LAC

LAC MINERALS (USA) LLC

August 5, 2022

Anne Maurer
M.S. Groundwater Engineer
New Mexico Environment Department
Ground Water Quality Bureau
1190 St. Francis Dr.
Santa Fe, NM 87502

Carmen Rose
Sr. Reclamation Specialist
Mining and Minerals Division
Mining Act Reclamation Program
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Response to Joint Agency Request for Additional Information, Waste Rock Pile Workplan Design Package and 2021 Cover Performance Review, Cunningham Hill Mine Reclamation Project, MMD Permit No. SF002RE and NMED DP-55

Dear Ms. Maurer and Ms. Rose,

In response to the Joint Agency request for additional information related the Waste Rock Pile Workplan Design Package and 2021 Cover Performance Review received July 13th, 2022, LAC Minerals (USA) LLC hereby provides the attached responses prepared by John Shomaker & Associates, Inc., and Daniel B. Stephens & Associates, Inc.

If you have questions or comments, please contact me at (775) 397-7215 or dlattin@barrick.com.

Sincerely,

Daniel Lattin, P.E.
Sr. Closure Program Manager

ec: Holland Shepherd
Brad Bingham
Adam Arguello
Patrick Malone
Steven Finch
Jeffrey Samson

TECHNICAL MEMORANDUM

To: Daniel Lattin, PE, LAC Minerals (USA), LLC dlattin@barrick.com

From: Steve Finch, Principal Hydrogeologist-Geochemist

Date: July 25, 2022

Subject: Cunningham Hill Mine Reclamation Project DP-55 Waste Rock Pile Cover

This Technical Memorandum is in response to a letter prepared by the New Mexico Environment Department (NMED) and Mining and Minerals Division (MMD) regarding comments on the Cunningham Hill Mine Reclamation Project (CHMRP) Waste Rock Pile (WRP) cover assessment and Workplan Design Package dated July 13, 2022.

In 2007 and 2019, John Shomaker & Associates, Inc. (JSAI) performed assessments of the WRP cover (JSAI, 2007; JSAI, 2019). The JSAI (2007) WRP investigation included the top of the WRP, and slopes and benches of the WRP north slope. The JSAI (2019) WRP investigation focused on the East Groin and slope areas between benches of the north slope. Zhan (2021) used the data from the 2007 and 2019 WRP investigations by JSAI.

The NMED and MMD July 13, 2022 letter stated:
The agencies are concerned with the inconsistencies of the Memo as it relates to the Methodologies for averaging precipitation across years and the average cover depth discrepancies between data collected in 2007 and the July 8, 2019 submittal from John Shomaker & Associates, Inc. (JSAI) entitled Recommendations to Improve Source Controls for the Reclaimed Waste Rock Pile. Specifically, the JSAI 2019 report describes a thinner cover material, on average, across the waste rock pile than what was observed in 2007.

Responses to the agency statements are presented below by topic.

Climate Difference Discussion

- JSAI (2019) used the onsite weather station records from 2011 to 2019 to estimate the average annual precipitation of 14.13 in. Zhan (2021) climate data were based on the National Land Data Assimilation System (NLDAS) climate engine data from 1979 to 2021, estimated annual precipitation of 15.70 in. The difference is 1.57 in.

- Compared to NLDAS dataset (43 years), JSAI dataset (9 years) is considered to be small, thus less meaningful statistically.
- The onsite weather station is located on top of the waste rock pile, thus may experience strong wind-induced error, which results from deviation of precipitation particle trajectories due to wind field deformation (undercatch). Wind-induced error can be on average 2% to 10% for rain and 10% to 50% for snow (Nespor and Sevruk, 1999). Therefore, it is common that corrections for wind-induced error in shielded and unshielded gauges be conducted as a function of wind speed (Yang et al., 1998).
- Using a relatively higher precipitation reflects a conservative approach when evaluating cover performance.

Cover Thickness Discussion

- JSAI performed a soil cover surveys in 2007 and 2019 (JSAI, 2007; JSAI, 2019). The average thickness of survey points from each survey is not comparable due to number of locations and spatial differences between the datasets.
- The 2007 JSAI cover survey was a comprehensive program; total cover thickness was found to be 1.5 ft thick or more at 18 out of 20 stations, and the average thickness was about 24 in. (JSAI, 2007).
- The 2019 JSAI cover survey primarily focused on the slopes; a comparison of 2007 and 2019 cover thickness measurements for similar locations on the slope indicates that the net difference between the two surveys is very small, less than an inch (JSAI, 2019).

References Cited

[JSAI] John Shomaker & Associates, Inc., 2007, Evaluation of the effectiveness of existing remediation measures for the Waste Rock Pile and Dolores Gulch, as required by performance standards WRD-1 and WRD-4, and DP-55 Conditions 29, 30, and 42, Cunningham Hill Mine Reclamation Project: Consultant's report prepared by Steven T. Finch and Annie McCoy of John Shomaker & Associates, Inc. for LAC Minerals (USA) LLC, 37 p. plus illustrations and appendices.

[JSAI] John Shomaker & Associates, Inc., 2011, Performance evaluation of Waste Rock Pile cover system, Condition 30, DP-55, Cunningham Hill Mine Reclamation Project: Consultant's report prepared by Steven T. Finch, Michael Jones, and Annie McCoy of John Shomaker & Associates, Inc. for LAC Minerals (USA) LLC, 14 p. plus illustrations and appendices.

[JSAI] John Shomaker & Associates, Inc., 2019, Recommendations to improve source controls for the reclaimed Waste Rock Pile, Cunningham Hill Mine Reclamation Project, Santa Fe County, New Mexico: Consultant's report prepared by Zach Weathers, Steven T. Finch, Brionna O'Connor, and Andrew Feltman of John Shomaker & Associates, Inc. for LAC Minerals (USA) LLC, 17 p. plus illustrations and appendices.

Nespor, V. and Sevruk, B., 1999, Estimation of wind-induced error of rainfall gauge measurements using a numerical simulation, Journal of Atmospheric and Oceanic Technology, vol. 16, p. 450-464.

Yang, D., Goodison, B.E., Metcalfe, J.R., Golubev, V.S., Bates. R., Pangburn, T., and Hanson, C.L., 1998, Accuracy of NWS 8-inch standard non-recording precipitation gauge: result of WMO Intercomparison, Journal of Atmospheric and Oceanic Technology, v. 15, p. 54-68.

Zhan, J., 2021, Cover Performance Review of the WRSF at Cunningham Mine (FINAL): Memorandum prepared by Johnny Zhan of Barrick Gold (LAC Minerals (USA), LLC) to Clark Burton, Closure Manager for Barrick Gold, 13 p.

DBS&A
Daniel B. Stephens & Associates, Inc.
a Geo-Logic Company

August 1, 2022

Mr. Daniel Lattin, P.E.
LAC Minerals (USA) LLC
582 County Road 55
Cerrillos, New Mexico 87010

Re: Response to Request for Additional Information
Waste Rock Pile Workplan Design Package and 2021 Cover Performance Review
Cunningham Hill Mine Reclamation Project
MMD Permit No. SF002RE and NMED DP-55

Dear Mr. Lattin:

This letter provides Daniel B. Stephens & Associates, Inc.'s (DBS&A's) responses to comments provided in the joint agency July 13, 2022 letter regarding the submittal of our North Slope Cover Improvements design package dated May 25, 2022. The joint agencies are the New Mexico Environment Department (NMED) and Mining and Minerals Division (MMD) of the Energy, Minerals and Natural Resources Department. Comments are reproduced in *italics*, with responses immediately following in regular text.

1. *Page 2, Grading of Benches and IFC drawings, sheet 3 of 5. There are no clear design criteria for the percentage slope on the benches in the Engineering Drawing Issued for Construction (IFC Drawings) in Attachment 1. The IFC Drawing shows numerous bench slope percentages ranging from -6.82 to 3.10 with numerous reaches less than 1 percent, especially on Bench 3. The changes in slope may continue to cause infiltration and deposition of sediment, which will further alter the grade on the benches. The benches need to be designed to convey stormwater off the reclaimed waste rock pile and limit infiltration. Based on the agencies' experience, a minimum of a uniform 2-5% grade on benches is recommended. Please provide a percentage grade expected to be achieved to move water off the benches in addition to any intermediate channels to be constructed across the waste rock pile to reduce infiltration on the benches. In addition, additional design details are needed to show how the benches will tie into the East and West Groin channels.*

The range in bench slope percentages shown in Sheet 3 of 5 of the IFC drawings represents pre-construction site conditions. Design criteria are shown in the profiles on Sheet 4 of 5. A primary goal for this project is to restore the slopes, in accordance with the original design, along areas of the benches where depressions or shallow slopes have developed and are evident. The proposed improvements are consistent with the original designed bench slopes shown in the document titled *As-Built Construction Report for the Cunningham Hill Waste Rock Storage Facility North Slope Bench Regrade and Coversoil Project* (Schafer and Associates, 1996). The improvements will promote positive drainage toward the east and west groins, while minimizing disturbance to the cover, particularly the healthy and

established vegetation. The proposed improvements do not affect how the benches tie into the east and west groin channels.

Achieving a uniform 2 to 5 percent grade would result in an unnecessary and significant disturbance to the successfully revegetated cover, which would likely restart the 12-year performance period. For instance, between stations 0+50 and 13+00 on Bench 2, there is an existing elevation difference of 15 feet. In order to achieve a minimum of 2 percent slope across this bench, an additional 10 feet of fill would be required at station 13+00. Similarly, on Bench 3, between stations 0+50 and 10+00, there is an existing elevation difference of 9 feet. In order to achieve a minimum of 2 percent slope across this bench, 11 feet of fill would be required at station 10+00. Adding this amount of fill or rerouting the benches to achieve 2 to 5 percent slopes would significantly alter the existing configuration of the cover and cause substantial disturbance. The proposed improvements will eliminate shallower slopes and depressions, promoting positive drainage to the groin channels.

2. *Page 2, Grading of Benches, Attachment – IFC Drawings Section F-F'. The text mentions one area requiring cut at F-F' on Bench 4. This area has an estimated thickness 12-18 inches of cover before the cut. What will the cover thickness be at F-F' after the cut is completed?*

Results from the cover soil thickness survey completed by Meridiam Partners, LLC (dated December 22, 2021) show between 22 and 24 inches of cover in the location of F-F' on Bench 4. In order to meet the design grade, a maximum of 3.5 inches of soil will be removed, resulting in a cover thickness of 18.5 to 20.5 inches in this location.

3. *Page 2, Rill Mitigation. What equipment will be used to compact fill material for rilled areas on the slopes? Is compaction necessary in these areas if the goal is to promote revegetation?*

Soil will be placed in the rills by shovel and will be compacted by foot or hand tools. Mechanical methods were considered (e.g., jumping jack, skid steer), but because the goal is to minimize disturbance, they were ruled out.

4. *IFC Drawings, sheet 2 of 5, Design Survey Letters O and P. The General Construction Notes mention NAD-27 central zone coordinate system and NGVD 29 vertical datum with no ability to validate this information. The entire project is largely based on success repair of slopes and thickness to fill material. Provide an explanation of how the construction fill and grade will be validated in a specific coordinate system for the as-built report.*

The improvement areas will be located in the field using an optical builders' level, measurements based on the IFC drawings, and visual observations of the terrain. The construction contractor will use their level to help achieve the specified slopes for the improvement areas (Sheet 4 of 5 of the IFC Drawings) and desired cuts and fills.

Survey control is in the process of being reestablished at the site after previous controls were destroyed. A surveyor has been contracted to establish control in the New Mexico

State Plane coordinate system using a NAVD-88 vertical datum. Once the proposed improvements are complete, they will be surveyed to support the preparation of a topographic map for the as-built report and validate the improvements.

5. *IFC Drawings, sheet 3 of 5. The numbers for slope percent are partially or completely obscured at H-H', G-G', and E-E'. Make the numbers visible.*

These slopes have been made visible in the revised IFC drawings (Attachment 1).

6. *IFC Drawings – sheet 3 of 5. Provide clarification what the percentages of bench slopes mean with respect to a slope achieved during construction. In other words, are they preconstruction survey measurements of actual slopes or expected changes in slope following fill placement?*

Bench slopes shown on Sheet 3 of 5 of the IFC drawings are pre-construction, existing slopes.

7. *Describe how Quality Assurance/Quality Control (QA/QC) will be done during waste rock pile repairs and any planned erosion monitoring after work completion. The agencies will require an as-built report with a topographic map that includes the final grade on the waste rock pile benches within 60 days of completion of the waste rock pile repairs.*

DBS&A will be responsible for quality assurance/quality control (QA/QC). We will observe construction to confirm it is in general compliance with the IFC drawings and objectives for the improvements. An optical builders' level will be used to help ensure that the specified slopes for the improvement areas and desired cuts and fills are achieved. Field staff providing observation will document and photograph construction progress. A final survey of the improvement areas will be performed after construction is complete to support the preparation of an updated topographic map of the waste rock pile. The field documentation, photographs, and topographic map will be included in an as-built report, which we recognize is due within 60 days after construction is complete.

Post construction inspections of the improvement areas will be conducted after the first few significant rainfall events (i.e., >1 inch). Field staff conducting the inspections will look for signs of erosion and determine whether fill materials are holding and not being washed away.

8. *Iron and manganese appear to be elevated in the two borrow material samples based on the analytical laboratory results. NMED compared the results to the 2022 NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume I Soil Screening Guidance for Human Health Risk Assessment for iron and manganese concentrations in soil. Iron concentrations are below the soil screening levels (SSLs) for all categories, but manganese is above the SSL in one sample for the most conservative category of Construction Worker, Non-Cancer of 464 mg/kg. Please provide a discussion of the concentrations of iron and manganese in soil that are present in the borrow material.*

The observed iron and manganese concentrations are indicative of natural background levels, as the stockpile is composed of native soils. Similar native soil material was used to construct the existing covers on the residue and waste rock piles.

Precautions will be taken during construction when handling and working with the soils. If dust becomes an issue, water will be applied for suppression.

Please let me know if you have any further questions.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Jeffrey Samson, P.E.
Engineer

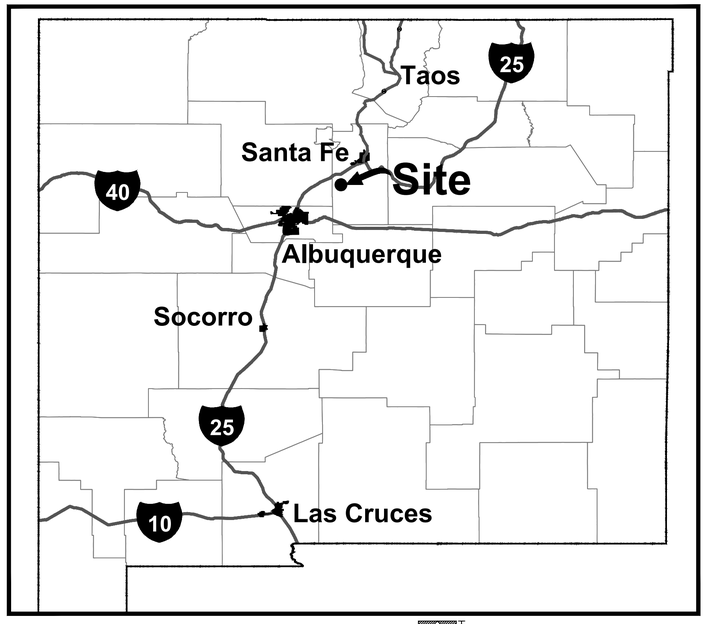
John Ayarbe, P.G.
Senior Hydrogeologist

JS/JA/rpf
Attachment

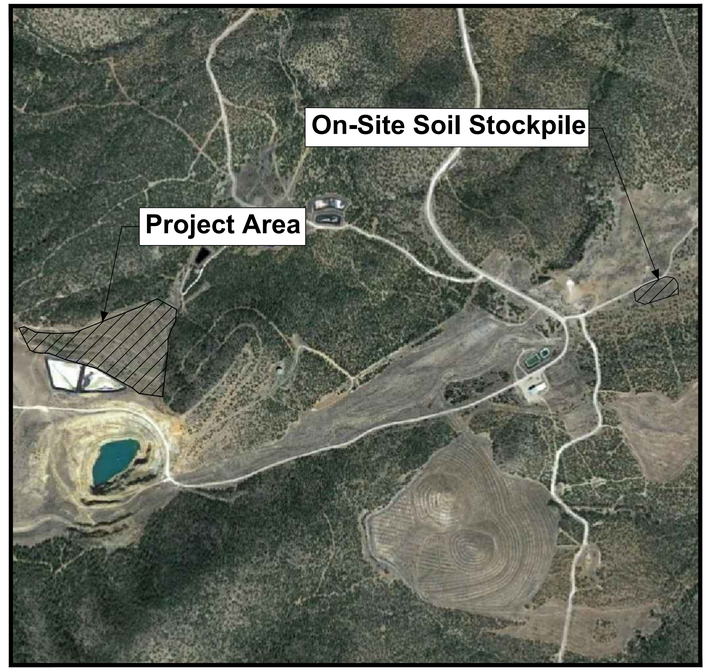
Attachment 1

Updated Drawings

DBS&A
Daniel B. Stephens & Associates, Inc.



VICINITY MAP
NTS



SITE MAP
NTS

CUNNINGHAM HILL
WASTE ROCK PILE IMPROVEMENTS

PREPARED FOR
LAC MINERALS (USA) LLC

INDEX OF DRAWINGS — **REVISION**

REV. NO.	DATE	DESCRIPTION	APPROVED BY
0	05/19/2022	ISSUED FOR CONSTRUCTION	JES

DATE OF ISSUE: 05/19/2022
DESIGNED BY: JS
DRAWN BY: JA
CHECKED BY: GP/JPA
APPROVED BY: JS

DBS&A
Daniel B. Stephens & Associates, Inc

JEFFREY SAMSON
NEW MEXICO
23686
05/19/2022
PROFESSIONAL ENGINEER

CUNNINGHAM HILL
SANTA FE COUNTY, NEW MEXICO

CUNNINGHAM HILL
WASTE ROCK PILE IMPROVEMENTS
SANTA FE COUNTY, NM

COVER SHEET AND INDEX

SHEET 1 OF 5
DWG NO. G-0

JOB NO.
DB22.1087

S:\PROJECTS\DB22.1087_CUNNINGHAM_WRP\CAD\PRODUCTION_G-0 TITLE SHEET.DWG May 19, 2022 - 2:14 PM BY: SAMSON, JEFFREY

GENERAL CONSTRUCTION NOTES:

A. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.

B. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND APPROVALS OF LIKE KIND PRIOR TO START OF CONSTRUCTION.

C. PROJECT DOCUMENTS CONSIST OF THESE DRAWINGS, PROJECT CONTRACTS, AND ANY AND ALL SUBSEQUENT EXECUTED PROJECT DOCUMENTATION ISSUED AS, OR WITH, CHANGE ORDERS, AND RFI'S (REQUEST FOR INFORMATION.) THE CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND VERIFY ALL DIMENSIONS, QUANTITIES, AND FIELD CONDITIONS. ANY CONFLICTS OR OMISSIONS WITH THE DOCUMENTS SHALL BE REPORTED TO THE ENGINEER/PROJECT MANAGER FOR CLARIFICATION PRIOR TO PERFORMANCE OF ANY WORK IN QUESTION. IN THE EVENT THE CONTRACTOR DOES NOT NOTIFY THE ENGINEER/PROJECT MANAGER, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY AND ANY AND ALL EXPENSE FOR ANY REVISIONS NECESSARY OR CORRECTIONAL WORK REQUIRED.

D. THERE ARE NO BURIED UTILITIES WITHIN THE PROJECT BOUNDARY BASED UPON INFORMATION PROVIDED TO THE ENGINEER BY OTHERS. IF EXISTING BURIED UTILITIES ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER.

E. EXISTING FENCING THAT IS NOT DESIGNATED FOR REMOVAL SHALL NOT BE DISTURBED. ANY FENCING THAT IS DISTURBED OR ALTERED BY THE CONTRACTOR SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IF THE CONTRACTOR DESIRES TO REMOVE FENCING TO ACCOMMODATE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN PERMISSION BEFORE FENCE IS REMOVED. CONTRACTOR SHALL RESTORE THE FENCE TO ITS ORIGINAL CONDITION AT THE EARLIEST OPPORTUNITY TO THE SATISFACTION OF THE OWNER. WHILE ANY FENCING IS REMOVED, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURITY OF THE SITE UNTIL THE FENCE IS RESTORED.

F. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL CLEAN AND PICK UP THE WORK AREA TO THE SATISFACTION OF THE ENGINEER/PROJECT MANAGER. AT NO TIME SHALL THE WORK BE LEFT IN A MANNER THAT COULD ENDANGER THE WORKERS OR THE PUBLIC.

G. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO PROJECT PLANS, AS AMENDED AND REVISED BY THE ENGINEER. ALL INSTALLATION DETAILS ARE TYPICAL AND MAY BE CHANGED TO BETTER FIT EXISTING LOCAL CONDITIONS UPON APPROVAL BY THE ENGINEER.

H. ONLY THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF ALL WORK. ALL WORK, INCLUDING WORK WITHIN TRENCHES, SHALL BE IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

I. REFERENCES MADE TO STANDARD SPECIFICATIONS AND STANDARD DRAWINGS REFER TO THE NEW MEXICO CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (NM–APWA) STANDARDS FOR PUBLIC WORKS CONSTRUCTION.

J. THE CONTRACTOR SHALL NOT INSTALL ITEMS AS SHOWN ON THESE PLANS WHEN IT IS OBVIOUS THAT FIELD CONDITIONS ARE DIFFERENT THAN SHOWN IN THE PLANS. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER. IN THE EVENT THE CONTRACTOR DOES NOT NOTIFY THE ENGINEER IN A TIMELY MANNER, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY AND EXPENSE FOR ANY REVISIONS NECESSARY, INCLUDING ENGINEERING DESIGN FEES.

K. EXISTING SITE IMPROVEMENTS WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. REPAIRS SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION OF THE REPAIRS. REPAIRS SHALL BE ACCEPTED BY THE OWNER PRIOR TO FINAL PAYMENT.

L. CONTRACTOR TO COMPLETE PROCTORS ON NATIVE MATERIAL, AS DIRECTED BY THESE DRAWINGS OR THE ENGINEER.

SURVEY MONUMENTS, PROPERTY CORNERS, BENCHMARKS

M. THE CONTRACTOR SHALL NOTIFY THE OWNER AT LEAST SEVEN (7) DAYS BEFORE BEGINNING ANY CONSTRUCTION ACTIVITY THAT COULD DAMAGE OR DISPLACE SURVEY MONUMENTS, PROPERTY CORNERS, OR PROJECT BENCHMARKS SO THESE ITEMS MAY BE RELOCATED.

N. ANY SURVEY MONUMENTS, PROPERTY CORNERS, OR BENCHMARKS THAT ARE NOT IDENTIFIED FOR RELOCATION ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PRESERVE AND PROTECT, RELOCATION OR REPLACEMENT OF THESE ITEMS SHALL BE DONE BY THE OWNER'S SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

DESIGN SURVEY

O. SURVEY PROJECT CONTROL WAS REFERRED TO THE NEW MEXICO STATE PLANE COORDINATE SYSTEM (NAD 27–CENTRAL ZONE) AND NGVD 29 VERTICAL DATUM.

P. THIS DESIGN IS BASED ON SURVEY INFORMATION PROVIDED BY OTHERS. THE ENGINEER CANNOT VALIDATE OR WARRANTY THIS INFORMATION. ANY DISCREPANCIES BETWEEN THE DESIGN AND SITE SURFACE CONDITIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

CONSTRUCTION LIMITS

Q. SHALL BE AS SHOWN ON PLANS.

R. THE CONTRACTOR SHALL MAINTAIN A RECORD DRAWING SET OF PLANS AND PROMPTLY LOCATE ALL UTILITIES, EXISTING OR NEW, IN THEIR CORRECT LOCATION, HORIZONTAL AND VERTICAL. THIS RECORD SET OF DRAWINGS SHALL BE MAINTAINED ON THE PROJECT SITE AND SHALL BE AVAILABLE TO THE OWNER AND ENGINEER AT ANY TIME DURING CONSTRUCTION. RECORD INFORMATION SHALL INCLUDE HORIZONTAL AND VERTICAL COORDINATE CALLOUTS, LINE SIZES, LINE TYPES, BURIAL DEPTHS, AND ALL OTHER PERTINENT INSTALLATION INFORMATION. IN ADDITION ALL ITEMS THAT ARE INSTALLED EXACTLY AS DESIGNED SHALL BE NOTED AS SUCH.

EROSION CONTROL, ENVIRONMENTAL PROTECTION, AND STORM WATER POLLUTION PREVENTION PLAN

S. THE CONTRACTOR SHALL CONFORM TO ALL SANTA FE COUNTY, STATE OF NEW MEXICO, AND FEDERAL DUST AND EROSION CONTROL REGULATIONS. THE CONTRACTOR SHALL PREPARE AND OBTAIN ANY DUST CONTROL OR EROSION CONTROL PERMITS FROM THE APPROPRIATE REGULATORY AGENCIES.

T. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY BY CONSTRUCTION OF TEMPORARY EROSION CONTROL BERMS OR INSTALLING SILT FENCES AT THE PROPERTY LINES (OR LIMITS OF CONSTRUCTION WHERE DESIGNATED) AND WETTING SOIL TO PREVENT IT FROM BLOWING.

U. WATERING, AS REQUIRED FOR CONSTRUCTION DUST CONTROL, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO MEASUREMENT OR PAYMENT SHALL BE MADE. CONSTRUCTION AREAS SHALL BE WATERED FOR DUST CONTROL IN COMPLIANCE WITH COUNTY AND STATE ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE OWNER, FOR AVAILABILITY AND USE OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL EQUIPMENT AND MATERIALS NECESSARY FOR TRANSPORTATION AND USE OF WATER.

V. ALL WASTE PRODUCTS FROM THE CONSTRUCTION SITE, INCLUDING ITEMS DESIGNED FOR REMOVAL, CONSTRUCTION WASTE, CONSTRUCTION EQUIPMENT WASTE PRODUCTS (OIL, GAS, TIRES, ETC.), GARBAGE, GRUBBING, EXCESS CUT MATERIAL, VEGETATIVE DEBRIS, ETC. SHALL BE APPROPRIATELY DISPOSED OF OFFSITE UNLESS OTHERWISE DIRECTED BY THE ENGINEER/PROJECT MANAGER AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS REQUIRED FOR HAUL OR DISPOSAL OF WASTE PRODUCTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE WASTE DISPOSAL SITE COMPLIES WITH APPROPRIATE REGULATIONS REGARDING THE ENVIRONMENT, ENDANGERED SPECIES, AND ARCHAEOLOGICAL RESOURCES.

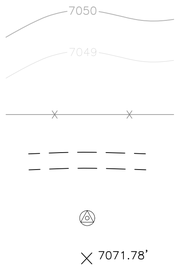
W. THE CONTRACTOR SHALL REPORT AND CLEAN UP HAZARDOUS MATERIALS SPILLS IN ACCORDANCE WITH THE GOVERNING LAC MINERALS, INC. SPILL PREVENTION PLAN.

X. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING SURFACE AND UNDERGROUND WATER. CONTACT WITH SURFACE WATER BY CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL BE MINIMIZED. EQUIPMENT MAINTENANCE AND REFUELING OPERATIONS SHALL BE PERFORMED IN AN ENVIRONMENTALLY SAFE MANNER IN COMPLIANCE WITH COUNTY, STATE, AND EPA REGULATIONS.

Y. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING CONSTRUCTION NOISE AND HOURS OF OPERATION AS IMPOSED BY THE OWNER OR COUNTY AUTHORITIES.

MISCELLANEOUS SYMBOLS:

NOTE: SYMBOLS ARE NOT SHOWN TO SCALE ON PLAN OR PROFILE DRAWINGS, AND INDICATE APPROXIMATE LOCATION ONLY.



EXISTING MAJOR CONTOUR LINE AND ELEVATION DESIGNATION

EXISTING MINOR CONTOUR LINE AND ELEVATION DESIGNATION

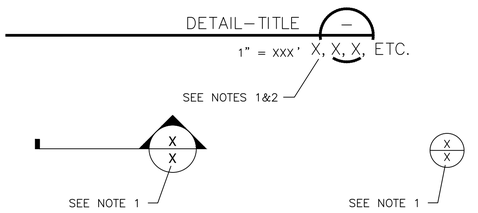
EXISTING WIRE FENCE

UNIMPROVED DIRT ROAD OR GRAVELED ROADWAY

SURVEY MONUMENT (PREVIOUS PROJECT)

SPOT ELEVATION

LEGEND:



NOTES:

1. IF SECTION, DETAIL, SCHEMATIC, OR DIAGRAM IS DRAWN ON THE SAME SHEET THAT IT IS TAKEN FROM, THE SHEET NUMBER SHALL BE REPLACED WITH A HYPHEN.
2. IF THE SECTION, DETAIL, SCHEMATIC, OR DIAGRAM IS REFERENCED ON MULTIPLE SHEETS, ALL SHEETS SHOULD BE LISTED TO THE OUTSIDE RIGHT OF THE DETAIL–TITLE BUBBLE, AND SEPARATED WITH A COMMA.

ABBREVIATIONS:

AMSL	ABOVE MEAN SEA LEVEL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BGS	BENEATH GROUND SURFACE
DIA	DIAMETER
DR	DIMENSION RATIO
EW	EACH WAY
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT ELEVATION
LB	POUNDS
MIN	MINIMUM
NTS	NOT TO SCALE
PSI	POUNDS PER SQUARE INCH
SCH	SCHEDULE
SDR	STANDARD DIMENSION RATIO
STA	STATION
STD	STANDARD
TP	TOP OF PIPE
TPL	TEST PIT LOCATION
TYP	TYPICAL
WL	WATER LINE
H	HORIZONTAL
V	VERTICAL
VPI	VERTICAL POINT OF INFLECTION

REV. NO.	DATE	DESCRIPTION	APPROVED BY
0	05/19/2022	ISSUED FOR CONSTRUCTION	JES

DATE OF ISSUE: 05/19/2022
DESIGNED BY: JS
DRAWN BY: JA
CHECKED BY: GP/JPA
APPROVED BY: JS

DBS&A Daniel B. Stephens & Associates, Inc

JEFFREY SAMSON NEW MEXICO 23686 05/19/2022 PROFESSIONAL ENGINEER

CUNNINGHAM HILL
SANTA FE COUNTY, NEW MEXICO

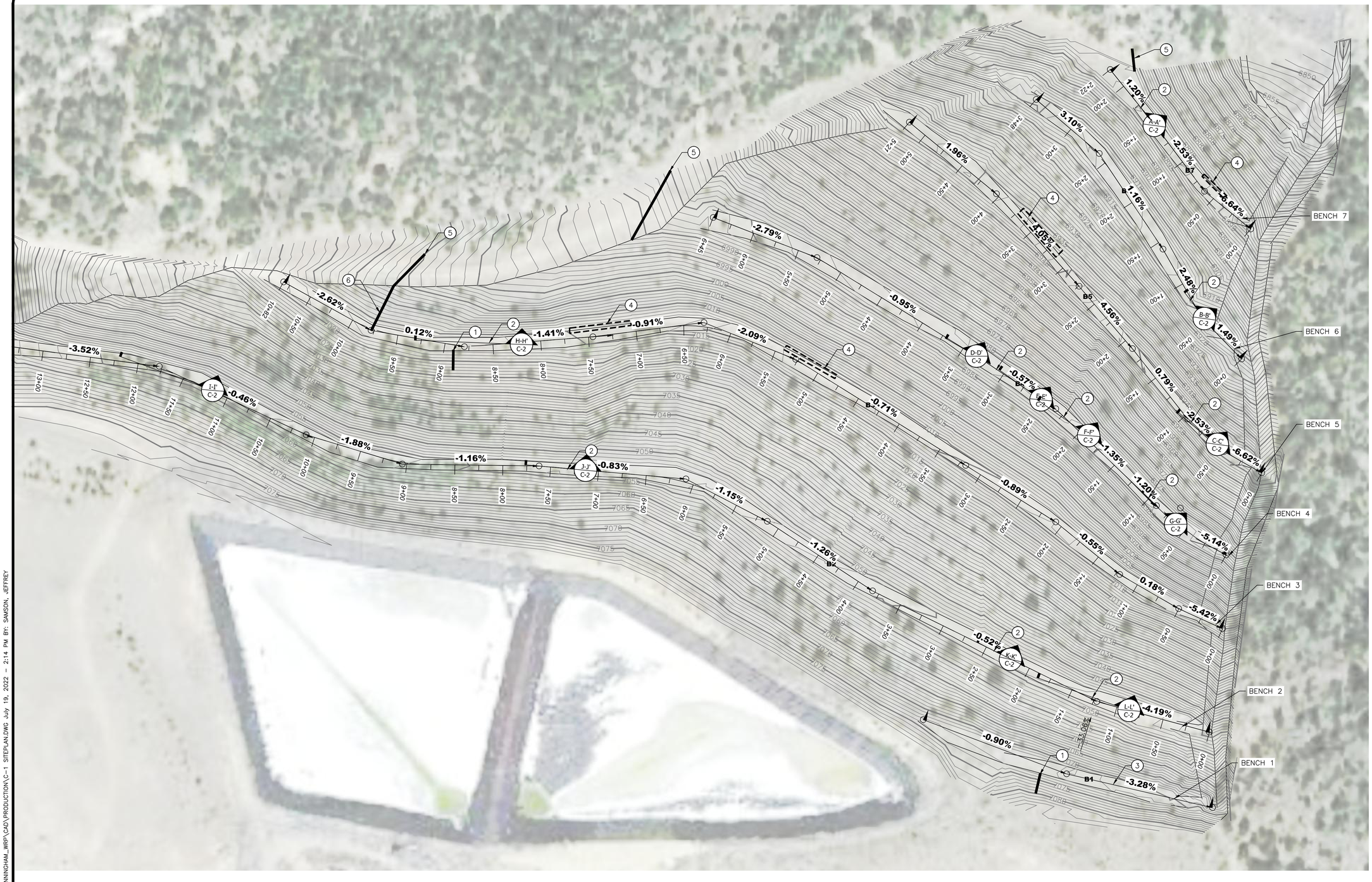
CUNNINGHAM HILL
WASTE ROCK PILE IMPROVEMENTS
SANTA FE COUNTY, NM

GENERAL NOTES & LEGEND

SHEET 2 OF 5
DWG NO. G-1

JOB NO.
DB22.1087

S:\PROJECTS\DB22.1087_CUNNINGHAM_WRP\CAD\PRODUCTION_G-0 TITLE SHEET.DWG May 19, 2022 - 2:14 PM BY: SAMSON, JEFFREY



GENERAL NOTES:

1. REPAIR RILLS BY PLACING SOIL AROUND EXISTING VEGETATION AND COMPACTING TO 90% OF THE STANDARD PROCTOR (ASTM D698).
2. GRADING OF 15-FOOT WIDE BENCHES SHALL BE COMPLETED BY COMPACTING SOIL TO 85% OF THE STANDARD PROCTOR (ASTM D698).
3. SOIL TO BE FREE OF ORGANIC MATERIAL GREATER THAN 3/4".
4. A GRAVEL ADMIXTURE COMPOSED OF 3/4" GRAVEL SHALL BE MIXED IN WITH SOIL AT A RATIO OF 1:3 BY VOLUME (GRAVEL:SOIL) PRIOR TO PLACEMENT.
5. ALL DISTURBED AREAS TO BE RE-SEEDED.

KEY NOTES:

(1) REPAIR RILLING

(2) GRADE BENCH TO PROMOTE LATERAL WATERFLOW

(3) CLEAR HDPE INLET

(4) BUILD UP LIP OF BENCH TO PREVENT STORMWATER FROM RUNNING DOWN THE SLOPE OF THE COVER

(5) CONSTRUCT/REHABILITATE SWALE TO DIRECT WATER OFF COVER

(6) CONSTRUCT 18" WIDE RIPRAP CHANNEL TO DIRECT WATER OFF COVER. RIPRAP TO BE PLACED AND COMPACTED INTO THE SOIL COVER.

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DBS&A Daniel B. Stephens & Associates, Inc

JEFFREY SAMSON NEW MEXICO 23686 PROFESSIONAL ENGINEER 05/19/2022

CUNNINGHAM HILL
SANTA FE COUNTY, NEW MEXICO

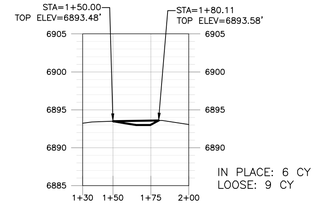
CUNNINGHAM HILL
WASTE ROCK PILE IMPROVEMENTS
SANTA FE COUNTY, NM

SITE PLAN

SHEET 3 OF 5
DWG NO. C-1

JOB NO.
DB22.1087

S:_PROJECTS_DB22.1087_CUNNINGHAM_WRP_CAD_PRODUCTION\C-1 SITEPLAN.DWG July 19, 2022 - 2:14 PM BY: SAMSON, JEFFREY



SECTION A-A' C-1

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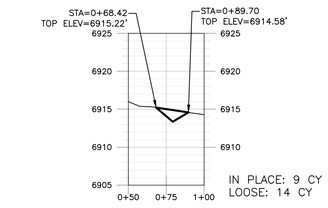
VERTICAL SCALE = 1"=10'



SECTION B-B' C-1

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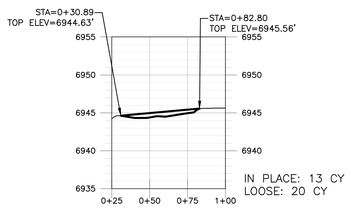

SECTION C-C' C-1

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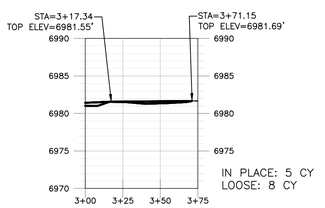

SECTION D-D' C-1

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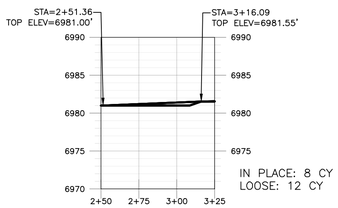

SECTION E-E' C-1

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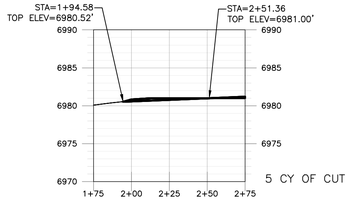

SECTION F-F' C-1

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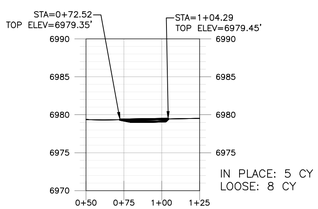

SECTION G-G' C-1

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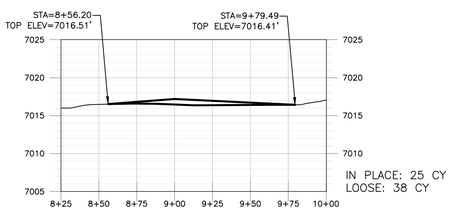

SECTION H-H' C-1

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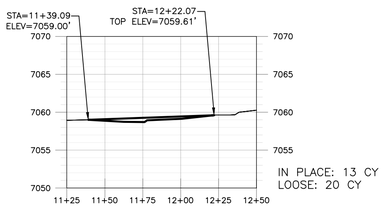

SECTION I-I' C-1

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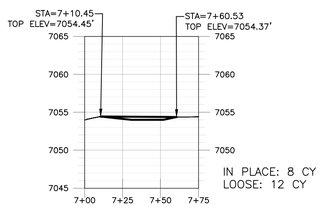

SECTION J-J' C-1

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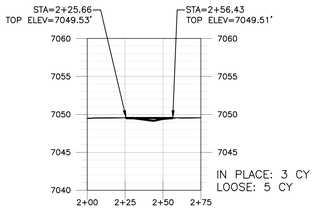

SECTION K-K' C-1

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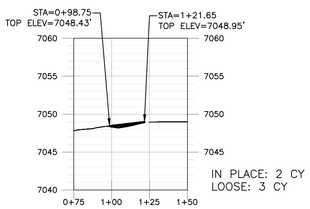

SECTION L-L' C-1

HORIZONTAL SCALE = 1" = 50'
VERTICAL SCALE = 1"=10'

S:\PROJECTS\DB22.1087_CUNNINGHAM_WRP\CAD\PRODUCTION\C-3 CROSS SECTIONS 1.DWG May 4, 2022 - 2:14 PM BY: SAMSON, JEFFREY

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DBS&A
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23686
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PROFESSIONAL ENGINEER

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WASTE ROCK PILE IMPROVEMENTS
SANTA FE COUNTY, NM

CROSS SECTIONS

SHEET 4 OF 5
DWG NO. C-2

JOB NO.
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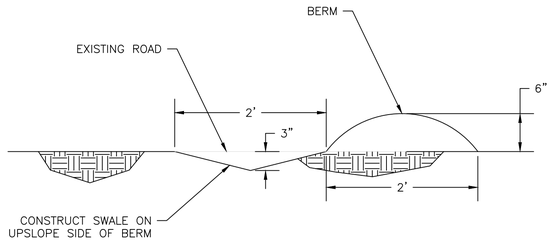
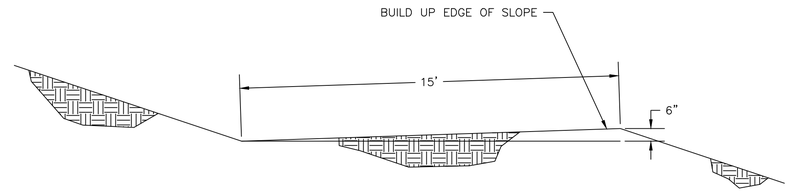


SWALE DETAIL (1 / C-1)
SCALE: NTS



BENCH DETAIL (2 / C-1)
SCALE: NTS

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WASTE ROCK PILE IMPROVEMENTS
SANTA FE COUNTY, NM

CIVIL DETAILS

SHEET 5 OF 5
DWG NO. C-3

JOB NO.
DB22.1087

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