

July 8, 2014

STATE OF MONTANA  
ADDENDUM  
INVITATION FOR BID NO.: 415001  
TO BE OPENED: July 18, 2014  
TITLE: DIVIDE NORTH REMEDIATION PROJECT

ADDENDUM NO. 1

To All Bidders:

The construction specifications, drawings, and bid documents for the Divide North Remediation Project, Fergus County are modified as follows:

1. Delete Table of Contents Page II and replace with the attached Table of Contents Page II.
2. Liquidated Damages discussed on pages ITB-12 (20.7), BF-2 #12, and AGR-2 (7.1) will be amended as follows:  
  
“Owner and Contractor agree to the amount of Nine Hundred (\$900.00) dollars per day for each day beyond the Contract Time that the work is not substantially complete.”
3. Delete the Notice To Proceed in Appendix A, Miscellaneous Forms and replace with the attached Notice to Proceed.
4. Delete the Index Page from Section IV, Technical Specifications – Index Page and replace with the attached Section IV, Technical Specifications- Index Page.
5. Delete Technical Specification 201- Clearing and Grubbing and replace with the attached Technical Specification 201- Clearing and Grubbing.
6. Delete Technical Specification 202- Excavation and Embankment, and replace with the attached Technical Specification 202- Excavation and Embankment.
7. Delete Technical Specification 203- Providing and/or Stockpiling Backfill Materials, and replace with the attached Technical Specification 203- Providing and/or Stockpiling Backfill Materials.

8. Delete Technical Specification 502- Debris and Structure Removal,, and replace with the attached Technical Specification 502- Debris and Structure Removal.

**Issued by:**

**Montana Department of Environmental Quality**

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Hayden Janssen  
DEQ Project Manager  
Abandoned Mine Lands Program

END

**Acknowledgment of Addendum:**

Bidder must acknowledge receipt of this addendum. This page must be submitted at the time set for the bid opening or the bid may be disqualified from further consideration.

I acknowledge receipt of Addendum No. 1.

Signed: \_\_\_\_\_

Company Name: \_\_\_\_\_

Date: \_\_\_\_\_

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## NOTICE TO PROCEED

TO: \_\_\_\_\_ DATE: \_\_\_\_\_  
\_\_\_\_\_  
PROJECT: **Divide North Remediation  
Project**  
\_\_\_\_\_  
DEQ Contract No. 415001  
\_\_\_\_\_

In accordance with the Agreement dated \_\_\_\_\_, 2014, you are hereby notified to commence Work no later than \_\_\_\_\_, 2014, and you are to complete the Work within eighteen (18) working days thereafter, with one anticipated break in the Work. All Work must be completed by \_\_\_\_\_, 2014.

OWNER: DEPARTMENT OF ENVIRONMENTAL QUALITY

By: \_\_\_\_\_

Title: \_\_\_\_\_

## ACCEPTANCE OF NOTICE TO PROCEED

Receipt of the above Notice to Proceed is hereby acknowledged this \_\_\_\_ day of \_\_\_\_\_, 2014.

CONTRACTOR: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

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**SECTION IV**  
**TECHNICAL SPECIFICATIONS**  
**DIVIDE NORTH REMEDIATION PROJECT**  
**FERGUS COUNTY, MONTANA**

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## **SUBSECTION 201.00: CLEARING AND GRUBBING**

### **201.01 GENERAL**

- A. DESCRIPTION - This work will consist of clearing, grubbing, removing, burning, burying, and otherwise disposing of vegetation and debris within the clearing limits as designated on the Drawings and by the Engineer. Vegetation and objects designated to remain will be preserved free from injury and defacement.

The Work will be classified as follows:

1. Clearing. Clearing will consist of the felling of trees and disposal of stumps, brush, windfalls, logs, limbs, sticks, piles of sawdust, rubbish, debris, vegetation, and other objectionable matter existing within the clearing limits or that interfere with excavation and embankment.
2. Grubbing. Grubbing will consist of the removal and disposal of roots, stumps, stubs, rock, roots, debris, and other objectionable matter from the grubbing limits.
3. Disposal. Disposal will consist of removing, burning, burying, or otherwise disposing of the refuse accumulations from clearing, grubbing, or clearing and grubbing operations. The refuse resulting from these operations will be disposed of in the same manner as debris described in Subsection 502.00, Debris and Structure Removal.

### **201.02 MATERIALS**

Not applicable.

### **201.03 CONSTRUCTION REQUIREMENTS**

- A. GENERAL - Clearing, grubbing, or clearing and grubbing will be done at times and in a manner that the surrounding vegetation, adjacent property, and anything designated to remain will not be damaged. Dragging, piling, disposing of debris, and other work that may be injurious to vegetation will be confined to areas that carry no vegetation or that will be covered by embankments or disturbed by excavations.

Vegetation adjacent to streams, ponds, or lakes will be preserved and protected from injury unless the vegetation conflicts with construction operations and is designated by the Engineer to be removed. If any vegetation designated to be preserved becomes damaged or destroyed by the Contractor, it will be replaced to the satisfaction of the Engineer at no cost to the Owner.

The Engineer will designate trees, shrubs, plants, or other objects that are to remain. The Contractor will preserve all objects so designated.

The Contractor will not injure trees, shrubbery, vines, plants, grasses, and other vegetation growing outside of the slope limits of excavation and embankment. The Contractor will paint all cut or scarred surfaces of trees or shrubs selected for retention. The paint will be an approved asphaltum base paint prepared especially for tree surgery.

Where scour is likely to occur, resulting from clearing or grubbing conducted in advance of excavation work, temporary erosion control setting basins will be constructed prior to any scour occurring.

B. CLEARING - All areas within the neat lines of cut or fill areas will constitute the clearing limits.

Unless specifically designated to be saved, all trees, stumps, brush, windfalls, logs, and other objectionable matter occurring within clearing limits will be cut off and disposed of. All stumps within the clearing limits and all trees, the stumps of which are not to be grubbed, will be cut not more than the diameter of the stump, and in any instance not more than 12 inches, above the ground.

The refuse resulting from the clearing operation will be removed, as specified in Subsection 502.00, Debris and Structure Removal, to a location designated by the Engineer, or, if no site is specified, then the Contractor will secure a lawful, state licensed waste disposal site. The Contractor will not burn on the site without first obtaining permission as specified in Subsection 502.00, Debris and Structure Removal. In all cases, the authority to burn will not relieve the Contractor in any way from damages which may result from its operations, or the duty to first obtain all necessary permits and permissions from any entities having proper jurisdiction. In no case will any material be left on the Project, shoved onto abutting private properties, or be buried in embankments or trenches on the Project.

C. GRUBBING - All areas within the neat lines of cuts, and all areas to be covered by embankments less than 3 feet in height will constitute the grubbing limits.

All stumps, roots, logs, or other timber more than 3 inches in diameter, and all brush, matted roots, rock, and other debris within the grubbing limits not suitable for roadway foundation will be pulled or otherwise removed to a depth of not less than 6 inches below the original ground or 12 inches below roadway subgrade.

All material resulting from the grubbing operations will be disposed of as specified in Subsection 502.00, Debris and Structure Removal. All depressions below subgrade, or below the final surface of the ground resulting from the grubbing operations will be backfilled with suitable material as specified in the Subsection 202.00, Excavation and Embankment.

End of Subsection 201

## **SUBSECTION 202.00: EXCAVATION AND EMBANKMENT**

### **202.01 GENERAL**

- A. **DESCRIPTION** - All excavation, embankment, and grading work will be in accordance with these Technical Specifications and in accordance with the lines, grades, and elevations shown on the Drawings or as established by the Engineer.
1. **Excavation**. This work will consist of performing all operations necessary to excavate, grade, and satisfactorily dispose of all materials encountered during excavation at the areas designated on the Drawings. The work will include roadway excavation, structure excavation, excavation of mine working, ditch or channel excavation, any general unclassified excavation, and all other excavation not covered under other subsections of these Technical Specifications.
  2. **Embankment**. This work will consist of performing all operations necessary to prepare, backfill, compact, and grade all areas requiring embankment or fill as shown on the Drawings. The work will include roadway embankment, structure embankment, dike embankment, backfilling mine workings and depressions, cut and fill terracing, and all other backfilling or embankment not covered under other subsections of these Technical Specifications.
- B. **SUBMITTALS** - The Contractor will provide the following submittals in accordance with the Special Conditions:
- \* Moisture-density characteristics using AASHTO T-99 for embankment or backfill material and excavated sub grades. As material types change during construction, additional moisture-density characteristics may be required by the Contractor or Engineer.
  - \* Backfill imported from an off-site source will be tested and submitted, including source location, gradation, and moisture-density characteristics.
- C. **REFERENCE STANDARDS** - Maximum density will be determined by AASHTO T-99 and is defined as the maximum dry weight in pounds per cubic foot obtained when a material is mixed with different percentages of water and compacted in a standard manner. The percentage of water at which maximum density is obtained is termed the optimum moisture content.

The percent compaction is defined as the density of the compacted layer expressed as a percentage of the maximum density of the material when tested in accordance with these Technical Specifications.

The percentage of compaction is computed by the formula:

$$\text{Percent compaction} = \frac{\text{Field Density}}{\text{Maximum Density}} \times 100$$

### **202.02 MATERIALS**

- A. **ON-SITE MATERIALS** - Suitable materials for embankments and backfill will be taken from designated excavation areas. Stumps, trees, rubbish, vegetation, frozen lumps, or other unsuitable materials will not be placed in embankments. Large rock will only be considered suitable if it does not adversely affect the requirements for compaction.

- B. ROADWAY MATERIALS - Requirements for roadway materials are specified under Section 800, Surfacing - Aggregate, Base Courses, and Pavement of the Technical Specifications.
- C. IMPORTED MATERIALS - Imported backfill materials will meet the requirements specified in Section 202.02-A above and will be approved by the Engineer prior to delivery of the material to the project. All areas used as a material source or for stockpiling will be reclaimed by the Contractor at its cost unless such areas are designated as Approved Areas of Disturbance as defined in the Special Conditions.

### **202.03 CONSTRUCTION REQUIREMENTS**

- A. GENERAL - All excavation and embankment will be considered unclassified and will consist of the removal or disposal of any and all material encountered regardless of type or nature obtained within the construction limits designated on the Drawings.

All suitable materials removed from excavation will be used insofar as possible for backfill and in embankments.

- B. SITE PREPARATION - All areas scheduled for excavation and embankment will be cleared and grubbed in accordance with Subsection 201.00, Clearing and Grubbing.

Prior to excavation and embankment work, all suitable topsoil and subsoil in the scheduled work areas will be salvaged in accordance with Subsection 310.00, Cover Soil.

- C. LINE AND GRADE CONTROL - Prior to excavation, backfill, grading, and embankment operations, the Contractor will perform all necessary surveys for control of line and grade and establish stable and protected monuments for reference throughout the construction period. A sufficient number of such monuments will be provided throughout the work to permit verification of the work within the tolerances specified.

- D. EXCAVATION

- 1. General. The Contractor will utilize excavating equipment appropriate for the work being performed. The method of excavation will be the Contractor's responsibility. All methods and equipment used must result in finished work meeting the construction tolerances specified. No work will be performed beyond the construction limits without prior written approval from Engineer.

- 2. Dewatering. Ground water encountered during excavation will be removed to avoid interfering with any construction activity. The cost of dewatering operations will be merged with and considered part of the excavation cost.

- 3. Shoring, Sheet piling, and Bracing. The Contractor will do all shoring, bracing, and tight sheet piling required to prevent caving and to protect all personnel, in accordance with the Occupational Safety and Health Regulation Requirements, and to protect adjacent property and structures. No separate payment will be made for these items and the cost thereof will be considered part of the excavation cost unless otherwise shown or specified for the project.

- 4. Surplus and Waste Material. During excavation, where the ground foundation for embankments is composed of muck or other unstable materials, such materials will be removed to the depth shown on the Drawings or as determined in the field by the Engineer and satisfactorily disposed. All holes created by removal of soft or unstable material will be backfilled as specified for "Embankment". Backfill will be obtained from

the most select material encountered in excavation and will be paid for only as is "Unclassified Excavation", unless otherwise approved in writing.

All excavated material not used as mentioned above will be used for embankment backfill or will be wasted and disposed of by the Contractor at an Engineer or Owner approved disposal site. Finding disposal areas, placing waste material in these areas, and final leveling and cleanup of these disposal areas to the satisfaction of the property owner involved will be entirely the Contractor's responsibility.

When unsuitable material or debris is encountered during excavation, it will be over excavated until removed or until 1 foot below the established grade. Suitable material will then be placed and compacted to bring the area to grade.

5. Maintenance of Subgrade and Drainage. During excavation, the subgrade will be maintained in such a condition that it will be well drained at all times. Side ditches emptying from cuts to embankments will be constructed and BMPs utilized to avoid damage by erosion.

If it is necessary in the prosecution of the work to interrupt existing surface drainage, temporary drainage facilities will be provided and maintained at the Contractor's expense until permanent drainage facilities are completed. The Contractor will be responsible for, and will take all necessary precautions to protect and preserve any and all existing subsurface drains, conduits, utilities, and other underground structures or parts thereof which may be affected by the construction, and which in the opinion of the Engineer may be properly continued in use without any change. The Contractor will, at its own expense, repair all damage to facilities or structures which results from any of its operations or negligence.

Erosion checks will be constructed perpendicular to ditches and as detailed on the Drawings.

#### E. STRUCTURE EXCAVATION

1. All Structures. Excavation adjacent to existing structures will not commence until authorized by the Engineer.

Excavations for structures or structure footings will be to the lines and grades or elevations shown on the Drawings. They will be of sufficient size to permit the construction of structures or structure footings. The elevations of the bottoms of footings, as shown on the Drawings, will be considered as approximate.

Boulders, wood, and any other unsuitable materials encountered in the excavation will be removed and disposed of at an Engineer or Owner approved disposal site.

The Contractor will notify the Engineer when each excavation is complete. Footings will not be placed without first notifying the Engineer.

Excavations over 5 feet deep, except in solid rock, will have side slopes of 1 to 1 or flatter, depending upon conditions at the individual site and in accordance with OSHA regulations. When the laying back of excavation slopes is precluded, supporting systems will be used to retain the sides of excavations greater than 5 feet deep. Sides of excavations less than 5 feet deep will also be effectively protected when hazardous ground movement may be expected.

Where concrete is to be placed on any excavated surface, special care will be taken not to disturb the bottom of the excavation more than necessary. When the excavation is at the required depth, all water will be pumped out for cleaning the foundation bed for inspection. All loose and disintegrated rock and thin strata will be removed. All seams or crevices in rock strata will be cleaned out and filled with concrete mortar. When the foundation material is soft or otherwise unsuitable, the unsuitable material will be removed and the area will be backfilled with approved compacted, granular material.

When foundation piles are used, the excavation of each pit will be completed before the piles are driven. Foundation backfill will be placed after the piles are driven. After the driving is completed, all loose and displaced material will be removed, leaving a smooth, solid bed to receive the footing.

2. Cofferdams. Watertight cofferdams or cribs will be used wherever water bearing strata are encountered above the elevation of the bottom of the excavation. For this purpose, a cofferdam or crib is defined as an enclosed single- or double-wall braced structure with walls sheeted with timber, concrete or steel, and which will extend well below the bottom of the excavation when practical. Earthen or rock filled dikes, dams, or embankments are not considered cribs or cofferdams for this purpose.

The design and construction of supporting systems, if used, will be the responsibility of the Contractor in accordance with the following provisions. The Contractor will submit 5 sets of drawings showing the proposed method of cofferdam or crib construction and 5 copies of the design calculations, fully annotated and referenced. The design calculations and drawings submitted will bear the signature and seal of a State of Montana registered Professional Engineer.

Supporting systems will be designed to withstand the expected loads and pressures, including surcharge, water and earth, which may occur during the period for which they are used. Surcharge, earth, and water pressure diagrams, and the method of supporting system analysis and design, will meet accepted engineering practice. For new materials, the allowable working stresses of the materials will be as recommended by the manufacturer for the construction conditions encountered. For used materials or when manufacturer's recommendations are not available or applicable, the allowable working stresses will be as specified in AASHTO's "Standard Specifications for Highway Bridges".

In general, the interior dimensions of cofferdams will be sufficient to give clearance for the construction of forms and the inspection of their exteriors, and to permit pumping outside of the forms. Cofferdams or cribs that are tilted or moved internally during the process of sinking shall be righted or enlarged to provide the necessary clearance.

When conditions make it impracticable to dewater the foundation before placing a footing, a concrete foundation seal with dimensions as necessary to resist uplift pressures will be constructed. The concrete for the seal will be placed as shown on the Drawings. The foundation will then be dewatered and the footing placed. When weighted cribs are employed and the weight is utilized to partially overcome the hydrostatic pressure acting against the bottom of the foundation seal, special anchorage such as dowels or keys will be provided to transfer the entire weight of the crib to the foundation seal. When a foundation seal is placed under water, the cofferdam will be vented or ported at low water level.

Cofferdams will be constructed to protect green concrete against damage from sudden rising of water levels and to prevent damage to the foundation by erosion. Timber or

bracing that extends into substructure masonry will not be left in cofferdams or cribs.

Pumping from the interior of any foundation enclosure will be done in a manner that will not carry concrete materials away.

All pumping required during the placing of concrete, or for a period of at least 24 hours thereafter, will utilize a suitable sump located outside the concrete forms. Pumping to dewater a sealed cofferdam will not start until the seal has set sufficiently to withstand the hydrostatic pressure.

Cofferdams or cribs, and all sheeting and bracing will be removed after completion of the substructure. Removal will not disturb or mar finished masonry.

F. EMBANKMENT

1. Foundation Preparation. Site preparation including topsoil salvage work will conform to the requirements as specified herein.

After topsoil stripping, all areas which will be receiving fill will be scarified to a depth of 6 inches, watered, and compacted in conjunction with the first lift of new fill. When embankments are to be placed on a hillside, or where new fill is to be placed against existing embankment, the slope of the original hillside, or old fill respectively, will be benched or stepped by cutting into it horizontally, for a minimum distance of 12 inches. These measures will provide a secure bond between the new and existing materials. Each bench will be cut as close to the one below as the slope of the ground will permit. Materials thus cut out of the benches will be incorporated into the new fill. Costs for constructing the benches will be included in the price for the work performed herein, and no additional compensation will be allowed.

2. Placement. Embankment and backfill materials will not be placed until the required excavation and foundation preparation have been completed and the foundation has been inspected and approved by the Engineer. Fill materials will not be placed upon frozen surfaces, nor will it contain snow, ice or frozen materials.

Embankment will be constructed of materials excavated on-site or borrowed materials from approved sources. Embankment will be placed to the lines and grades indicated in uniform layers as required to obtain the specified compaction throughout the embankment. Each layer of embankment will be completed, leveled, compacted, and tested, if required, before the succeeding layer is placed. The embankment surface is to be kept level and uniform at all times.

Embankment material will not be excessively dry or wet when placed. If necessary, the Contractor will manipulate the material as required to assure that compaction will be performed at or near the optimum moisture content given in the moisture-density curve. Jetting or ponding of the backfill materials will not be allowed.

The site will be adequately dewatered prior to placing any embankment or attempting compaction such that ground water is not intruding into the material.

If it should become necessary because of weather or other conditions to suspend grading operations, the entire area worked upon will be bladed until smooth, free of depressions and ruts, and crowned so no water can collect or be impounded.

Areas inaccessible to rollers will be compacted by hand or mechanical tampers or other

means until the density conforms to adjacent embankment, compacted in accordance with these Technical Specifications.

Whenever the surface of a proposed cut or the site of an embankment is frozen or is covered with snow or ice sufficient to impair the stability of the work, the frozen earth material and snow and ice must be removed at no cost to the Owner. Work of this nature will be completed at least 300 feet in advance of the excavation and placing of the embankment material. Frozen excavation or that lying under a blanket of snow of such extent as to preclude its placement in the embankment will be considered cause for suspending grading operations.

Embankment constructed during the winter will be refinished to grade, cross-section, and compaction requirements after the frost is out of the ground and the embankment is in suitable condition for work.

3. Structure Embankment. Adjacent to structures, backfill materials will be placed in a manner which will prevent damage to the structures and allow the structures to assume the loads from fill gradually and uniformly. The height of the fill adjacent to a structure will be increased at approximately the same rate on all sides of the structure. The maximum size of rock fragments in backfill adjacent to the structure will be 2 inches.

Backfill materials will not be placed and compacted against any structure for a minimum period of 14 days after the placement of concrete, or until 90% of design strength has been attained through testing.

- G. REMOVAL AND PLACEMENT OF DEFECTIVE FILL - Embankment and backfill materials not conforming to the density and moisture requirements will be reworked until the requirements are achieved or removed and replaced by acceptable fill. The replacement fill, foundations, abutment and fill surfaces upon which it is placed will conform to all requirements of specifications for Foundation Preparation, Placement, Moisture and Density Requirements contained herein.

- H. MOISTURE AND DENSITY REQUIREMENTS - Each layer of embankment and backfill material will be compacted until the in-place density exceeds 85% of its maximum dry density. In no case will compaction be less than that of adjacent undisturbed material. For roadway and structure embankments, compaction will be 95% of maximum. For excavation cuts, compaction will be equal to or greater than that of the adjacent undisturbed material. Cost of compaction, rolling, and watering is incidental to the earthwork bid item listed on the Bid Form.

Water required will be sufficient to obtain optimum moisture content plus or minus a minimum 3% as determined by AASHTO T-99, ASTM D 698, Standard Proctor Method A, B, C, or D, as applicable. The Engineer may periodically measure the degree of compaction (field density) during embankment construction. Measurements will be based on optimum moisture and maximum density curves submitted.

Field or in-place density refers to the dry density expressed in pounds per cubic foot of a layer of compacted material in place at the site as determined by a sample representative of the compacted layer. The field density will be determined in accordance with AASHTO T-147, AASHTO T-181, ASTM D 1556, or ASTM D 2167.

- I. HAUL - When constructing embankments or wasting, the cost of hauling will be included in the Contract unit price bid for earthwork item on the Bid Form.

- J. FINE GRADING - After the earthwork has been substantially completed and after all

underground utilities, drainage facilities, etc. have been installed or adjusted to grade, the embankment will be brought to the lines, grades, and cross-sections shown on the Drawings, and compacted to the required density.

The Contractor will increase heights above grade and increase widths as necessary to allow for settlement, consolidation, or compaction. Side slopes will be finished to a reasonable uniform but rough surface that blends to the contours of surrounding undisturbed ground . Smooth surfaces will be scarified perpendicular to the slope of the ground.

- K. TOPSOILING AND CLEANUP - After fine grading work is accepted, salvaged topsoil will be replaced to cover those areas to be seeded as designated on the Drawings and according to Subsection 310.00, Cover Soil.

The Contractor will remove all tools, equipment, excess materials, debris, etc. from the vicinity of the work.

End of Subsection 202

## **SUBSECTION 203.00: PROVIDING AND/OR STOCKPILING BACKFILL MATERIALS**

### **203.01 GENERAL**

A. DESCRIPTION - This work will consist of furnishing, producing and hauling backfill materials including specified additives in accordance with these Technical Specifications. An area on site for stockpiling backfill material may be utilized, upon approval of the Engineer. Materials at the source of supply are subject to the Engineer's approval before delivery of the materials to the project.

B. RECLAMATION REQUIREMENTS - All areas used by the Contractor as a material source will be reclaimed by the Contractor in accordance with an approved Reclamation Plan. The Reclamation Plan will provide for a finished materials pit site that blends with the adjacent landscape.

The Contractor will comply with all applicable statutory requirements relating to open cut mining (Title 82, CH. 4, Part 4); hard rock mining (Title 82, CH. 4, Part 3); water quality (Title 75, CH. 5); stream bank preservation (Title 87, CH. 5, Part 5 and Title 75, CH. 5); and all other Federal, State and local statutes that apply.

Final responsibility for administration of the Open Cut Mining Act and the Hard Rock Mining Act rests with the Department of Environmental Quality. Therefore, all reclamation plans and reclamation work are subject to review and approval by the Department of Environmental Quality personnel responsible for administering these Acts. The Contractor will comply with all directives and instructions issued by the Department of Environmental Quality with regard to reclamation work. The DEQ Remediation Division does not administer the Acts.

The Contractor will furnish the Engineer with copies of all authorizations, plans/and or permits necessary to comply with this provision.

No extra compensation will be considered or allowed by reason of the conditions of this provision, as it will be considered necessary and incidental to the completion of the work.

### **203.02 MATERIALS**

All backfill will be as specified in the pertinent subsection or Special Provisions. The Contractor will provide all testing required, at no cost to the Owner, for approval of any materials source prior to delivery of the materials to the site. Such testing will be done by an approved testing laboratory. Gradation analysis, moisture-density relationship, and specific gravity tests are required.

### **203.03 CONSTRUCTION REQUIREMENTS**

The source pit and storage area will be cleared of weeds, roots, stumps, rocks and other contaminating matter. The cleared matter will be disposed of or leveled in accordance with Subsection 502.00, Debris and Structure Removal, and Subsection 220.00, Waste Pile Disposal, or otherwise described in the Special Provisions. Sites will occupy a minimum area.

Equipment or methods that cause segregation, degradation or contamination of the material will not be used when delivering materials from the source pit or storage area.

## **SUBSECTION 502.00: DEBRIS AND STRUCTURE REMOVAL**

### **502.01 GENERAL**

A. DESCRIPTION - This work shall consist of the disposal of all debris and trash specifically including that from previous mining operations as designated on the Drawings and by the Engineer and the disposal of this debris in designated areas. Debris shall be defined as but not limited to the remains of any manmade objects found within the project limits. Debris removal shall also include the demolition and disposal of existing structures as indicated on the Drawings or designated by the Engineer. Structures shall be defined as but not limited to buildings, foundations, fences, abandoned pipe lines, vent pipes, utility facilities, etc. within the project limits.

Some structures may be required to remain completely undisturbed for historical reasons. Such structures will be designated on the Drawings or by the Engineer.

B. SUBMITTALS - The following submittals are required in accordance with the Supplementary Conditions:

\*Location of disposal or burning area.

\*Authorized burn permits when burning is used.

### **502.02 MATERIALS**

A. COVER MATERIAL - Materials used for cover of debris in embankments or subsidence holes shall be as described in Subsection 220.00, Waste Pile Disposal.

### **502.03 CONSTRUCTION REQUIREMENTS**

A. GENERAL - The Contractor shall gather and dispose of all debris, trash, and structures as specified herein. Disposal may consist of burial, burning, salvaging or off-site disposal of debris, trash, and structures.

B. BURIAL - Burial of large amounts of combustible materials on-site will not be allowed. Burial of small amounts of combustible materials is at the discretion of the Engineer. Other items may only be buried with the prior approval of Engineer or Owner.

C. BURNING - All combustible materials such as, but not limited to, trees, brush, trash, planks, wooden ties, timbers, etc. may be burned on the project site. Burning of materials will be allowed when authorized in writing by the proper fire and air pollution control authorities and the property owner(s), provided that all requirements set forth by such authorities are met. Burning of materials will be allowed only if such burning operations can be performed without damage to on-site or adjacent properties. Proposed burning locations must also be approved in writing by the Engineer prior to burning any materials. Burning will not be allowed in adit cuts or subsidence areas where there exists potential for igniting coal or spoils material.

The Contractor shall maintain adequate fire-fighting equipment at the site at all times during any burning. Shovels, rakes, and a water truck equipped with a pump shall be included in the fire-fighting equipment. The Contractor may be required to demonstrate the fire-fighting water pump prior to any burning.

Fires shall be guarded at all times and shall be under constant surveillance until completely extinguished.

The Contractor shall be fully responsible for any damages incurred as a result of any burning operations. A copy of all required permits shall be furnished to the Engineer prior to the start of any burning operations.

D.SALVAGING - The Owner reserves the right to salvage any mining artifacts, historically significant materials, or other materials discovered at the site. The Contractor shall coordinate with the Engineer for the salvage of such material. Any other salvage not designated by the Owner shall become the property of the Contractor and must be removed from the site or disposed of as specified herein.

All materials denoted to be salvaged shall be carefully moved and stockpiled in the areas designated. All salvaged materials shall be in sections or pieces that can be readily transported. Timber and other wood components shall be neatly stacked on skids. Salvaged materials are not to be used by the Contractor in the course of his work.

E.OFF-SITE DISPOSAL - Any materials which cannot be gathered and disposed of on site by burial, burning or salvaging shall be hauled and disposed of at an approved legal off-site state licensed disposal area at no additional cost to the Owner.