



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

November 24, 2019

Mr. Jerald Schnabel  
Castle Aggregate  
7250 Allegany Drive  
Colorado Springs, CO 80919

**Re: Pikeview Quarry, Permit No. M-1977-211; Preliminary Adequacy Review for 112 Construction Materials Reclamation Permit Amendment Application (AM-04)**

Dear Mr. Schnabel:

The Division of Reclamation, Mining and Safety (DRMS) has completed its preliminary adequacy review of your 112 Construction Materials Reclamation Permit Amendment Application (AM-04) for the Pikeview Quarry, Permit No. M-1977-211. The application was received on September 4, 2019 and after receiving corrections, called complete for review on September 20, 2019. **The decision date for this application is December 19, 2019.** Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, **it will be your responsibility to request an extension of the review period.** If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the DRMS may deny this application.

The review consisted of comparing the application content with specific requirements of Rules 3.1, 6.4 and 6.5 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials. Any inadequacies are identified under the respective exhibit heading along with suggested actions to correct them.

The following items must be addressed by the applicant in order to satisfy the requirements of C.R.S. 34-32.5-101 et seq. and the Mineral Rules and Regulations of the Mined Land Reclamation Board:

### **APPLICATION**

1. Item 1, p. 1: Applicant/operator company name. The DRMS Permittee is Continental Materials Corporation (CMC), not Castle Aggregate. A change of Permittee name requires a Succession of Operator Application. Please describe the relationship between CMC and Castle Aggregate.
2. Items 6 and 7, p. 2: Name of Subsurface and Surface owner. Both Items list Castle Aggregate. The El Paso County Assessor's office website indicates Castle Concrete Co. is the owner. Please describe the relationship between Castle Concrete Co and Castle Aggregate.



3. Item 11, p. 3: Correspondence information. The DRMS Permittee is Continental Materials Corporation (CMC), not Castle Aggregate. Please describe the relationship between CMC and Castle Aggregate.

## **6.4 SPECIFIC EXHIBIT REQUIREMENTS – REGULAR 112 OPERATIONS**

### **6.4.3 EXHIBIT C - Pre-mining and Mining Plan Map(s) of Affected Lands**

4. Exhibits C-1 and C-2 Owners: Rule 6.4.3(a) requires all adjoining surface owners of record be identified on the Exhibit C Map. No owners are identified on either Exhibit C-1 or C-2. Please resubmit C-1 and/or C-2 showing adjoining surface owners of record.
5. Exhibits C-1 and C-2 Topography: Rule 6.4.3(c) requires topography and contours. Both are provided, however there are several references to specific elevations in Exhibit D Mining Plan, Exhibit E Reclamation Plan, and Exhibit L Reclamation Costs. Please resubmit C-1 and C-2 showing contour labels and identifying contour intervals.
6. Exhibits C-1 and C-2 Involved Area: Rule 6.4.3(d) requires the total area involved in the operation be identified. There are green lines outlining various areas for which the Legend identifies as “Disturbance Area”. However, some topsoil stockpiles and roads are shown outside these disturbance areas. Topsoil stockpiles are considered affected area as are all roads that will not be reclaimed. Please resubmit C-1 and C-2 with the topsoil stockpiles and all roads to be reclaimed included in the “Disturbance Area”. Please provide the disturbance acreage on the re-submitted map(s). If there are roads that are not to be reclaimed, please provide rationale for why they do not need to be reclaimed.
7. Exhibits C-1 and C-2 Vegetation: Rule 6.4.3(e) requires the type of vegetation present in the affected area. Given the more complex revegetation plan, showing the existing types of vegetation at the edges of the disturbance may be critical in the assessment of the revegetation plan. Please resubmit C-1 or C-2 showing the types of vegetation.
8. Exhibit C-3 Cross-Sections: These four cross-sections are called out on both Exhibits C-1 and C-2 (existing and post reclamation topography). Please resubmit C-3 with clarification as to which lines represent existing topography and which are proposed final reclamation.

### **6.4.4 EXHIBIT D – Mining Plan**

9. Fill Compaction, p. D-3: The first and last discuss fill lifts and compaction. Given the critical nature of the fill as buttress material for the existing slide, The DRMS requires material and compaction specifications for the fill material to ensure acceptable material is placed and compacted to an appropriate density. Please provide material and density specifications and discuss how the appropriate backfill density will be achieved using the proposed three-foot lifts.
10. Fill Monitoring, p. D-3: The third paragraph mentions future monitoring. The DRMS assumes this is a reference to slope stability monitoring. Please describe the duration, frequency, and reporting of reclamation slope stability monitoring, as well as criteria for demonstrating the slope will be stable.

11. Commitments: The DRMS accepts the following two commitments on p. D-4:
- Technical Revision submittal to address additional grading for potential supplemental imported fill in the Lower Borrow Area.
  - Technical Revision submittal to address temporary haul roads necessary for reclamation to be constructed in previously disturbed areas.

#### **6.4.5 EXHIBIT E – Reclamation Plan**

12. Topsoil Importation: The third paragraph on p. E-2 discusses importing topsoil for reclamation. The importation of topsoil may have significant reclamation bonding implications. Please provide an estimate for the required amount of imported topsoil and if a source has been identified.
13. Subgrade: The first paragraph on p. E-4 discusses placing a “1.0-foot thick subgrade of weathered granite” over areas where shot rock remains at the surface. Shot rock can have significant void space. Please address the following:
- Will a foot of weathered granite be sufficient to prevent topsoil from being lost to void spaces in the shot rock?
  - Where is this extra material included in Exhibit L?

#### **6.4.6 EXHIBIT F – Reclamation Plan Map**

14. Exhibit F Proposed topography: Rule 6.4.6(a) requires topography and contours. Both are provided, however there are several references to specific elevations in Exhibit D Mining Plan, Exhibit E Reclamation Plan, and Exhibit L Reclamation Costs. Please resubmit Exhibit F-1 showing contour labels and identifying contour intervals, also ensuring the entire affected area is included (Please see Comment No. 6 above).
15. Revegetation: Exhibit L, Worksheet No. 3 indicates 100 acres will require revegetation. Exhibit L, Worksheet No. 14A indicates 108 acres will require reseeding.
- Please explain the 8 acre discrepancy.
  - These 100 or 108 acres need to be identified in Exhibit F, and should include topsoil and overburden stockpiles containing material to be used in the reclamation.
16. Exhibit F Final Land Use: Rule 6.4.6(b) requires showing the proposed final land use. Given the more complex revegetation plan, it will be helpful in understanding the final revegetation plan if types of vegetation in the disturbance area if these are shown. Please resubmit F-1 showing the different types of vegetation proposed.

#### **6.4.6 EXHIBIT G – Water Information**

17. Drainage Features: Various drainage features are discussed in Exhibit G, most of which are not identified on any maps submitted in Exhibits C, F, or G. Please submit a map identifying and showing the location of the following:
- Informal detention basins (ref. 1<sup>st</sup> paragraph, p. G-3),

- b. Open drainage paths and drop structures (ref. 2<sup>nd</sup> paragraph, p. G-3),
  - c. Final detention basin near east edge of the permit (ref. 3<sup>rd</sup> paragraph, p. G-3),
  - d. Northeast rout to sediment pond (ref. 4<sup>th</sup> paragraph, p. G-3),
  - e. Small depressions (ref. 5<sup>th</sup> paragraph, p. G-3),
  - f. Terrace channels and their flow directions (ref. 1<sup>st</sup> paragraph, p. G-4), and
  - g. Any other channels, ditches and ponds referenced in the reclamation plan.
18. Maintenance free stormwater facilities: DRMS experience suggests there is no such thing as a maintenance free stormwater control facility (ref. 5<sup>th</sup> paragraph, p. G-3). Please remove this statement from the narrative.
19. Curve Numbers, Table G-2: Two of the three proposed curve numbers in Table G-2 require some explanation. Please provide rationale for the following:
- a. The 71 proposed for “Reclaimed stockpile stockpile and slope” presumably references “Meadow” in TR-55, Table 2-2c, which is described as “continuous grass, protected from grazing and generally mowed for hay”. As this is proposed wildlife habitat and will likely be grazed by bighorn sheep, it is likely more appropriate to use either 79 – TR-55, Table 2-2c: “Pasture, grassland, or range”, assuming Fair cover; or 81 – TR-55, Table 2-2d: “Herbaceous—mixture of grass, weeds, etc.”, assuming Fair cover.
  - b. The 70 proposed for Pinion-Juniper with 25% cover. Referencing Table 2-2d – TR-55, pinyon-juniper for soil type B (< 30% is considered poor cover), it would seem 75 would be a more appropriate curve number.

#### **6.4.12 EXHIBIT L – Reclamation Costs**

20. Imported Material: The first paragraph of the Overview on p. L-2 states the plan calls for approximately 2,345,000 yd<sup>3</sup> of imported fill material. Where are the costs for this material included in Exhibit L?
21. Material Swell: The first bullet lists the swell factor as 20%. It does not appear to be involved in the cut and fill volumes presented. Please explain where this factor is used in the earth moving balance.
22. Drill and Blast Material: The fifth bullet states 247,000 yd<sup>3</sup> will be extracted by drilling and blasting. Worksheet Nos. 3 and 15C list 246,299 yd<sup>3</sup>. Please explain the extra 701 yd<sup>3</sup>.
23. Worksheets and Tables: There are 20 worksheets and tables included in Exhibit L with various numerical and alpha-numerical identifiers (“Worksheet No. 2” to “Table 50-A-26”). Given they are non-sequential, please provide an index for all the intended worksheets and tables.
24. Cross-References: There appears to be some lapses in the following references (please address):
- a. Worksheet No. 8B yields 7,246 hours for a Cat 345 loader that are to be used in Worksheet 13. There is no entry of 7,246 hours in Worksheet 13.

- b. Worksheet No. 8C (Upgrading of roads) yields 333 hours for a Cat 345 loader that are to be used in Worksheet 13. There is no "Upgrading of roads" entry of 333 hours in Worksheet 13.

**6.4.14 EXHIBIT N – Source of Legal Right to Enter**

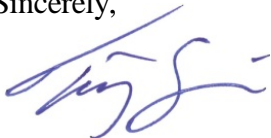
25. Clarification may be required: Based on your responses to Comment Nos. 1 and 2 above, a new source of legal right to enter may be required.

**6.5 GEOTECHNICAL STABILITY EXHIBIT**

26. Geotechnical Stability Exhibit: The DRMS is continuing to review this section of the amendment submittal. Review comments are expected to be provided by November 26, 2019.

**Please remember that the decision date for this application is December 19, 2019.** As previously mentioned if you are unable to provide satisfactory responses to any inadequacies prior to this date, it will be your responsibility to request an extension of time to allow for continued review of this application. If there are still unresolved issues when the decision date arrives and no extension has been requested, the application may be denied. If you have any questions, please contact me at (303) 866-3567, ext. 8169.

Sincerely,



Timothy A. Cazier, P.E.  
Environmental Protection Specialist

ec: Michael Cunningham, DRMS  
DRMS file  
Paul Kos, Stantec