Scope of Work
9 East Utility BH - Access Road and Site Pad

Background

Twentymile Coal, LLC (TC) is soliciting bids for the construction and installation of two utility boreholes on one drill pad for its Wolf Creek seam mining project. As part of this project, a service road will be extended from the existing access road that currently leads to the reclaimed 18 Right shaft site. Refer to the attached three drawings of the access road and proposed borehole site pad labeled MR16-296 Exhibit 49EE-F1, Options #1, #2 and #3. The contractor will be responsible for clearing the site of and stockpiling brush and topsoil, constructing the new 24' wide (top width) access road and for constructing an approximately 40,000 ft^2 (0.9 acres) borehole drilling pad for just one of the Options, most likely Option #1.

The three options are being provided for three individual quotes in the case that the underground mining does not advance as far east as anticipated.

TC will provide all necessary construction surveying.

The proposal shall be emailed or faxed to:

Sadie Herndon
Buyer, Peabody Investment Corporation
Twentymile Coal, LLC
W: 970-870-2732
F: 970-870-8769
sherndon@peabodyenergy.com

Primary Site Contact:

Michael Berdine
Manager – Technical Resources
W: 970-870-2782
C: 970-846-9686
mberdine@peabodyenergy.com

Location:

The Mine site is located approximately 9 miles north of Oak Creek, Colorado, on Routt County Road #27.

The access road to the shaft site is located off Routt County Road #179, approximately 5 miles northeast of the intersection of Routt County Road #27 and #33. From this point, a 1.7-mile long dirt road leads to the borehole site. Refer to the attached Figure #1 for the access road and drill pad location.

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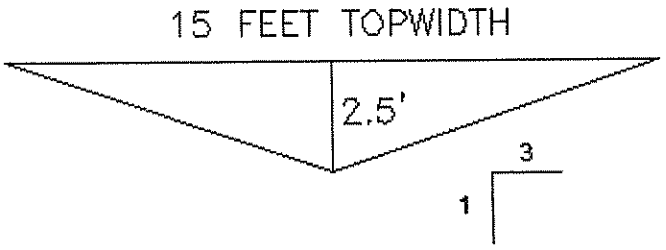

DRAINAGE DITCH PROFILE

6. Construction of a 24' wide (finished width) by 970' long access road.
    a. Centerline route of the road will be staked by TC.
7. Construction of a 200' x 200' (surface of pad, not including the cut & fill areas) drill pad.
    a. Corners of the pad will be staked by TC.

Specifications - Road

1. In the 970' access road area, the contractor shall blade all brush and topsoil (and other organic materials) to an average depth of approximately 12" for a maximum width of 40 feet (20 feet each side of centerline) for the length shown on the attached Exhibit 49EE-F1. The brush and topsoil shall be pushed into three (3) large soil stock piles along the west side of the road. Once topsoil piles are established, contractor shall make an effort to avoid contact with the topsoil. The centerline of the proposed access road shall be staked just prior to brush removal. **The top finished width of road is to be 24'.**

    The brush and topsoil piles shall be seeded with a stockpile stabilization seed mixture. Refer to the attached Table 53 for the seed mixture specifics.

    Cut and fill excavation yardage for the 40' wide base of the access road is estimated as follows:

    - Cut – 347 cubic yards, by drawing.
    - Fill – 688 cubic yards, by drawing.
    - Contractor shall plan for a balanced cut and fill.
    - Refer to the attached access road #1 pad report dated 04/06/16.
    - TC surveyors will complete an as-built survey of the access road to determine actual yardage moved in the cut and fill areas.
    - There are no borrowing sites available.
    - Topsoil replacement of the access road cut and fill areas is not required.
    - Seeding of the access road cut and fills is required.

    After brush and topsoil are removed, the exposed sub-grade surfaces shall be scarified to a minimum depth of 12" and then be brought to within 2% of the optimum moisture content and then be re-compacted to at least 95% of the maximum standard Proctor density as determined in accordance with ASTM D698. Needed water can be obtained from the stock pond located NE of the project site.

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After brush and topsoil removal, the exposed surface clays of the site pad surface shall be scarified to a minimum depth of 6" and then be brought to within 2% of the optimum moisture content and then be re-compacted to at least 95% of the maximum standard Proctor density determined in accordance with ASTM D698.

Refer to the attached NWCC soils report dated 12/22/03. Test holes 5, 6 & 7 from the report are the closest to the proposed access roads and pads.

Weather permitting, the finished sub-grade shall be proof rolled with a heavy piece of equipment after being moisture treated and compacted, and prior to placing the sub base gravels. Areas, which deform or pump under the wheel loads of the construction equipment shall be removed and/or stabilized prior to placement of the sub base gravels.

There shall be a minimum drainage slope of 1.5% (note that pad was designed at slope of 1.5% as indicated on the pad report dated 03/26/16) towards the west end of the site pad. Drainage direction is to be field verified by contractor with TC representative.

2. Contractor shall then construct the pad with a gravel section consisting of 8" (compacted height) of sub base (pit run) gravels and 3" (compacted height) of ¾" screened rock with minimal fines for the top base course. This sub base and base course shall also be compacted to at least 95% of the maximum modified Proctor density, near the optimum moisture content, as determined in accordance with ASTM D1557. The sub base and base course gravels shall be tested for compaction and that the thickness of the completed lifts shall be measured to verify the required gravel sections have been constructed. **The Pit run and ¾" screened rock may be loaded and hauled from the Peabody Mesa Pit using contractor equipment.**

Site Pad Drainage Structures

1. Surface drainage at the site will be handled by a down-gradient drainage/diversion ditch on all sides of the pad, gravel surfacing, and four (4) rock check dams consisting of 8-12" fractured rock. Refer to Exhibit 49EE-F1 for the location of these structures.

2. Contractor shall construct one down-gradient drainage/diversion ditch. The diversion ditch is approximately 950' in total length and shall be of a "V" design, with a 2.5' depth, 15' top width, and 3H: 1V side slopes.

3. Each of the four (4) rock check dams shall be approximately ~20' long x 10' wide x 3' in depth, using 8-12" fractured rock, or about 25 YD3 of 8-12" fractured rock each – ~100 YD3 total.

sides of the road. Once topsoil piles are established, contractor shall make an effort to avoid contact with the topsoil. The centerline of the proposed access road shall be staked just prior to brush removal. **The top finished width of road is to be 24'.**

The brush and topsoil piles shall be seeded with a stockpile stabilization seed mixture. Refer to the attached Table 53 for the seed mixture specifics.

Cut and fill excavation yardage for the 40' wide base of the access road is estimated as follows:

- Cut – 805 cubic yards, by drawing.
- Fill – 834 cubic yards, by drawing.
- Contractor shall plan for a balanced cut and fill.
- Refer to the attached access road #1 pad report dated 03/30/16.
- TC surveyors will complete an as-built survey of the access road to determine actual yardage moved in the cut and fill areas.
- There are no borrowing sites available.
- Topsoil replacement of the access road cut and fill areas is not required.
- Seeding of the access road cut and fills is required.

After brush and topsoil are removed, the exposed sub-grade surfaces shall be scarified to a minimum depth of 12" and then be brought to within 2% of the optimum moisture content and then be re-compacted to at least 95% of the maximum standard Proctor density as determined in accordance with ASTM D698. Needed water can be obtained from the stock pond located NE of the project site.

Refer to the attached NWCC soils report dated 12/22/03. Test holes 5, 6 & 7 from the report are the closest to the proposed access roads and pads.

The finished sub-grade shall be proof rolled with a heavy piece of equipment after being moisture treated and compacted, and prior to placing the sub base gravels. Areas which deform or pump under the wheel loads of the construction equipment shall be removed and/or stabilized prior to placement of the sub base gravels.

Contractor shall then construct the 24' wide access road with a gravel section consisting of 8" (compacted height) of sub base (pit run) gravels and 3" (compacted height) of base course gravels. This sub base and base course shall also be compacted to at least 95% of the maximum modified Proctor density, near the optimum moisture content, as determined in accordance with ASTM D1557. The sub base and base course gravels shall be tested for compaction and the thickness of the completed lifts shall be measured to verify that the required gravel sections have been constructed.

In all areas, the access road shall be constructed with a minimum crown or super elevation of 2 percent to promote effective drainage.

to at least 95% of the maximum modified Proctor density, near the optimum moisture content, as determined in accordance with ASTM D1557. The sub base and base course gravels shall be tested for compaction and that the thickness of the completed lifts shall be measured to verify the required gravel sections have been constructed. **The Pit run and ¾" screened rock may be loaded and hauled from the Peabody Mesa Pit using contractor equipment.**

Site Pad Drainage Structures

1. Surface drainage at the site will be handled by a down-gradient drainage/diversion ditch on all sides of the pad, gravel surfacing, and four (4) rock check dams consisting of 8-12" fractured rock. Refer to Exhibit 49EE-F1 for the location of these structures.

2. Contractor shall construct one down-gradient drainage/diversion ditch. The diversion ditch is approximately 950' in total length and shall be of a "V" design, with a 2.5' depth, 15' top width, and 3H: 1V side slopes.

3. Each of the four (4) rock check dams shall be approximately ~20' long x 10' wide x 3' in depth, using 8-12" fractured rock, or about 25 YD3 of 8-12" fractured rock each – ~100 YD3 total.

Option #3:

contact with the topsoil. The centerline of the proposed access road shall be staked just prior to brush removal. **The top finished width of road is to be 24'.**

The brush and topsoil piles shall be seeded with a stockpile stabilization seed mixture. Refer to the attached Table 53 for the seed mixture specifics.

Cut and fill excavation yardage for the 40' wide base of the access road is estimated as follows:

- Cut – 875 cubic yards, by drawing.
- Fill – 646 cubic yards, by drawing.
- Contractor shall plan for a balanced cut and fill.
- Refer to the attached access road #1 pad report dated 03/09/16.
- TC surveyors will complete an as-built survey of the access road to determine actual yardage moved in the cut and fill areas.
- There are no borrowing sites available.
- Topsoil replacement of the access road cut and fill areas is not required.
- Seeding of the access road cut and fills is required.

After brush and topsoil are removed, the exposed sub-grade surfaces shall be scarified to a minimum depth of 12" and then be brought to within 2% of the optimum moisture content and then be re-compacted to at least 95% of the maximum standard Proctor density as determined in accordance with ASTM D698. Needed water can be obtained from the stock pond located NE of the project site.

Refer to the attached NWCC soils report dated 12/22/03. Test holes 5, 6 & 7 from the report are the closest to the proposed access roads and pads.

The finished sub-grade shall be proof rolled with a heavy piece of equipment after being moisture treated and compacted, and prior to placing the sub base gravels. Areas which deform or pump under the wheel loads of the construction equipment shall be removed and/or stabilized prior to placement of the sub base gravels.

Contractor shall then construct the 24' wide access road with a gravel section consisting of 8" (compacted height) of sub base (pit run) gravels and 3" (compacted height) of base course gravels. This sub base and base course shall also be compacted to at least 95% of the maximum modified Proctor density, near the optimum moisture content, as determined in accordance with ASTM D1557. The sub base and base course gravels shall be tested for compaction and the thickness of the completed lifts shall be measured to verify that the required gravel sections have been constructed.

In all areas, the access road shall be constructed with a minimum crown or super elevation of 2 percent to promote effective drainage.

2. Contractor shall place four (4) each 24" diameter CMP road culverts at the locations indicated on the Exhibit 49EE-F1. Two shall be 60' in length and two shall be 80' in length.

gravels shall be tested for compaction and that the thickness of the completed lifts shall be measured to verify the required gravel sections have been constructed. **The Pit run and ¾" screened rock may be loaded and hauled from the Peabody Mesa Pit using contractor equipment.**

Site Pad Drainage Structures

1. Surface drainage at the site will be handled by a down-gradient drainage/diversion ditch on all sides of the pad, gravel surfacing, and four (4) rock check dams consisting of 8-12" fractured rock. Refer to Exhibit 49EE-F1 for the location of these structures.

2. Contractor shall construct one down-gradient drainage/diversion ditch. The diversion ditch is approximately 950' in total length and shall be of a "V" design, with a 2.5' depth, 15' top width, and 3H: 1V side slopes.

3. Each of the four (4) rock check dams shall be approximately ~20' long x 10' wide x 3' in depth, using 8-12" fractured rock, or about 25 YD3 of 8-12" fractured rock each – ~100 YD3 total.

Twentymile Coal Responsibilities

1. Obtain all required state and county environmental permits and approvals.

2. Provide on-site hazard training necessary for contract personnel to operate on the surface areas.

8. Contractor shall be responsible for the disposal of all unused or waste products brought onto the site. Contractor may not use TC sites for disposal. A local landfill is located a few miles northwest of the mine's property in Milner.

9. Contractor shall secure all required permits for hauling or traveling across any roads as required. The costs of any permits shall be included in the Contractor's proposal.

10. Contractor shall be responsible for all management of construction materials; this includes but is not limited to receiving materials on site, unloading materials at the site and transportation of materials around the site.

11. Provide for all compressed air needs (if applicable).

12. Contractor shall provide a crane for loading and unloading equipment and supplies used during the project.

13. Contractor shall warrant that all work to be performed, and all materials and equipment to be furnished for the construction work and related activities are free from defects for a period of one year from the date of final acceptance of the work. Contractor shall repair or replace any defective materials and workmanship that may occur within the warrantee period at their expense.

14. The Contractor shall visit the proposed project site prior to the submittal of the proposal and make any necessary observations and/or measurement, and note any conditions under which work is to be performed. Extra compensation will not be allowed for failure to do so.

15. Provide a detailed mobilization schedule, including the required lay down area for the equipment to be used in the project.

16. Contractor shall be responsible for final clean-up of site and materials used after demobilization of equipment.

17. The Contractor shall include an additional $1,000 in their total bid to be setup in Peabody's Contractor compliance database managed by Browz. If the Contractor is already setup in the database, this $1,000 fee can be omitted in the bid.

18. The Contractor and his key project representatives are required, at their expense, to attend schedule reviews prior to the commencement of work. This (these) review(s) are done to optimize the work and the timing efficiencies of the project.

19. **Contractor shall abide by all site and company's safety policies. Refer to the attached for additional Corporate Safety Policies.**

J. The Contractor shall keep the Owner promptly informed of all injuries to the Contractor's employees that require medical treatment.

K. The Contractor shall keep the Owner informed of all federal and state safety inspections, citations, and penalties.

L. The Contractor shall make safety inspections to insure that compliance with safety standards is being carried out by the Contractor's employees.

M. The Contractor shall investigate all accidents that occur in the Contractor's phase of the Work to determine the causes of the accidents and take the appropriate measures to eliminate said causes.

N. The Contractor shall conduct and document safety meetings to instruct the Contractor's employees in the recognition and avoidance of construction hazards.

O. The Contractor shall be willing to participate in labor-management safety committees to enforce safety regulations and eliminate potential safety hazards.

P. The Contractor shall have a documented emergency evacuation program and coordinate this program with the Owner.

Q. The Contractor shall be responsible for keeping the Work areas free of debris and trash on a daily basis.

R. The Contractor shall provide adequate fire protection for the Contractor's construction shops, change rooms, and equipment.

S. The Contractor shall obtain necessary permits from the Owner as required by the Owner, e.g., parking, excavation, entry to confined spaces, use of Owner's equipment and tools, etc.

T. The Contractor shall comply with all project rules and security rules as issued by the Owner.

U. The Contractor shall comply with the Owner's "Clearance System" covering the tagging-out and locking-out of equipment and electrical systems.

V. On Projects where wrap-up insurance is in force, the Contractor shall cooperate in participating in supervisory safety training programs provided by the insurance carrier.

W. The Contractor shall keep the Owner informed of all hazardous materials that will be used on the project site; e.g., asbestos, toxic chemicals, radio-active material, etc.

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Contractor shall complete the attached bid form and return to Peabody Purchasing by May 20, 2016.

	Unit	# Units	$/Unit	Total $
Purchase and placement of 925' of wattles on downhill sides of the access road	FEET	925		
Purchase and placement of 300' of wattles on the downhill side of both the drill pad and perimeter diversion ditch	FEET	300		
Strip brush and topsoil and place in three stockpiles along road – 970' length x 40' wide x 12" depth topsoil	YD3	1450		
Excavate & construct ~950' long pad perimeter diversion ditch, V design, 2.5' depth, 15' top width, 3:1 side slopes	FEET	950		
Purchase & placement of 4 each, 20' long x 10'wide x 3' deep rock checks, including 8-12" fractured rock, 25 YD3 of rock each, 100 YD3 total	YD3	100		
Balanced Cut (~347 yd^3) and Fill (~688 yd^3) excavation for access road	YD3	688		
Access road sub grade preparation	LOT	1		
Purchase and placement of compacted sub-base pit run for a 970' x 24' wide road x 8" depth section x 1.3 swell factor	YD3	750		
Purchase and placement of compacted road base				

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	Unit	# Units	$/Unit	Total $
Purchase and placement of 1150' of wattles on downhill sides of the access road	FEET	1150		
Purchase and placement of 450' of wattles on the downhill side of both the drill pad and perimeter diversion ditch and the one soil stockpile north of the access road	FEET	450		
Strip brush and topsoil and place in three stockpiles along road – 1760' length x 40' wide x 12" depth topsoil	YD3	2610		
Excavate & construct ~950' long pad perimeter diversion ditch, V design, 2.5' depth, 15' top width, 3:1 side slopes	FEET	950		
Purchase & placement of 4 each, 20' long x 10'wide x 3' deep rock checks, including 8-12" fractured rock, 25 YD3 of rock each, 100 YD3 total	YD3	100		
Balanced Cut (~805 yd^3) and Fill (~834 yd^3) excavation for access road	YD3	835		
Access road sub grade preparation	LOT	1		
Purchase & placement of compacted sub-base pit run for a 1760' x 24' wide road x 8" depth section x 1.3 swell factor	YD3	1360		
Purchase and placement				

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	Unit	# Units	$/Unit	Total $
Purchase and placement of 1150' of wattles on downhill sides of the access road	FEET	1150		
Purchase and placement of 600' of wattles on the downhill side of both the drill pad and perimeter diversion ditch and the two soil stockpiles north of the access road	FEET	600		
Strip brush and topsoil and place in three stockpiles along road – 2280' length x 40' wide x 12" depth topsoil	YD3	3380		
Excavate & construct ~950' long pad perimeter diversion ditch, V design, 2.5' depth, 15' top width, 3:1 side slopes	FEET	950		
Purchase & placement of 4 each, 20' long x 10'wide x 3' deep rock checks, including 8-12" fractured rock, 25 YD3 of rock each, 100 YD3 total	YD3	100		
Balanced Cut (~875 yd^3) and Fill (~646 yd^3) excavation for access road	YD3	875		
Access road sub grade preparation	LOT	1		
Purchase and placement of compacted sub-base pit run for a 2280' x 24' wide road x 8" depth section x 1.3 swell factor	YD3	1760		
Purchase and placement				