Sheet B, Bat Cupola Door Lock

d. Door Hinge- For parts and assembly details refer to Section J 2.0 Exhibits, Illustration 2.3 Bat Cupola Typical Design, Detail Sheet C, Bat Cupola Door Hinge

e. Rock Bolt Anchors- 4”x 4” x 3/8” angles. Refer to Section J 2.0 Exhibits, Illustration 2.3 Bat Cupola Typical Design, Detail Sheet D, Bat Cupola Anchor

Sizing:

a. For covering circular openings, the cupola will be constructed to be 3' larger than the diameter.
b. For covering square or rectangular openings, the cupola will be constructed to be 3' larger than each side. For example, a 3' by 5' shaft would require a cupola that is 6' by 8'.
c. Each side is 38" tall and the grate bars are set with the lowest bar at ground level and the remaining four (4) bars set with a gap between them of 5 3/4".
d. All cross members and uprights shall be placed on 4' centers maximum.
e. Each cupola built will have one (1) door positioned in a corner of the structure to provide access. See Detail Sheet A.

Structural Materials:

a. All structural members are 3" by 3" by 3/8" steel Hollow Structural Sections (HSS)
b. The top is covered with EMS 3 expanded steel mesh.

Fabrication:

a. All joints shall be made by welding components directly to each other. The use of HSS eliminates the need for hangers.
b. All cupolas smaller than 15' x 15' shall be anchored to the ground at each corner. See detail Sheet D. Anchors shall be fixed to the ground with 5/8" steel rods set in 8" of competent rock.

Installation of Barbed-wire Fence

This specification covers all work involved in construction of barbed-wire fences around hazardous mine openings and reclaimed areas.

Materials

Barbed wire shall be two-strand, galvanized Number 12-1/2 steel wire, with 14-gauge galvanized steel 2-point barbs.

Steel corner posts, end posts, gate posts, and brace posts shall be 2 ½ inches x 2 ½ inches x

¼ inch standard steel angle fence posts, 4.10 pounds per foot with a minimum length of 7 feet for 4-feet high fences and 8 feet for 5-feet high fences. Braces for these posts shall be 2 inches x 2 inches x ¼ inch structural steel angles of proper length to provide adequate bracing. Steel line posts shall be 1 3/8 inches x 1 3/8 inches T-shaped or 2 inches x ¼ inches U or Y shaped standard steel fence posts with a minimum length of 5 ½ feet for 4- feet high fences and 6 ½ feet for 5-feet high fences. All steel line posts shall have an anchor plate.

Wooden line posts shall be high quality seasoned posts. All knots shall be trimmed flush with the surface. Posts shall be treated with entachlorophenol, creosote oil, or creosote- petroleum solution meeting the requirements of AASHTO M 133. All wooden line posts shall have a minimum diameter of four inches (4”) and be a minimum of six feet (6’) in length.

If concrete is required to set fence posts, it shall be mixed one part Portland II cement to two parts sand and 3 ½ parts gravel with not more than six gallons of water per 94-lb sack of cement.

If gates are required they shall be furnished with all necessary hinges and appurtenances. The SOW may require the gate and fences to be painted to match or blend with the surrounding scenery.

Installation

Steel line posts shall be driven 1 ½ feet into the ground or to the top of the anchor plate. All posts shall be set to the minimum depths specified above unless bedrock or other restrictive layer prohibits it. In such cases, line jacks or other suitable type of anchoring shall be acceptable or posts may be set in pre-drilled holes at least twelve inches (12”) deep and backfilled with concrete. Line posts shall be spaced uniformly.

Wooden line posts shall be inserted into a hole dug a minimum of twenty-eight (28”) inches deep. The backfill material must be thoroughly compacted by tamping so that the installed post has minimal play. Maximum wooden post spacing is twenty feet (20’) for a 4-wire fence and eighteen feet 18 for a 5-wire fence.

Unless otherwise specified in the SOW, or as agreed to by the COR, corner posts shall be installed at all corners and at all points where the fence alignment changes horizontally fifteen degrees (15°) or more. Line braces shall be installed in conformance with at any point where the vertical angle between two adjacent reaches of wire is upward and exceeds 15 degrees (15°).

When 4 wire fence is installed, the wires shall be equally spaced with the bottom wire not more than twelve inches (12’) above the ground at the post and the top wire not less than forty-two inches (42”) above the ground at the post. One metal stay shall be placed at the midpoint between posts.

When 5 wire fence is installed, the bottom wire shall not be more than nine inches (9”) above ground at the post and the top wire not less than fifty four inches (54”) above the ground at the post. Two equally spaced metal stays shall be placed between posts.

Where the fence crosses a draw, drainage, or water course less than thirty feet (30’) wide and where the bottom of the draw will be more than twenty inches (20”) below the bottom wire, seven feet (7’) long steel fence posts shall be driven on each side of the water course and a Deadman anchor shall be fastened to the fence to maintain the required wire spacing interval. For water courses in excess of 30 feet, specification for installation will be provided in the SOW.

Gate posts for all gates other than wire gates shall be 6-inch (6”) diameter seamless steel pipe standard weight Schedule 40 nine feet 9 long in a three feet by three feet by three feet six inch (3’ x 3”x 3”6”) concrete base. After installation the entire pipe shall be filled with concrete.

Manufactured gates shall be installed at locations marked specified in the SOW. Gates shall be fastened to six inch (6”) diameter steel pipe gate posts with one and one fourth inch (1 1/4”) pipe and one inch 1 pins.

Installation of Chain Link Fence

This specification covers all work involved in construction of a chain-link fence around hazardous mine openings and revegetated areas.

Materials

Chain link fencing shall consist of seventy-two inch (72”) high, two-inch (2”) mesh, 9-gauge galvanized wire. End-corner and line-brace-posts shall be two and one half inches (2 ½”) inside diameter round galvanized pipe or 3 ½ inch X 3 ½ inch roll formed galvanized steel. Line posts shall be two inch (2”) ID round galvanized pipe or1.875 inch X1.875 inch H-beam steel. Top rail and brace rails shall consist of 1 ¼” inch ID round galvanized pipe or1.625 inch X 1.625 inch roll formed galvanized steel Tension wire shall be 7 gauge galvanized coil spring steel.

Barbed wire shall be composed of two strands of galvanized 12.5-gauge steel wire with 2-point barbs. If concrete is necessary to secure posts, it shall be mixed one part cement to two parts sand and 1 ½ parts gravel with not more than six gallons of water per 94 pound sack of cement.

Installation

Chain-link fence will have a railed top that conforms to the requirements of AASHTO M81 unless otherwise designated. Spacing of vertical posts must not exceed ten feet (10’). Each post shall be set securely in the ground or, if that is not possible or if specified in the TO, in a concrete base that is thirty six inches (36’) deep and twelve inches (12’) in diameter. Concrete shall be Class A or B. Where competent rock is present the pipes may be set in holes drilled two inches (2’) larger than the pipe and filled with concrete.

A 7-gauge galvanized coil spring steel tension wire shall be placed four inches (4”) above ground level. The tension wire shall be continuous between end or corner posts and line-brace posts. A turnbuckle or other approved tightening device shall be used for each continuous span of tension wire. Line brace posts are required at locations where the ground level changes abruptly. The chain link fabric shall be securely fastened to tension wires, line post, rails, braces, and stretcher bars at twelve inch (12”) intervals vertically and twenty inch (20”) intervals horizontally using 11-gauge galvanized steel wire, 7-gauge aluminum wire or 9-gauge hog rings.

Tension bands, stretcher bars, brace rails, and 3/8 truss rods with turnbuckles are required at all corner, end, and line brace posts. All open pipe tops must be capped. All bolt nuts shall be welded to the bolt or the threads damaged to prevent removal. Brace rails shall be installed approximately mid-way between the top rail and tension wire. The fabric will be twisted and barbed on the top and bottom.

The fabric must be placed as close to the ground surface as practicable. In no case shall there be a gap exceeding three inches (3’) between the ground surface and the bottom of the fabric. Durable rock shall be placed at the base of the completed fence in places where gaps between the fabric

and ground level exceed two inches (2”). Durable rock is defined as rock which gives off a ringing sound when struck with a hammer.

The barbed wire top shall have three (3) strands with an out-slope of approximately forty five degrees (45˚). Each arm must consist of one fourth inch (1/4”) bar or twelve-gauge folded galvanized steel.

Removal of Buildings, Facilities, Equipment, Debris and Site Reclamation.

Building, facilities and equipment indicated for removal shall be removed from forest lands and placed in an appropriate land-fill. As indicated, inert building materials and equipment may be buried on-site or placed in adits or shafts prior to plugging or backfilling. Buildings, facilities, and equipment not indicated for removal must not be disturbed.

Decommissioning Roads.

Roads shall be decommissioned generally by scarifying and reseeding. Roads will be decommissioned following the procedures outlined in FSH 7700 – 7734.1. At a minimum, the road surface shall be made impassible by using available rocks and fallen timber to disguise the road surface and the road shall be reseeded using the seed list provided with the SOW.

Incidental Regrading

To cover features, backfill features, control drainage, or improve site aesthetics, it is often necessary to regrade road sections. In most instances the material is pre-disturbed loose material, and regrading can be accomplished without blasting or ripping. Occasionally, some material, because of compaction, must be lightly ripped.

For roadway reconditioning, the absolute minimal maintenance shall be employed on the access road system to allow passage of equipment and haul trucks, and to repair any damage done during construction by the contractor. Road maintenance shall be limited to rock removal from the roadway and wheel rut filling on the roadbed. Excluding haul trucks, any heavy equipment needed for the removal shall be mobilized to the Site once, and remain on site until completion of the removal, unless a variance is requested by the contractor and AUTHORIZED by the Contracting Officer.

Work Plan and Schedule.

The Contractor shall prepare a work plan and schedule that demonstrates that work will be completed within the performance period. The Contractor shall provide a general plan with the technical proposal. A supplementary plan and schedule shall be provided after issuance of a Notice to Proceed, but 10 days before start work.

The Contractor shall update the work plan as work is in progress to account for changes; and the updated work plan may be accepted by the Contracting Officer.

Camping and Worksite Conditions.

When it is necessary for the Contractors’ employees to remain on-site overnight, the Contractor shall prepare a Camping and/or Worksite Plan and operate in a manner that will protect the environmental resources and the public facilities. The conditions will be consistent with the requirements of Section H.

Communications.

The Contractor shall keep the Contracting Officer advised as to where the Contractor can be reached prior to start of Contract Time. Further the Contractor shall maintain contact with the Contracting Officer during periods of work suspension to reduce any delay in resuming the work and to determine the best suitable time and conditions to resume work.

On-site Representative.

The Contractor's on-site representative shall be in the work area whenever work is in progress.

Crew Safety.

The contractor shall be responsible for complying with all applicable federal, state and local laws and regulations that govern worker health and safety in and around mines, abandoned mines and construction sites.

Health and Safety Plan (HASP).

Contractor shall submit a conceptual HASP as part of the bid package that describes applicable health and safety requirements, personnel, policies and procedures to be used to prevent accidents and injuries resulting from typical abandoned mine site hazards and conditions. If successful, the contractor will submit a site specific HASP within 14 calendar days of contract award and before beginning work at the site. The conceptual and site specific HASP may be submitted in any format desired but shall address the following topics at a minimum.

Pre-shift inspection

Before beginning work at the site the Contractor shall be responsible for thoroughly investigating surface and underground site conditions where workers may encounter health and safety hazards, and scheduling and directing his equipment, equipment operations, personnel and safety procedures to prevent accidents and injuries.

Limited Access to Underground Workings.

The contractor will limit access to underground working to areas just inside the portal of tunnels and adits and the collars of shafts. Access underground will be as necessary to install PUF and bat-friendly gates.

Designation of Mine Safety Qualified Person.

Due to the hazards associated with abandoned mines, all work on mine portals shall be conducted under the supervision of a qualified person (QP). Training, education or experience that may be cited by contractors as evidence of QP qualifications include: 1) Mine Safety and Health Administration (MSHA) underground and mine rescue training, 2) Occupational Safety and Health Administration (OSHA) confined space training, 3) Forest Service and Bureau of Land Management (BLM) underground abandoned mine entry training courses, 4) Mine Engineering or similar degree, 5) State training or certifications, 6) Federal or State Mine Inspector qualifications, and 7) On the job experience.

Pre-work Assessment of Mine Safety Hazards.

The pre-work assessment will be done by the QP. The QP will describe the safety hazards that are present above and below ground at the mine sites covered in this contract.

Safety Procedures.

Based on the Pre-Work Assessment of Mine Safety Hazards, the QP will describe the hazards expected at the work site and the safety measures to be taken on a daily basis. The assessment will be based on the work to be done, any hazards discovered during the Pre-Work Assessment and the equipment and supplies to be used by contractor personnel.

Health and Safety Equipment.

Describe first aid, rescue, communication and personal protective equipment that will be available and used. Particular emphasis will be placed on equipment needed to work safely in and around underground mine openings and facilities.

Emergency Communications.

Identify and develop rapid communication procedures with the closest available emergency medical response units and medical centers. All workers, foremen, superintendents, and managers shall be indoctrinated to emergency response procedures.

Safety Procedures.

Describe use and maintenance of temporary barriers, signs, and security devices as necessary to ensure the safety of contractor personnel, Forest Service personnel, and the general public.

Health and Safety Training.

Describe requirements for health and safety training, pre-work and periodic safety meetings.

Work Hazards.

Surface and underground health and safety hazards typical of abandoned mines exist at the mine sites covered by this contract. Such hazards may include but are not limited to; unprotected hazardous mine shafts, stopes, adits and other openings which may be open to the surface or hidden from view and unstable mine workings.

Warning Signs.

The contractor shall install appropriate warning devices and signs to mark any hazards associated with work done under this SOW. Warning signs must be written in both English and Spanish.

Notification of Unsafe Conditions.

The contractor shall identify in writing to the Government any safety issues associated with the Government's requested product that would prevent the Contractor from completing the contract as soon as noted.

Explosives.

Abandoned surface and underground mines occasionally hold stores of unexploded dynamite, nitroglycerine and other explosives common to the mining industry. Abandoned explosive are often more volatile and dangerous due to decay and weathering. When explosives are discovered by the Contractor, work must stop and the COR must be notified immediately.

Poisonous Atmosphere.

Abandoned mines often contain oxygen deficient, toxic or combustible atmospheres, snakes, insects, animals, chemicals and other hazardous materials. Nothing in this contract is intended to mean that contract work should be done in poisonous atmospheres. It is the Contractor's responsibility to insure that the work place is safe and adequately ventilated

Pathogens.

Portions of New Mexico and Arizona are known to contain the Hanta virus. This virus can be found in and around rodent droppings. Rodents are often found in and around AML features and such features should be considered as areas where exposure to the Hanta virus may occur. In addition, parts of Arizona are known to contain "Valley Fever." Valley Fever is a lung infection caused by the inhalation of fungal spores. Construction activities, such as earth moving, liberate these spores and activities under this contract should be considered as activities associated with Valley fever.

Safe Working Environment.

The contractor shall be responsible for providing and maintaining a safe working environment in accordance with all applicable Department of Labor, national consensus standards (including supplements) and the Hearing Conservation Program. Before beginning work at the site the contractor shall be responsible for thoroughly investigating surface and underground site conditions where workers may encounter health and safety hazards, and scheduling and directing his equipment, equipment operations, personnel and safety procedures to prevent accidents and injuries.

Accident Reporting.

The contractor shall report to the CO, in the manner and on the forms prescribed by the Federal Government, exposure data and all accidents resulting in death, trauma, or occupational disease that occur on government property. All accidents shall be reported verbally to the COR within 24 hours. For accidents involving serious injuries, the contractor must submit form FS-6700-8.

Damage Reporting.

The contractor shall submit to the COR a full report of damage to Government property and/or equipment by contractor employees. All damage reports shall be submitted to the COR within 24 hours of the occurrence and a written report within 30 calendar days following the date of the damage.

STANDARDS

Compliance with Laws & Regulations.

All activities conducted under this contract must conform to all applicable federal, state and local environmental standards. This means obtaining all necessary permits and authorizations and meeting the standards required by state and federal law, including, but not limited to, the Clean Water Act (33 U.S.C. 1251 et seq.), Clean Air Act (42 U.S.C. 7401 et seq.) Endangered Species Act, National Environmental Policy Act, National Forest Management Act and the standards and guidelines in the applicable Land and Resource Management Plan(s).

In the event environmental laws/regulations/requirements change during the term of this contract, the contractor shall comply with such law/regulation as changed. If there is an increase or decrease in cost as a result of the change, the contractor shall immediately inform the CO for possible modification of the contract.

Fees.

The Contractor shall, without expense to the Government, pay all Federal, State, County and Municipal fees applicable to the performance of the work, including, but not limited to, permitting fees.

Erosion Control.

All work performed by the contractor shall provide mitigation measures to prevent the unwanted movement of soil and the formation of rills and gullies.

Hazardous Waste.

The contractor shall manage and dispose of all hazardous waste derived from their operations. The hazardous waste shall not be stored on government property. The local forest Hazardous Waste Communication Plan shall be followed, along with state and federal requirements. Federal regulatory requirements include the Resource Conservation and Recovery Act (40 CFR 260- 279) and OSHA worker protection (29 CFR 1910.120).

Hazardous Material Storage.

The contractor shall maintain and repair all hazardous materials storage facilities in accordance with Federal and state regulations, applicable safety codes, and the Forest Service Manual and Handbook. References include: OSHA: 29 CFR 1910-H; EPA: 40 CFR 156, 262; DOT: 49 CFR 172.400; National

Fire Protection Association (NFPA); International Fire Code (IFC); FSM 6742, Forest Service Handbook 6709.11, chapter 60.

Materials Allowed.

The contractor shall use and store only commercial grade fuels, lubricants, fleet maintenance fluids (such as anti-freeze) and commercially available PUF. The use and storage of water-based paint is allowed in either aerosol or can, but all paint used must be lead-free. Materials shall be stored in accordance with the manufacturer's recommendations.

Material Safety Data Sheets (MSDS).

MSDS and technical data sheets for all chemicals shall be on-site and available at all times.

Polyurethane Foam Storage.

All safety precautions outlined by the Polyurethane Division of the Society of Plastics Industries, NFPA, OSHA, EPA, and the manufacturer's Material Safety Data Sheets (MSDS) shall be observed.

Training.

The contractor is responsible for advising employees of all Environmental and Hazardous Materials Handling requirements.

Physical Environment.

The contractor shall follow manufacturer's guidelines and requirements for control of hazardous materials storage area humidity, temperature, cleanliness, and materials handling.

Hazardous Materials Spills.

If the contractor spills or releases any substance listed in 40 CFR 302 into the environment, the contractor shall immediately report the incident to the COR. The contractor shall be liable for any costs associated with the spill or release of such substances. All employees shall be certified and trained to appropriate level for which they work according to OSHA requirements (29 CFR 1910.120). Training and certification are the responsibilities of the contractor.

Resource Protection.

All contract work shall be done in a manner that protects and preserves forest resources to the greatest extent possible. This means that equipment shall be appropriately sized, using the smallest unit practical to accomplish the work, limiting all forms of surface disturbance to the greatest extent possible and taking all necessary precautions to protect flora, fauna and archeological resources.

Archeological Resources

Treatment of Discovered Archeological Resources.

If previously unrecorded cultural resources or paleontological remains (fossils) are discovered during the execution of the contract work, the contractor, upon discovery, shall cease operations to the degree necessary to prevent any disturbance to the resource and immediately notify the COR. The cost of conducting any additional archaeological investigation shall be borne by the

U.S.D.A. Forest Service.

Treatment of Known Archeological Resources.

Treatment of all archaeological resources will follow the requirements set forth in the SOW which are based on the cultural resources' clearance report. Unless otherwise specified in the SOW, archeological resources shall be avoided. Historic structures within a shaft, tunnel, or adit that are to be left in-place shall be protected from PUF by covering them with plastic sheeting. Historic debris or structures within a shaft, tunnel or adit that are to be removed to accommodate remediation activities and placed neatly to the side of the remediated opening. All work shall be in compliance with the National Historic Preservation Act of 1966.

Preservation of Historic Structures.

Treatment of all historic structures will follow the requirements set forth in the SOW and cultural resources clearance report. Unless otherwise specified in the SOW, the contractor shall avoid all contact with historic structures. If a SOW includes the stabilization, restoration, and preservation of historic structures, such work shall maintain the original architectural features. Structure types may include but are not limited to log, wood frame, masonry, adobe, and steel. All work shall be in compliance with the National Historic Preservation Act and The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings.

Contractor Liability for Archeological Resources.

The contractor shall be responsible for the protection from damage of all identified cultural resources within the area, which may be affected by their actions. In addition, the contractor shall be liable for all damage or injury to identified cultural resources caused by their actions. The contractor shall immediately notify the agency COR if any damage occurs to any cultural resource and immediately halt work in the area in which damage has occurred until approval to proceed has been granted by the COR after consultation with the Forest Archaeologist. All provisions of the Region 3 Cultural Resource Damage Assessment Handbook (FSH 2309.24) are incorporated by reference herein.

General Standards.

The contractor at all times shall take appropriate measures to protect forest wildlife from threat or harm. The contractor's employees shall not harass or intentionally cause harm to any wildlife encountered during the activities covered by this contract. Specifically:

- Contractor's employees shall not feed animals
- All trash and debris (especially edible trash) shall be contained in such a way as to prevent the intrusion of animals and all trash shall be removed form forest lands at the end of each shift.
- Equipment shall be operated in a safe and reasonable manner to prevent injury to animals crossing haul roads or traversing work areas.
- Prior to sealing adits or tunnels, the Contractor shall take reasonable measures to permit wildlife to vacate the tunnel or adit. Such measures do not include entry into any underground workings but shall consist of measure taken outside the opening such as shining lights underground and making noises to alert wildlife that may be living in the opening. Unless specified otherwise in the BAE, once these reasonable measures are taken, work may commence.
- In some instances, the BAE will require that special measures be taken to ensure that wildlife be evacuated prior to sealing an opening. In these cases, the Contractor shall not proceed until such time as the evacuation procedures are complete.

Threatened or Endangered Species.

All activities under this SOW will be done in accordance with the recommendations of the BAE of this document. The area and/or AML features for remediation may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or to have other special status (e.g. Regional Forester's sensitive species). The Forest Service may recommend modifications to this SOW at any time to further its conservation and management objective to avoid activity that will contribute to a need to list such a species or their habitat. Forest Service may require modifications to this SOW if it is subsequently determines that the work specified in this SOW is likely to result in adverse effects to listed or proposed threatened or endangered species, or result in adverse effects to designated or proposed critical habitat. In such cases, the Forest Service will not allow some or all of the work in this SOW to proceed that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation under section 7 or the ESA.

All activities involving federally listed or proposed species or their designated or proposed critical habitat shall conform to requirements in FSM 2670 - Threatened, Endangered and Sensitive Plants and Animals. Changes to the contract as a result of this section may entitle the contractor to an equitable adjustment.

Vegetative Resources.

The contractor shall not use or destroy vegetative resources of the National Forest except as required to provide safe equipment access. If the removal of timber is required for clearing of construction sites, etc., such timber shall be removed in accordance with applicable regulations and then only with the prior approval of the COR. The contractor shall re-establish vegetation on all areas of disturbance created by the contractor using approved vegetation selected to meet erosion and aesthetic requirements. A seed mix chosen to meet these standards is provided in the SOW. Some forests require that individual seed lots be tested for a list of noxious weed species' seeds. This requirement is in addition to routine state

weed seed certification. If this additional testing is required for work performed under this contract, the requirement will be stated in the SOW.

Dust Abatement.

The contractor shall perform dust abatement to the extent necessary to ensure that no dust plume is visible at a height of 25 feet above the ground. Chemical dust control additives shall not be used without the written consent of the Contracting Officer (CO).

Noxious Weeds.

To prevent the spread of noxious weeds on lands administered by the USDA Forest Service, the contractor at all times must adhere to the following requirements:

- All activities must conform to the Forest Service Manual Noxious Weeds Management, (FSM 2080).
- The contractor shall train all employees with respect to noxious weed identification.
- The contractor will make arrangements for weed control upon positive identification of noxious weeds.
- The contractor must clean all equipment and vehicles, especially vehicle undercarriages, before bringing them onto NFS lands and into the project vicinity so as to prevent the introduction and spread of noxious weeds.
- Should noxious weeds be introduced in areas disturbed under this SOW, the contractor will be responsible for developing a noxious weed eradication plan for Forest Service approval. The contractor will be responsible for implementing the plan.

Eradication of Noxious Weeds.

If noxious weeds are introduced by the actions of the Contractor, the Contractors shall control new noxious weed starts to prevent further expansion into other areas. Where chemicals are used, techniques will be utilized to reduce the amount applied per acre. All pesticide applicators on NFS lands will be certified under applicable federal or state law. The use of chemicals will be in agreement with National Environmental Policy Act requirements.

Herbicides.

Only those chemicals that are accepted by the specific forest and are labeled under state and federal laws for target species, and which experience and research have proven effective for weed control will be used. Weed control by methods other than chemical treatment will be employed in areas where such treatment would have a substantial impact on water resources, wildlife habitat, or unique vegetation. Before any application of herbicide is used, the contractor must complete a "Pesticide Use Proposal" form (FS2100-2) and the form must be approved by the Forest Supervisor before any herbicide is used.

Physical Security.

The contractor shall be responsible for safeguarding all government property provided for contractor use. At the end of each work period, all government facilities, equipment and materials shall be secured**.**

Key Control.

The contractor shall establish and implement key control methods to ensure all keys/key cards issued to the contractor by the government are not lost or misplaced and are not used by unauthorized persons. The contractor shall not duplicate any keys issued by the government. Keys associated with locked gates installed by the contractor shall be forwarded to the COR at the conclusion of the project.

Lost or Duplicated Keys.

The contractor shall immediately report to the COR or CO any occurrences of lost or duplicated keys.

Lock Replacement/Rekeying.

In the event keys, other than master keys, are lost or duplicated, the contractor may be required, upon written direction of the CO, to re-key or replace the affected lock or locks without cost to the government. The government may, however, at its option, replace the affected lock or locks or perform re-keying and deduct the cost of such from the monthly payment due the contractor. In the event a master key is lost or duplicated, all locks and keys for that system shall be replaced by the government and the total cost deducted from the monthly payment due the contractor.

Use of Keys.

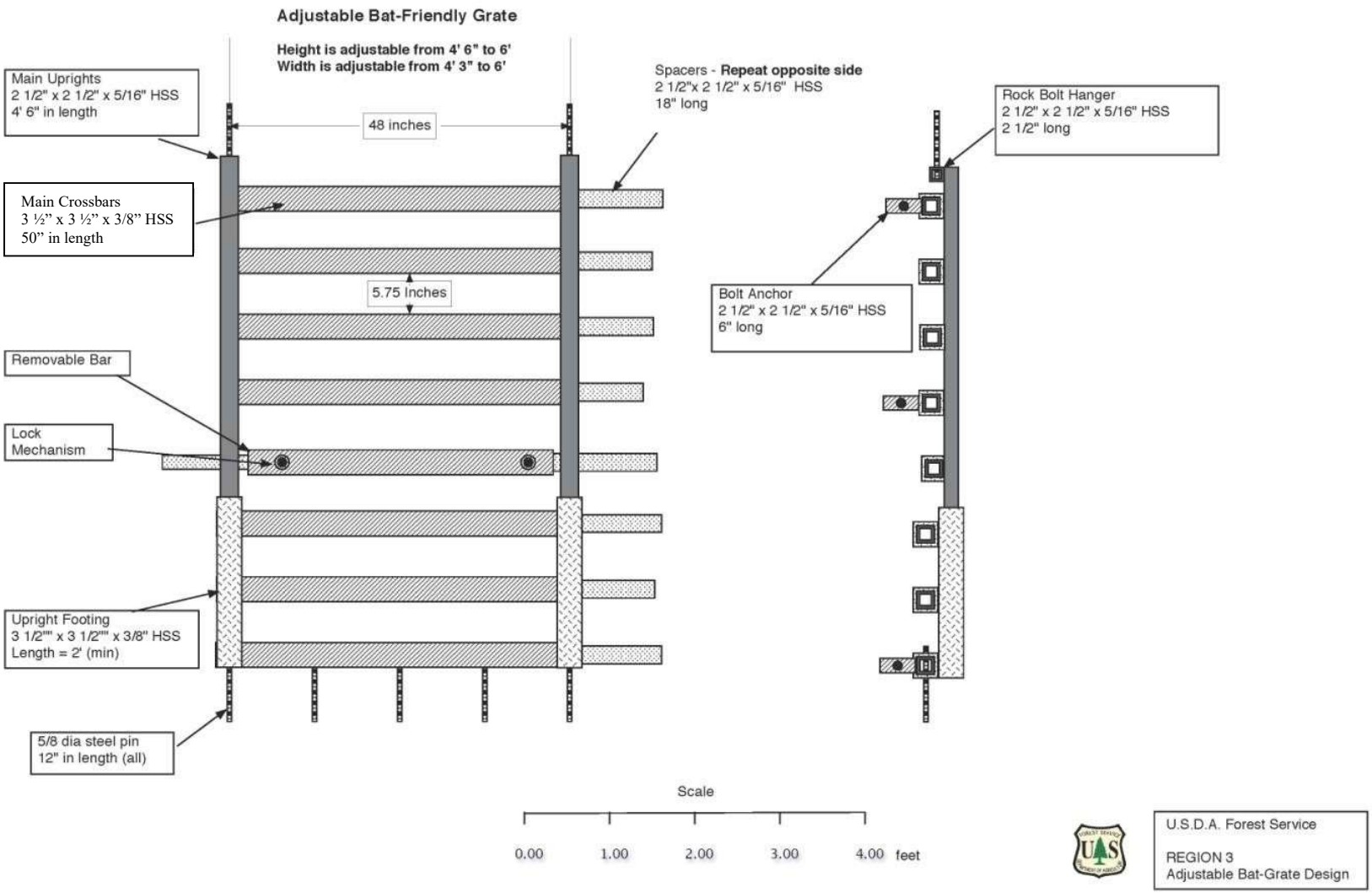
The contractor shall prohibit the use of keys issued by the government by any persons other than the contractor's employees. The contractor shall prohibit the opening of locked areas by contractor employees to permit entrance of persons other than contractor employees engaged in performance of contract work required in those areas.

J.0 - EXHIBITS

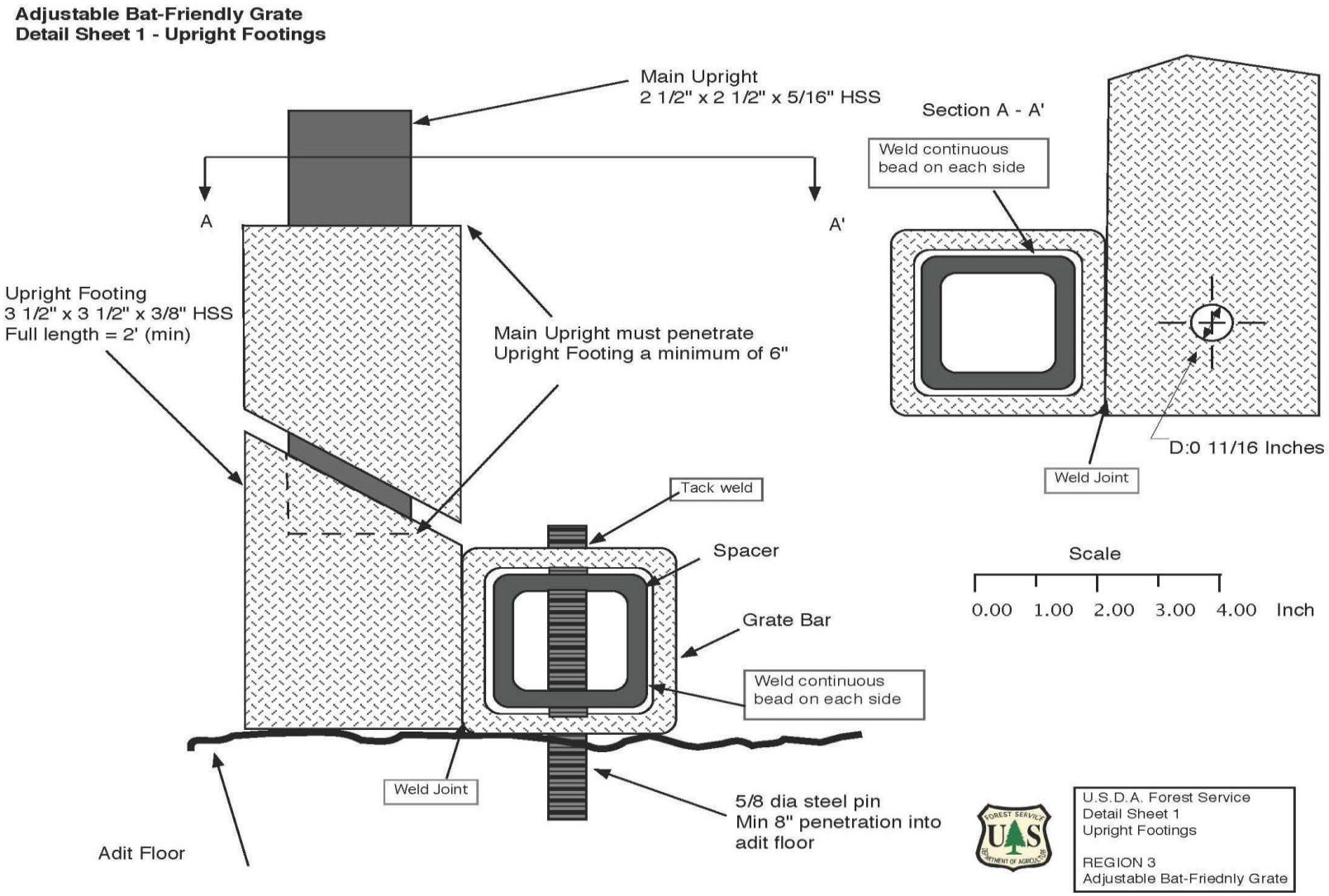
The following exhibits are attached and included as a part of the Statement of Work

Illustration 2.1 A-D	Closure Using Adjustable Bat-Friendly Grates	4 pages
Illustration 2.2 A-E	Closure Using Adjustable Bat Cupolas	5 pages
Illustration 2.3	Cable-net Closure	1 page
Illustration 2.4	Corrugated Steel Pipe Closure	1 page
Illustration 2.5	Cast-in-place Concrete	1 page
Illustration 2.6 A-B	Closure Using Bat-Gate	2 pages
Illustration 2.7	Closure Using Barbed-wire Fence	1 page
Illustration 2.8	Closure Using Chain-link Fence	1 page
Illustration 2.9	Government Quality Assurance Surveillance Plan	3 pages

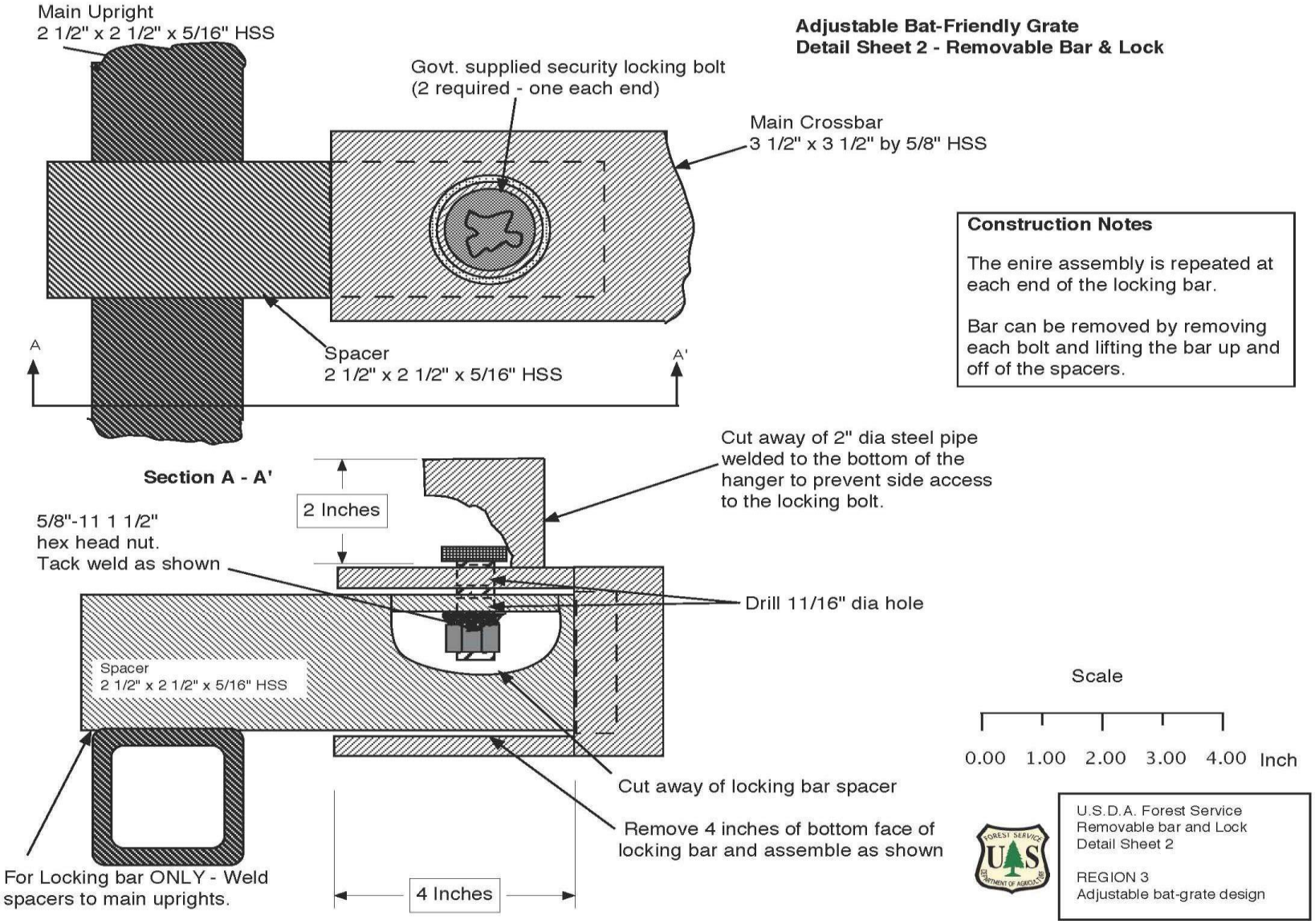
J 2.1 A Illustration – Closure Using Adjustable Bat-Friendly Grates



J 2.1 B Illustration – Closure Using Adjustable Bat-Friendly Grates



J 2.1 C-D Illustration – Closure Using Adjustable Bat-Friendly Grates



Adjustable Bat-Friendly Grate

U.S.D.A. Forest Service
Adjustable Bat-friednly Grate

REGION 3

This design consist of three sheets, an overview and two detail sheets.

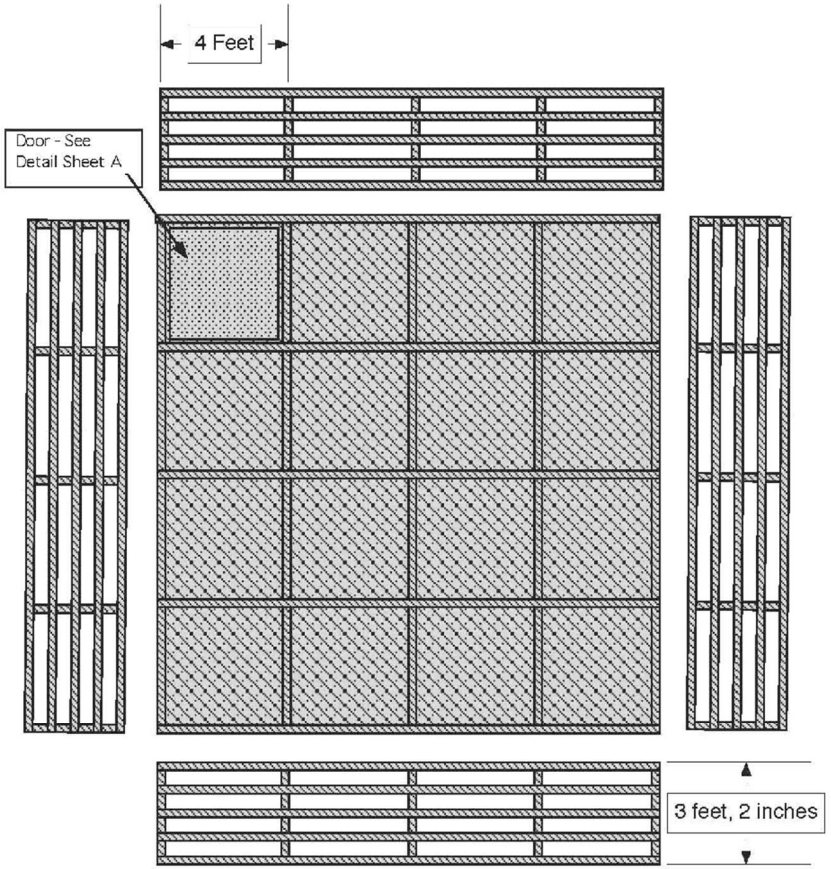
The main components of the design are :

Upright footing -	Detail Sheet 1	3 1/2" x 3 1/2" x 3/8" Hollow Structural Section (HSS)
Main upright-	Detail Sheet 1	2 1/2" x 2 1/2" x 5/16" HSS
Rock Bolts-	Detail Sheet 1	5/8" round steel 12" long
Pipe-	Detail Sheet 2	2" dia steel pipe

Construction Notes

1. The proposed design (See Overview) is adjustable for both height and width.
    a. The drawings provided indicate a 2 ft upright footing supporting a main upright 4' 6" in length. This combination provides height adjustment from 4' 6" to 6' with a 6" penetration of the main upright into the upright footing.
    b. The drawings provided indicate a 48" main crossbar with 18" spacers. This combination provides a width adjustment from 4' to 6' with a 6" penetration of the main crossbar and the spacer.
2. The proposed design should accommodate a typical adit with dimensions less than or equal to 6' by 6' but greater than 4' x 4'. However, increasing the height of the upright footing or the length of the main crossbar will vary the maximum amount of adjustment.
    a. When building multiple grates in the same vicinity, the height of the upright footing and the length of the main crossbar should be chosen so that the total amount of adjustment will accommodate the largest number of installations. However, the following design adjustments must be observed:
        i. For main crossbar widths of 8' a third upright assembly (upright footing and main upright) must be installed and for every additional 4' in length thereafter.
        ii. Main crossbars may extend in length of up to 8'. For main crossbars of 8 feet or greater, crossbars shall be constructed of 48" lengths joined at each upright assembly.
        iii. Only one section of removable bar is required per installation.
3. Upright assembly installation:
    a. Determine the position of the upright footings and pre-drill holes for rock bolt installation. Rock bolt locations must be on the mine-side of the grate.
    b. Slide the main upright into the upright footing and stand the upright assembly in place.
    c. The main upright must be placed so that when the hangers are installed, they face into the mine and away from the portal.
    d. Bolt the upright footing to the floor using the lowest grate bar. Bolts should be placed on 1' centers.
    e. Extend the main upright to the adit roof and locate the position of the rock bolt in the adit roof. Lower the upright and drill the required hole.
    f. Extend the main upright to the roof and bolt in place. Then weld the flanges of the main upright to the sides of the upright footing.
4. Install crossbars.
    a. Crossbars are to be welded to the main upright assembly.
    b. Cross bars must be placed to provide a 5 ¾" free space between the top of each cross bar and the bottom of the next.
    c. The spacing between the top bar and the adit roof may vary to accommodate the roof line, but spacing must not be more than 8". If spacing along the top for any interval greater than 1 ft is more than 8", then a final crossbar must be installed to close the gap. Spacing between this crossbar and the last may be less than 5 ¾" to accommodate placement.
5. Connections between the adit roof, rib and floor will be made by using 5/8" steel rods ("rock bolts") anchored in at least 8" of competent rock. The rods may be press-fit or glued in place using a standard construction grade 2-part epoxy.
6. The top, bottom, and every 5th crossbar assembly (main crossbar and spacers) must be bolted to the adit rib at both ends.

J 2.2 A Illustration – Closure Using Adjustable Bat-Friendly Cupola



Top and Side View

Construction Notes

Sizing:

For covering circular openings, the cupola will be constructed to be 3' larger than the diameter.

For covering square or rectangular openings, the cupola will be constructed to be 3' larger than each side. For example, a 3' by 5' shaft would require a cupola that is 6' by 8'.

Each side is 38" tall and the grate bars are set with the lowest bar at ground level and the remaining four (4) bars set with a gap between them of 5 3/4".

All cross members and uprights shall be placed on 4' centers maximum.

Each cupola built will have one (1) door positioned in a corner of the structure to provide access. See Detail Sheet A.

Structural Materials:

All structural members are 3" by 3" by 3/8" steel Hollow Structural Sections (HSS)

The top is covered with EMS 3 expanded steel mesh.

Fabrication:

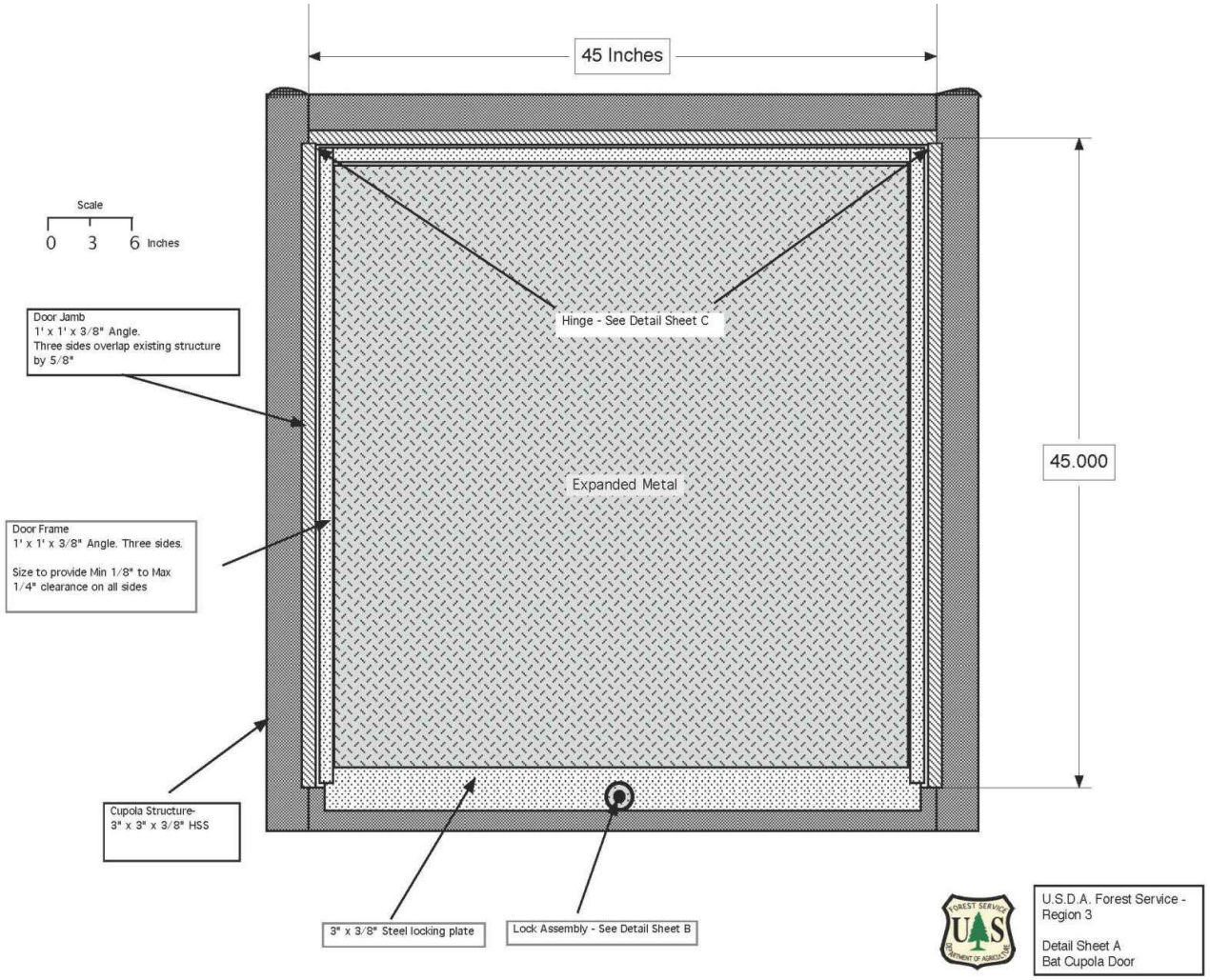
All joints shall be made by welding components directly to each other. The use of HSS eliminates the need for hangers.

All cupolas smaller that 15' x 15' shall be anchored to the ground at each corner. See detail Sheet D. Anchors shall be fixed to the ground wiht 5/8" steel rods set in 8" of competent rock.

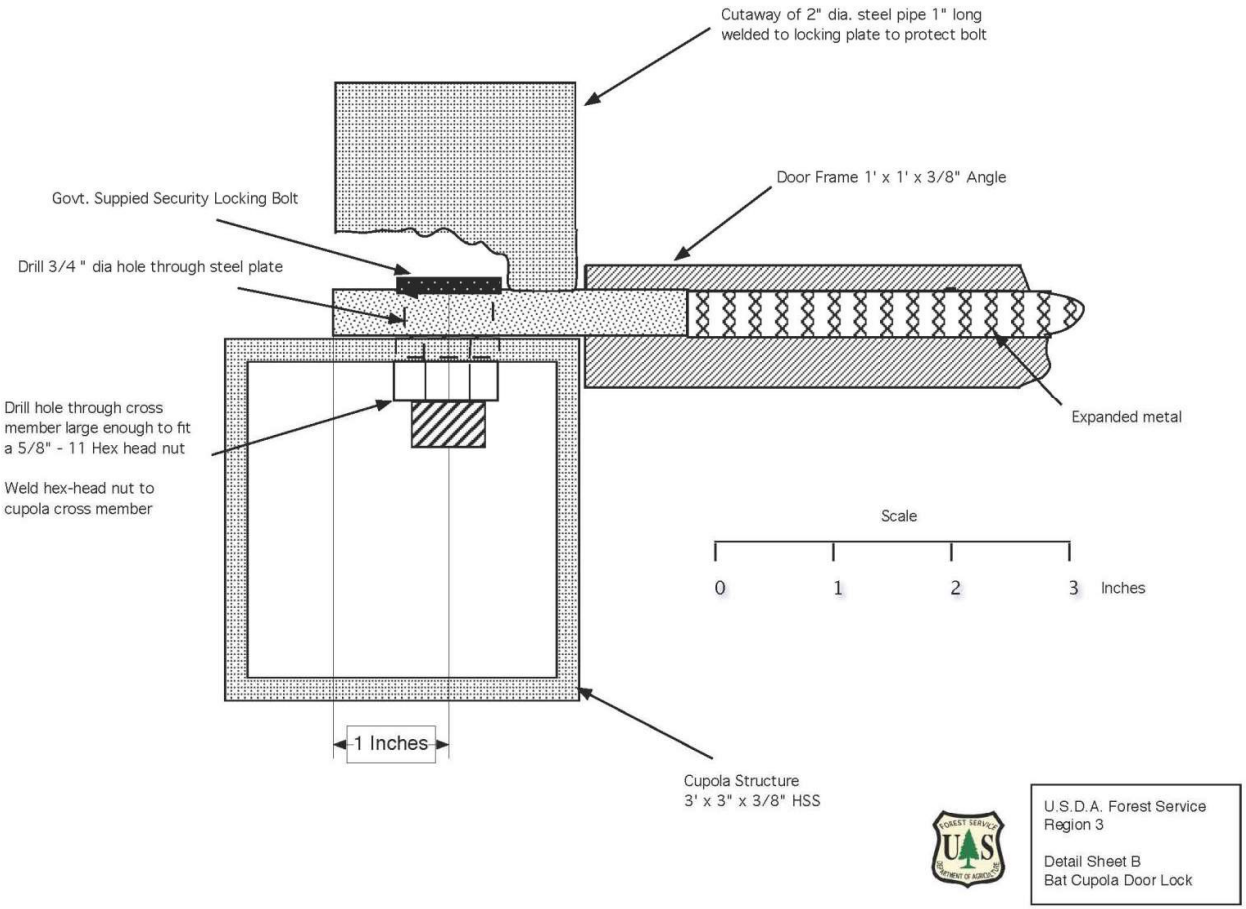
U.S.D.A. Forest Service
Bat Cupola Typical Design

REGION 3

J 2.2 B Illustration – Closure Using Adjustable Bat-Friendly Cupola



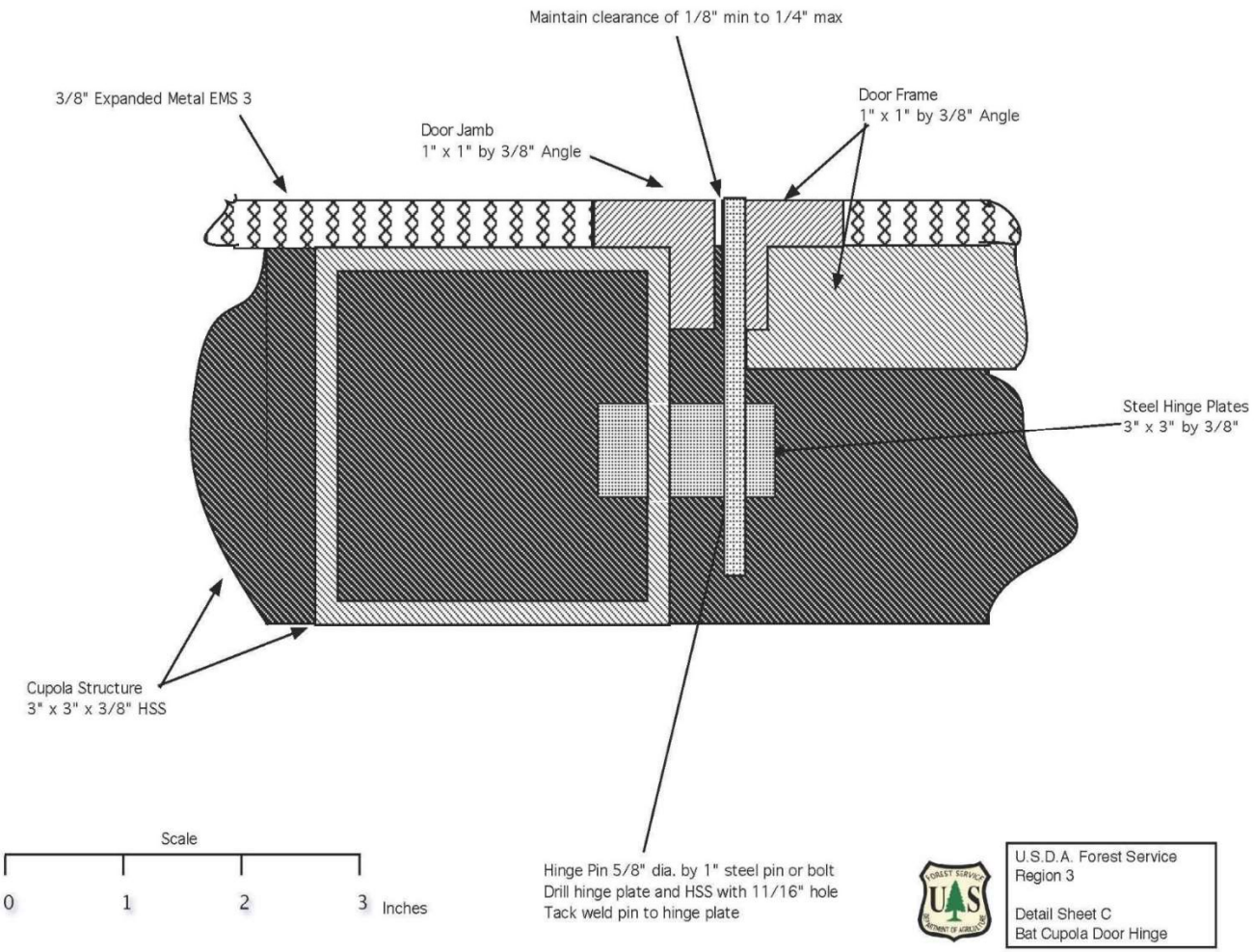
J 2.2 C Illustration – Closure Using Adjustable Bat-Friendly Cupola



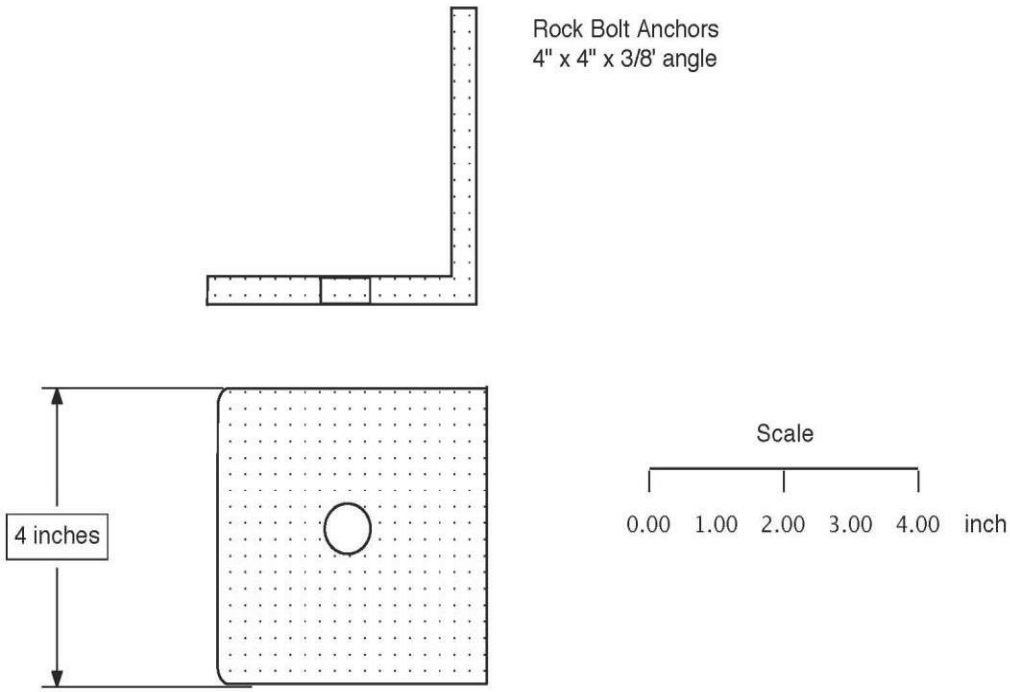
J 2.2 D Illustration – Closure Using Adjustable Bat-Friendly Cupola

Bat Cupola

Detail Sheet A -Hinge Assembly (Typical)



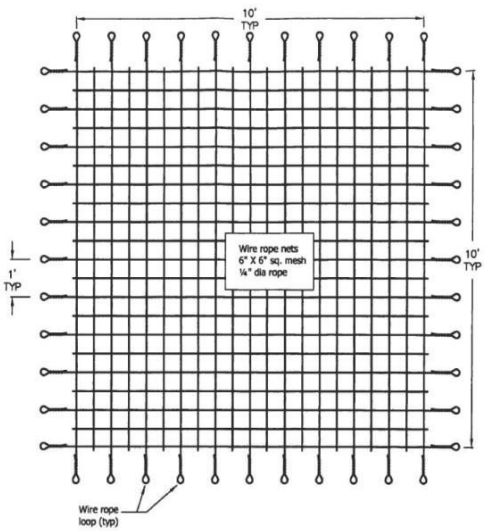
J 2.2 E Illustration – Closure Using Adjustable Bat-Friendly Cupola



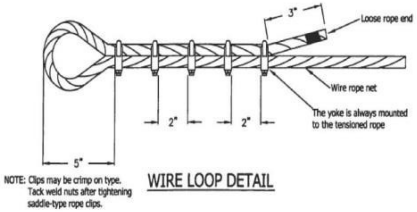
U.S.D.A. Forest Service
Region 3

Detail Sheet D
Cupola Anchor

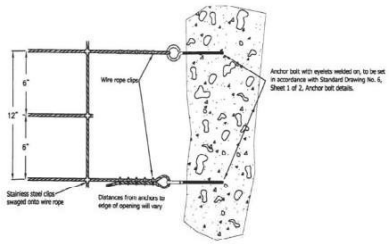
J 2.3 Illustration – Closure Using Cable-net



WIRE ROPE NETTING



WIRE LOOP DETAIL



WIRE ROPE NET AND
ANCHOR BOLT DETAIL

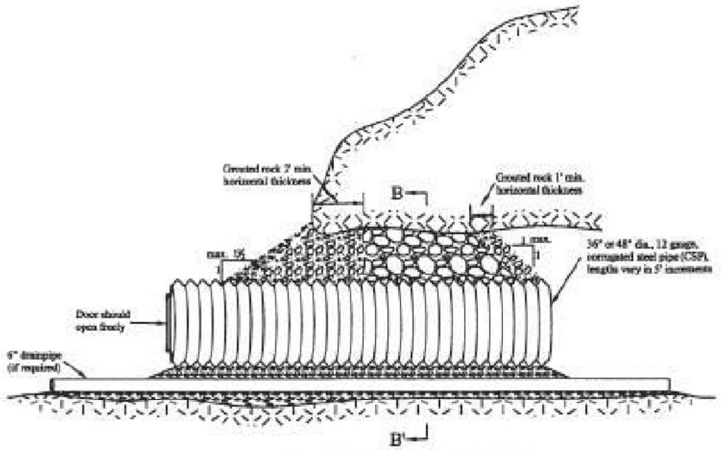
Caution: These graphics are provided for general illustration purposes only and are not intended to provide exact specifications.

Acknowledgement:
These plans are from the Colorado Division of Mines and Geology, Inactive Mine Reclamation Program. See Standard Drawing No. 13, General Bid Specifications, 2004

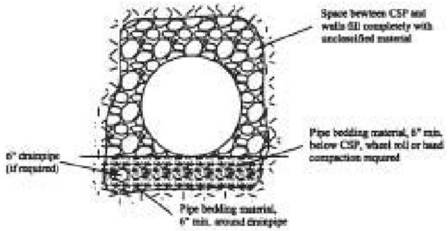
Region 3
Abandoned Mine Land
Conract Specification

Illustration - J2.2
Closure Using Cable-net.
Refer to Bid Item C 5.7

J 2.4 Illustration – Closure Using Corrugated Steel Pipe



CORRUGATED STEEL
ADIT CLOSURE



SECTION B-B'

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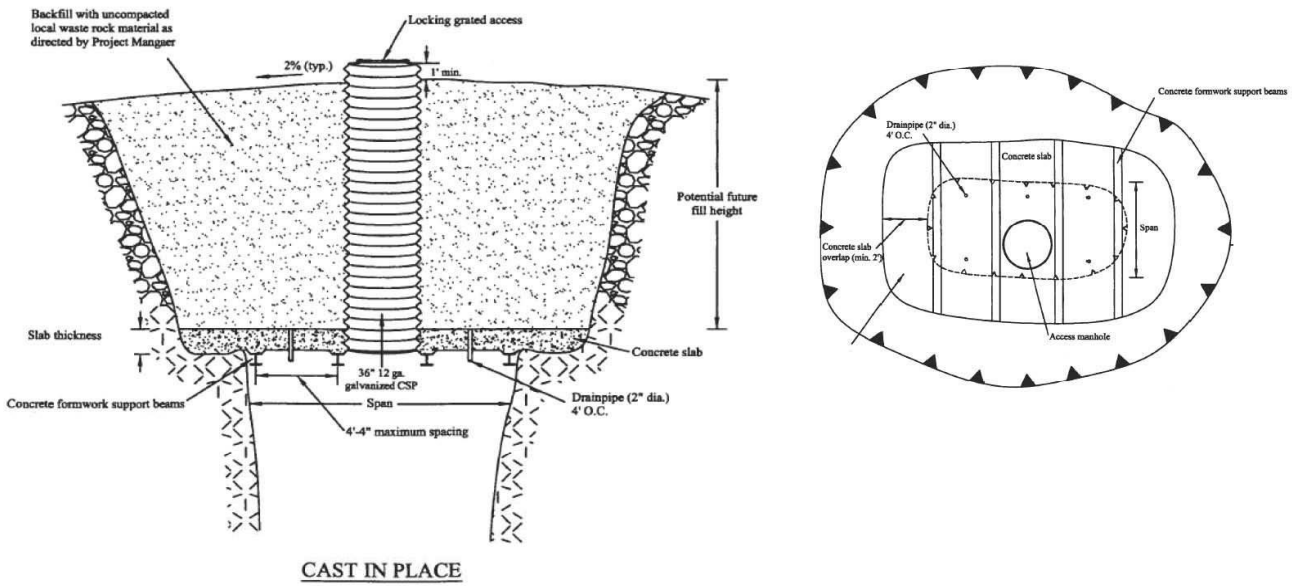
Acknowledgement:
These plans are from the Colorado Division of Mines and Geology, Inactive Mine Reclamation Program. See Standard Drawing No. 5, General Bid Specifications, 2004

Region 3
Abandoned Mine Land
Conract Specification

Illustration - J2.3
Closure Corrugated Steel Pipe
Refer to Bid Item C 5.9

J 2.5 Illustration – Closure Using Cast-in-Place Concrete



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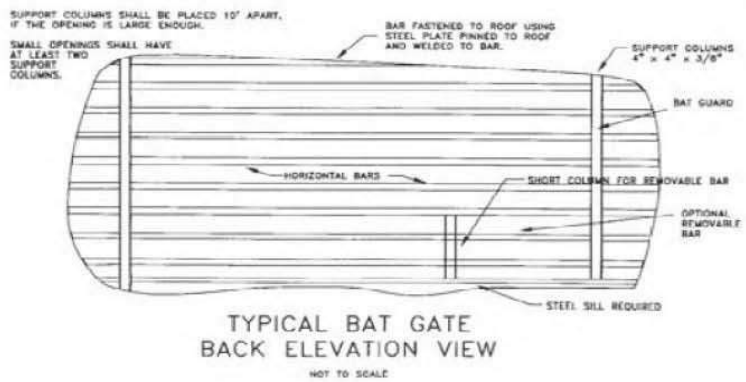
Acknowledgement:
These plans are from the Colorado Division of Mines and Geology, Inactive Mine Reclamation Program. See Standard Drawing No. 3, General Bid Specifications, 2004

Region 3
Abandoned Mine Land
Conract Specification

Illustration - J 2.4
Closure Using Cast-in-Place Concrete.
Refer to Bid Item C 5.10

J 2.6 A Illustration – Closure Using Bat-Friendly Gate



TYPICAL BAT GATE
BACK ELEVATION VIEW

NOT TO SCALE

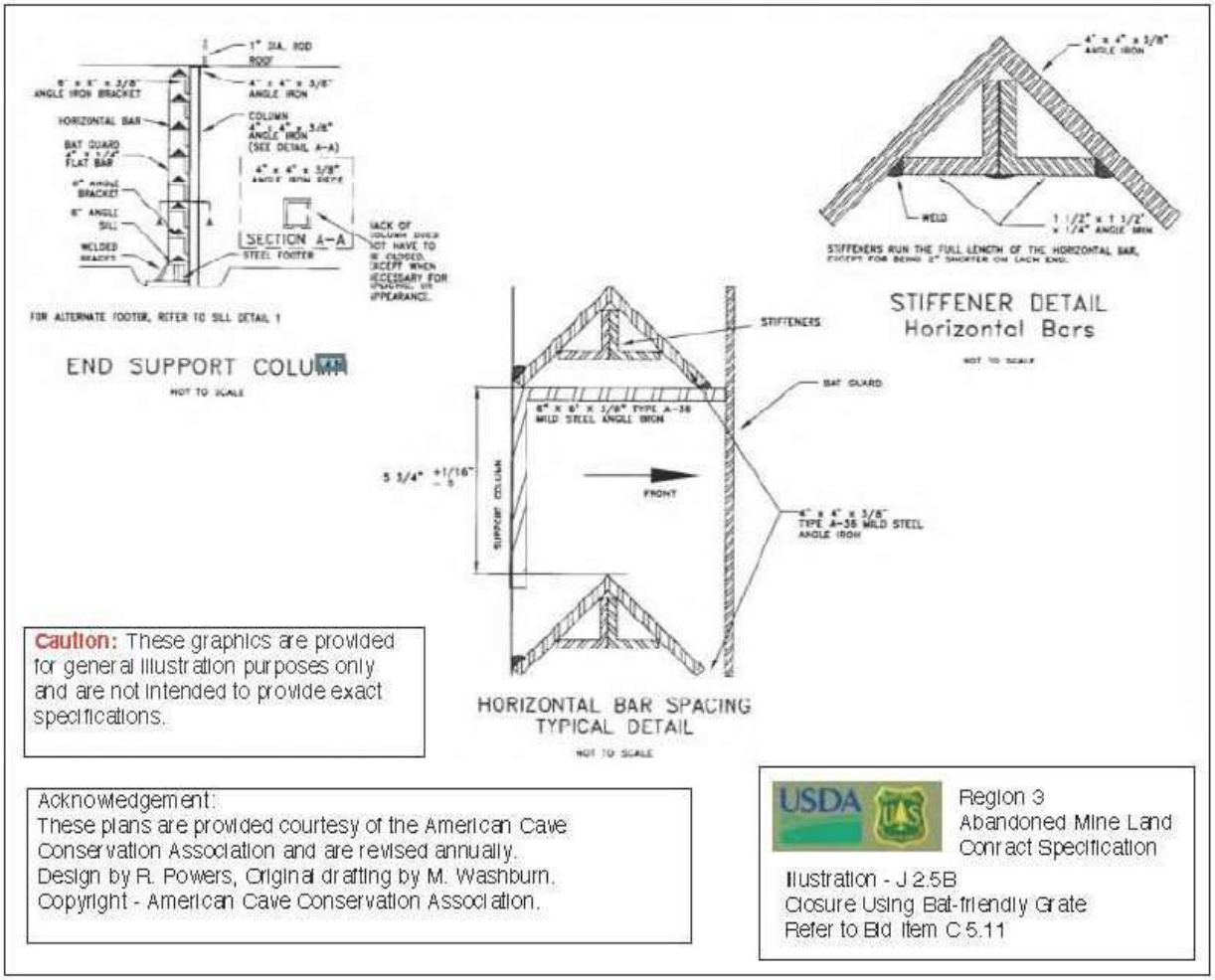
Caution: These graphics are provided for general illustration purposes only and are not intended to provide exact specifications.

Acknowledgement:
These plans are provided courtesy of the American Cave Conservation Association and are revised annually.
Design by R. Powers, Original drafting by M. Washburn.
Copyright - American Cave Conservation Association.

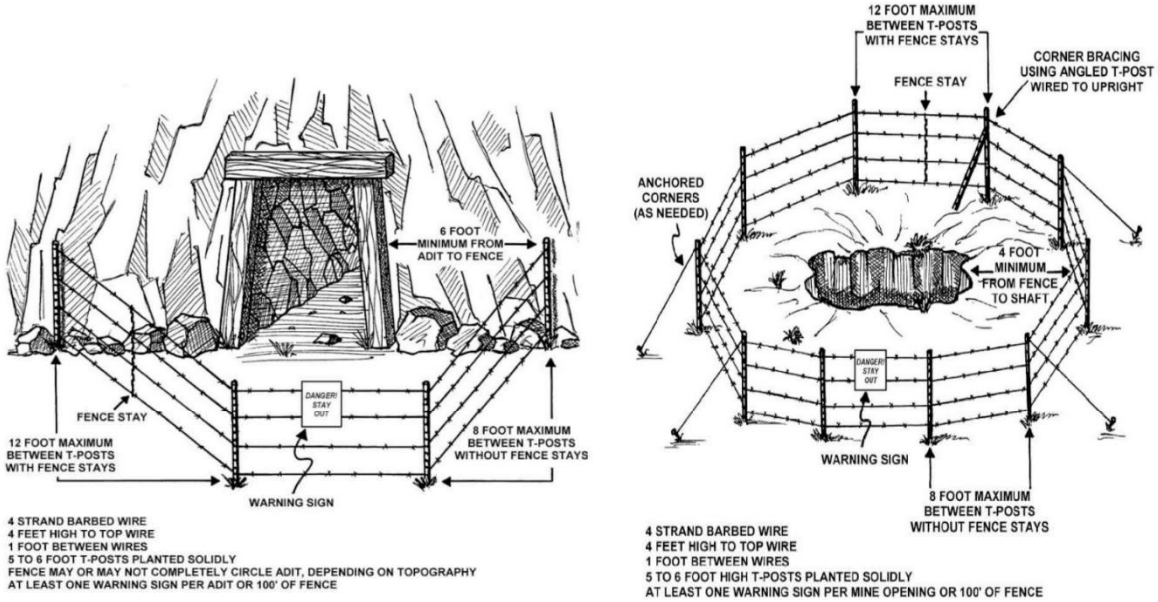
Region 3
Abandoned Mine Land
Conract Specification

Illustration - J 2.5 A
Closure Using Bat-Friendly Grate.
Refer to Bid Item C 5.11

J 2.6 B Illustration – Closure Using Bat-Friendly Gate



J 2.7 Illustration – Closure Using barbed-wire fence



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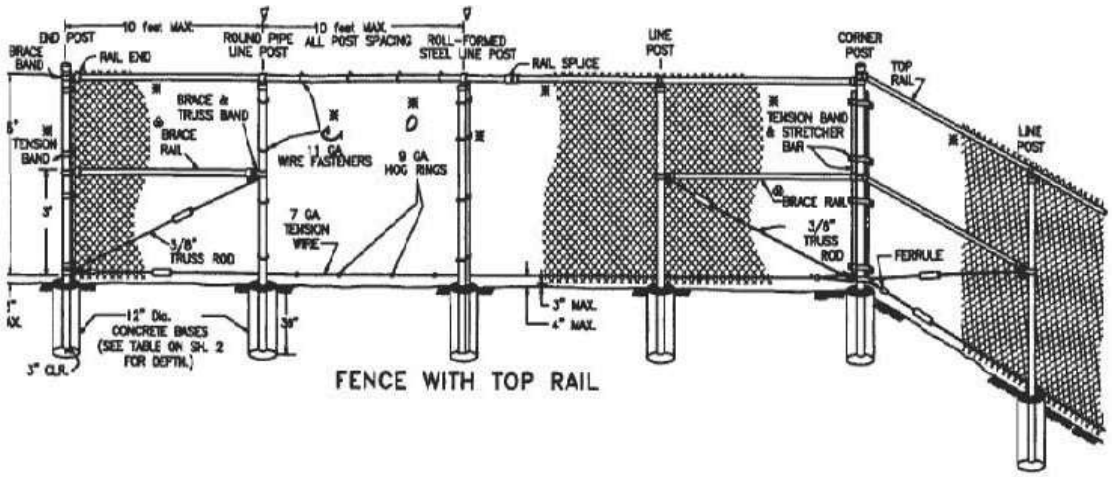
Acknowledgement:
These plans are provided courtesy of the Nevada Bureau of Mines and Geology

Region 3
Abandoned Mine Land
Conract Specification

Illustration - J 2.6
Closure Using Barbed-wire Fence
Refer to Bid Item C 5.12

J 2.8 Illustration – Closure Using Chained-link Fence



Caution: These graphics are provided for general illustration purposes only and are not intended to provide exact specifications.

Note:
Chain Link fence would be installed around mine features in the manner shown for barb-wire fence

Acknowledgement:
These plans are from the Colorado Division of Mines and Geology, Inactive Mine Reclamation Program. See Standard Drawing No. 8, General Bid Specifications, 2004

Region 3
Abandoned Mine Land
Conract Specification

Illustration - J 2.7
Closure Using Chain-link Fence
Refer to Bid Item C 5.13

Coronado National Forest Industrial Fire Precautions Plan

The following requirements are part of the solicitation and any resultant contract, and shall be provided at the contractor's expense:

1. Wildfire Prevention – During periods of contract performance, fire prevention and immediate suppression actions shall be performed by the contractor.

2. Execution of Industrial Fire Plan

   a. Forest Service personnel involved will, in all cases, coordinate through the Contracting Officer's Representative (COR) except in cases of emergency, Red Flag Days, or Forest closure.

   b. The contractor shall designate a Fire Guard, fluent in English, who shall be responsible for executing and carrying out the Industrial Fire Plan requirements. The name of this representative will be provided to the COR at the pre-work meeting.

   c. The contractor shall include the Industrial Fire Plan requirements in all subcontracts, see Supplement 1.

   d. The contractor shall assure that all contract employees are informed of the existence and conditions of the Industrial Fire Plan requirements.

3. Compliance Inspection

   a. Inspection by the Forest Service will be made to ensure compliance with the fire requirements.

   b. Should any deficiencies appear during the inspection, the contractor will be informed, and the deficiencies shall be corrected within 24 hours. Activities with the potential to start fires shall be halted until the deficiencies are corrected and the corrections are approved by the COR.

   c. The contractor's Fire Guard shall make daily inspections to ensure that the terms of the Industrial Fire Plan requirements are met at all times, both on the jobsite and in the contractor's camp.

4. Fire Pre-Suppression Requirements

   a. Fire Toolbox - During contract performance, the contractor shall furnish and maintain, at their expense, one mobile Fire Toolbox, within ¼ mile or less of the location where the contractor is currently performing work and camping. The fire toolbox is to be maintained with tools in good condition, in such quantities and mix to provide a fire tool for each person in the contractor's workforce. This equipment is for the sole purpose of firefighting: a mix of three shovels, size 0 or larger, one axe, two fire rakes, two Pulaski's, and two 3-5-gallon hand pump garden sprayers or backpack pumps filled with water. Where appropriate, a chainsaw may be substituted for the axe; a McLeod tool or heavy-duty garden rake for a fire rake, and a heavy-duty garden wide hoe or other sturdy digging/scraping tool may be substituted for the Pulaski.

      The fire toolbox shall be replenished with re-sharpened, reconditioned, or new tools by the contractor after each use.

   b. Work Hours – The contractor shall restrict operations in accordance with the following Industrial Fire Plan level unless the COR waives the requirement in writing.
      Each day of operation when there is a predicted change in the Industrial Fire Plan level, the Forest Service will inform the contractor between 3 and 6 pm MST (4 and 7 pm MDT). Notification will be made of the alphabetical industrial fire precaution plan (Supplement 1) to be followed the next day within the local operating area.
      No later than 9 am MST (10 am MDT) the following day, the Forest Service will inform the contractor of any change in the fire precaution schedule. In the case of Red Flag Days, the Forest Service will inform the contractor as soon as possible after the National Weather Service issues

their high wind warning for that day, which often comes after 9 am MST.

c. Blasting – Use of caps and safety fuse detonators for blasting is not permitted during periods when fire precaution plan C, or D, or Red Flag is in effect. A Fire Guard shall be required in accordance with the Industrial Fire Plan level (see Section H.3.0.). This individual, when required, shall remain on duty to check for fires for at least 1 hour after blasting is finished. Required equipment shall consist of at least one 5 lb. fire extinguisher, one shovel, size 0 or larger and one 3-5-gallon hand pump garden sprayer or backpack pump filled with water. Blasting hours are restricted under fire precaution plan C; and blasting is prohibited under fire precaution plan D and on Red Flag days.

d. Welding –Written permission must be obtained from the COR during fire precaution plan B, C, and D. Welding is prohibited on Red Flag days. Required equipment at the welding site shall consist of at least one 5 lb. fire extinguisher, one shovel, size 0 or larger and one 3-5-gallon hand pump garden sprayer or backpack pump filled with water. An area commensurate with the amount of welding to be accomplished shall be cleared to bare mineral soil before welding operations are started. The area in the immediate vicinity of the operation shall be wet down before and after operations. The area adjacent to the welding operations shall be thoroughly checked by the Fire Guard for fires for at least 1 hour after welding.

e. Slash Incineration – Operation of forced-air burners must comply with all state and federal open burning laws, regulations, and policies. Forced air burners shall be operated with a minimum set back from combustibles of 100'. This activity is prohibited on fire precaution plan C, D and Red Flag days.

f. Ash disposal – Ash from slash incineration shall be treated in such a manner as to not constitute a wildfire risk, and shall be disposed of in an approved manner designated by the COR.

g. Controlled Burning – All planned burns, including pile burns or use of air curtain burners, conducted by the contractor under the terms and conditions of the contract are required to have a written Burn Plan that meets the requirements of Forest Service Manual 5140 for the project. The Burn Plan must be prepared, recommended, and approved by the appropriate Forest Service Officers. The contractor will notify the CO, COR, and District Fire Management Officer prior to implementation of a burning project. The contractor will ensure all appropriate Federal, State, and local laws, regulations, and policies pertinent to the Burn Plan, are adhered to.
Training and qualification standards for the contractor's employees conducting burning operations will be required according to the applicable regulations in NWCG 310-1, which can found at the National Wildfire Coordinating Group website, https://www.nwcg.gov/publications/pms310-1.

h. Fire Guard – To prevent, detect, and suppress wildfires, the contractor shall provide one or more trained Fire Guards at each operating area where internal combustion engines, incineration equipment, controlled burns or camps are used. Each Fire Guard is required to read, understand, and perform the Industrial Fire Plan duties. The Fire Guards may perform other contract work in conjunction with Fire Guard duties, provided such other work does not distract from Fire Guard responsibilities. A Fire Guard(s) assigned on one operating area shall satisfy the requirements on adjacent areas if the travel time with available transportation is not more than twenty (20) minutes to any of the other areas.

Each Fire Guard shall be physically able, and trained to prevent, detect, and report any fire, and to immediately take suppression action with the required firefighting equipment and employees on any wildfire that starts within the contract area. The Fire Guards shall perform their duties during normal operating hours; with an added three (3) hour watch after work stops for the day when the Fire Precaution Plan is at level B or C. If the contractor has agreed to additional terms for operation under Fire Precaution Plan D, the Fire Guard will perform all requirements specified in the Plan D Authorization Letter issued by the CO. Each Fire Guard shall be equipped with a vehicle capable of carrying a minimum 5 lb. fire extinguisher and f i r e tools consisting of a cache box with one shovel, size 0 or larger, one cutting tool such as either an axe, Pulaski or chainsaw,

one fire rake or heavy duty garden rake, and two 3-5-gallon hand pump garden sprayers or backpack pumps filled with water. All equipment and tools shall be maintained in serviceable and operable condition. The tool cache for the Fire Guard will be in addition to the Fire Toolbox maintained for the work crews and available for use at both the work site and campsite.

i. Communications – The contractor shall provide some form of direct communication, such as a cell phone or two-way radio, between the Fire Guard(s) and the work crews, and when technically possible, between the jobsite and the Forest Service. The contractor's cell phone number, or other form of contact, will be reported to the COR at the pre-work meeting. All communications will be in English.

5. Wildfire Suppression

a. The contractor shall take independent action immediately to suppress all fires originating within the contract boundary and camp location. The contractor shall continue fighting the fire until released from the fire by the Forest Service. The contractor will take appropriate action on a fire outside the contract area or campsite to the level of their firefighting experience, abilities, and qualifications. The contractor may be requested to assist the Forest Service with fighting a fire if the personnel have been trained and equipped with the proper personnel protective equipment (PPE). If contract operations are interrupted for firefighting purposes the contractor shall notify the COR as soon as practical.

b. If the contractor pursues fighting any wildfire which has moved from off the USFS contract land and crosses onto lands of other ownership, such as private property, the contractor shall be aware that dangers may be present associated with urbanized areas. For example, the contractor will need to become highly alert, and take extreme care to avoid dangers associated with open flames or operating heavy equipment near propane/butane tanks and underground gas lines, overhead/underground electric lines, underground septic tanks, and private outbuildings which may contain hazardous or flammable/explosive chemicals. Coordination as soon as possible with USFS and/or local municipal firefighters who are better trained for safe wildland/urban-interface fire suppression tactics is recommended when faced with fires on private lands.

c. All fires shall be reported immediately to the most available Forest Service office. The COR will ensure that all fire reports are forwarded immediately to the Tucson Interagency Dispatch Center (520-202-2710). Even though the fire may have been suppressed by the contractor's crew, this report is still required. The office and telephone numbers to which fires shall be reported will be furnished to the contractor at the contract pre-work meeting.

d. The contractor shall not perform fire suppression activity, or provide reinforcement support, on any wildfires that originates and remains outside the contract boundary or the contractor's camp location, without meeting the criteria below.

If the contractor wishes to be available to assist the Forest Service with emergency wildfire suppression or support activities beyond the contract boundary, all the contractors, and/or Subcontractor's, equipment must first be signed up on an Equipment Rental Agreement, USDA/USDI Optional Form 294, issued by the Coronado National Forest or other National Forests within Region 3. (In cases of extreme emergency, the Forest Service can finalize this agreement at the fire location.) Emergency use of equipment manned with operators, such as dozers, skidders, tree shears, chainsaws, and water trucks/trailers, would then be compensated to the contractor at current Forest Service fire-fighting rental equipment rates common to the area. Equipment rented by the Forest Service under this agreement should be operated only by physically able personnel supplied by the contractor.

Likewise, all personnel employed or subcontracted by the contractor who wishes to work on wildfires as individuals must first be currently certified with the required fire training to be qualified as a wildland firefighter before being permitted to assist the Forest Service with fire suppression. Firefighters must also have completed the necessary forms to become temporary emergency Forest Service fire-fighting employees. Contract personnel temporarily released off this contract by the Contractor to fight off- contract

fires, shall be paid by the Forest Service at current USFS standard emergency "administratively determined" (AD) fire-fighting rates.

The COR can direct you on how and where to make these preparations in advance. The contract COR must be notified as soon as possible in writing when the above conditions for fire rental equipment and personnel have been met. The Contractor must also notify the COR as soon as practical if contract operations are interrupted for emergency firefighting outside the contract area. If the Contractor does not wish to meet these criteria to help fight wildland fire outside the contract area, the Contractor is not required to do so.

Equipment Requirements

a. All gasoline and diesel equipment (except turbocharged) used on the project, and in camp, shall be equipped with spark arresters approved in the Spark Arrester Guide, USDA Forest Service, which will be used by the USFS for equipment inspections. Copies of this Guide can be viewed on the internet at https://www.fs.usda.gov/t-d/pubs/pdfpubs/pdf21511814P/2151_1814P_SparkArresterGuide.pdf . To downlaod the most recent Guide, go to the above-mentioned website.

b. All internal combustion engines must be inspected before use in the job and periodically thereafter by the Forest Service. Equipment not passing inspection cannot be used until repairs are made, re-inspected, and passed by the Forest Service - see attached Supplement 3: Order Southwestern Region USDA Forest Service pursuant to 36 CFR 261.50 and 261.52 (f) and (j).

c. Serviceable baffled mufflers with standard exhaust tailpipes and catalytic converter heat shields are considered adequate on trucks, pickups, vans, sedans, motorhomes, and ATVs provided the muffler system meets the USDA Forest Service, Spark Arrester Guide. Care shall still be taken to avoid parking such vehicles over tall grass, brush, or flammable materials.

d. Equipment service areas, and gas and oil storage areas, shall be cleared of brush, litter, debris, and grass for a radius of at least 50 feet. Locations shall be pre-approved by the Forest Service.

e. Each piece of motorized equipment not included in item (f.) below shall be equipped with a round-point shovel and fire extinguisher.

f. Fuel trucks, service trucks, and the work camp shall be equipped with a shovel, double bit axe, and class ADC pressurized chemical fire extinguisher of not less than 15 pounds capacity by weight.

The shovels and fire extinguishers are in addition to those required for the Fire Guard tool cache (4.a.) and the mobile fire toolbox (4.e). These shall be furnished and maintained at the Contractor's expense.

g. All crawler tractors and rubber-tired equipment suitable for fire suppression work shall be equipped with lights for nighttime use. This includes two functioning headlights, and 1 to 2 backup lights.

h. Power saws shall be kept in a safe, serviceable condition at all times. Each power saw shall be equipped with an approved spark arrester screen muffler system defined by USDA Forest Service Spark Arrester Guide. All exhaust products must pass through the screen, which has openings of 0.023-inch or less. The effective exhaust area of the screen (total area of all screen openings) shall not be less than 200 percent of the engine exhaust port area at its smallest cross-section. Screen material will be heat and corrosion resistant and shall provide at least 100 hours of service life.

(1.) The refueling of power saws shall be done on bare mineral soil and the saw shall be moved at least 10 feet from the point of refueling to another barren spot before being started.

(2.) Power saws with warm or hot spark arresters screen mufflers—running or not—shall not be placed or rested on sawdust piles, litter duff, stumps, or spots that are easily ignited.

(3.) Each crew with power saws shall be accompanied by at least one round point shovel in good condition and a Factory Mutual (FM) approved fuel can. One chemical pressurized fire extinguisher, 8 ounces or larger, is always to be kept with the power saw operator while working on the project. The shovel is to be kept with the fuel supply can.

6. Smoking and Fires

a. Smoking – When/where smoking is permitted, cigarette butts or other smoking materials shall be extinguished completely and disposed of responsibly.

(1.) No smoking shall be allowed while traveling, except on surfaced highways. A surfaced highway is any road that is oiled, graveled, or otherwise paved.

(2.) Smoking is not permitted while working. Smoking is only permitted in camp or on breaks, and only in areas having a clearing of at least 3 feet in diameter to bare mineral soil or rock, or preferably inside an enclosed vehicle with an ash tray.

(3.) Smoking is not permitted while refueling or while in the fuel storage/ service area.

b. Fires – Warming fires, cooking fires, or burning of waste debris at camp or on the jobsite, shall not be permitted during periods of high to extreme fire danger except in designated places by written consent of the Forest Service. All other fires (such as burning of debris resulting from clearing a camp or right-of-way) and ash disposal are covered under sections 4.e., 4.f., and 4.g.

7. Fire Plan and Closure Order Violations

a. Contractor's violation or deficiency in meeting fire plan requirements shall result in a state of non-compliance with the terms and conditions of the contract. Immediate suspension of contract operations will be enforced until the deficiency or violation is corrected.

b. The Contractor shall advise all employees of Forest campfire, smoking, power saw, and/or area closure orders (36 CFR 261.52 (a) (c) (d) (e) (h)). After notification to the Contractor by the Forest Service of such orders taking effect, the Contractor and their employees may be subject to criminal action under Federal Regulations separate from this contract should a violation occur.

8. Fire Suppression Costs – The USDA Forest Service reserves the right to participate in extinguishing any fires caused by the Contractor's operations. Contractor's obligations for cost of fire suppression, and all suppression activities ordered or directed by the Forest Service, vary according to three classifications of fires as follow below:

a. Operations Fire. An "Operations Fire" is a fire caused by Contractor's operations other than a Negligent Fire, when all requirements of this industrial fire safety plan have been met and consistently maintained by the Contractor. The Government (Forest Service) shall perform fire suppression activities on Operations Fires, under the authorities of 16 USC 572. Contractor agrees to reimburse the Forest Service for expenses incurred by the Forest Service for the cost of an operations fire to a maximum of $10,000 dollars for each occurrence.

b. Negligent Fire. A "Negligent Fire" is a fire caused by negligence or fault of the Contractor's deficient operations by failure to comply with all requirements of this industrial fire plan (i.e., "Fire Plan Negligence"), which results in a wildfire starting or permitting a controlled fire to spread out of control. Damages and the cost of suppressing Negligent Fires shall be borne by the Contractor. The Contractor shall also be responsible for full or partial costs and damages to any property of the USDA Forest Service or third parties caused by escaped fires resulting from Contractor's negligence.

c. Other Fires in Immediate Area. This situation is covered under section 5.d. of this fire plan.

Emergency Fire Precaution Schedule	
Fire Restriction/Closure "Stage"	
Restriction Levels	**Industrial Fire Precaution Plan**
No Restriction	**A**
Stage I	**B**
Stage II	**C**
Stage III/ Forest Closure*	**D**
Red Flag Warning (Issued by National Weather Service)	**D**

*Areas outside of the closure will still be permitted to work. Only areas within the closure will shut down operations.

Industrial Fire Precaution Plan-Description

Plan	**Item**	**MST** (Mtn. Standard Time)	**MDT** (Mtn. Daylight Time)
A	Normal Fire Precautions. No fire guard required.		
B	Normal Fire Precautions. Contactor will provide fire guard.		
C	No smoking, warming, or cooking fires are permitted at any time. Contractor will provide fire guard.		
	All power saws except for chainsaws used for limbing on landings cleared to mineral soil will shut down: Mechanical fellers except or mechanical fellers equipped with hydraulic shears will shut down:	**9:00 AM to 8:00 PM**	**10:00 AM to 9:00 PM**
	Shutdown all machine treatment of slash; mechanical equipment used for shearing, bunching or delimbing; skidding; cable yarding; blasting or clearing:	**12:00 noon to 8:00 PM**	**1:00 PM to 9:00 PM**
	Welding, metal cutting on cleared mineral soil will be shut down:	**12:00 noon to 8:00 PM**	**1:00 PM to 9:00 PM**
	All chainsaws used for limbing on landings cleared to mineral soil will shut down:	**2:00 PM to 8:00 PM**	**3:00 PM to 9:00 PM**
	Operation on mineral soil involving road excavation, watering, grading, surfacing, rock crushing, and/or other equipment maintenance may continue.		
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.		

Restriction levels are determined by the appropriate Forest Line Officer in consultation with the Forest Fire Management Officer and Contractor. The appropriate Forest Line Officer may adjust the predicted Industrial Fire Precaution Plan for local weather conditions within a Project Area. Changes in the predicted Industrial Fire Precaution Plan shall be agreed to in writing.

FIRE GUARDS

To prevent, detect, and suppress wildland fire, contractors shall provide a fire guard at each operating area where power-driven equipment and tools have been operated during the day. The fire guards shall constantly perform their duties during operating hours and for three (3) hours after the work stops for the day, when the Fire Precaution Plan is Plan "B", "C", or "D".

A fire guard 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 and provided the fire guard patrols all area where authorized user's activities occurred.

Each fire guard shall be vigilant, able and prepared to actions to prevent, detect, and report any wildland fires and to promptly and efficiently take suppression action with available required firefighting equipment and personnel on any wildland 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 with a complement of fire tools maintained in serviceable condition. Approved firefighting tools may include the following: Pulaski; McLeod: long handles round pointed shovel. The fire guard will also carry at least 25 gallons of water for firefighting purposes.

RED FLAG WARNING

A red flag warning is issued when the combination of dry fuels and weather conditions support extreme fire danger. Red flag warnings are issued by the National Weather Service for land and fire managers to highlight the increased fire danger.

- RED FLAG WARNING is issued if conditions are occurring or will occur within the next 24 hours that would support extreme fire danger.

When a Red Flag Warning is issued by the National Weather Service, all authorized user operations will adhere to Industrial Fire Precaution Plan "**D**" and will shut down operations until the Red Flag Warning is rescinded.