



DATE: June 7<sup>th</sup>, 2022

TO: Epic Construction and Environmental, Horizon Environmental Services, McCollums  
Excavating, and Research Services

FROM: Mark Mikos, Project Manager, Division of Reclamation Mining and Safety

RE: Edwards Mine Fire Emergency Project

This Request for Documented Quotations (DQ) is issued by the State of Colorado, acting by and through the Department of Natural Resources, Division of Reclamation, Mining and Safety (DRMS). Enclosed is a brief description and bid schedule for the Edwards Mine Fire Emergency Project Project.

### **PROJECT LOCATION**

The Edwards Mine Fire Emergency Project is located east of Somerset Colorado. Please see the attached maps.

### **WORK SUMMARY**

The project work will include clearing all vegetation from approximately 2 acres of steep terrain, constructing an access road, spraying pre-emergent herbicide once vegetation has been cleared, and safeguarding a subsidence feature.

### **SITE SHOWING**

Thank you for attending the site showing on May 31<sup>st</sup>, 2022.

### **GOOGLE DRIVE LINK**

The following link contains supplemental information for this project:

[https://drive.google.com/drive/folders/1ayGy7gwaqa2Y\\_93027QvlOPfIGa9j6rW?usp=sharing](https://drive.google.com/drive/folders/1ayGy7gwaqa2Y_93027QvlOPfIGa9j6rW?usp=sharing)

### **BID SUBMITTAL**

**The Deadline for all bids to be submitted is no later than 4:00 p.m. MT on June 9<sup>th</sup>, 2022. Please email bids to [mark.mikos@state.co.us](mailto:mark.mikos@state.co.us).**

A responsive bid must include the following, properly completed and submitted:

- Bid Schedule
- List of Equipment



For projects exceeding \$150,000, the successful proposer(s), hereafter called Contractor, will be required to enter into a formal contract with the State. The contract will incorporate this DQ, published addenda, and the response of the successful bidder, and will include all contract terms and the Colorado Special Provisions.

**List of Equipment Offered.** The List of Equipment Offered form must be returned with each bid. All equipment to be used on the project must be listed. The CONTRACTOR must own, have a current lease for the equipment intended to be used to perform the work, or must furnish a statement of arrangements to rent, or otherwise procure, adequate equipment to perform the work. Inclusion of a piece of equipment on the List of Equipment Offered represents a commitment to devote that piece of equipment to the project work for the entire duration of the project. If several contractors propose to join together to perform the work under this contract, equipment owned or controlled by each should be listed and the owner identified. An award will not be given to a bidder who in the opinion of the OWNER (a) does not have adequate equipment, or (b) does not have firm and satisfactory arrangements to obtain adequate equipment to perform the work described in the Bid.

If the List of Equipment Offered is not submitted with the bid, the bid may be considered non-responsive.

## **BID AWARD**

Award will be made with reasonable promptness, by written notice to the low responsive and responsible bidder whose bid meets the requirements and criteria set forth in the Documented Quote. These criteria will include, but not be limited to the lowest GRAND TOTAL PRICE, corrected if necessary for errors in price extension and/or addition, on the Bidder's equipment if a List of Equipment Offered is required with the bid, and capability to meet the performance time requirements. The GRAND TOTAL PRICE will be used for comparing bids only.

The bidder must be registered to do business in the State of Colorado with the Secretary of State [www.sos.state.co.us](http://www.sos.state.co.us). A Certificate of Good Standing will be required to process the Agreement.

If Federal funds are utilized for this project, the contract cannot be awarded to a contractor which has been disbarred or suspended or is otherwise excluded from or ineligible for participation in federal assistance programs. The excluded parties list can be found at the following web site: <http://www.sam.gov>.

## **GENERAL BID SPECIFICATIONS**

The Colorado Inactive Mine Reclamation Program, [\*General Bid Specifications 2009\*](#) which include General Conditions of the Contract, Standard Work Specifications, and Standard Drawings and Figures are intended to complement these Special Conditions. Please refer to the Standard Work Specifications for all applicable types of work required in the Special Conditions. The General Conditions of the Contract apply to all work covered in the Special Conditions.

## PROJECT DATES

The project is scheduled for construction between June 13<sup>th</sup>, 2022 and August 11<sup>th</sup>, 2022. This includes ten (10) days mobilization time. These dates are tentative and may change.

## TIME OF COMPLETION

The time of completion allowed for the project is 60 calendar days after receipt of the Notice to Proceed. This includes ten (10) days mobilization time.

## NOTICE OF AWARD AND EXECUTION OF DOCUMENTS

A Notice of Award will be sent to the apparent low bidder within a reasonable time following the bid submission deadline. The Division of Reclamation, Mining and Safety must receive the following by the date specified in the award letter:

- (a) Certificates of Insurance showing proof of required coverage and Additional Insured Endorsement;
- (b) Project Schedule;
- (c) *AML Contractor Ownership and Control Form*, if required;
- (d) *Three-Way Agreement for Reclamation Activities*, if required by the Special Conditions;
- (e) Completed W-9 form, if required (for contractors new to the State).
- (f) Completed EFT Form- required as of 4/15/2018

Please consult Articles 2-7 of the *General Conditions*.

If the above documents are not submitted properly by the contract signing date, the Division of Reclamation, Mining and Safety may elect to award the contract to the next lowest bidder. Bidders are advised to keep close contact with DRMS during this period.

## THREE-WAY AGREEMENT

A three way "Agreement for Reclamation Activities" **is required** for this job. Please see Article 4 of the *General Conditions* for the applicable insurance requirements.

## INSURANCE

- A. The contractor shall obtain at his own expense, and maintain at all times during the term of this contract, insurance listed below. Proof of insurance must be submitted on certificates showing the following minimum coverage:
  - 1) Worker's Compensation Insurance as required by state statute, and Employer's Liability Insurance covering all of contractor's employees acting within the course and scope of their employment.

- 2) Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent contractors, products and completed operations, blanket contractual liability, personal injury, and advertising liability with minimum limits as follows:
  - a. \$1,000,000 each occurrence;
  - b. \$1,000,000 general aggregate;
  - c. \$1,000.00 products and completed operations aggregate; and
  - d. \$50,000.00 any one fire.

If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, the contractor shall immediately obtain additional insurance to restore the full aggregate limit and furnish to the State a certificate or other document satisfactory to the State showing compliance with this provision.

- 3) Automobile Liability Insurance covering any auto (including owned, hire and non-owned autos) with a minimum limit as follows: \$1,000,000 each accident combined single limit.

The Certificates of Insurance and insurance policies required above shall be subject to the following stipulations:

- B. The State of Colorado and Mountain Coal Company LLC. shall be named as additional insured on all applicable Insurance policies (leases and construction contracts will require the additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037 or equivalent). Coverage required of the contract will be primary over any insurance or self-insurance program carried by the State of Colorado.
- C. The Insurance shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the State by certified mail.
- D. The contractor will require all insurance policies in any way related to the contract and secured and maintained by the contractor to include clauses stating that each carrier will waive all rights of recovery, under subrogation or otherwise, against the State of Colorado, its agencies, institutions, organizations, officers, agents, employees and volunteers.
- E. All policies evidencing the insurance coverages required hereunder shall be issued by insurance companies satisfactory to the State.
- F. The contractor shall provide certificates showing insurance coverage required by this contract to the State within ten days of the notice of award. No later than 15 days prior to the expiration date of any such coverage, the contractor shall deliver the State certificates of insurance evidencing renewals thereof. At any time during the term of this contract, the State may request in writing, and the contractor shall thereupon within 10 days supply to the State, evidence satisfactory to the State of compliance with the provisions of this section.
- G. Subrogation Waiver: All insurance policies secured or maintained by Contractor or its Subcontractors in relation to this Contract shall include clauses stating that each carrier shall waive all rights of recovery under subrogation or otherwise against Contractor or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

Bidders are advised to consult with their insurance carrier concerning these requirements. Submit a bid only if you are prepared to complete these requirements.

## **CONDITIONS AFFECTING THE WORK**

In addition to examining the drawings and specifications, completion schedule, and other instructions, bidders shall visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the work, including average climatic conditions and the general and local conditions which can affect the work or the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work.

## **PROJECT FUNDING**

This project is funded by Federal grant money made available to the State of Colorado through the U.S. Department of Interior, Office of Surface Mining, Reclamation and Enforcement through Title IV of the Surface Mining Control and Reclamation Act, Public Law 95-87. (CFDA 15.252).

## **AMERICANS WITH DISABILITIES ACT**

All programs, services and activities of the Department of Natural Resources, Division of Reclamation, Mining and Safety and the Colorado Mined Land Reclamation Board are operated in compliance with the Americans with Disabilities Act. Details can be found online at <https://dnr.colorado.gov/accessibility>.

## **CORA DISCLOSURE**

To the extent not prohibited by federal law, this Contract and the performance measures and standards under CRS 24-103.5-101, if any, are subject to public release through the Colorado Open Records Act, CRS 24-72-101, et.seq.

## **HISTORIC PRESERVATION**

Areas adjacent to the mine sites often contain related artifacts and structures, such as buildings, tipples, ore houses, headframes and foundations that may be historically significant. Care shall be exercised to avoid any disturbances to these structures and artifacts, in order to preserve their integrity. Existing structures shall not be used as load-bearing devices.

## **PROJECT WORK DESCRIPTION**

The attached *General Conditions of the Contract* and *Purchase Order Terms and Conditions* apply to all work.

## ITEM 1.0 MOBILIZATION/DEMobilIZATION

This item includes those measures necessary and incidental to move equipment and supplies onto the Project Area, to move equipment within the Project Area, and to complete any other requirements necessary to accomplish the goals of this Project. This item also includes all labor, equipment, and costs associated with demobilization and clean-up of the work site following completion of the Project. Please see Specification 1.0, Mobilization / Demobilization of the *General Bid Specifications, 2009*.

**Contractor** must comply with the following provisions during performance of this Project:

No clearing will be conducted without prior approval of the **Project Manager** and without an approved sediment control structure in place and functional, as required by **Project Manager**, until construction is completed. Generally, silt fence, installed per manufacturer's specifications and Section 22.4 of the *General Bid Specifications, 2009* is acceptable as a sediment control measure.

**Contractor** will dispose of waste materials, including but not limited to refuse, garbage, sanitary wastes, spent solvents; oil and other petroleum products off of the Project Area in accordance with applicable laws and regulations. **Contractor** will specify to **Project Manager** proposed methods for all waste collection and disposal, modes of waste transport, and waste disposal facilities and locations **Contractor** and subcontractors will use while performing the work, including making any necessary arrangements for waste collection and disposal. Any fees or charges required to be paid for collection, transport or disposal of waste materials shall be paid by **Contractor**.

At its expense, **Contractor** will comply with all applicable federal, state, and local laws, ordinances, rules and regulations relating to the work, the site, and any materials and/or equipment provided by **Contractor**.

Upon completion of the work under this Contract, the **Contractor** shall remove all temporary facilities, temporary infrastructure and equipment. The **Contractor** shall remove from the work site all rubbish, unused materials, and leave all areas in good order and condition, subject to the approval of the **Project Manager**.

### NOXIOUS WEEDS

In an attempt to mitigate the rampant spread of noxious weeds from one area to another, there will be a mandatory inspection of all equipment to be used during the course of construction at the project site. Prior to inspection, it is the responsibility of the **Contractor** to employ whatever cleaning methods are necessary to ensure that all equipment is free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Equipment shall be considered clean when a visual inspection determines the equipment free of such material. The **Contractor** will be required to notify the **Project Manager** in advance of mobilizing equipment on site to arrange for inspection. Disassembly of equipment components will not be required.

### Measurement and Payment

Payment for Item 1.0 shall be reflected in a lump sum quote price under Item 1.0 on the Bid Schedule. Payment shall include all the **Contractor's** expenses for mobilization of equipment to the site, transportation of the equipment within the project area, employee time, labor and materials necessary to accomplish the requirements of this item, compliance with the conditions and requirements described in this item description, and final clean-up of the work place.

Remobilization, if required, will be paid in accordance with the General Bid Specifications Section 1.4.4.

## **ITEM 2.0 PROJECT SAFETY, HEALTH, AND ENVIRONMENTAL ACTION PLAN (SHEAP)**

The job will involve working around inactive mine features and hazards, and it is the responsibility of the **Contractor** to be aware of all OSHA regulations which apply to this contract. This item includes all the **Contractors** expenses for employee time, labor, materials, and safety equipment and safety training necessary for preparing and executing a job safety plan. The Successful Bidder will be required to prepare the Project Safety Plan (SHEAP) and submit it for review and approval to the DRMS. The **Contractor** is required to develop and implement a Project Safety Plan in conjunction with project implementation. **Project Manager** must receive the Project Safety Plan within five (5) working days of Notice to Proceed date. It is expected that the Project Safety Plan will be comprehensive and sufficiently detailed so that every member of the work crew (including sub-contractors) on site understands their responsibilities and the responsibilities of **Contractor** to ensure a safe and injury free work place.

The Project Safety Plan must be submitted to:

Mark Mikos  
mark.mikos@state.co.us  
or  
379 Shavano ST  
Crested Butte, CO 81224

The plan **MUST** provide specific, detailed responses to the attached list of safety concerns as well as the safety concerns listed below that are likely to present themselves during the course of the project. When developing the Project Safety Plan, please list specific types of equipment to be provided by **Contractor**, including subcontractor(s), in order to address the safety concern, or specifically state the actions to be taken by **Contractor**, including crew and subcontractor(s) order to address the safety concern.

All **Contractor** equipment is subject to a safety inspection before entering the project area.

Project safety is of utmost importance. The vegetation clearing area is located above a burning coal mine. Surface vents and fractures in the area connect to the burning mine which may vent gases. Surface temps can exceed 200 degrees F.

The vegetation clearing area is steep and located above a cliff. The vegetation clearing area will be outlined by the **Project Manager**. **FALL PROTECTION MUST BE WORN AT ALL TIMES**. Please list specific types of fall protection to be provided by **Contractor**. The site requires deadman anchors to be constructed by the **Contractor** to secure fall protection. Deadman anchors must be constructed in sets of three per person for redundancy and have a minimum depth of three feet. Deadman construction details shall be provided to the **Project Manager** by **Contractor** prior to the start of the project. If competent bedrock is found, rock anchors may be used to secure fall protection.

Head Protection secured with a chin strap, such as a climbing helmet, must be worn at all times within the vegetation clearing area.

**Contractor** will provide each person with a calibrated gas multi-meter that can read at minimum oxygen, carbon monoxide, and methane levels and require each person to have it on at all times while in the project area.

**Contractor** will provide each person or team in the project area with a pointed nose shovel and a ABC type fire extinguisher of 25 pound capacity in case fire is encountered.

An emergency plan for a wildfire event will be provided by the **Contractor**. In the event of a wildfire, the project area must be evacuated immediately.

An emergency plan for storm events will be provided by the **Contractor**. In the event of a storm, the project area must be evacuated immediately.

A Helicopter Safety Plan is required if a helicopter is used to supply materials to the site.

COVID-19 Requirements: The SHEAP must address concerns related to the spreading of coronavirus. Current State of Colorado or Gunnison County Public Health Orders, whichever is strictest, will be enforced during the project implementation. The attached State of Colorado, *Multi-Industry Construction Guidance*, contains specific requirements and suggested practices during construction activities to deal with COVID-19 restrictions.

***NOTE:** that the Project Manager may suspend the work, either wholly or in part, for such period or periods as he / she may deem necessary, due to unsafe work practices. The job clock will NOT be stopped in such a circumstance.*

## **Measurement and Payment**

There will be no measurement for payment. Payment for this item will be reflected in a lump sum quote under Item 2.0 on the Bid Schedule. This lump sum quote will cover all costs for developing and implementing the Project Safety Plan or SHEAP, including writing and revising the plan as required, provision and maintenance of safety equipment, conduct of daily safety meetings and all other items necessary and incidental to meeting the specifications of this item and of the Project Safety Plan or SHEAP. Payment shall be made on the final, before retainage invoice, as this item is completed and approved by the **Project Manager**.

## **ITEM 3.0 – ROAD CONSTRUCTION**

A road will be constructed from west of the West Elk Mine to the top of the project area. See attached maps. Access to the start of the road construction is permitted through the active West Elk Mine along a road that parallels the North Fork of the Gunnison River underneath a rock shelf. A few boulders on this stretch of road will be required to be moved to clear the road for access. The existing road continues along the river past a pond. For machinery under 20 tons, a bridge from Highway 133 that leads to the pond area may be used to bypass the road under the rock shelf. Just beyond the pond the existing road ends and the road construction to access the project area will start.



The **Project Manager** will delineate the route of the road. See attached maps for proposed road alignments. The road will be approximately one mile long and twelve feet wide. Switchbacks in the road must be constructed to allow for vehicles to turn around. The **Contractor** will place rolled dips at 100 foot intervals for road grades where grade exceeds ten percent (10%) and on 150 foot intervals where grade is more than five percent (5%), but less than ten percent (10%), or as directed by the **Project Manager**.

Rolled dips will have a minimum depth of twelve inches, and a minimum width of ten feet. The center of the dip will be angled thirty degrees from perpendicular to road length and drain from the upslope road shoulder to the downslope shoulder of the road.

### **ITEM 3.1 – EXCAVATOR WITH OPERATOR**

This Item includes machine time for a tracked excavator to be used for new road construction and any additional earthwork as directed by **Project Manager**. The specified machine must be capable of moving large boulders (up to 48" diameter) and accessing steep slopes. A maximum excavator size equivalent to a CAT 316 or smaller is required for this bid item. Equipment time will be accounted for in accordance with Equipment Rental Specifications 19 in the General Bid Specifications, 2009. Forty (40) hours of equipment time is estimated for this task. Equipment time will start as directed by **Project Manager** once the excavator is mobilized to the site.

#### **Measurement and Payment**

Payment for this item will be reflected under Bid Item 3.1 of the Bid Schedule as an hourly rate for an Excavator and Operator. Bid hourly rate shall reflect the **Contractor's** estimate for equipment and personnel cost per hour to complete the task. Measurement will be actual hours required to complete work as directed and approved by the **Project Manager**.

### **ITEM 3.2 – BULLDOZER WITH OPERATOR**

This Item includes machine time for a bulldozer for new road construction and other earthwork as directed by **Project Manager**. The specified machine is a D5 or equivalent. Equipment time will be accounted for in accordance with Equipment Rental Specifications 19 in the General Bid Specifications, 2009. Forty (40) hours of machine time is anticipated for this bid item. Equipment time will start as directed by **Project Manager** once the excavator is mobilized to the site.

#### **Measurement and Payment**

Payment for this item will be reflected under Bid Item 3.2 of the Bid Schedule as an hourly rate for a Bulldozer and Operator. Bid hourly rate shall reflect the **Contractor's** estimate for equipment and personnel cost per hour to complete the task. Measurement will be actual hours required to complete work as directed and approved by the **Project Manager**.

### ITEM 3.3 – ROAD EROSION CONTROL

The **Contractor** will provide and place biodegradable straw wattles along the downslope shoulder of the access road. Additional straw wattles may be required as necessary at the direction of the PROJECT MANAGER. Straw Wattles must be installed according to Section 22.3 of the *2009 General Bid Specification*. An estimated 3,000 linear feet of straw wattles will be used for this project.

Acceptable straw wattles will be manufactured from rice or certified noxious weed free agricultural straw, and must be wrapped in tinsel (wood based) netting. The wattles must be a nominal nine (9) inches in diameter with a weight of at least thirty (30) pounds per twenty-five (25) foot length. Triton Environmental 9" Straw Wattles, logs/Restoration logs or approved equivalent must be used. Wattles will be installed on contour in trenches that are a minimum three inches (3") in depth and nine inches (9") wide. Wattles will be anchored in the trench by ¾" x ¾" by 24" stakes on four foot (4') centers. The ends of adjacent wattles must be butted one to another. Wattles must be certified weed free.

If impaired, the **Contractor** shall take action within 24-hours of identifying the deficiency to repair the sediment control structures. Split or torn segments shall be repaired or replaced. Broken or split stakes shall be replaced. Locations where rills and other evidence of concentrated runoff have occurred beneath the segments shall be corrected.

Sediment controls will be left in place following completion of the project unless directed to be removed by the **Project Manager**.

#### Measurement for Payment

Measurement will be by the lineal foot of straw wattle installed. **Project Manager** will measure the lineal feet of straw wattle installed and accepted, and report the measured footage to **Contractor**. The price bid shall include all costs for labor, materials, equipment and all other items necessary for installation of the straw wattles as described in these specifications. Payment will be made only for the unit price bid in Item 3.3 of the Bid Schedule, and as work is completed and accepted by **Project Manager**.

### ITEM 4.0 – VEGETATION CLEARING

The vegetation, including all trees, stumps, logs, shrubs, grass, weeds, fallen timber and other surface vegetation, in a two acre area outlined by the **Project Manager** will be removed to mitigate the potential for catching fire. All vegetation, including roots if possible, will be completely removed for 50 feet in all directions from any vent. Woody vegetation, such as trees and stumps, will be cut to the surface of the ground in the 50 foot area surrounding the vents. Vents will be identified by the **Project Manager**. If an unmarked vent is encountered, the **Project Manager** must be notified immediately. Any vegetation that is within the two acre area that is beyond 50 feet from a vent will be cut to the surface of the ground and the roots may remain in place. Woody vegetation, such as trees and stumps, will be cut to within six inches of the ground surface beyond the 50 feet from a vent.

Once the vegetation has been cut, it will be placed in slash piles at a minimum distance of 100 feet from any vent or thrown over the cliff at the bottom of the vegetation clearing area. Any vegetation thrown over the cliff will be removed from a 100 foot diameter area identified by the **Project Manager** due to the presence of a vent near the base of the cliff.

### **Measurement for Payment**

Payment for this task will be made at the unit price established in Item 4.0 of the Bid Schedule. Measurement for payment will be made per acre of cleared vegetation, to the nearest 0.1 acre. Payment for this item will be upon completion and approval by the **Project Manager**. Such payment shall be considered full compensation for all labor, materials, equipment and all other items necessary and incidental to the completion of Bid Item 4.0.

### **ITEM 5.0 – HERBICIDE APPLICATION**

The purpose of this item is to apply a pre-emergent herbicide to the areas from which vegetation was removed. The treatment area will coincide with the area from which vegetation was cleared in bid item 4.0. Approximately two acres will be treated.

Note that **Contractor**, or approved sub-contractor and all applicators must be licensed as required by the Colorado Department of Agriculture. Proof of licensure must be provided to **Owner** upon issuance of the Notice to Proceed.

The following herbicides (or equivalent) and rates will be used as follows:

- Plainview @ 48 oz/acre
- Glyphosate @ 2 qts/acre

Liquid herbicide is preferred for use in this project, however, in areas where liquid application by spraying is not feasible, powdered or pellet herbicide may be used. Dye must be used throughout the liquid application process.

The above listed herbicides must be evenly and uniformly distributed over the entire ground surface within the perimeter of the vegetation clearing area. Please NOTE that dye MUST be added to the herbicides throughout the application process to ensure uniform delivery. The application area will exactly coincide with the areas cleared.

**Contractor** will be responsible for properly securing chemicals until project completion. **Contractor** will apply the herbicides at the rate of application stated above. **Contractor** must provide all equipment, chemicals and labor and materials necessary to accomplish application.

Treatment using conventional application methods, such as spraying from truck, all-terrain vehicle or backpack mounted equipment is acceptable, given the access limitations described above. Aerial application is NOT permitted.

Application shall NOT occur within six (6) hours of predicted significant rain or snow. Application shall not occur if wind speeds at the application area exceed fifteen (15) miles per hour. **Contractor** must provide a wind speed measurement device, and maintain it in an operating condition throughout the duration of the project.

**Contractor** shall keep thorough and accurate records throughout the duration of the project. Records shall indicate date and time of application, material applied, dilution factor, application rate per acre, ambient air temperature and wind speed at the time of application.

**Contractor** shall conform to all applicable environmental and safety standards given application methods, duration and products. **Contractor** shall not clean and dispose of unused or remnant materials in a manner which is deemed to be deleterious to environmental resources of the area. Failure to conform to these specifications shall result in immediate suspension of contract.

### **Measurement and Payment**

Areas treated with herbicide will be measured to the nearest 0.1 acre and paid at the unit prices bid on the Bid Schedule Item 5.0. The prices bid shall include all costs for labor, materials, equipment and all other items necessary and incidental for the application of the specified herbicide within the project area so that it is uniformly treated, as described in these specifications. Payment for this item will be made only for the unit prices shown under Item 5.0 of the Bid Schedule. Payment shall be as this item is completed and approved by **Project Manager**.

### **ITEM 6.0 VEGETATION CLEARING AREA EROSION CONTROL**

DRMS will provide Ertec S-fence sufficient to complete the installation required under bid item 6.0. Therefore, the **Contractor** will not have to furnish any of the required S-fence. The **Contractor** must meet with the **Project Manager** at the South Canyon Mine located near Glenwood Springs Colorado at a time decided on by the **Contractor** and **Project Manager** to pick up the required amount of S-fence. Please see attached map for S-fence pick up location. Coordinates for location: 39.534076, -107.418341

The **Contractor** is required to furnish stakes and fasteners required for S-fence installation. The S-fence will be installed according to the manufacturer's specifications, and staked in using #4 rebar stakes (½" diameter). The S-fence will be installed as directed by the **Project Manager** across the vegetation clearing area. An estimated 1,000 linear feet of S-fence will be installed in accordance with the following procedure.

#### **S-fence Installation Procedure:**

- A. A trench or slot shall be excavated at the downhill site perimeter as illustrated on the installation instructions to a depth of at least 3 inches and at least 2 inches wide. The trench shall be cleared of obstructions including, but not limited to, rocks, clods, and debris greater than one-inch in any dimension.
- B. Install #4 REBAR stakes (½" diameter) on downhill side and adjacent to trench, on 80-inch spacing along the length of the trench.

- C. Insert S-fence Sediment Control System into slot against the downhill wall of trench – then backfill remaining volume with native soil.
- D. Overlap S-fence segments by at least 4 inches.
- E. Stakes shall be installed 80 inches apart along the length on the downhill side of the S-fence Sediment Control System. Stakes shall be driven 2 inches below the top of the S-fence. Fasten the segments together and to each stake with two or three wire ties.
- F. The ends of the S-fence Sediment Control System shall be dog-legged or angled up-slope to ensure water and sediment containment.
- G. S-fence Sediment Control System shall be installed before the application of other erosion control or soil stabilization materials in the same area.

S-fence will be installed across the vegetation clearing area and any other area that could produce sediment runoff, as directed by the **Project Manager**.

#### **Measurement for Payment**

Measurement will be by the lineal foot of S-Fence installed. **Project Manager** will measure the lineal feet of S-Fence installed and accepted, and report the measured footage to **Contractor**. The price bid shall include all costs for labor, materials (S-Fence provided by DRMS), equipment and all other items necessary for installation of the Ertec S-Fence as described in these specifications. Payment will be made only for the unit price bid in Item 6.0 of the Bid Schedule, and as work is completed and accepted by **Project Manager**.

### **ITEM 7.0 – SUBSIDENCE CLOSURE**

The subsidence hole located near the top of the site will be closed using a concrete plug. See map for location. The subsidence feature is roughly circular with a diameter of twelve feet, an average depth of ten feet, and contains a shaft that is two feet in diameter with an unknown depth.

#### **ITEM 7.1 – CONCRETE PLUG**

An estimated 50, 80 lbs bags of standard concrete mix will be placed into the subsidence feature. The dry bags will be placed whole into the subsidence to block off the small bottom opening.

#### **Measurement for Payment**

Measurement will be by the bag of concrete placed. The price bid shall include all costs for delivery, labor, materials, equipment and all other items necessary for placement of the concrete bag as described in these specifications. Payment will be made only for the unit price bid in Item 7.1 of the Bid Schedule, and as work is completed and accepted by **Project Manager**.

## **ITEM 7.1 – BENTONITE CAP**

Sodium bentonite chips will be placed on top of the concrete plug. An estimated 40, 50 lbs bags are required. The chips will be emptied from the bags and spread evenly over the concrete bags, covering the entire area of the twelve foot diameter subsidence to a minimum depth of six inches.

### **Measurement for Payment**

Measurement will be by the bag of bentonite chips placed. The price bid shall include all costs for delivery, labor, materials, equipment and all other items necessary for placement of the bentonite chips as described in these specifications. Payment will be made only for the unit price bid in Item 7.2 of the Bid Schedule, and as work is completed and accepted by **Project Manager**.

## **ITEM 7.3 – EARTHEN BACKFILL**

Material sourced on site from Item 3.0 Road Construction will be placed on top of bentonite cap and concrete plug to fill remaining subsidence. The backfill will be mounded to minimum depth of three feet above surrounding ground to have positive drainage away from the closure. An estimate 20 cubic yards of cover material will be required.

### **Measurement for Payment**

There will be no measurement for payment. Payment for this item will be reflected in a lump sum quote under Item 7.3 on the Bid Schedule. This lump sum quote will cover all costs for delivery, labor, materials, equipment and all other items necessary for material placed as described in these specifications. Payment will be made only for the unit price bid in Item 7.3 of the Bid Schedule, and as work is completed and accepted by **Project Manager**.

## **PROJECT OBSERVATION**

The **Project Manager** will be at the project site periodically to monitor construction activities and ensure that each work item is completed and constructed to design specifications. The **Project Manager** will be available during regular business hours (8:00 A.M. to 5:00 P.M.) on weekdays. Inspections will not be scheduled on weekend days or holidays without prior approval of the **Project Manager**. It is the **Contractor's** responsibility to schedule inspections with the **Project Manager** so as not to delay the work. The following items must be observed and approved by the **Project Manager** before proceeding with additional work:

1. Road Alignment will follow delineation provided by the **Project Manager**.
2. Complete removal of vegetation from vegetation clearing area.
3. Proper installation of erosion control measures.
4. Adherence to SHEAP.