



Bruce Norquist
Facilities Manager
Rio Grande Resources Corporation
P.O. Box 1150
Grants, NM 87020

December 30, 2020

Mr. David Ohori
Supervisor/Senior Reclamation Specialist
Mining and Minerals Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Submittal of a Shaft Cap System Concept as an Alternative to the Approved Shaft Plug Concept, as requested in the Comment Letter Dated October 8, 2020; Application for Modification 20-1 to Mt. Taylor Mine, Permit No. CI002RE, Rio Grande Resources Corporation

Dear Mr. Ohori,

Rio Grande Resources Corporation (RGR) has completed conceptual drawings of a shaft cap system it intends as an alternative to the approved shaft plug concept (2013 Closeout Plan). RGR prefers the presented alternative concept because of the greatly reduced safety risks of not having personnel directly enter the open shafts. Attached to this letter please find the conceptual shaft cap system drawings for the 14-foot and 24-foot shafts (2 drawings).

These drawings are being provided to MMD as requested in the comment letter dated October 8, 2020. The comment letter dated October 8, 2020 pertained to RGR's request for permit modification, submitted May 15, 2020 (Modification 20-1). RGR responded to MMD's comment letter on December 7, 2020. In that response letter, RGR stated it would submit conceptual drawings for the shaft cap system before the end of December 2020.

The shaft cap system concept presented is based on the Standard Work Specifications of the Colorado Division of Reclamation, Mining and Safety (DRMS). This concept has been used routinely by DRMS to close numerous shafts. The basic design concept involves closing the shafts with precast reinforced concrete panels. The panels are tied together by welded connections to prevent movement. The panels are then held securely to the shaft collar concrete by welding onto embedded steel plates. The cap will then be covered with 2-feet of soil. Final designs will be stamped by a New Mexico Professional Engineer.

If you have any questions, please contact me at (505) 287-7971 or by email at bruce.norquist@ga.com.

Sincerely, 

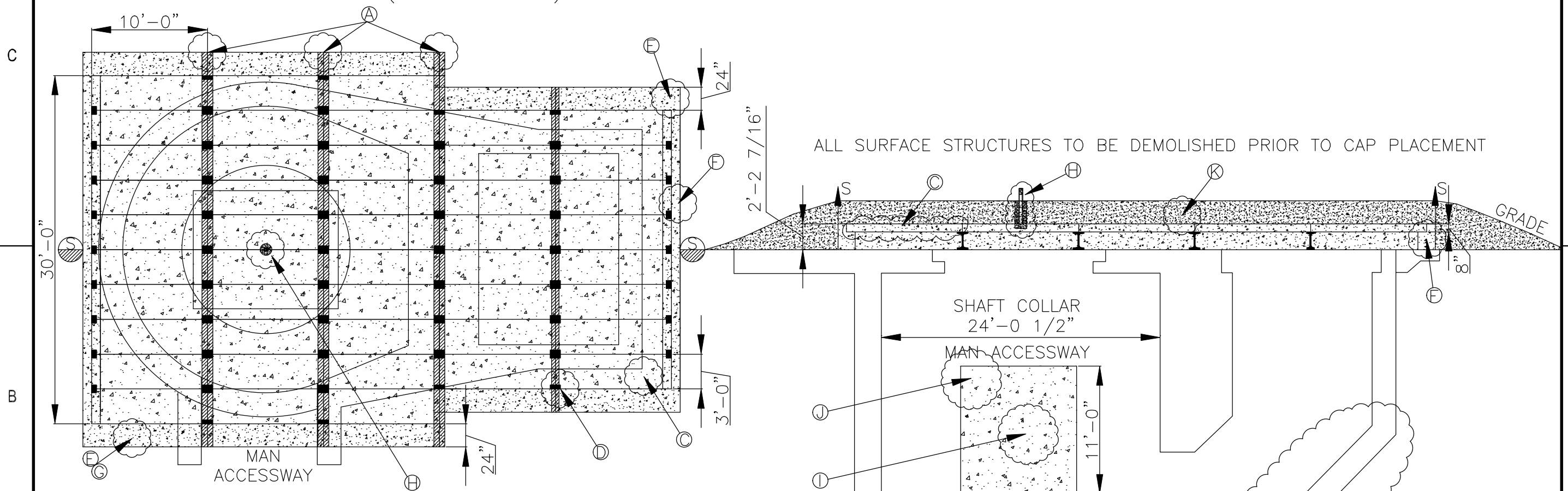
Bruce Norquist
Facilities Manager, Mt. Taylor Mine
Rio Grande Resources Corporation

cc: Ashlynn Winton, NMED (via email)

4 3 2 1

14' MAN SHAFT
TOP VIEW (SECTION S)

14' MAN SHAFT
SIDE VIEW



DESIGN CONCEPT NOTES:

- A. W18X86 EPOXY COATED BEAM.
- B. W18X55 EPOXY COATED BEAM.
- C. 3'X10'X8" PRE-CAST CONCRETE STRUCTURAL SLAB.
- D. METAL INBED WELD PLATES IN PRE-CAST CONCRETE STRUCTURAL SLABS.
- E. PLACE ALL PERIMETER FORMS FOR CONCRETE PLACEMENT UP TO TOP OF PRE-CAST CONCRETE STRUCTURAL SLABS.
- F. STEM FOOTING TO SEAT PRE-CAST CONCRETE STRUCTURAL SLABS.
- G. FORM AND PLACE ALL OUTER EDGE FOOTINGS WITH 4000 OR 5000 PSI CONCRETE.
- H. SURVEY MONUMENT RISER EXTENDS ABOVE GROUND 12-INCH MINIMUM. 3-INCH ID PIPE IMBEDDED IN CONCRETE TO PRE-CAST CONCRETE STRUCTURAL SLAB SURFACE.
- I. SHOTCRETED 4" BEDSPRING PLUG WALL INSTALLED ROUGHLY 5' BACK FROM MAN TUNNEL SHAFT ENTRANCE.
- J. CUT OUT AND CLEAR UTILITIES FROM 4" BEDSPRING PLUG WALL INSTALLATION AREA.
- K. 2-FOOT MINIMUM TOPSOIL GROWTH MEDIA COVER.
- L. EXISTING SHAFT STRUCTURE.

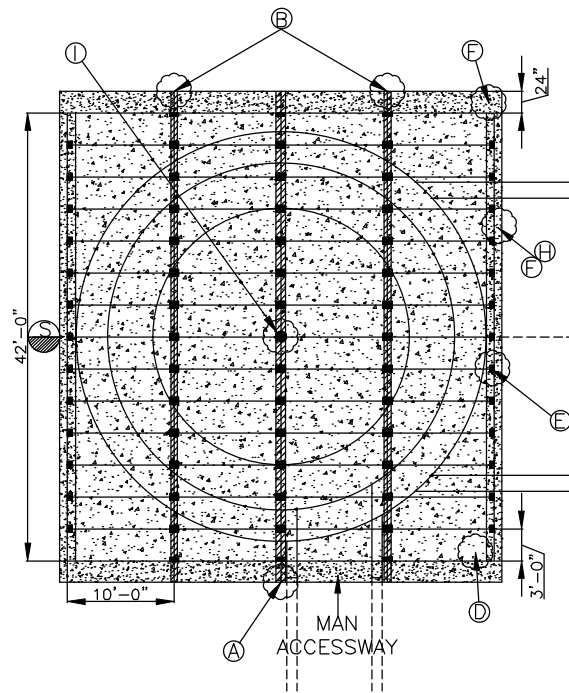
ALL SURFACE STRUCTURES TO BE DEMOLISHED PRIOR TO CAP PLACEMENT

NOT FOR CONSTRUCTION
NOT TO SCALE - DIMENSIONS TO BE FIELD VERIFIED

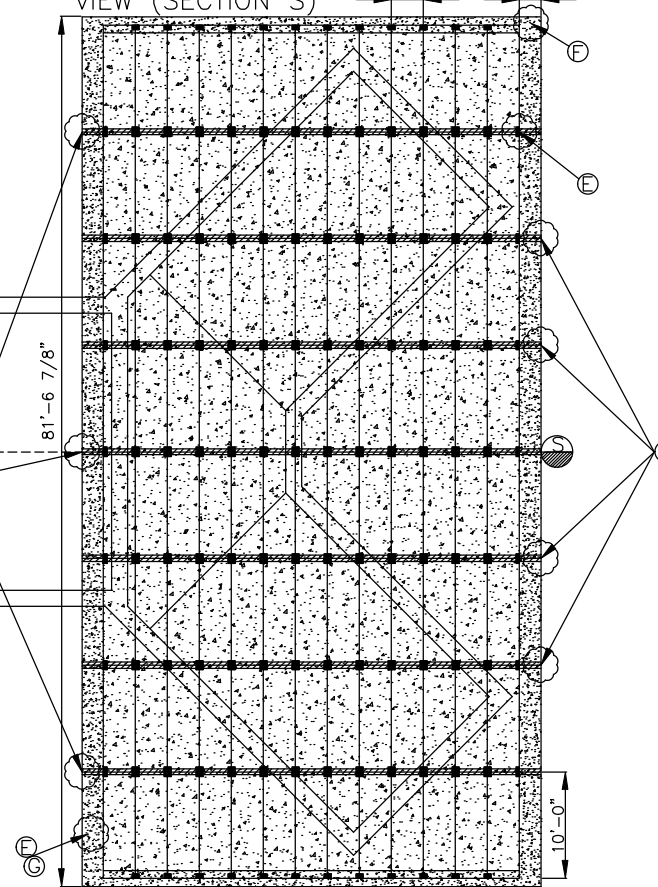
 RIO GRANDE RESOURCES CORP. MOUNT TAYLOR MINE - San Mateo, NM	Prepared By: MES MINING	Drawn By: ETMc 12/18/20	Revision: REV-03 12/18/20 REV-01 12/21/20	TITLE: 14 FOOT SHAFT CLOSURE CONCEPT

4 3 2 1

24' PRODUCTION SHAFT
TOP VIEW (SECTION S)

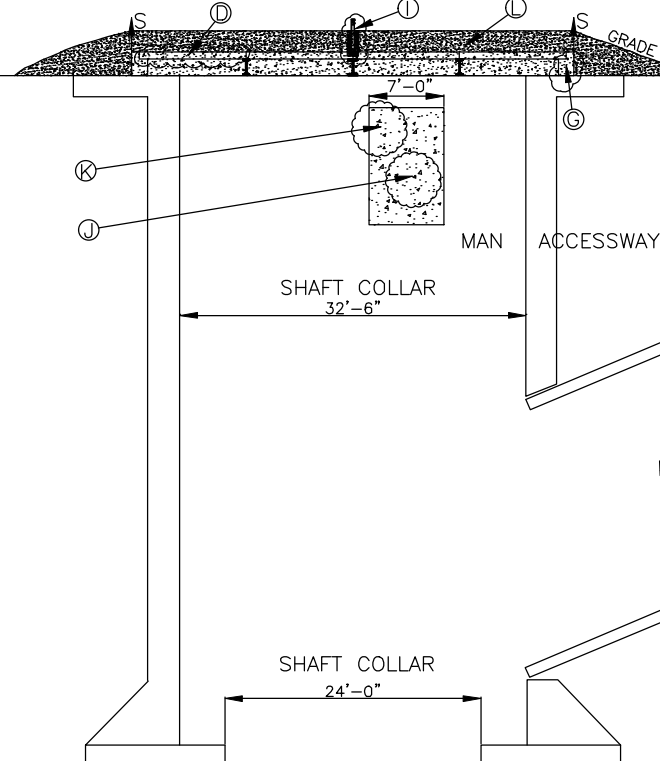


VENTILATION PITS TOP
VIEW (SECTION S)

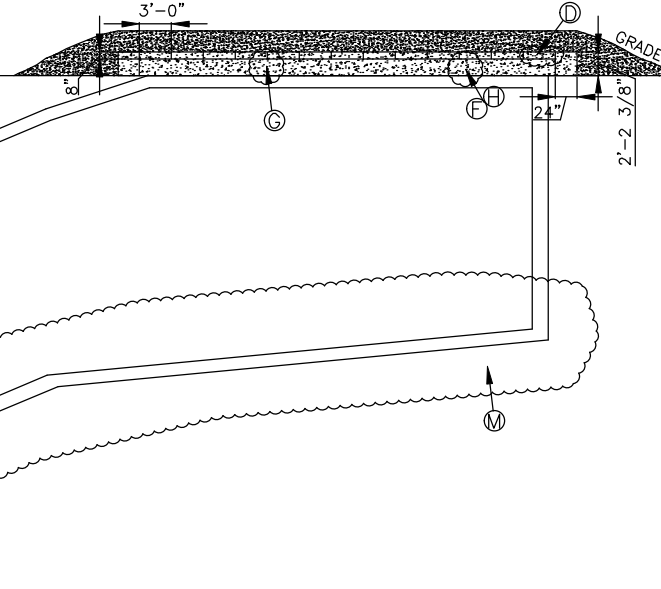


APPLY REINFORCED SHOTCRETE LINING INSIDE VENTILATION TUNNEL

24' PRODUCTION SHAFT SIDE VIEW
ALL SURFACE STRUCTURES TO BE DEMOLISHED PRIOR TO CAP PLACEMENT



VENTILATION PITS SIDE VIEW
ALL SURFACE STRUCTURES TO BE DEMOLISHED PRIOR TO CAP PLACEMENT



APPLY REINFORCED SHOTCRETE LINING INSIDE VENTILATION TUNNEL

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RIO GRANDE RESOURCES CORP.
MOUNT TAYLOR MINE - San Mateo, NM

Prepared By:
MES MINING

Drawn By:
ETMc
12/18/20

Revision:
REV-03 12/18/20
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TITLE:
24 FOOT SHAFT CLOSURE
CONCEPT