Newmont
NORTH AMERICA

CRIPPLE CREEK & VICTOR
PO Box 191
100 N. 3rd Street
Victor CO 80860

newmont.com

January 19, 2023

ELECTRONIC DELIVERY

Mr. Elliott Russell
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Permit No. M-1980-244; Cripple Creek & Victor Gold Mining Company; Cresson Project; Technical Revision 130 – Fourth Adequacy Review Response

Dear Mr. Russell:

On August 25 2022 and January 4, 2023, Newmont Corporation's Cripple Creek and Victor Gold Mining Company (CC&V) received the Division of Reclamation, Mining and Safety (DRMS) fourth and supplemental adequacy reviews of Technical Revision (TR) 130 to Permit M-1980-244, proposing improvements to stormwater controls. Below are DRMS comments in bold and CC&V's response in *italics*.

1) Purpose: Part (b) of this original comment requires additional information related to AM-13 Second Adequacy Comment No. 56 (August 31, 2020):

   b. **HGM Stormwater Storage: Each successive response to DRMS concerns regarding stormwater storage at the HGM relies on significant storage on the dual liner below the HGM. During the review of AM-13 and the November 16, 2020 workshop (where representatives from the DRMS and CC&V discussed managing the HGM liner as an EPF), CC&V committed to "*working with the Division on updating management policies and procedures for the HGM area as an EPF at this facility. The updates will be coordinated with the Division and formalized in a Technical Revision*." Due to CC&V's proposed reliance on extended storage of impacted/contact water and the mill liner for stormwater management, the DRMS requires the six outstanding issues from AM-13 Comment No. 56 be addressed as part of the TR-130 review process. The six issues are as follows:**

      i. **Provide As-Constructed drawings showing the layout and topography of the lined surface. This should show the storage volume, floor and sill elevations, and how it ties into adjacent lined areas,**

      Please see the attached.

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ii. **Provide As-Constructed drawings showing how the sump system is integrated into the HGM liner (*this should also identify new or proposed appurtenances required to manage stormwater as a results of TR-130,***

As-Constructed drawings could not be obtained that show how the sump system is integrated into the HGM liner. This was discussed during a meeting with DRMS and CCV on January 3, 2023.

iii. **Provide As-Constructed drawings showing the spatial relationship of the HGM liner and the fire suppression system water lines in the mill area,**

As-Constructed drawings could not be obtained that show the fire suppression system water lines in the mill area.

iv. **Provide water quality data (consistent with the full suite of parameters sampled elsewhere on site [*i.e., the same as those sampled in site monitoring wells*]) for water stored on the liner**

Please see Attachment - Mill Sump Analysis

v. **Provide a description of how water contained on the HGM liner is managed, including how the volume is determined and the ultimate disposition of water contained stored on the liner (*Notes: A) The DRMS* acknowledges the CC&V's November 7th TAR response partially addresses water management; B) The response will need to demonstrate how the currently proposed 21-day storage of impacted stormwater meets the intent of Rules 3.1.7, 6.4.7(2)(b), and 7.3.1)**

The Mill Platform was installed with intent to manage infiltrated stormwater on the mill platform, as well as manage potential released material from or associated with mill operations. The impounded area is fitted with a designated sump and pumping system, and any material that reports to the sump is monitored and managed actively. If enough solution (process solution or stormwater) were to report to the sump to overwhelm the pump, the area is designed to allow overflow over the subterranean impoundment onto VLF 2, ultimately reporting to the VLF 2 PSSA.

The HGM sump currently has a high-level indicator that turns the pump on when the water level reaches 34 inches and low-level indicator that turns the pump off at 22 inches.

Once stormwater improvements are approved and implemented, this would help to divert non-contact water away from the lined areas of the High Grade

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Mill, thus reducing the contributary watershed for the High Grade Mill and would reroute the High Grade Mill contact water onto the VLF 2.

For runoff volume see response "A" below from the Supplemental AR, below.

vi. **Does CC&V have a water balance method for the contained/stored water volume?**

CC&V currently does not have a water balance method for the contained/stored water volume for the HGM platform. S&ER and the Process department will develop a water management plan for the HGM Platform and submit to DRMS by February 10, 2023.

New Comments

A. New Sump Water management:

i. **The response was considered adequate – the DRMS accepts CC&V's intent to manage water in the New Sump as process water.**
Response was adequate

ii. **The response was considered adequate – the DRMS accepts CC&V's approach to hand excavate, for the purpose of facilitating infiltration, any area of ponded water in the New Sump area larger than 3 feet by 3 feet.**
Response was adequate

Supplemental Adequacy Review received from DRMS on January 4, 2023.

A) **Runoff Volume Discrepancy: The June 14, 2022 response to our second adequacy stated the design storm (100-year, 24-hour) HGM runoff volume was estimated to be 7.68 acre-feet. The DRMS has estimated the runoff volume to be 8.12 ac-ft using the SCS method with 31.6 acres of contributing area (Figure 1 of the original TR-130 submittal); 4.07 inches of precipitation (original TR-130 submittal); and an SCS curve number (CN) of 91 (p. 5 of March 11, 2022 adequacy response). The November 7, 2022 response to our third adequacy stated the design storm (100-year, 24-hour) HGM runoff volume was estimated to be a considerably less 4.66 acre-feet. Please explain the discrepancy and why the runoff volume was reduced by 40 percent.**

The 100-year, 24-hour design storm is expected to produce a 7.66 ac-ft of "runoff" at the HGM platform, originally provided in the March 11, 2022 response by CC&V.

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WATERSHED FLOW CALCULATIONS

WATERSHED	Area (ac)	Length (ft)	Slope (ft/ft)	Curve Number	Time of Conc. (min)	Lag Time (min)
Mill	28.2	2144	0.094	100*	7.78	4.67

* Assuming 100% of runoff reports to sump

JUNCTION/POND	Peak Discharge (cfs)	Peak Storage (ac-ft)	Maximum Storage (ac-ft)
Mill Storage	0.93	7.66	7.68†

† Assuming porosity = 0.3

The numbers reported in the table above were calculated using HEC-HMS, using the following assumptions:

- *A total watershed area of 28.2 ac (revised from the 31.6 ac; NewFields verified the modeled watershed is 28.2 ac; the 31.6 ac reported on Figure 1 of the CC&V comment response dated 11 March is incorrect)*
- *A CN of 100 (conservatively assuming all water reports to the HGM sump, either as surface runoff reporting to the HGM concrete sump, or as water infiltrating through the pore spaces of the pervious rock)*
- *Precipitation from the 100-year, 24-hour design storm event of 4.07 inches.*

The peak storage of 7.66 ac-ft and Maximum Storage of 7.68 ac-ft were incorrectly reported as 4.66 ac-ft and 4.68 ac-ft in the DRMS adequacy review dated April 1, 2022, #1b: "HGM Stormwater Storage: The response indicates virtually all of the lined storage volume (4.66 ac-ft of the assumed 4.68 ac-ft) will be taken up with the storage of stormwater resulting from a 100-year, 24-hour design storm…"

Subsequent calculations by CC&V used the 4.66 ac-ft reported by DRMS. The correct number for the total volume of water anticipated to be stored in the pore spaces of the HGM platform fill is the original 7.66 ac-ft as reported in the table above and as referenced in the March 11,2022 response by CC&V.

It is important to note that the total calculated volume of water reporting to the HGM platform liner during the 100-year, 24-hour design storm event is 9.28 ac-ft: there is storage capacity in the pore spaces for 7.68 ac-ft of infiltration, and the HGM concrete sump will need to be pumped out at a rate of at least 0.93 cfs (approximately 420 gpm) for the duration of the storm to ensure contact water does not overtop the lined containment berm at the base of the HGM platform.

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B) **<u>Runoff vs. Infiltration</u>: The DRMS is reviewing TR-130 in its current form with the understanding that stormwater runoff in the 31.6 acre area surrounding the HGM is to be temporarily stored in the pore volume of the fill above the HGM liner and below the surface grade. Using the 4.07-inch rainfall depth and a CN of 91, the estimated depth of runoff is 3.08 inches. Based on SCS CN methodology, this 3.08 inches is the amount of rain that does not infiltrate, get intercepted by vegetation or depression storage. Please explain how this volume of runoff is to infiltrate the HGM compacted structural fill subgrade in a meaningful timeframe to be stored temporarily in the pore space above the HGM liner.**

As stated in the response to question (A), the HEC-HMS model assumed a CN of 100 to calculate the <u>total estimated volume</u> of water reporting to the HGM sump, either through surface water runoff or infiltration. No water was expected to be intercepted by vegetation, as the area is disturbed and no appreciable vegetation has been observed. To estimate the proportions of runoff vs infiltration, NewFields revised the HEC-HMS model to reflect a CN of 63 ("pervious natural desert landscaping" for Type A soils per SCS TR-55, best estimate for the HGM platform). This results in an estimated 2.25 ac-ft of estimated RUNOFF that will report to the HGM sump in the 24-hour period. The HGM sump is relatively small and cannot contain this 2.25 ac-ft of volume; during rainfall events, the HGM sump will be pumped down at a minimum of 0.93 cfs (or approximately 420 gpm) as reported in the response to question (A).

The remaining 7.03 ac-ft of water from the 9.28 ac-ft total estimated precipitation on the HGM watershed (9.28 ac-ft minus the 2.25 ac-ft of estimated runoff) is expected to infiltrate into the 7.68-ac-ft capacity in the pore spaces of the HGM fill, contained within the HGM liner system where it will be pumped out over an estimated 100-hour period at a pumping rate of 0.93 cfs (approximately 420 gpm).

Even at the minimum pumping rate of 420 gpm, the sump will likely exceed its capacity during peak storm intensity. If the HGM sump fills, water will divert to the VLF 2 access road, where it will dissipate into the ore, which is still on a geomembrane liner. Water from the HGM platform is expected to remain on containment (i.e. areas underlain with geomembrane liner) at all times. To ensure this runoff does not flow onto the narrow gap between VLF1 and VLF2 liner, minor improvements to berms on the south end of the HGM platform have been completed throughout 2022 to direct water into VLF2. CC&V will maintain this berm as part of normal maintenance activities.

C) **<u>Potential Drawdown Limitations</u>: Part of the concerns expressed by the DRMS during yesterday's meeting relate to the contact time of stored stormwater in the pore space of potentially acid generating material. The DRMS would want this time to be minimized. CC&V has indicated the volume could be pumped down in 21 days using a 50 gpm pump, and could cut that in half using a second 50 gpm pump. Assuming Comment B above is adequately addressed, has CC&V analyzed, or performed a pump**

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test to assess the drawdown limitations of pumping out of HGM subgrade fill considering the hydraulic conductivity of the compacted structural fill. In other words, what is the highest pumping rate that could be utilized without cycling the pump on and off.

Actual pumping cycle times will depend on the specific pump selected for this service, which has not yet been determined based on the fact that this project has not yet been approved by DRMS. Pumping will likely include on/off cycles, to allow for the water stored in the pore spaces to percolate through the rock and report to the sump, where pumping will resume once an appreciable volume of water has collected for pumping to resume. At this point, the minimum estimated pumping capacity required is 420 gpm, as stated in responses to (A) and (B) above. Actual total dewatering times will depend highly on the draindown rate through the rock pore spaces, actual performance is difficult to quantify; an estimated porosity of 0.3 has been included in these evaluations, but the draindown rate will and total pumping capacity will need to be based on observed conditions. Since this is an active mine site, additional temporary pumps can be deployed to supplement the primary pump capacity if needed.

Should you require further information, please do not hesitate to contact Johnna Gonzalez at (719)851-4190, Johnna.Gonzalez@Newmont.com, or myself at (719) 237-3442 or Katie.Blake@newmont.com.

Sincerely,

DocuSigned by:
Katie Blake
5A3D013B629844B...

Katie Blake
Sustainability & External Relations Manager
Cripple Creek & Victor Gold Mining Co

EC:

M. Cunningham – DRMS
T. Cazier - DRMS
M. Crepeau – Teller County
J. Gonzalez – CC&V
K. Blake – CC&V
N. Townley – CC&V

Attachments: As-built Mill Platform, Mill IFC Drawings 1&2, Geomembrane Panel Layout, Mill Sump Analysis.

File: S:\CrippleCreek\na.cc.admin\Environmental\New File Structure\2-Correspondence\DNR\DRMS\2023\January\Outgoing

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
(208) 784-1258
www.svl.net

Newmont - Cripple Creek & Victor
Post Office Box 191
Victor, CO 80860

Work Order: **X2L0210**
Reported: 16-Jan-23 13:05

Client Sample ID: **MILL SUMP**
SVL Sample ID: **X2L0210-01 (Ground Water)**

Sampled: 13-Dec-22 12:50
Received: 14-Dec-22
Sampled By: BOD

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	**Calcium**	273	mg/L	0.100	0.035		X251259	JRR	01/03/23 10:30	
EPA 200.7	**Magnesium**	1090	mg/L	2.50	0.450	10	X251259	JRR	01/03/23 12:19	D2
EPA 200.7	**Potassium**	8.52	mg/L	0.50	0.09		X251259	JRR	01/03/23 10:30	
SM 2340 B	**Hardness (as CaCO3)**	5190	mg/L	20.8	3.88		N/A		01/03/23 12:19	
Metals (Dissolved)										
EPA 200.7	**Aluminum**	365	mg/L	0.080	0.054		X251220	AS	01/05/23 11:23	M3
EPA 200.7	**Barium**	0.0192	mg/L	0.0020	0.0019		X251220	AS	01/05/23 11:23	
EPA 200.7	**Beryllium**	0.0927	mg/L	0.00200	0.00080		X251220	AS	01/05/23 11:23	
EPA 200.7	Boron	< 0.0400	mg/L	0.0400	0.0078		X251220	AS	01/05/23 11:23	
EPA 200.7	**Cadmium**	0.532	mg/L	0.0020	0.0016		X251220	AS	01/05/23 11:23	
EPA 200.7	**Calcium**	285	mg/L	0.100	0.069		X251220	AS	01/05/23 11:23	
EPA 200.7	**Chromium**	0.0809	mg/L	0.0060	0.0020		X251220	AS	01/05/23 11:23	
EPA 200.7	**Cobalt**	3.62	mg/L	0.0060	0.0046		X251220	AS	01/05/23 11:23	
EPA 200.7	**Copper**	0.898	mg/L	0.0100	0.0027		X251220	AS	01/05/23 11:23	
EPA 200.7	**Iron**	46.9	mg/L	0.100	0.056		X251220	AS	01/05/23 11:23	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0049		X251220	AS	01/05/23 11:23	
EPA 200.7	Lithium	< 0.040	mg/L	0.040	0.025		X251220	AS	01/05/23 11:23	
EPA 200.7	**Magnesium**	1090	mg/L	5.00	0.900	10	X251220	AS	01/05/23 11:54	D2,M4
EPA 200.7	**Manganese**	951	mg/L	0.800	0.340	100	X251220	AS	01/05/23 13:05	D2,M4
EPA 200.7	**Molybdenum**	0.0394	mg/L	0.0080	0.0034		X251220	AS	01/05/23 11:23	
EPA 200.7	**Nickel**	2.01	mg/L	0.0100	0.0048		X251220	AS	01/05/23 11:23	
EPA 200.7	**Potassium**	8.20	mg/L	0.50	0.18		X251220	AS	01/05/23 11:23	
EPA 200.7	Silver	< 0.0050	mg/L	0.0050	0.0019		X251220	AS	01/05/23 11:23	M2
EPA 200.7	**Sodium**	27.5	mg/L	0.50	0.12		X251220	AS	01/05/23 11:23	
EPA 200.7	**Vanadium**	0.0057	mg/L	0.0050	0.0019		X251220	AS	01/05/23 11:23	
EPA 200.7	**Zinc**	61.5	mg/L	0.100	0.0540	10	X251220	AS	01/05/23 11:54	D2,M4
EPA 200.8	Antimony	< 1.00	mg/L	1.00	0.720	1000	X251214	AS	01/13/23 13:21	D1,M4
EPA 200.8	Arsenic	< 1.00	mg/L	1.00	0.210	1000	X251214	AS	01/13/23 13:21	D1,M4
EPA 200.8	Selenium	< 1.00	mg/L	1.00	0.240	1000	X251214	AS	01/13/23 13:21	D1,M4
EPA 200.8	Thallium	< 0.200	mg/L	0.200	0.0800	1000	X251214	AS	01/13/23 13:21	D1,M4
EPA 200.8	**Uranium**	1.05	mg/L	0.100	0.0520	1000	X251214	AS	01/13/23 13:21	D1,M4
Metals (Filtered)										
EPA 245.1	Mercury	< 0.000200	mg/L	0.000200	0.000093		X252015	JRR	12/20/22 11:03	
Classical Chemistry Parameters										
ASTM D7237	Cyanide (free) @ pH 6 @20.0°C	< 0.0050	mg/L	0.0050	0.0048		X251255	HJL	12/27/22 11:59	M2,Q12
EPA 335.4	Cyanide (total)	< 0.0050	mg/L	0.0050	0.0038		X252036	KJR	12/23/22 15:55	
EPA 350.1	**Ammonia as N**	0.333	mg/L	0.030	0.013		X251209	KAG	12/21/22 14:12	
OIA 1677	Cyanide (WAD)	< 0.0050	mg/L	0.0050	0.0010		X251257	HJL	12/27/22 10:42	
SM 2310 B	**Acidity to pH 8.3**	3730	mg/L as CaCO3	10.0			X252186	MWD	12/23/22 13:29	
SM 2320 B	Total Alkalinity	< 1.0	mg/L as CaCO3	1.0			X251153	MWD	12/19/22 16:45	
SM 2320 B	Bicarbonate	< 1.0	mg/L as CaCO3	1.0			X251153	MWD	12/19/22 16:45	
SM 2320 B	Carbonate	< 1.0	mg/L as CaCO3	1.0			X251153	MWD	12/19/22 16:45	
SM 2320 B	Hydroxide	< 1.0	mg/L as CaCO3	1.0			X251153	MWD	12/19/22 16:45	
SM 2540 C	**Total Diss. Solids**	12200	mg/L	100			X252005	TJL	12/19/22 15:15	D2
SM 2540 D	**Total Susp. Solids**	55.0	mg/L	5.0			X252006	TJL	12/19/22 15:15	
SM 4500 H B	**pH @21.4°C**	3.9	pH Units				X251153	MWD	12/19/22 16:45	H5

SVL holds the following certifications:
AZ:0538, **ID**:ID00019, **NV**:ID000192007A, **UT**(**TNI**):ID000192015-1, **WA**:C573

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Client Sample ID: **MILL SUMP**
SVL Sample ID: **X2L0210-01 (Ground Water)**

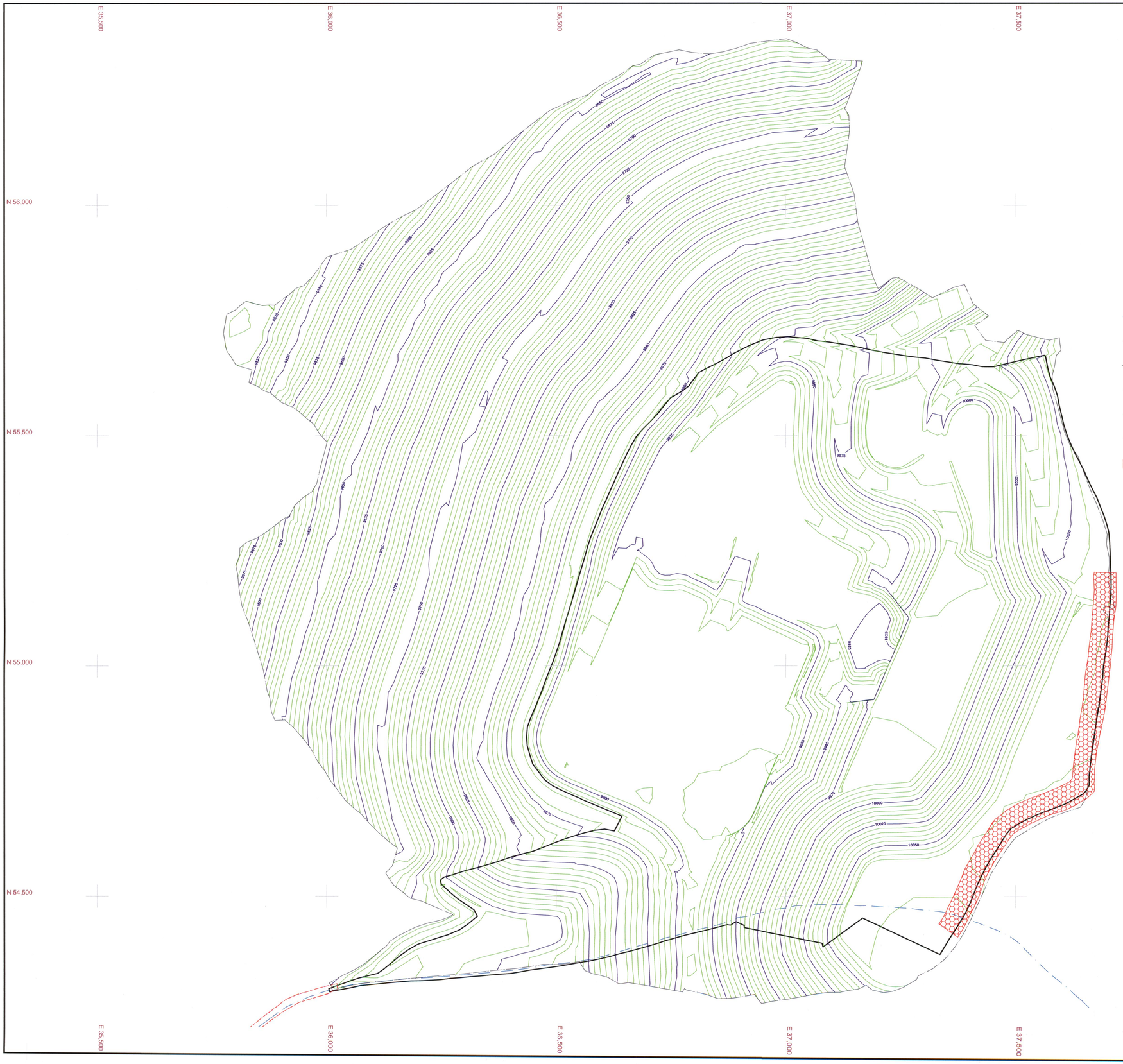
Sampled: 13-Dec-22 12:50
Received: 14-Dec-22
Sampled By: BOD

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Anions by Ion Chromatography										
EPA 300.0	**Chloride**	26.9	mg/L	2.00	0.22	10	X251144	RS	12/14/22 11:57	D2
EPA 300.0	**Fluoride**	457	mg/L	25.0	4.25	250	X251144	RS	12/14/22 12:14	D2
EPA 300.0	**Nitrate as N**	0.882	mg/L	0.500	0.130	10	X251144	RS	12/14/22 11:57	D1
EPA 300.0	Nitrate+Nitrite as N	< 1.00	mg/L	1.00	0.440	10	X251144	RS	12/14/22 11:57	D1
EPA 300.0	Nitrite as N	< 0.500	mg/L	0.500	0.310	10	X251144	RS	12/14/22 11:57	D1
EPA 300.0	**Sulfate as SO4**	8610	mg/L	75.0	45.0	250	X251144	RS	12/14/22 12:14	D2
Cation/Anion Balance and TDS Ratios										

Cation Sum: 184 meq/L Anion Sum: 204 meq/L C/A Balance: -5.30 % Calculated TDS: 10499 TDS/cTDS: 1.16

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Tawnya M. Hall
Project Manager Assistant



LEGEND

- PHASE IVc GEOMEMBRANE LIMITS 2004
- PHASE IVc BERM RAISE GEOMEMBRANE LIMITS 2012
- MILL SITE GEOMEMBRANE LIMITS 2013
- MILL SITE EARTHWORK LIMITS 2013
- MINOR CONTOUR
- MAJOR CONTOUR
- GCL MATTING

SURVEYOR'S CERTIFICATE:

I, Paul B. Gallagher, a Registered Professional Land Surveyor in the State of Colorado, do hereby certify only to Ames Construction Company, Inc. and Cripple Creek & Victor Gold Mining Company that from August 2012, through February 2013, as-built surveys were conducted under my supervision and the maps herein accurately represents said surveys, to the best of my knowledge.

For and on Behalf of
Ames Construction Inc.

PAUL B. GALLAGHER 16403 REGISTERED PROFESSIONAL LAND SURVEYOR

Paul B. Gallagher, P.L.S. No. 16403

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

AMES CONSTRUCTION INC.
18450 East 28th Ave.
Aurora, Colorado 80011
(303) 363-1000

PROJECT NO. 090601-400

DATE: 2-20-2013

SCALE: 1"=100'

DRAWN BY: KA,BF

CHK'D:

APP'D:

REVISIONS:

CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
MILL SITE EARTHWORK
GENERAL COMPOSITE OVERVIEW

PROJECT NO.
090601-400

SHEET NO.
1-4

0' 100' 200' 300'

LEGEND

- MILL SITE EARTHWORK LIMITS
- MILL SITE GEOMEMBRANE LIMITS 2013
- SECONDARY UNDERDRAIN
- ELEVATION SHOT TAKEN AT FLOWLINE OF TRENCH

SURVEYOR'S CERTIFICATE:

I, Paul B. Gallagher, a Registered Professional Land Surveyor in the State of Colorado, do hereby certify only to Ames Construction Company, Inc. and Cripple Creek & Victor Gold Mining Company that from August 2012, through February 2013, as-built surveys were conducted under my supervision and the maps herein accurately represents said surveys, to the best of my knowledge.

For and on Behalf of
Ames Construction Inc.

PAUL B. GALLAGHER
REGISTERED
16403
LAND SURVEYOR

Paul B. Gallagher, P.L.S. No. 16403

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18450 East 28th Ave.
Aurora, Colorado 80011
(303) 363-1000

PROJECT NO. 090601-400

DATE: 2-20-2013

SCALE: 1"=100'

DRAWN BY: KA,BF

CHK'D:

APP'D:

REVISIONS:

CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
MILL SITE EARTHWORK
SECONDARY UNDERDRAIN AS-BUILT

PROJECT NO. 090601-400

SHEET NO. 2-4

E 35,500 E 36,000 E 36,500 E 37,000 E 37,500 E 38,000 E 38,500

N 56,000 N 55,500 N 55,000 N 54,500

UG 4089 UG 4052 UG 4016 UG 4031 UG 4030 UG 4028 UG 4068 UG 4000

0' 100' 200' 300'

LEGEND

- PHASE IVc GEOMEMBRANE LIMITS 2004
- PHASE IVc BERM RAISE GEOMEMBRANE LIMITS 2012
- MILL SITE GEOMEMBRANE LIMITS 2013
- MILL SITE EARTHWORK LIMITS 2013
- MINOR CONTOUR TOP SLF
- MAJOR CONTOUR TOP SLF
- GEOGRID

SURVEYOR'S CERTIFICATE:

I, Paul B. Gallagher, a Registered Professional Land Surveyor in the State of Colorado, do hereby certify only to Ames Construction Company, Inc. and Cripple Creek & Victor Gold Mining Company that from August 2012, through February 2013, as-built surveys were conducted under my supervision and the maps herein accurately represents said surveys, to the best of my knowledge.

For and on Behalf of
Ames Construction Inc.

PAUL B. GALLAGHER 16403 REGISTERED PROFESSIONAL LAND SURVEYOR STATE OF COLORADO

Paul B. Gallagher, P.L.S. No. 16403

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(303) 363-1000

PROJECT NO. 090601-400

DATE: 2-20-2013

SCALE: 1"=100'

DRAWN BY: KA,BF

CHK'D:

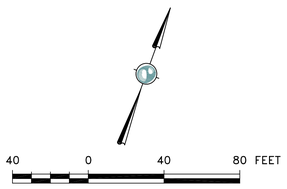
APP'D:

REVISIONS:

CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
MILL SITE EARTHWORK
TOP OF SOIL LINER FILL AS-BUILT

PROJECT NO.
090601-400

SHEET NO.
3-4



LEGEND:

- GEOMEMBRANE
- PHASE IVc BERM MODIFICATION GEOMEMBRANE
- P1 GEOMEMBRANE PANEL NUMBERS
- P4– PHASE IVc BERM MODIFICATION GEOMEMBRANE PANEL NUMBERS
- DF–1/DX–1 FUSION/EXTRUSION DESTRUCTIVE TEST
- P4DF–1/P4DX–1 PHASE IVc BERM MODIFICATION FUSION/EXTRUSION DESTRUCTIVE TEST

0	12/01/12	ISSUED FOR RECORD OF CONSTRUCTION	JNM / ACW

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

TITLE: MILL SITE EARTHWORKS PRIMARY GEOMEMBRANE

DESIGNED BY	JNM	CHECKED BY	JNM
DRAWN BY	ACW	APPROVED BY	JNM
FILENAME: LINER AS–BUILT		SHEET NO.: 4–4	REV: 0

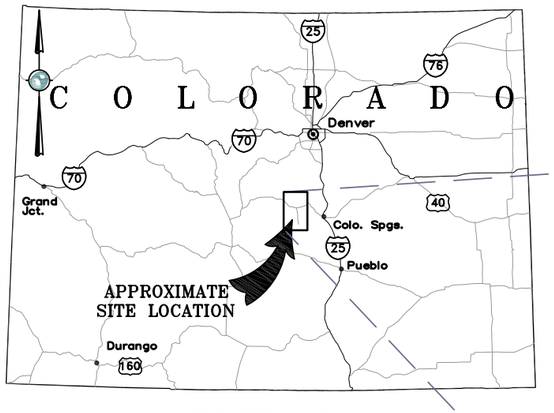
S:\Projects\1125K Mill Site Earthworks\H2 – Design\Cert Reports\Mill Site Earthworks\Appendices\Appendix A Record (As–Built) Drawings\Individual Sheets\LINER AS BUILT FINAL.dwg–1/28/2014 5:42 PM

IFC Drawings

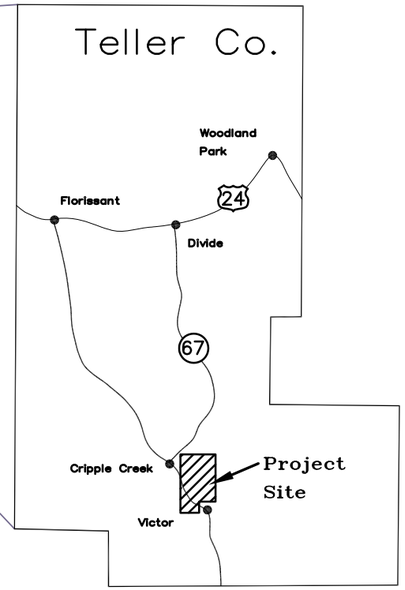
MILL SITE EARTHWORKS

RE-ISSUED FOR CONSTRUCTION

August 16, 2012



LOCATION MAP
NTS



INDEX OF DRAWINGS

TITLE	AUTOCAD FILENAME	DRAWING NO.	REV	DATE
MILL SITE EARTHWORKS TITLE SHEET	74201125GC01	–	3	8/16/12
HISTORIC UNDERGROUND WORKINGS	74201125KD04	A40	2	8/16/12
UNDERGROUND WORKING REMEDIATION TYPICAL DETAILS	74201125KD05	A45	1	3/02/12
STORMWATER CONTROL	74201125KM05	A50	1	8/16/12
OVERBURDEN STORAGE AREA TOP OF GEOMEMBRANE GRADING SURFACE PLAN VIEW	74201125KM01	A100	3	8/16/12
OVERBURDEN STORAGE AREA LIMITS OF SOIL LINER FILL PLACEMENT PLAN VIEW	74201125KM06	A120	2	8/16/12
OVERBURDEN STORAGE AREA TOP OF GEOMEMBRANE GRADING SURFACE ISOPACH PLAN VIEW	74201125KM02	A150	3	8/16/12
OVERBURDEN STORAGE AREA CONTAINMENT BERM PLAN AND PROFILE	74201125KP04	A160	2	8/16/12
OVERBURDEN STORAGE AREA PUMPBACK TUBE PLAN VIEW AND DETAILS	74201125KM08	A170	1	8/16/12
OVERBURDEN STORAGE AREA FINISHED GRADE SURFACE PLAN VIEW	74201125KM03	A200	2	8/16/12
OVERBURDEN STORAGE AREA FINISHED GRADE SURFACE ISOPACH PLAN VIEW	74201125KM04	A250	3	8/16/12
OVERBURDEN STORAGE AREA LIMITS OF GCL	74201125KM09	A270	0	8/16/12
OVERBURDEN STORAGE AREA & FUTURE MILL PLATFORM GRADING SECTIONS AND DETAILS SHEET 1 OF 3	74201125KD01	A300	3	8/16/12
OVERBURDEN STORAGE AREA & FUTURE MILL PLATFORM GRADING SECTIONS AND DETAILS SHEET 2 OF 3	74201125KD02	A310	3	8/16/12
OVERBURDEN STORAGE AREA & FUTURE MILL PLATFORM GRADING SECTIONS AND DETAILS SHEET 3 OF 3	74201125KD03	A320	3	8/16/12
OVERBURDEN STORAGE AREA ALIGNMENT PLAN VIEW	74201125KM07	A400	2	8/16/12
OVERBURDEN STORAGE AREA MILL ACCESS ROADS PLAN AND PROFILE	74201125KP01	A410	0	3/02/12
OVERBURDEN STORAGE AREA SOUTH PERIMETER ROAD PLAN AND PROFILE	74201125KP02	A420	1	8/16/12
OVERBURDEN STORAGE AREA SECTIONS AND DETAILS	74201125KP04	A425	0	8/16/12
OVERBURDEN STORAGE AREA CONSTRUCTION ROAD UM PLAN AND PROFILE	74201125KP03	A430	1	8/16/12
OVERBURDEN STORAGE AREA CONSTRUCTION ROAD HORIZONTAL ALIGNMENT DATA	74201125KD06	A440	0	3/02/12
CONCEPTUAL LOB HAUL ROAD STORMWATER MANAGEMENT	74201125KM10	A500	0	8/16/12

PREPARED FOR:

CC&V

CRIPPLE CREEK & VICTOR
GOLD MINING COMPANY

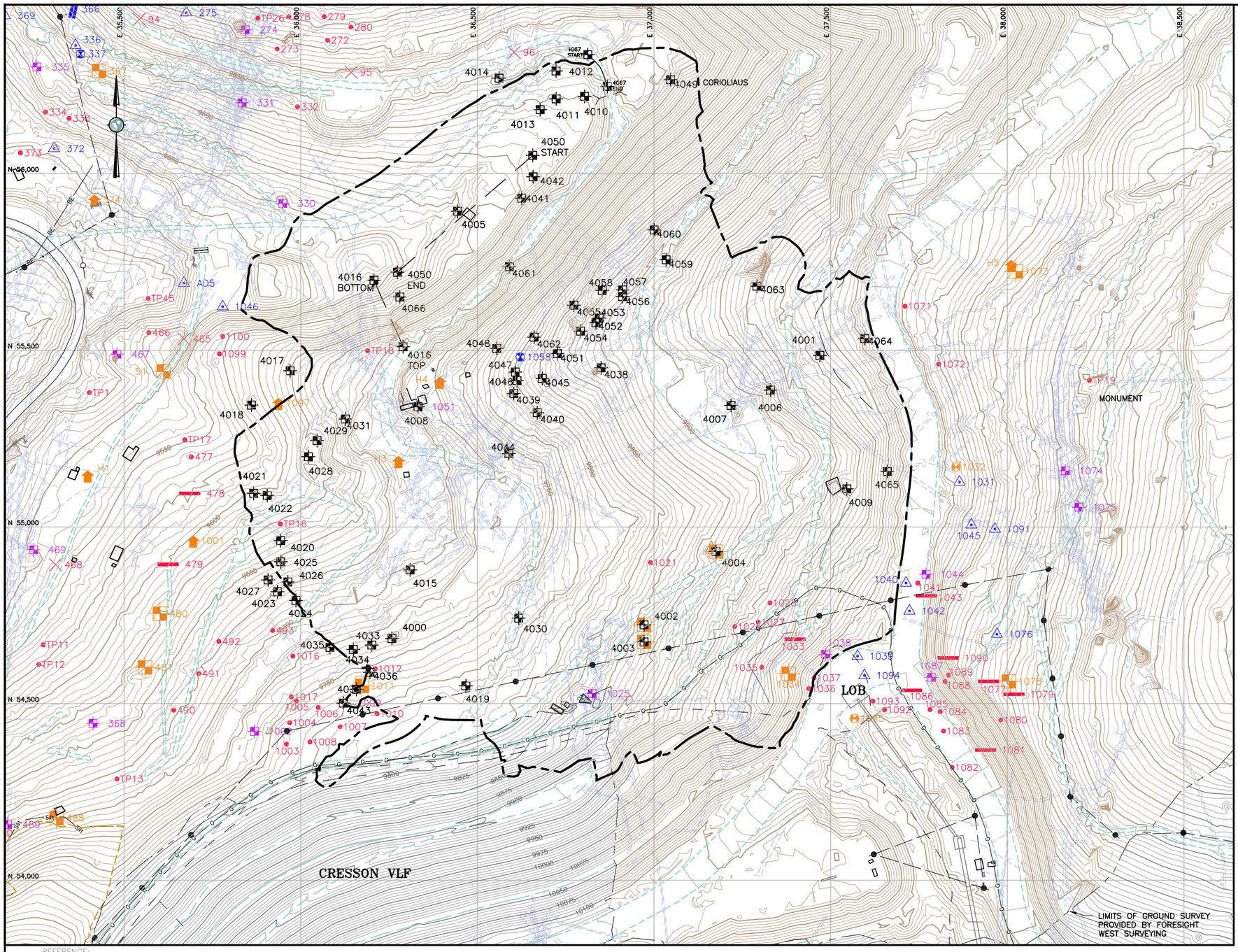
PREPARED BY:

amec

2000 South Colorado Boulevard
Suite 2-1000
Denver, CO 80222

Phone: 303-935-6505
Fax: 303-935-6575

AUTOCAD FILENAME: 1125GC01



LEGEND:

- EXISTING GROUND CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND CONTOUR AND EL, FEET (LAND SURVEY)
- PAVED ROAD
- EXISTING UNPAVED ROADS
- UNDERGROUND WORKINGS
- PROPOSED LIMITS OF MILL SITE EARTHWORKS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING BUILDING
- DEEP OR TIMBERED SHAFT
- OPEN OR COLLAPSED ADIT
- TEST PIT OR CONICAL SURFACE WORKING
- DEPRESSION
- ROAD CUT, SAMPLE LOCATION, OR FEATURE OF INTEREST
- COLLAPSED SHAFT
- TRENCH
- SLOT MINE OR OPEN/COLLAPSED STOPE
- SHALLOW SHAFT OR SURFACE WORKING
- HISTORIC BUILDING REMAINS
- UNDERGROUND WORKINGS TO BE REMEDIATED

COLORADO REGISTERED JAMES N. JANNEY-MOORE 37577 PROFESSIONAL ENGINEER 8-16-12

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

150 0 150 300 FEET

XREF: NO

PLOT SCALE

2	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

DISCLAIMER

AMEC PRODUCED THE INFORMATION PRESENTED ON THIS DRAWING THROUGH THE USE OF TECHNICAL INFORMATION AND PRACTICAL EXPERIENCE SPECIFIC TO ITS EFFORTS. RECEIVING THIS DRAWING DOES NOT GUARANTEE ANY RIGHTS TO SUCH TECHNICAL INFORMATION AND PRACTICAL EXPERIENCE. ANY ALTERATION OR ADAPTATION OF THE DATA OR CONTENTS OF THIS DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT ANY LIABILITY OR LEGAL RESPONSIBILITY TO AMEC.

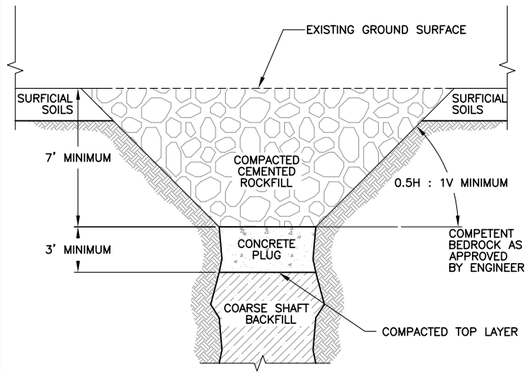
CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

TITLE: HISTORIC UNDERGROUND WORKINGS

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME	DRAWING No.	REV
74201125KD04	A40	2

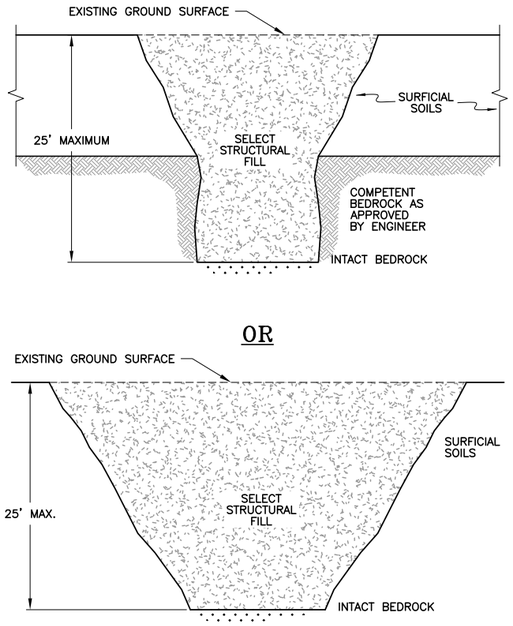


REMEDIATION NOTES:

1. ROCK SURFACE WITHIN SHAFT SHALL BE SCALED TO REMOVE LOOSE MATERIAL PRIOR TO CONCRETE PLUG AND CEMENTED ROCKFILL PLACEMENT.
2. CONTRACTOR TO CONSTRUCT 7' MINIMUM CEMENTED ROCKFILL IN EITHER COMPETENT BEDROCK OR SURFICIAL SOILS.
3. CONTRACTOR TO EXCAVATE PREVIOUSLY COLLAPSED SHAFTS/STOPES TO APPROXIMATELY 25' BELOW EXISTING GROUND.
4. COMPACTION OF TOP LAYER OF COARSE SHAFT BACKFILL TO BE METHOD SPECIFICATION APPROVED BY THE ENGINEER.

1 — SHAFT/STOPE REMEDIATION DETAIL

NTS

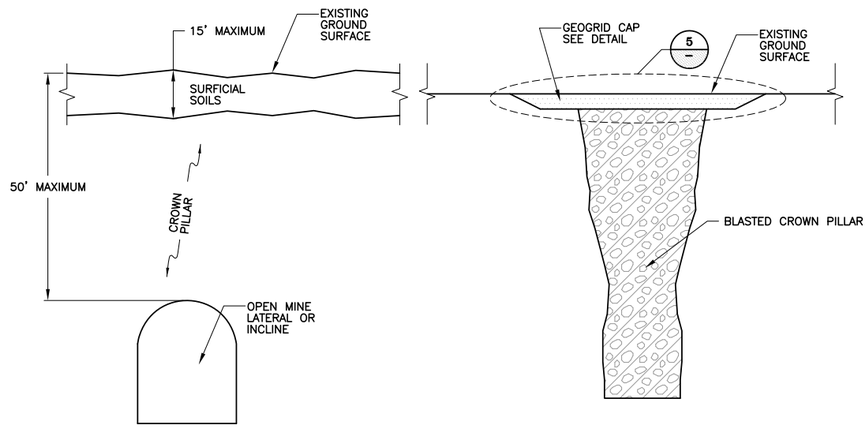


REMEDIATION NOTES:

1. COMPACT SELECT STRUCTURAL FILL USING METHOD SPECIFICATION APPROVED BY THE ENGINEER.
2. SELECT STRUCTURAL FILL MAY BE REPLACED WITH STRUCTURAL FILL PER THE PROJECT SPECIFICATIONS.

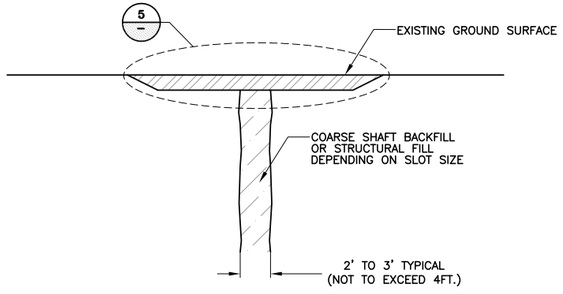
2 — SHALLOW SHAFT REMEDIATION DETAIL

NTS



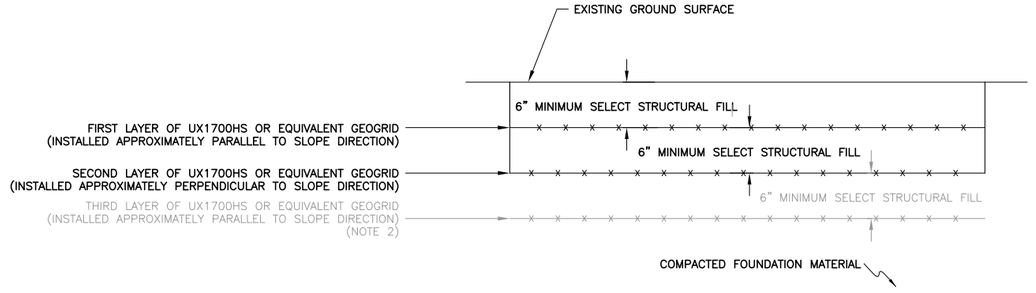
3 — OPEN LATERAL REMEDIATION DETAIL

NTS



4 — OPEN MINED SLOT REMEDIATION DETAIL

NTS



REMEDIATION NOTES:

1. CONTRACTOR TO INSTALL DIRECTION OF MAXIMUM STRENGTH FOR THE SECOND LAYER OF UX1700HS OR EQUIVALENT HS GEOGRID TRANSVERSE TO THE DIRECTION OF MAXIMUM STRENGTH FOR THE FIRST LAYER OF UX1700HS GEOGRID.
2. A THIRD GEOGRID LAYER MAY BE ADDED IN AREAS UNDER HIGH NORMAL LOAD. AREAS REQUIRING THIRD GEOGRID WILL BE DETERMINED DURING REMEDIATION.
3. GEOGRID CAP TO EXTEND MINIMUM 15 FEET BEYOND MINE WORKING LIMIT.

5 — GEOGRID CAP INSTALLATION DETAIL (TYP.)

NTS

1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

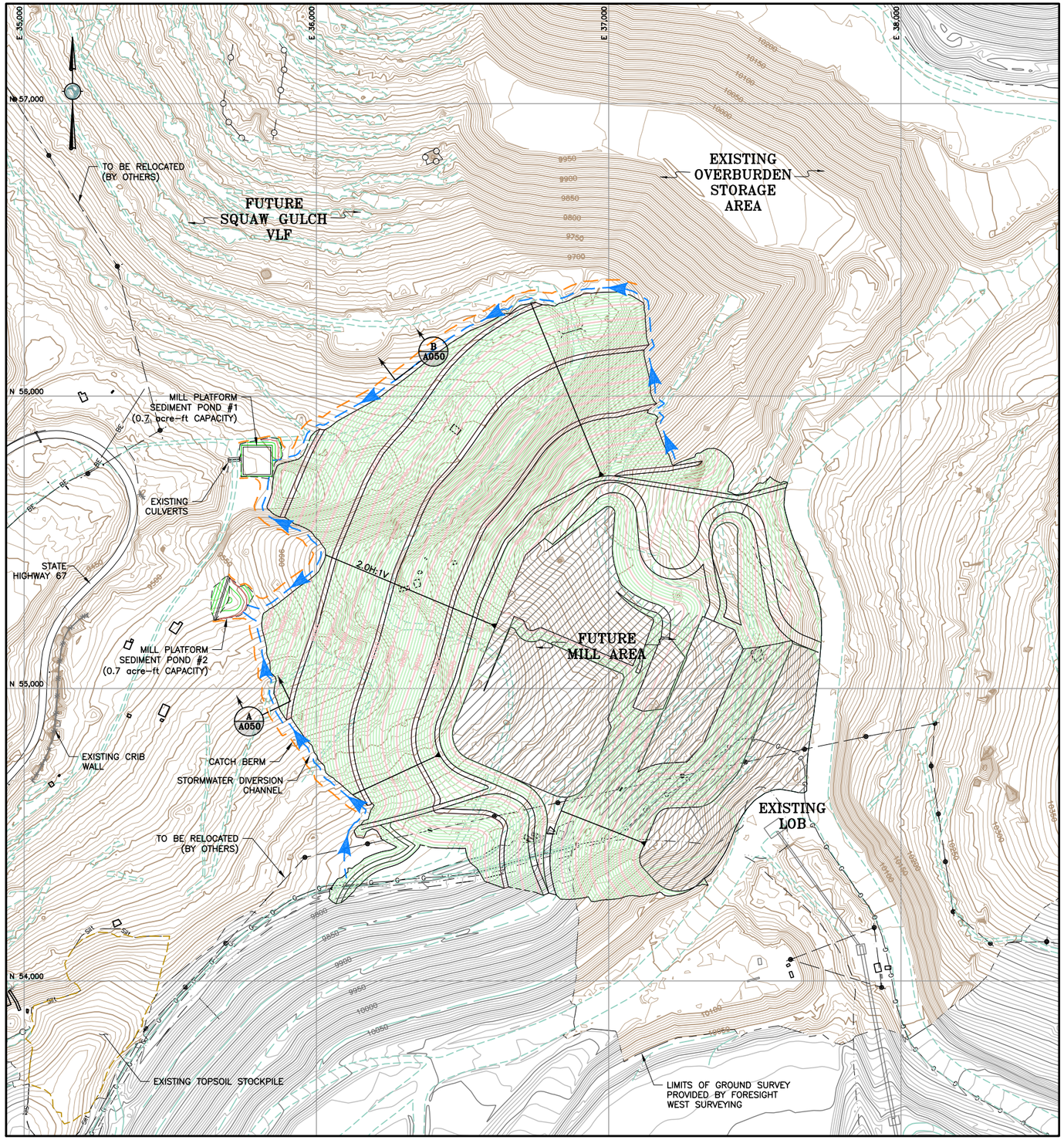
TITLE: UNDERGROUND WORKING REMEDIATION TYPICAL DETAILS

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125KD05 | DRAWING No.: A45 | REV: 1

XREF: NO

PLOT SCALE



MILL PLATFORM TOPOGRAPHY

200 0 200 400 FEET

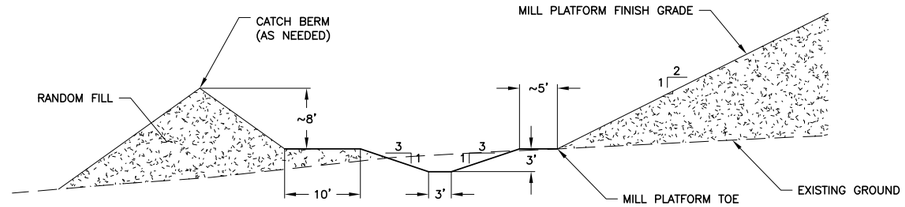
XREF. NO

PLOT SCALE

LEGEND:

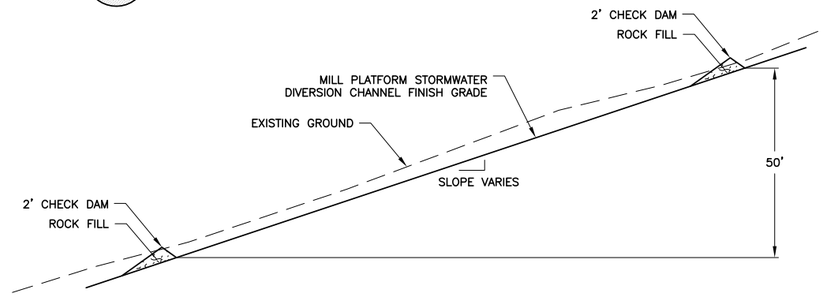
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED SQUAW GULCH MILL PLATFORM GROUND SURFACE CONTOUR AND EL. FEET
- STORMWATER DIVERSION CHANNEL
- CATCH BERM
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67
- FUTURE MILL AREA

COLORADO REGISTERED
JANET N. JANNEY-MOORE
37571
PROFESSIONAL ENGINEER
8-16-12



A A050 STORMWATER DIVERSION CHANNEL CROSS SECTION

NTS



B A050 STORMWATER DIVERSION CHANNEL TYPICAL CROSS SECTION

NTS

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:

- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

1	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	3/02/12	ISSUED FOR CONSTRUCTION	JNM / CMT

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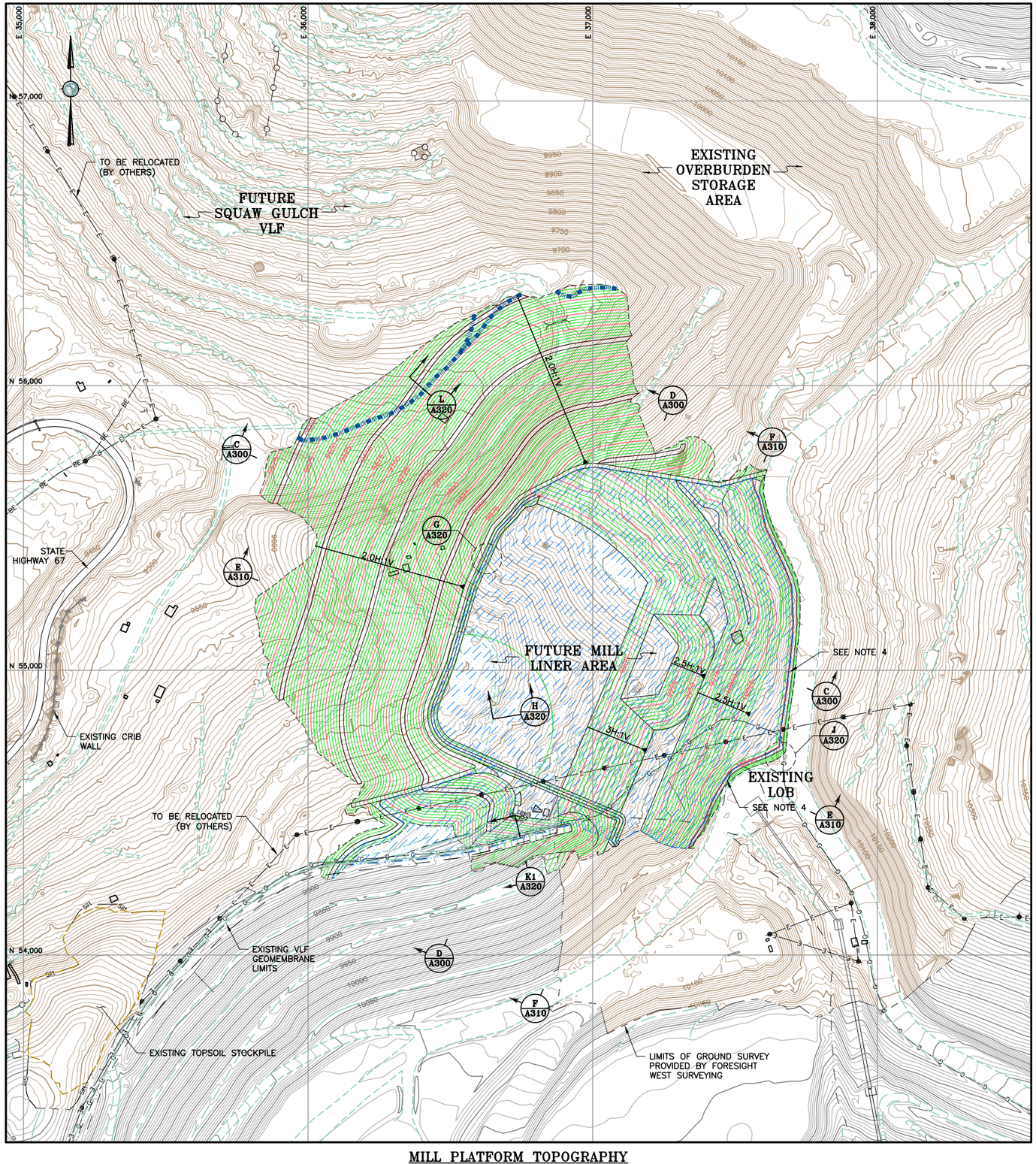
CLIENT	CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
PROJECT	MILL SITE EARTHWORKS
TITLE	STORMWATER CONTROL

amec

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME	DRAWING No.	REV
74201125KM05	A50	1



MILL PLATFORM TOPOGRAPHY

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED SQUAW GULCH MILL PLATFORM LINER GROUND SURFACE CONTOUR AND EL. FEET
- SECONDARY UNDERDRAIN PIPE
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67
- LIMITS OF 80 mil SINGLE-SIDED TEXTURED (TEXTURED FACE DOWN) LLDPE GEOMEMBRANE

NOTES:

1. THE CONTOURS REPRESENT THE TOP OF THE SOIL LINER FILL SURFACE IN AREAS WHERE SOIL LINER FILL WILL BE REQUIRED AND FINISHED GRADE EVERYWHERE ELSE. SEE DRAWING A120 FOR THE LIMITS OF THE PROPOSED MILL SITE EARTHWORKS SOIL LINER FILL AND THE FUTURE SQUAW GULCH VLF SOIL LINER FILL.
2. SOIL LINER FILL HAS A MINIMUM DEPTH OF 1'.
3. IN THE AREAS OF THE FUTURE SQUAW GULCH VLF SOIL LINER FILL, THE CONTRACTOR WILL FILL TO THE BOTTOM OF THE FUTURE SOIL LINER FILL AS PART OF THE MILL SITE EARTHWORKS.
4. THE ALIGNMENT OF THE LINER ANCHOR TRENCH WILL BE ADJUSTED IN THE FIELD FIT AS REQUIRED ALONG THE CREST OF THE LOB AND EXISTING HAUL ROAD TO MINIMIZE THE IMPACTS TO OPERATIONS.

200 0 200 400 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES
RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
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- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED
JAY N. JANNEY-MOORE
No. 37571
PROFESSIONAL ENGINEER
8-16-12

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
2	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

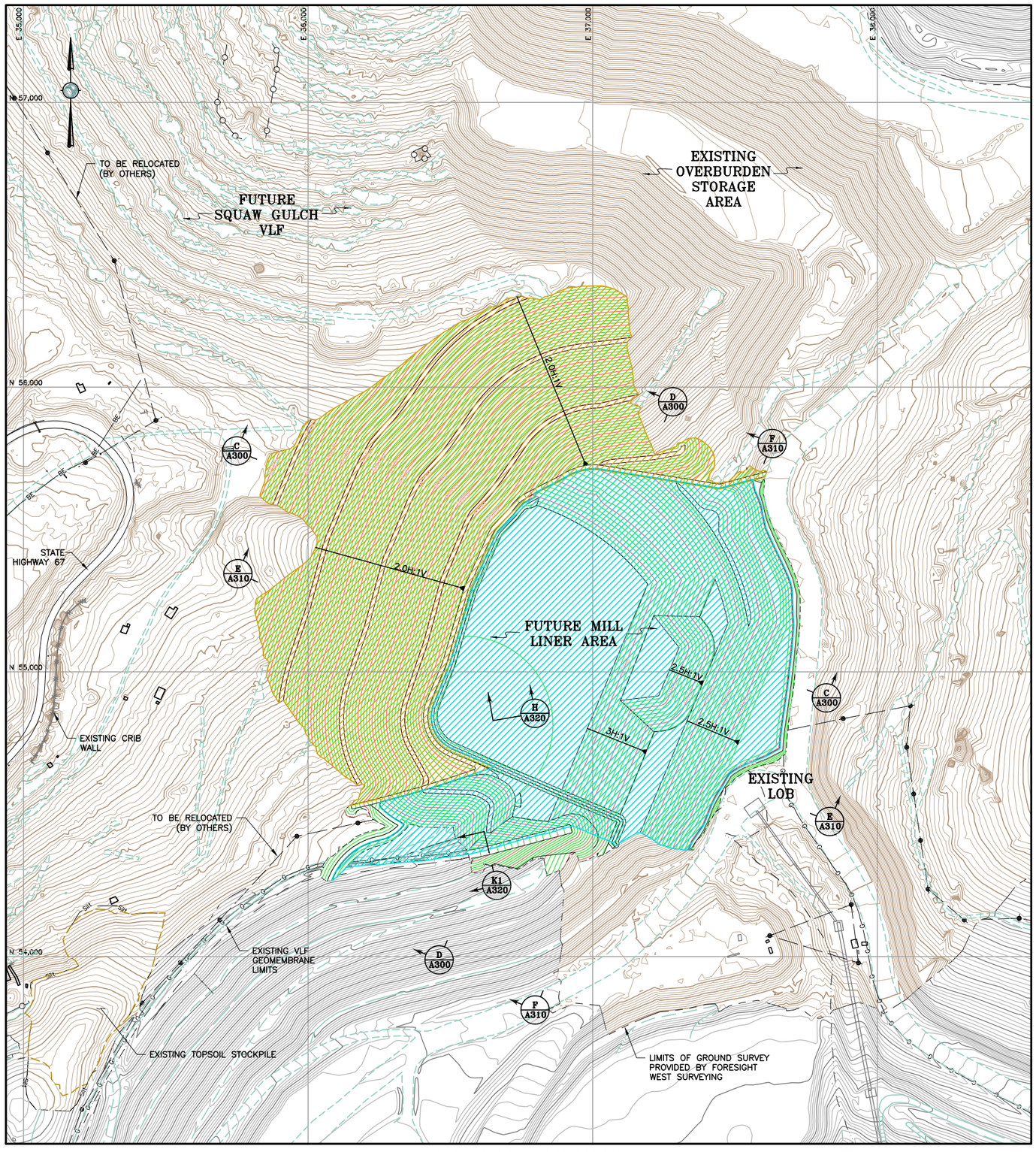
CLIENT	CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
PROJECT	MILL SITE EARTHWORKS
TITLE	OVERBURDEN STORAGE AREA TOP OF GEOMEMBRANE GRADING SURFACE PLAN VIEW

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME	DRAWING No.	REV
74201125KM01	A100	3

XREF: NO

PLOT SCALE



MILL PLATFORM TOPOGRAPHY

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED SQUAW GULCH MILL PLATFORM LINER GROUND SURFACE CONTOUR AND EL. FEET
- SECONDARY UNDERDRAIN PIPE
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67
- LIMITS OF FUTURE SOIL LINER FILL (TO BE CONSTRUCTED WITH SQUAW GULCH VLF)
- LIMITS OF PROPOSED SOIL LINER FILL (TO BE CONTRUCTED WITH THE MILL SITE EARTHWORKS)

200 0 200 400 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
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- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
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- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

JAY N. JANNEY-MOORE
COLORADO REGISTERED
37571
PROFESSIONAL ENGINEER
8-16-12

2	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
1	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	3/02/12	ISSUED FOR CONSTRUCTION	JNM / CMT

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

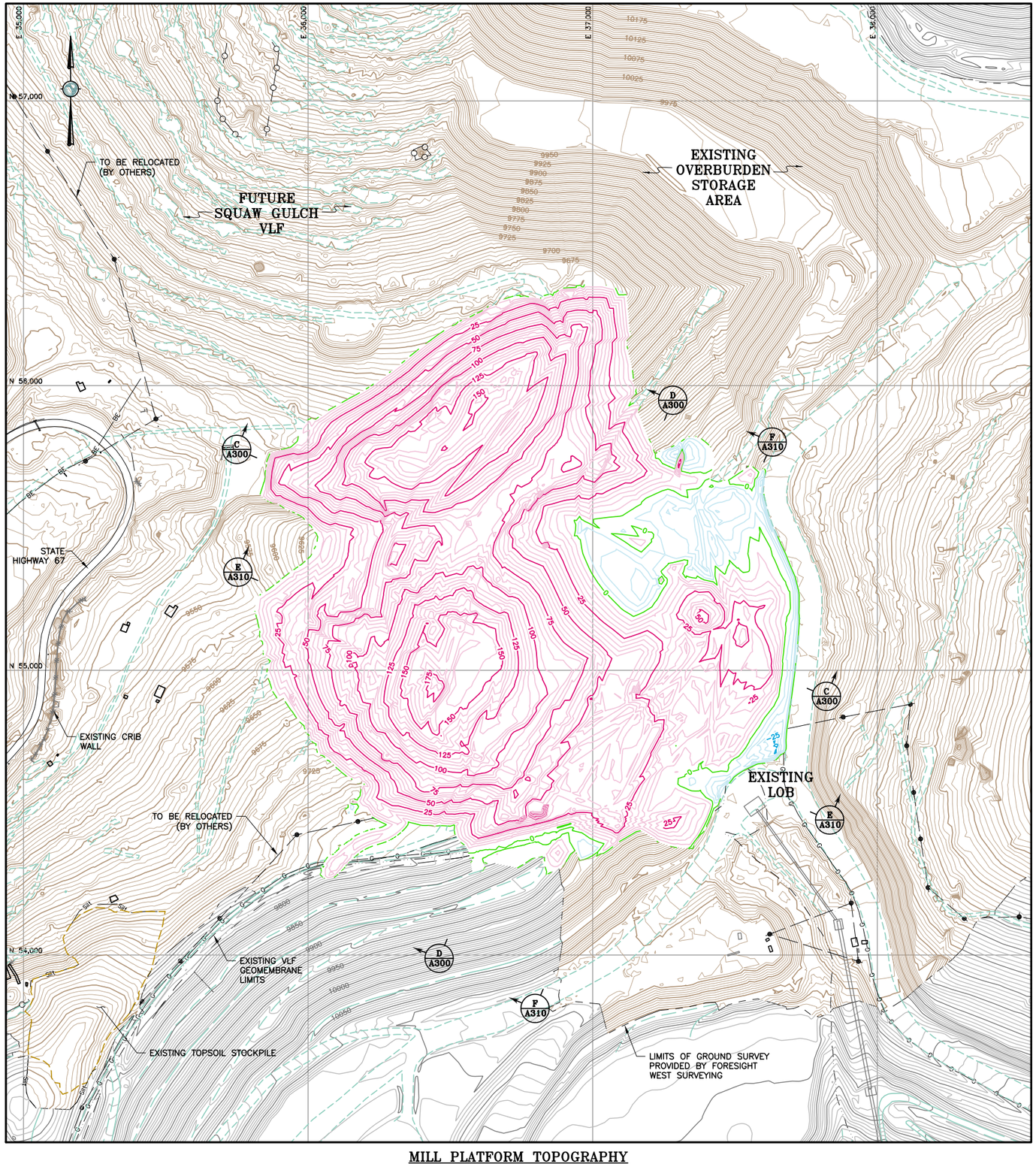
TITLE: OVERBURDEN STORAGE AREA LIMITS OF SOIL LINER FILL PLACEMENT PLAN VIEW

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME	DRAWING No.	REV
74201125KM06	A120	2

XREF: NO

PLOT SCALE



MILL PLATFORM TOPOGRAPHY

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- ISOPACH CUT CONTOURS AND EL, FEET
- ISOPACH ZERO CUT/FILL AND EL, FEET
- ISOPACH FILL CONTOURS AND EL, FEET
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67

NOTES:

1. THE ISOPACH CONTOURS REPRESENT THE DEPTH OF FILL TO THE TOP OF THE SOIL LINER FILL SURFACE IN AREAS WHERE SOIL LINER FILL WILL BE REQUIRED AND FINISHED GRADE EVERYWHERE ELSE. SEE DRAWING A120 FOR THE LIMITS OF THE PROPOSED MILL SITE EARTHWORKS SOIL LINER FILL AND THE FUTURE SQUAW GULCH VLF SOIL LINER FILL.
2. SOIL LINER FILL HAS A MINIMUM DEPTH OF 1'.
3. IN THE AREAS OF THE FUTURE SQUAW GULCH VLF SOIL LINER FILL, THE CONTRACTOR WILL FILL TO THE BOTTOM OF THE FUTURE SOIL LINER FILL AS PART OF THE MILL SITE EARTHWORKS.
4. THE ALIGNMENT OF THE LINER ANCHOR TRENCH WILL BE ADJUSTED IN THE FIELD FIT AS REQUIRED ALONG THE CREST OF THE LOB AND EXISTING HAUL ROAD TO MINIMIZE THE IMPACTS TO OPERATIONS.

200 0 200 400 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED JAY N. JANNEY-MOORE 37571 PROFESSIONAL ENGINEER 8-16-12

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
2	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

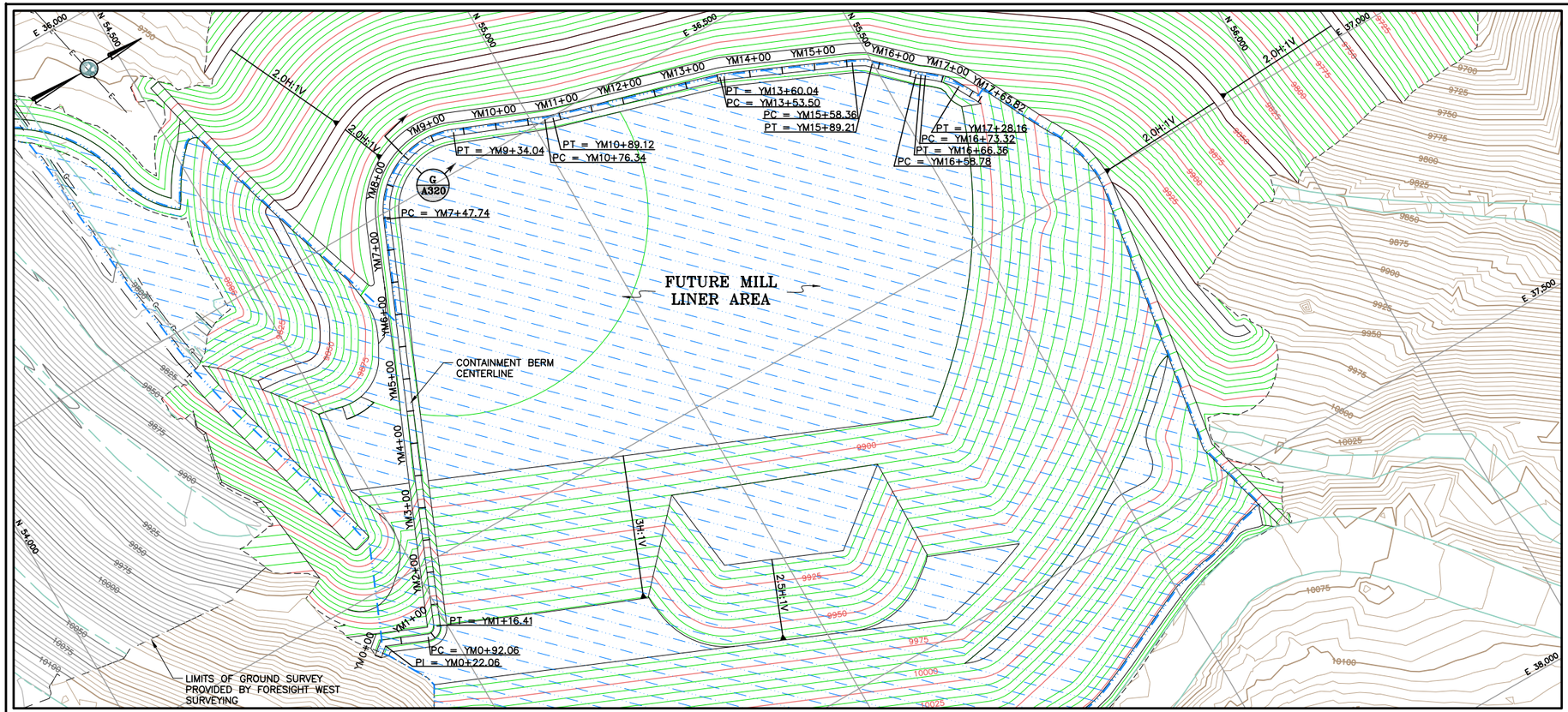
TITLE: OVERBURDEN STORAGE AREA TOP OF GEOMEMBRANE GRADING SURFACE ISOPACH PLAN VIEW

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME	DRAWING No.	REV
74201125KM02	A150	3

XREF: NO

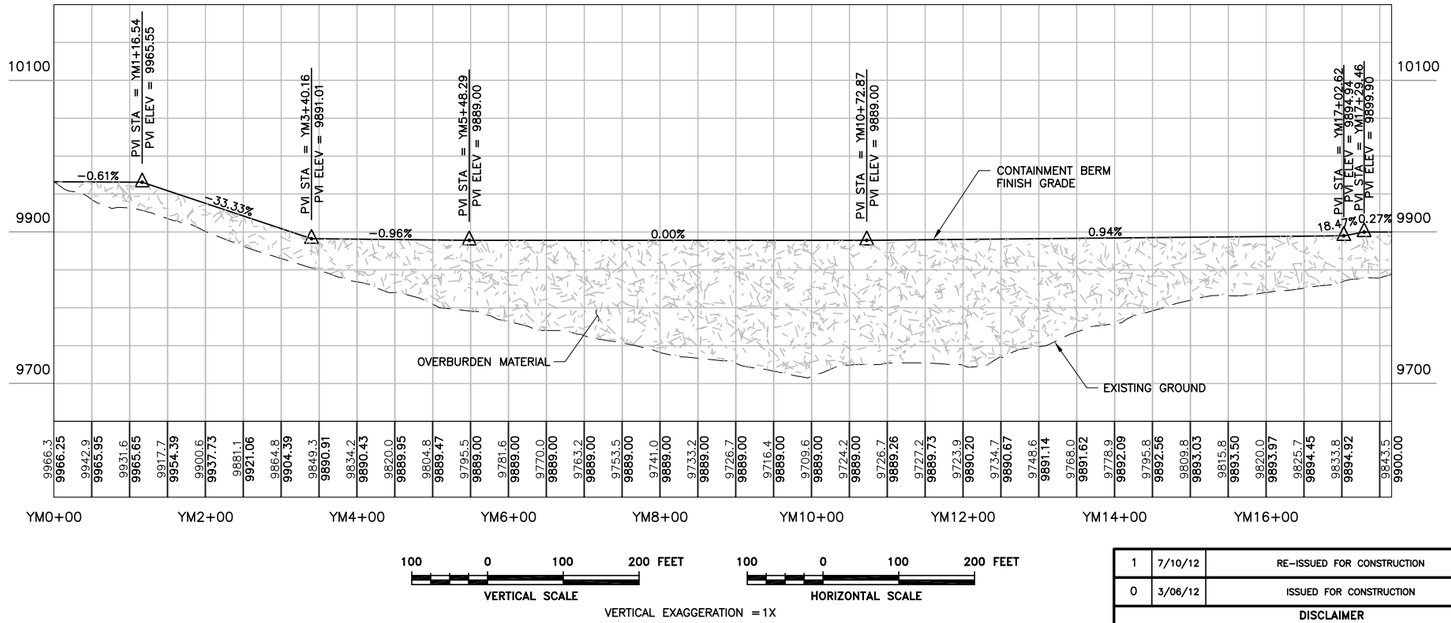
PLOT SCALE



REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:

- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)



100 0 100 200 FEET
VERTICAL SCALE

100 0 100 200 FEET
HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED GROUND SURFACE CONTOUR AND EL. FEET
- DAYLIGHT LINE
- YM6+00 CONTAINMENT BERM CENTERLINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING POWERLINES
- EXISTING PIPELINE
- LIMITS OF 80 mil SINGLE-SIDED TEXTURED (TEXTURED FACE DOWN) LLDPE GEOMEMBRANE

NOTES:

1. THE CONTOURS REPRESENT THE TOP OF THE SOIL LINER FILL SURFACE IN AREAS WHERE SOIL LINER FILL WILL BE REQUIRED AND FINISHED GRADE EVERYWHERE ELSE. SEE DRAWING A120 FOR THE LIMITS OF THE PROPOSED MILL SITE EARTHWORKS SOIL LINER FILL AND THE FUTURE SQUAW GULCH VLF SOIL LINER FILL.
2. SOIL LINER FILL HAS A MINIMUM DEPTH OF 1'.
3. IN THE AREAS OF THE FUTURE SQUAW GULCH VLF SOIL LINER FILL, THE CONTRACTOR WILL FILL TO THE BOTTOM OF THE FUTURE SOIL LINER FILL AS PART OF THE MILL SITE EARTHWORKS.

CONTAINMENT BERM CENTERLINE

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	YM0+00	54383.91	37087.00			
PI	YM0+22.06	54400.77	37072.78			
PC	YM0+92.06	54465.34	37099.82			
				89–43–59	15.55	24.35
PT	YM1+16.41	54485.66	37091.55			
PC	YM7+47.74	54732.23	36510.37			
				88–57–11	120	186.3
PT	YM9+34.04	54887.54	36445.92			
PC	YM10+76.34	55019.53	36499.1			
				05–37–57	130	12.78
PT	YM10+89.12	55031.6	36503.28			
PC	YM13+53.50	55285.34	36577.52			
				07–29–50	50	6.54
PT	YM13+60.04	55291.48	36579.77			
PC	YM15+58.36	55472.92	36659.82			
				19–38–39	90	30.86
PT	YM15+89.21	55498.49	36676.82			
PC	YM16+58.78	55548.99	36724.67			
				08–40–39	50	7.57
PT	YM16+66.36	55554.86	36729.44			
PC	YM16+73.32	55560.59	36733.41			
				26–10–57	120	54.84
PT	YM17+28.16	55597.06	36773.72			
PI	YM17+65.82	55615.34	36806.65			

COLORADO REGISTERED JANNEY-MOORE 37577 8-16-12 PROFESSIONAL ENGINEER

1	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	3/06/12	ISSUED FOR CONSTRUCTION	JNM / CMT
2	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM

DISCLAIMER

AMEC PRODUCED THE INFORMATION PRESENTED ON THIS DRAWING THROUGH THE USE OF TECHNICAL INFORMATION AND PRACTICAL EXPERIENCE SPECIFIC TO ITS EFFORTS. RECEIVING THIS DRAWING DOES NOT GUARANTEE ANY RIGHTS TO SUCH TECHNICAL INFORMATION AND PRACTICAL EXPERIENCE. ANY ALTERATION OR ADAPTATION OF THE DATA OR CONTENTS OF THIS DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT ANY LIABILITY OR LEGAL RESPONSIBILITY TO AMEC.

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

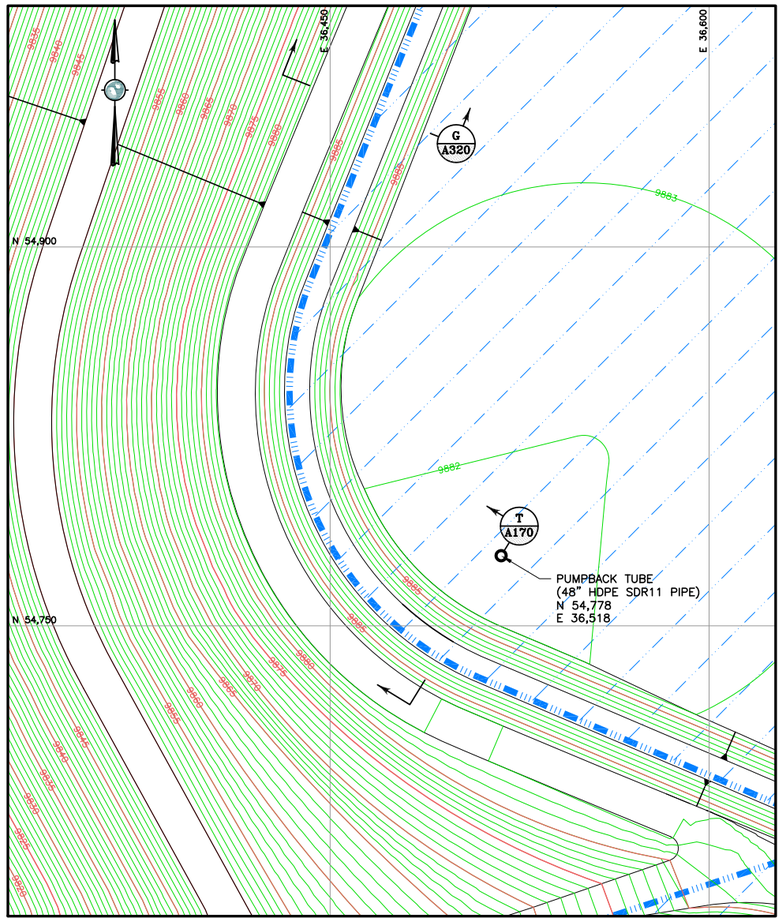
PROJECT: MILL SITE EARTHWORKS

TITLE: OVERBURDEN STORAGE AREA CONTAINMENT BERM PLAN AND PROFILE

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM
FILENAME	74201125GP04	DRAWING No.	A160
		REV	2

XREF: NO

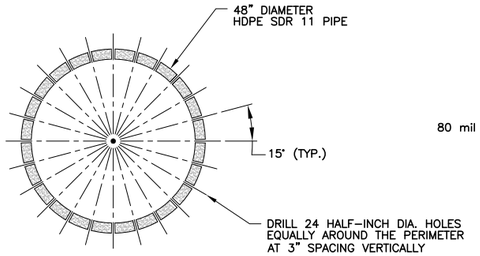
PLOT SCALE



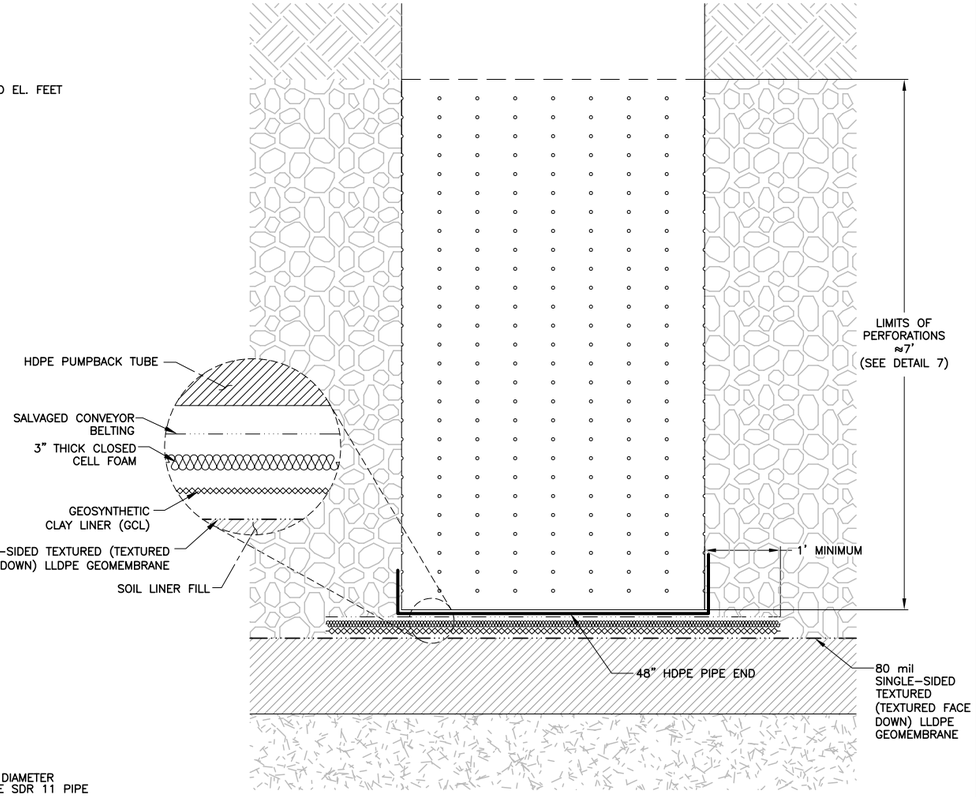
LEGEND:

PROPOSED SQUAW GULCH MILL PLATFORM LINER GROUND SURFACE CONTOUR AND EL. FEET

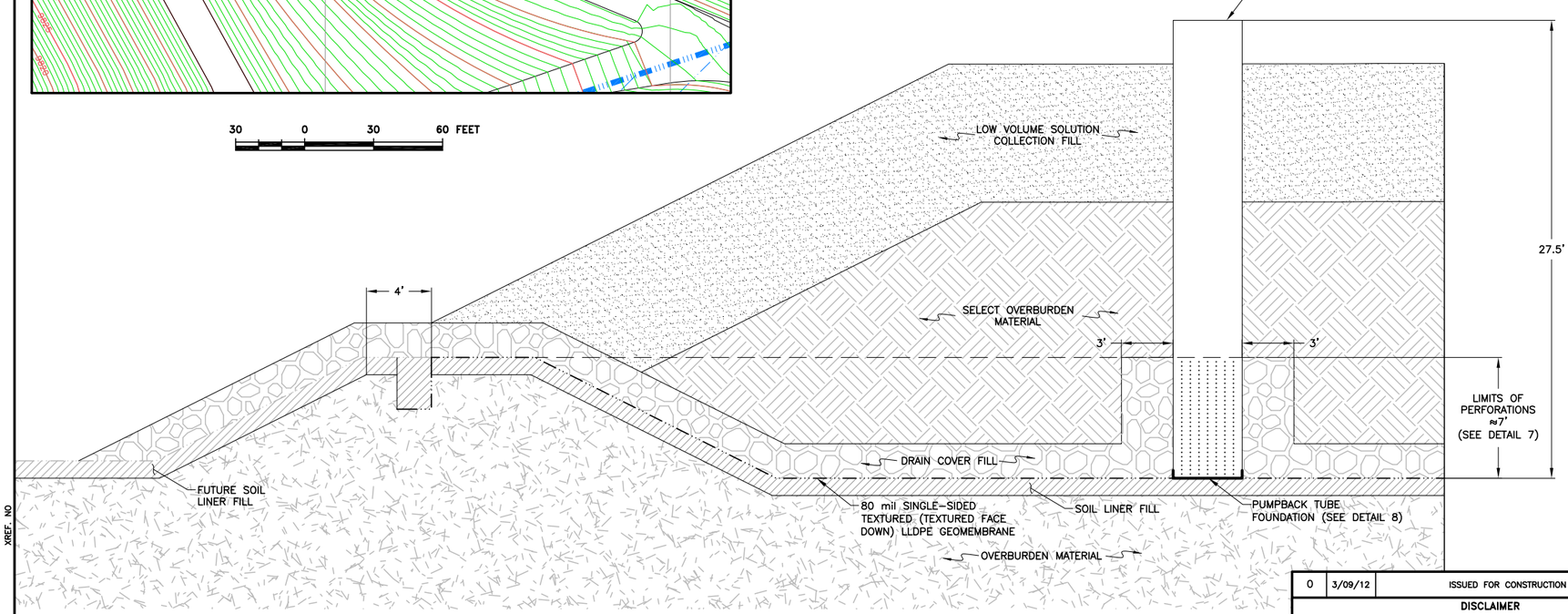
LIMITS OF 80 mil SINGLE-SIDED TEXTURED (TEXTURED FACE DOWN) LLDPE GEOMEMBRANE



7 / A170 PUMPBACK TUBE PERFORATION DETAIL
NTS



8 / A170 PUMPBACK TUBE FOUNDATION DETAIL
NTS



T / A170 MILL PLATFORM SUMP SECTION
NTS

COLORADO REGISTERED
JANNEY-MOORE
No. 37571
PROFESSIONAL ENGINEER
8-16-12

1	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	3/09/12	ISSUED FOR CONSTRUCTION	JNM / CMT

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

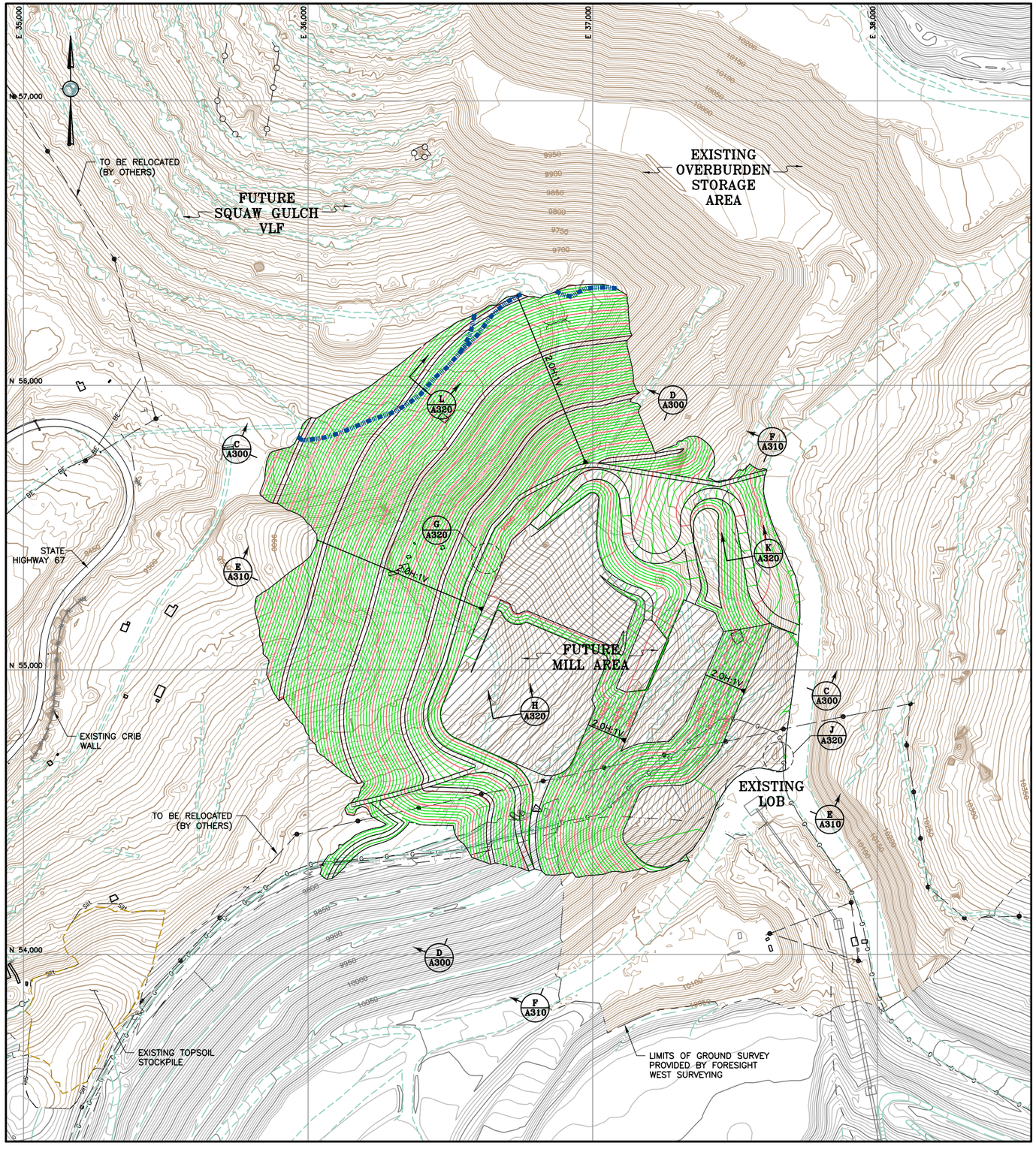
TITLE: OVERBURDEN STORAGE AREA PUMPBACK TUBE PLAN VIEW AND DETAILS

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125KM08 | DRAWING No.: A170 | REV: 1

XREF: NO

PLOT SCALE



MILL PLATFORM TOPOGRAPHY

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED SQUAW GULCH MILL PLATFORM GROUND SURFACE CONTOUR AND EL. FEET
- PREVIOUSLY CONSTRUCTED GROUND SURFACE CONTOUR AND EL. FEET
- SECONDARY UNDERDRAIN PIPE
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67
- FUTURE MILL AREA

NOTES:

1. PROPOSED CONTOURS REPRESENT SQUAW GULCH MILL PLATFORM FINISHED GRADE.
2. WITHIN THE FUTURE MILL AREA, FINAL GRADE IS BY OTHERS. THE CONTOURS WITHIN THE FUTURE MILL AREA REPRESENT A ROUGH GRADE.

200 0 200 400 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED JANNEY-MOORE 37571 PROFESSIONAL ENGINEER 8-16-12

2	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

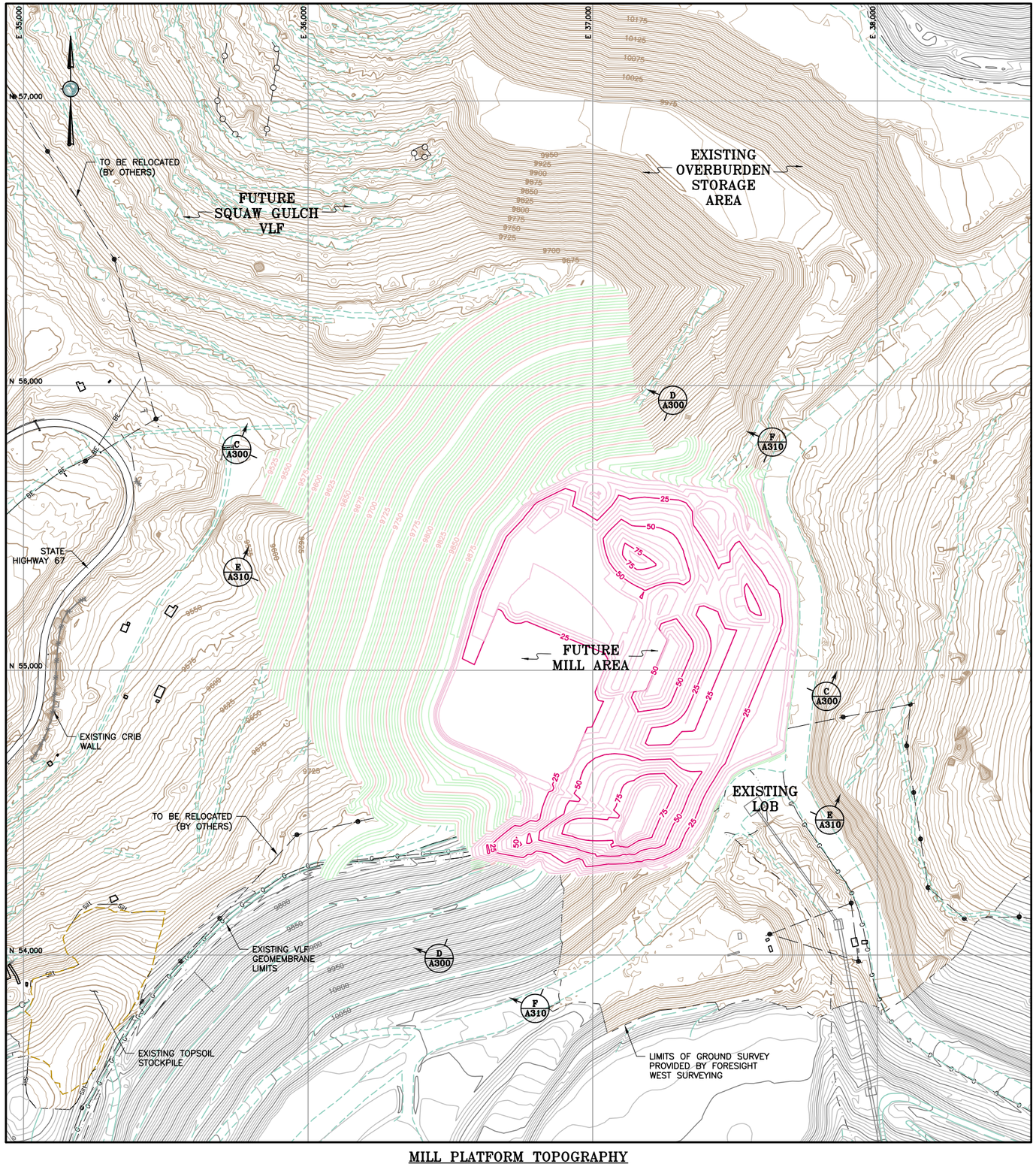
TITLE: OVERBURDEN STORAGE AREA FINISHED GRADE SURFACE PLAN VIEW

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125KM03 | DRAWING No.: A200 | REV: 2

XREF: NO

PLOT SCALE



MILL PLATFORM TOPOGRAPHY

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PREVIOUSLY CONSTRUCTED GROUND SURFACE CONTOUR AND EL. FEET
- ISOPACH CUT CONTOURS AND EL, FEET
- ISOPACH ZERO CUT/FILL AND EL, FEET
- ISOPACH FILL CONTOURS AND EL, FEET
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67

NOTES:

1. PROPOSED ISOPACH CONTOURS REPRESENT THE DEPTH OF FILL REQUIRED TO FINISHED GRADE.
2. WITHIN THE FUTURE MILL AREA, FINAL GRADE IS BY OTHERS. THE CONTOURS WITHIN THE FUTURE MILL AREA REPRESENT A ROUGH GRADE.

200 0 200 400 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED JANNEY-MOORE 37577 PROFESSIONAL ENGINEER 8-16-12

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
2	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

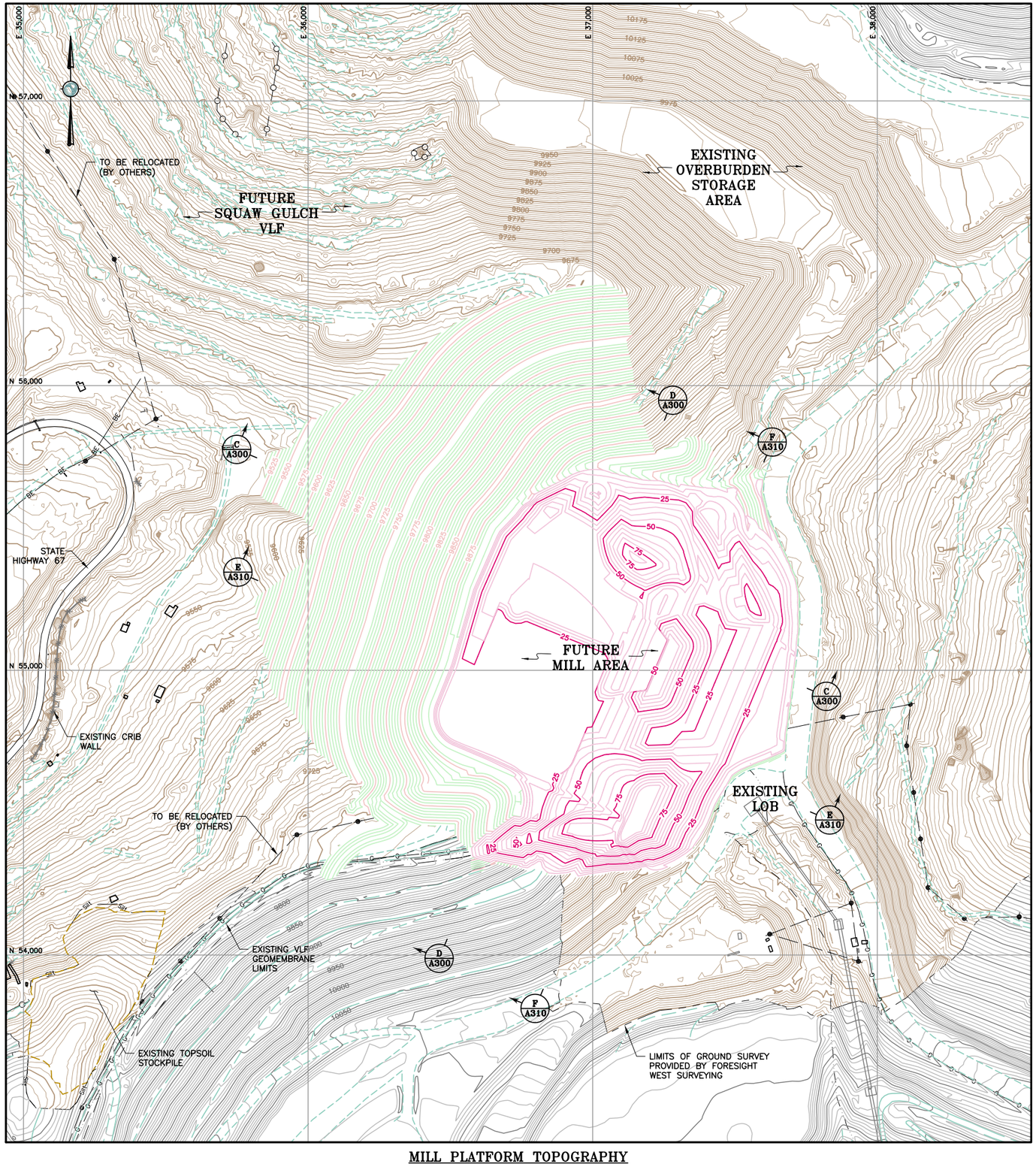
CLIENT	CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
PROJECT	MILL SITE EARTHWORKS
TITLE	OVERBURDEN STORAGE AREA FINISHED GRADE SURFACE ISOPACH PLAN VIEW

amec

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM
FILENAME	74201125KM04	DRAWING No.	A250
REV	3		

XREF: NO

PLOT SCALE



MILL PLATFORM TOPOGRAPHY

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PREVIOUSLY CONSTRUCTED GROUND SURFACE CONTOUR AND EL. FEET
- ISOPACH CUT CONTOURS AND EL, FEET
- ISOPACH ZERO CUT/FILL AND EL, FEET
- ISOPACH FILL CONTOURS AND EL, FEET
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- EXISTING FENCE
- EXISTING CRIB WALL
- STATE HIGHWAY 67

NOTES:

1. PROPOSED ISOPACH CONTOURS REPRESENT THE DEPTH OF FILL REQUIRED TO FINISHED GRADE.
2. WITHIN THE FUTURE MILL AREA, FINAL GRADE IS BY OTHERS. THE CONTOURS WITHIN THE FUTURE MILL AREA REPRESENT A ROUGH GRADE.

200 0 200 400 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED JANNEY-MOORE 37577 PROFESSIONAL ENGINEER 8-16-12

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
2	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

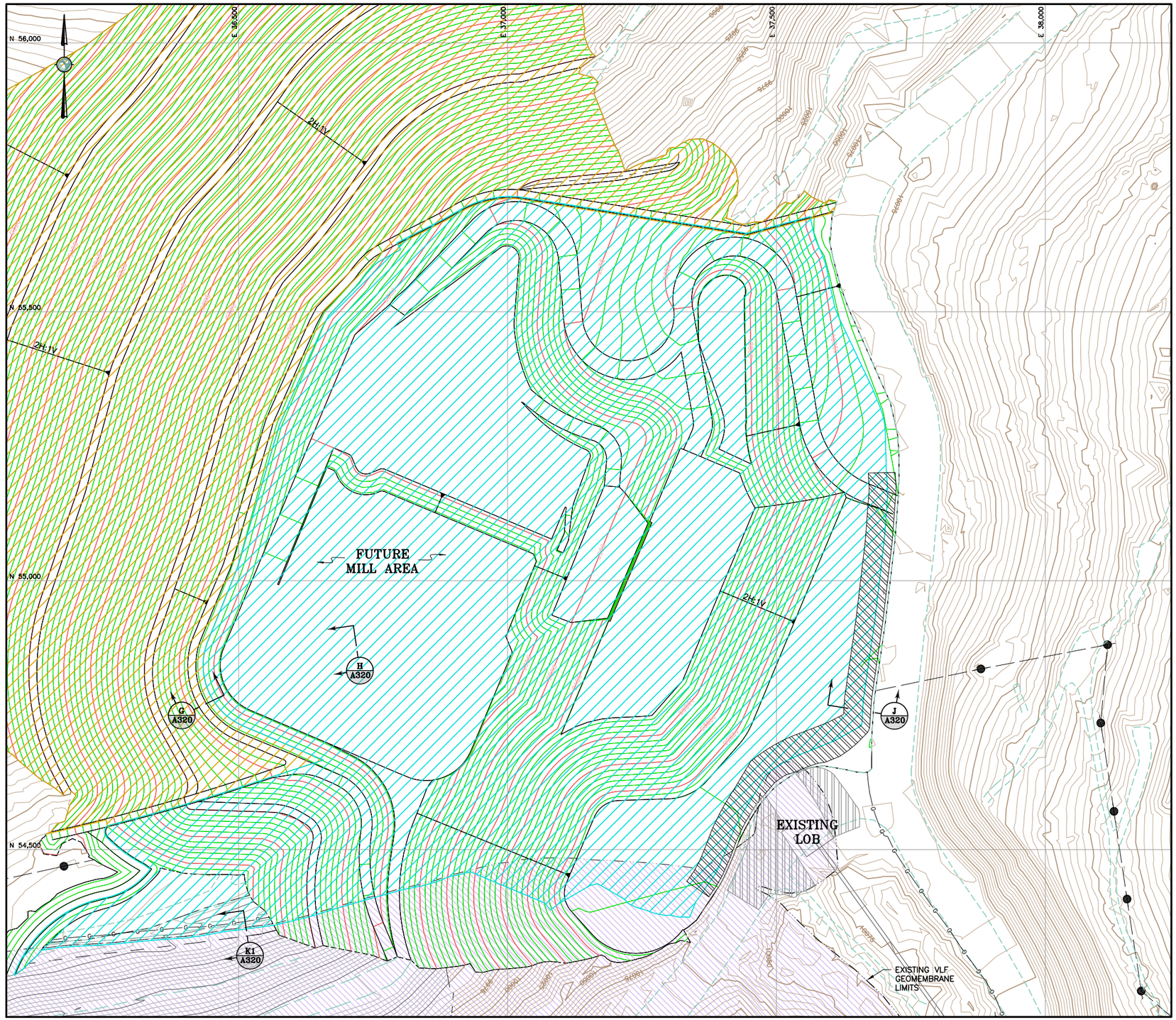
CLIENT	CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
PROJECT	MILL SITE EARTHWORKS
TITLE	OVERBURDEN STORAGE AREA FINISHED GRADE SURFACE ISOPACH PLAN VIEW

amec

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM
FILENAME	74201125KM04	DRAWING No.	A250
REV	3		

XREF: NO

PLOT SCALE



LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED SQUAW GULCH MILL PLATFORM GROUND SURFACE CONTOUR AND EL. FEET
- DAYLIGHT LINE
- CENTERLINE LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER CABLE
- EXISTING POWER CABLE
- RETAINING WALL
- LIMITS OF EXISTING GEOMEMBRANE
- LIMITS OF EXISTING GCL
- LIMITS OF PROPOSED 80 mil SINGLE-SIDED TEXTURED (TEXTURED FACE DOWN) LLDPE GEOMEMBRANE
- LIMITS OF PROPOSED GCL
- LIMITS OF FUTURE SOIL LINER FILL (TO BE CONSTRUCTED WITH SQUAW GULCH VLF)

100 0 100 200 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED
JANNEY-MOORE
PROFESSIONAL ENGINEER
No. 37571
8-16-12

0	8/16/12	ISSUED FOR CONSTRUCTION	JNM / CMT

DISCLAIMER

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CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

TITLE: OVERBURDEN STORAGE AREA LIMITS OF GCL

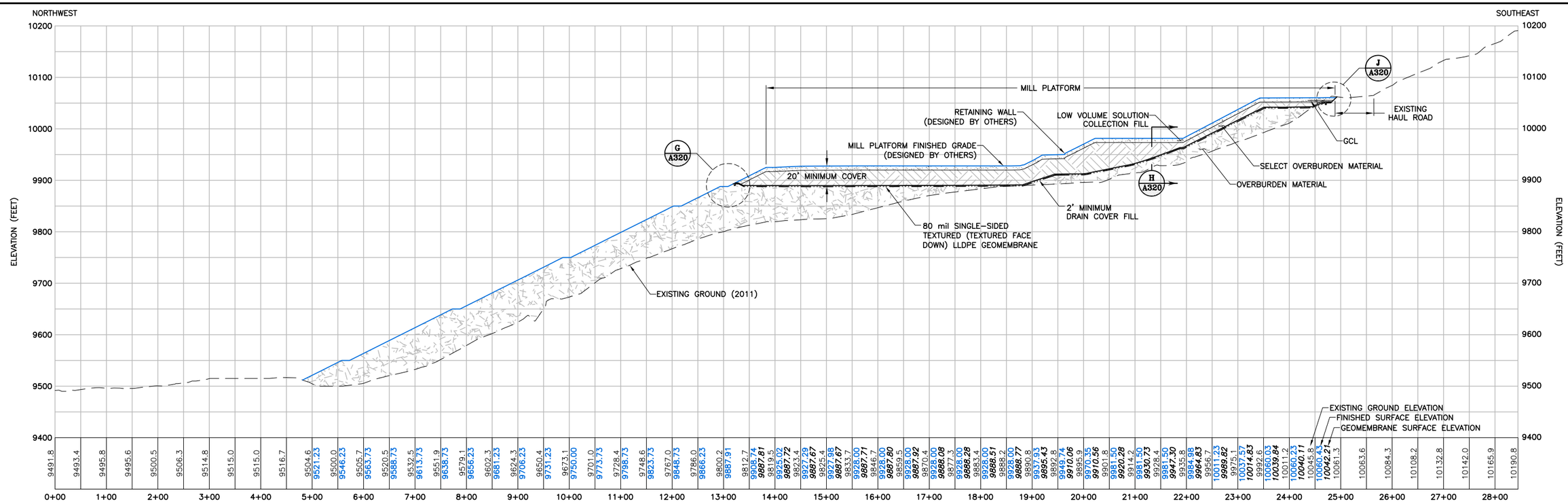
amec

DESIGNED BY	JNM	CHECKED BY	JNM
DRAWN BY	JNM	APPROVED BY	JNM

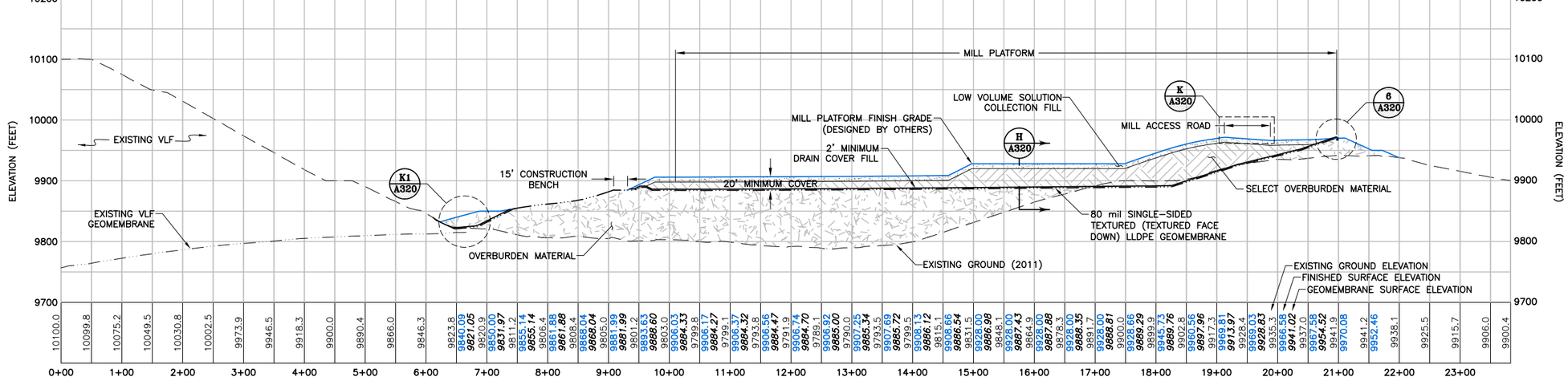
FILENAME	DRAWING No.	REV
74201125KM09	A270	0

XREF: NO

PLOT SCALE



C A100 C A120 C A150 C A200 C A250 MILL PLATFORM CROSS SECTION C



D A100 D A120 D A150 D A200 D A250 MILL PLATFORM CROSS SECTION D

100 0 100 200 FEET
VERTICAL SCALE

100 0 100 200 FEET
HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X

COLORADO REGISTERED J. M. JANNEY-MOORE 37571 PROFESSIONAL ENGINEER 8-16-12

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
2	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

DISCLAIMER

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CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

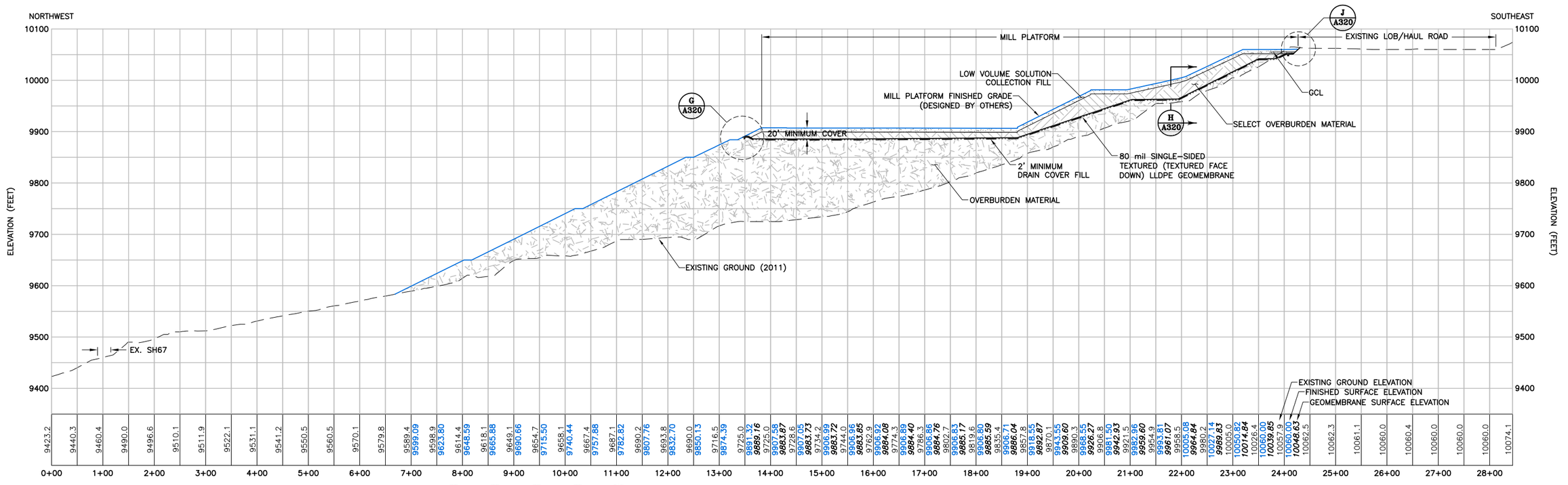
TITLE: OVERBURDEN STORAGE AREA & FUTURE MILL PLATFORM GRADING SECTIONS AND DETAILS SHEET 1 OF 3

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

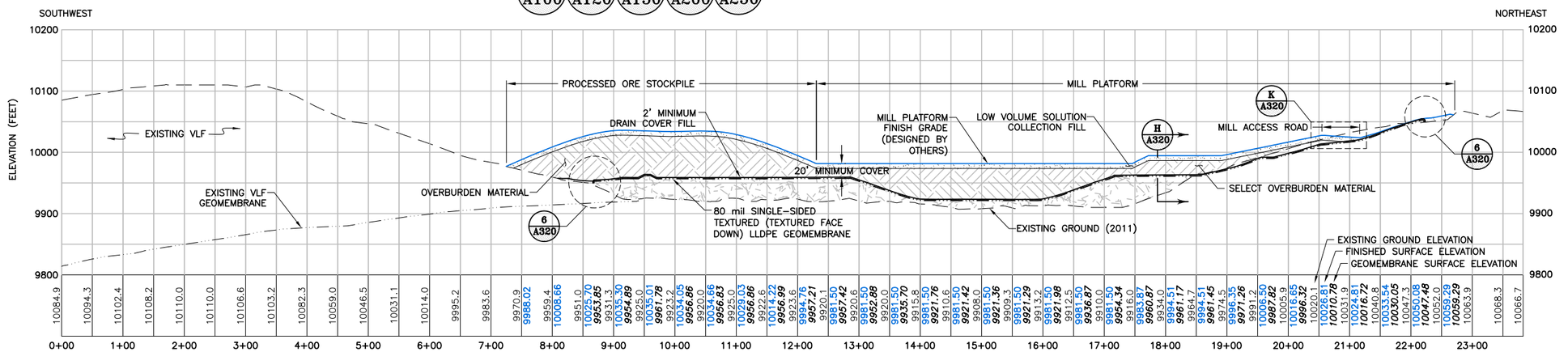
FILENAME: 74201125KD01 | DRAWING No.: A300 | REV: 3

XREF: NO

PLOT SCALE



E A100 E A120 E A150 E A200 E A250 MILL PLATFORM CROSS SECTION E



F A100 F A120 F A150 F A200 F A250 MILL PLATFORM CROSS SECTION F

100 0 100 200 FEET
VERTICAL SCALE

100 0 100 200 FEET
HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X

COLORADO REGISTERED JANNEY-MOORE 37571 PROFESSIONAL ENGINEER 8-16-12

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
2	7/10/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

DISCLAIMER

AMEC PRODUCED THE INFORMATION PRESENTED ON THIS DRAWING THROUGH THE USE OF TECHNICAL INFORMATION AND PRACTICAL EXPERIENCE SPECIFIC TO ITS EFFORTS. RECEIVING THIS DRAWING DOES NOT GUARANTEE ANY RIGHTS TO SUCH TECHNICAL INFORMATION AND PRACTICAL EXPERIENCE. ANY ALTERATION OR ADAPTATION OF THE DATA OR CONTENTS OF THIS DRAWING SHALL BE AT USER'S SOLE RISK AND WITHOUT ANY LIABILITY OR LEGAL RESPONSIBILITY TO AMEC.

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

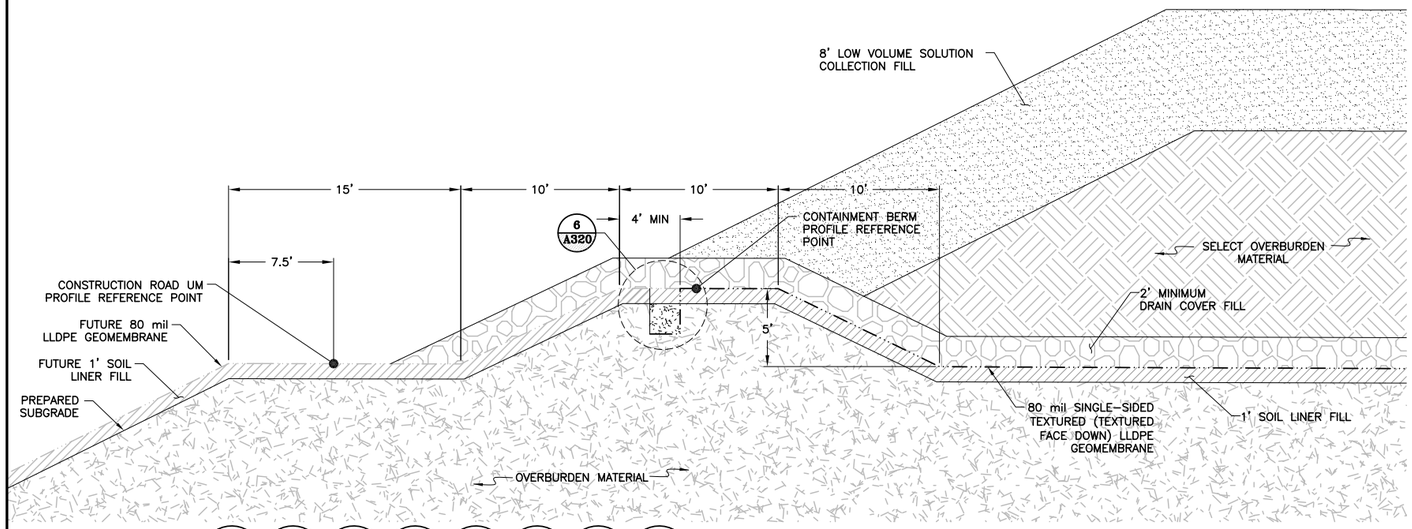
TITLE: OVERBURDEN STORAGE AREA & FUTURE MILL PLATFORM GRADING SECTIONS AND DETAILS SHEET 2 OF 3

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125KD02 | DRAWING No.: A310 | REV: 3

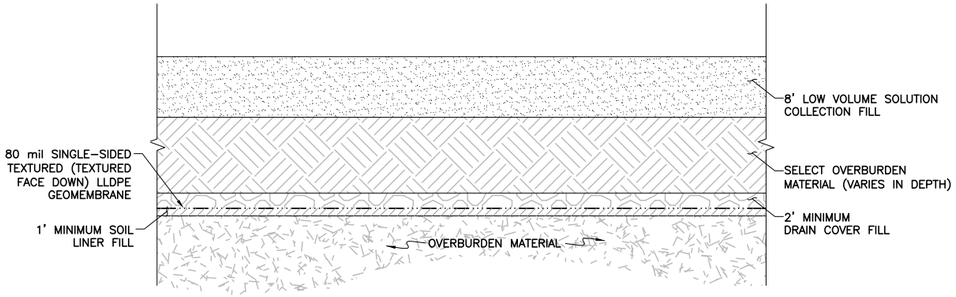
XREF: NO

PLOT SCALE



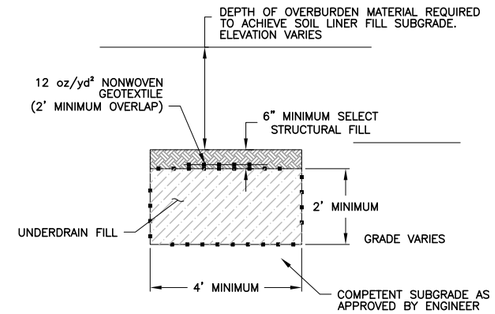
G A100 / G A160 / G A170 / G A200 / G A270 / G A300 / G A310 / G A430 **BENCH GEOMEMBRANE TIE-IN**

NTS



H A100 / H A120 / H A200 / H A270 / H A300 / H A310 **TYPICAL COVERED LINER DETAIL**

NTS

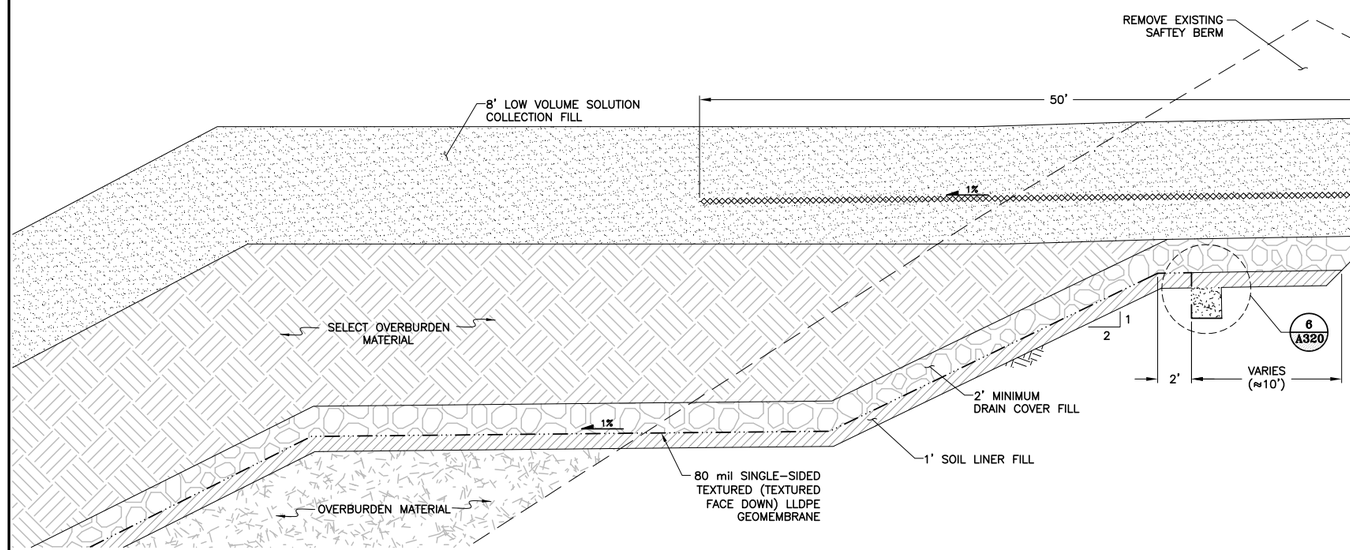


NOTES:

1. CONFIGURATION OF UNDERDRAIN TRENCHES MAY BE MODIFIED PROVIDED MINIMUM CROSS SECTIONAL AREA SHOWN ABOVE IS ACHIEVED.
2. UNDERDRAIN SHALL BE INSTALLED ON A MINIMUM 1.0% GRADE.
3. AS REQUIRED BY LOCALIZED GRADING, THE UNDERDRAIN CAN BE INSTALLED WITH A MINIMUM SLOPE OF 0.5% WITH APPROVAL FROM THE ENGINEER.

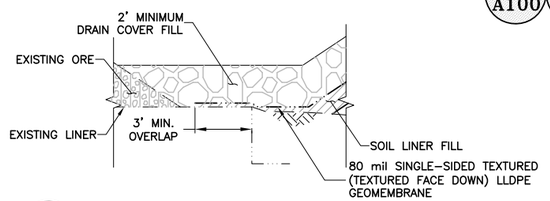
L A100 / L A200 **SECONDARY UNDERDRAIN**

NTS



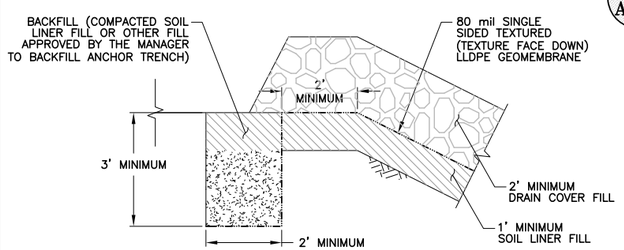
J A100 / J A200 / J A270 / J A300 / J A310 **GEOMEMBRANE TIE-IN ALONG HAUL ROAD**

NTS



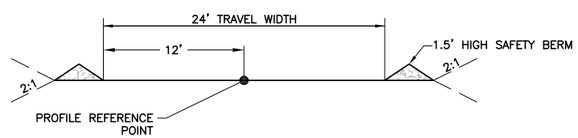
K1 A100 / K1 A120 / K1 A270 / K1 A300 **MILL LINER TIE-IN TO EXISTING LINER**

NTS



6 A300 / 6 A310 / 6 A320 / 6 A420 / 6 A425 **ORE STORAGE AREA ANCHOR TRENCH**

NTS



K A200 / K A300 / K A310 / K A410 **ACCESS ROAD SECTION**

NTS

3	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
2	3/09/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
1	3/02/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	1/24/12	ISSUED FOR CONSTRUCTION	JNM / CMT

COLORADO REGISTERED JANNEY-MOORE 37571 PROFESSIONAL ENGINEER

8-16-12

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

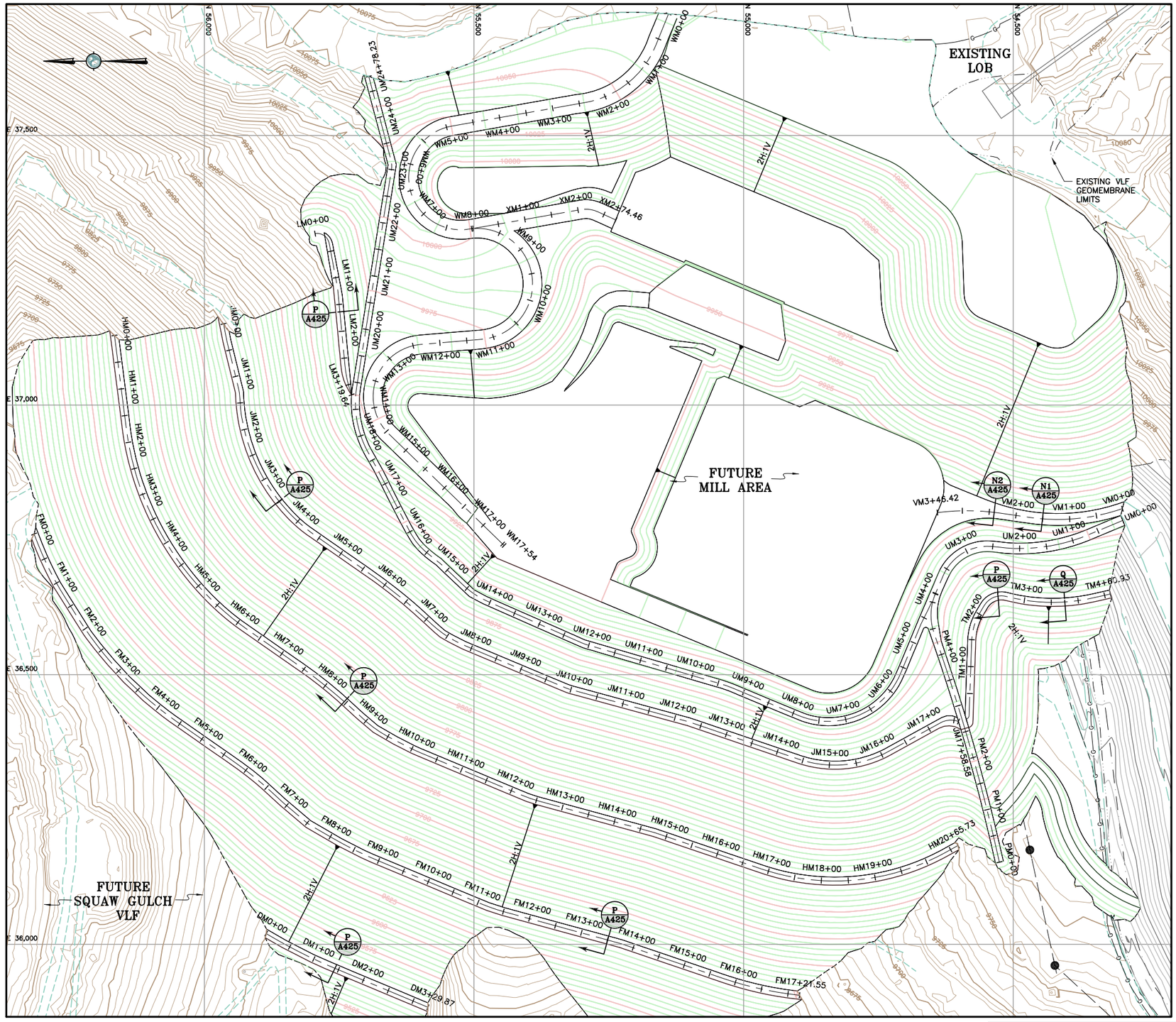
TITLE: OVERBURDEN STORAGE AREA & FUTURE MILL PLATFORM GRADING SECTIONS AND DETAILS SHEET 3 OF 3

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125KD03 | DRAWING No.: A320 | REV: 3

XREF: NO

PLOT SCALE



100 0 100 200 FEET

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED SQUAW GULCH MILL PLATFORM GROUND SURFACE CONTOUR AND EL. FEET
- DAYLIGHT LINE
- CENTERLINE LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING DRAINAGES
- EXISTING GEOMEMBRANE LINER LIMITS
- G — G EXISTING GAS LINE
- BE EXISTING UNDERGROUND POWER CABLE
- E — E EXISTING POWER CABLE
- RETAINING WALL

NOTES:

1. DM, FM, HM, JM, LM, TM, UM, VM CONSTRUCTION ROAD CENTERLINE ALIGNMENT DATA CAN BE FOUND ON DRAWING A440.
2. WM AND XM MILL ACCESS ROAD CENTERLINE ALIGNMENT DATA AND PROFILE CAN BE FOUND ON DRAWING A410.
3. PM CONSTRUCTION ROAD CENTERLINE ALIGNMENT DATA AND PROFILE CAN BE FOUND ON DRAWING A420.
4. UM CONSTRUCTION ROAD PROFILE CAN BE FOUND ON DRAWING A430.
5. ON ALIGMENT VM, USE DETAIL N1 BETWEEN STATIONS VM0+00 AND VM1+85; USE DETAIL N2 BETWEEN STATIONS VM1+85 AND VM3+46
6. ON ALIGNMENT TM, USE DETAIL P BETWEEN STATIONS TM0+00 AND TM3+44; USE DETAIL Q BETWEEN STATIONS TM3+44 AND TM4+60

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

COLORADO REGISTERED JANNEY-MOORE PE 37571 8-16-12 PROFESSIONAL ENGINEER

2	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
1	3/09/12	RE-ISSUED FOR CONSTRUCTION	JNM / CMT
0	3/02/12	ISSUED FOR CONSTRUCTION	JNM / CMT

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

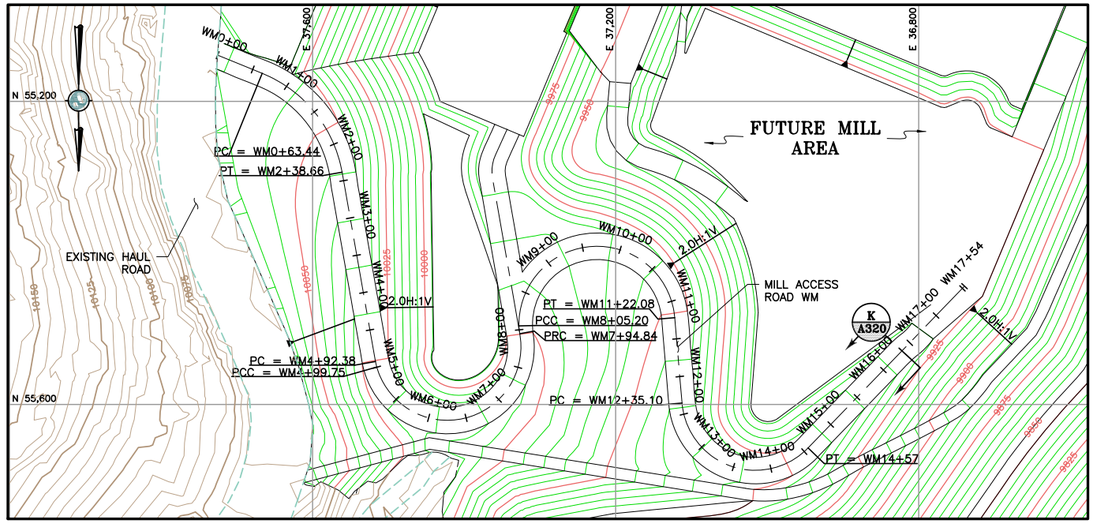
PROJECT: MILL SITE EARTHWORKS

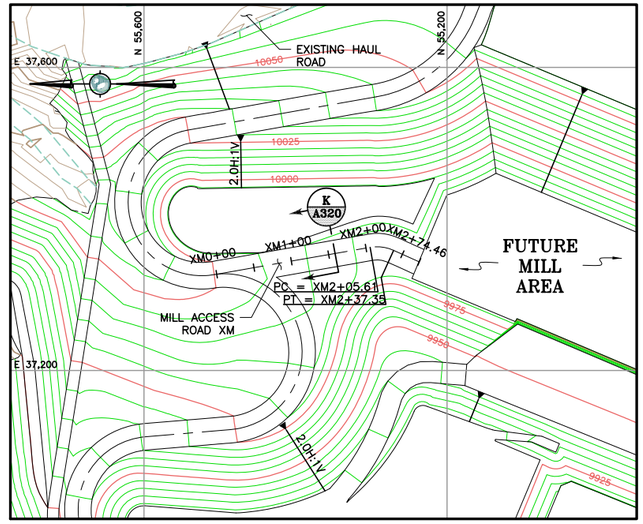
TITLE: OVERBURDEN STORAGE AREA ALIGNMENT PLAN VIEW

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM
FILENAME	74201125KM07	DRAWING No.	A400
REV	2		

XREF: NO

PLOT SCALE





MILL ACCESS ROAD WM

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	WM0+00	55139.15	37725.4			
PC	WM0+63.44	55163.05	37666.63			
				57–51–45	173.5	175.22
PT	WM2+38.66	55293.6	37561.11			
PC	WM4+92.38	55543.46	37517			
				05–57–10	71	7.38
PCC	WM4+99.75	55550.64	37515.34			
				174–18–12	97	295.09
PRC	WM7+94.84	55506.67	37326.64			
				09–07–44	65	10.36
PCC	WM8+05.20	55496.38	37327.66			
				176–16–04	103	316.87
PT	WM11+22.08	55485.58	37122.06			
PC	WM12+35.10	55598.2	37112.46			
				131–04–16	97	221.9
PT	WM14+57	55657.41	36946.1			
PI	WM17+54	55443.97	36739.57			

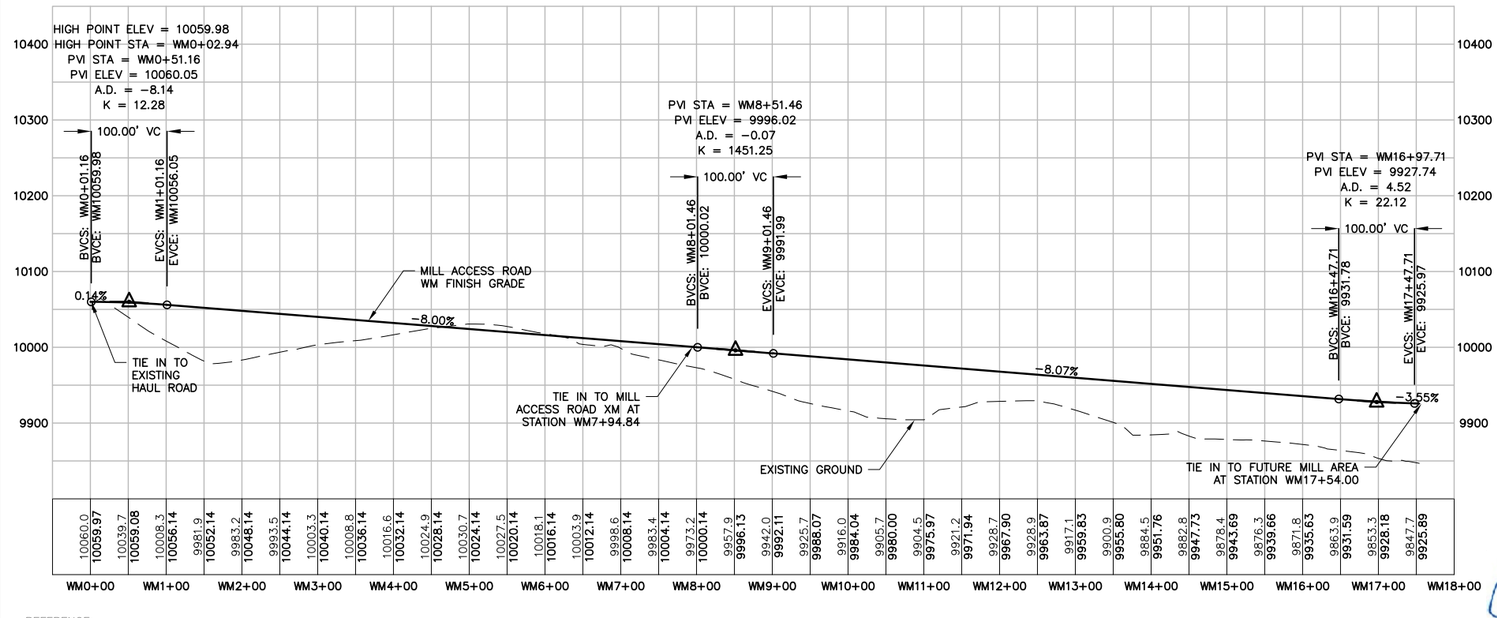
MILL ACCESS ROAD XM

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	XM0+00	55504.08	37327.05			
PC	XM2+05.61	55301.55	37362.51			
				34–19–07	53	31.75
PT	XM2+37.35	55270.53	37358.57			
PI	XM2+74.46	55236.73	37343.25			

LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED GROUND SURFACE CONTOUR AND EL. FEET
- DAYLIGHT LINE
- CENTERLINE LINE
- EXISTING UNIMPROVED ROAD/TRAILS

100 0 100 200 FEET



100 0 100 200 FEET
VERTICAL SCALE

100 0 100 200 FEET
HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X

100 0 100 200 FEET
VERTICAL SCALE

100 0 100 200 FEET
HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV. FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12–29–10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01–28–11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7–07–11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8–05–11.DWG (RECV AUGUST 9, 2011)
- 09028–COMOSITE–TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

XREF: NO

PLOT SCALE

COLORADO REGISTERED JANNEY-MOORE 37577 8-16-12 PROFESSIONAL ENGINEER

0	3/02/12	ISSUED FOR CONSTRUCTION	JNM	CMT

DISCLAIMER

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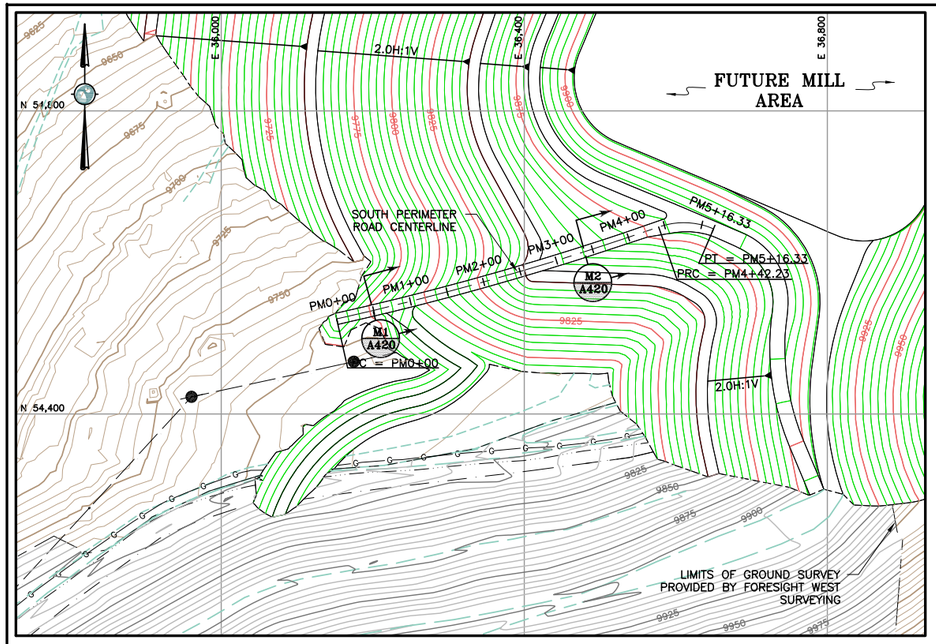
CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

TITLE: OVERBURDEN STORAGE AREA MILL ACCESS ROADS PLAN AND PROFILE

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

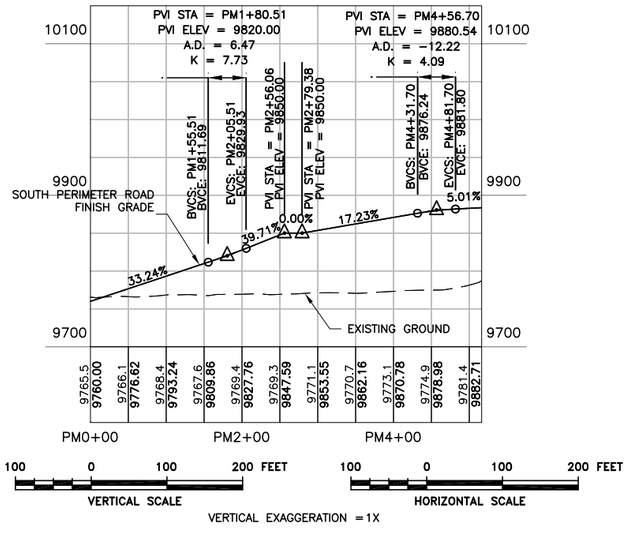
FILENAME: 74201125KP01 | DRAWING No.: A410 | REV: 0



100 0 100 200 FEET

LEGEND:

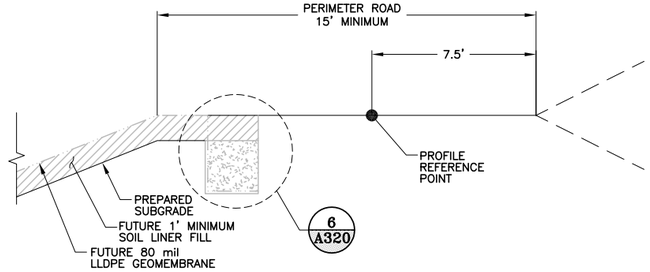
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED GROUND SURFACE CONTOUR AND EL. FEET
- DAYLIGHT LINE
- PM6+00 CONSTRUCTION ROAD CENTERLINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING POWERLINES
- EXISTING PIPELINE
- RETAINING WALL



100 0 100 200 FEET — VERTICAL SCALE

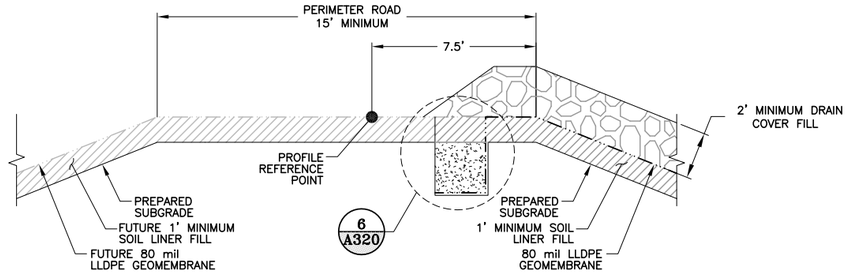
100 0 100 200 FEET — HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X



M1 / A420 TYPICAL SOUTH PERIMETER ROAD

STATIONS PM1+09.20 – 5+16.33
NTS



M2 / A420 TYPICAL SOUTH PERIMETER ROAD

STATIONS PM0+00 – PM1+09.20
NTS

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:

- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

XREF. NO

PLOT SCALE

SOUTH PERIMETER ROAD SETOUT DATA

	STATION	NORTHING	EASTING	DELTA (D-M-S)	RADIUS (FT)	LENGTH (FT)
PI/PC	PM0+00	54525.50	36152.40			
				06-42-11	3780	442.23
PRC	PM4+42.23	54646.80	36577.40			
				42-27-25	100	74.10
PT/PI	PM5+16.33	54644.34	36649.78			

NOTES:

1. COMPACTED SOIL LINER FILL OR OTHER FILL APPROVED BY THE MANAGER TO BACKFILL ANCHOR TRENCH. ANCHOR TRENCHES INTERNAL TO THE VLF WILL BE BACKFILLED WITH SOIL LINER FILL FOR THE UPPER 1FT (MIN.).
2. REFER TO PROJECT SPECIFICATIONS REGARDING MINIMUM DRAIN COVER FILL DEPTHS FOR WORKING OVER GEOSYNTHETICS AND PIPING WITH RUBBER TIRE OR TRACK MOUNTED EQUIPMENT.
3. HAUL ROAD WIDTH IS 80ft AND CONSTRUCTION BENCH WIDTH IS 15FT.
4. BEFORE TRAFFIC CAN ACCESS THE HAUL ROAD, ORE WILL BE PLACED ABOVE THE DRAIN COVER FILL TO A MINIMUM THICKNESS AS REQUIRED BY THE VEHICLE TYPE.

1	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	3/02/12	ISSUED FOR CONSTRUCTION	JNM / CMT

DISCLAIMER

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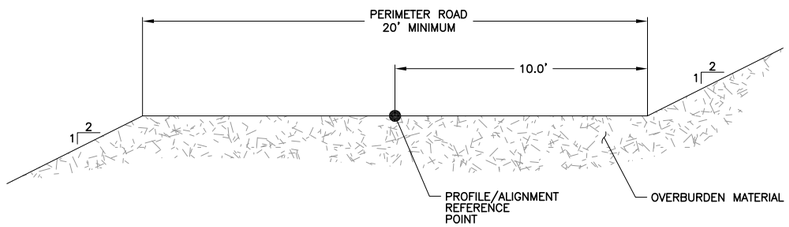
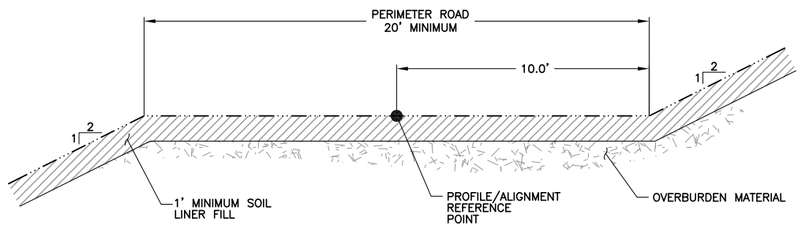
CLIENT	CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
PROJECT	MILL SITE EARTHWORKS
TITLE	OVERBURDEN STORAGE AREA SOUTH PERIMETER ROAD PLAN AND PROFILE

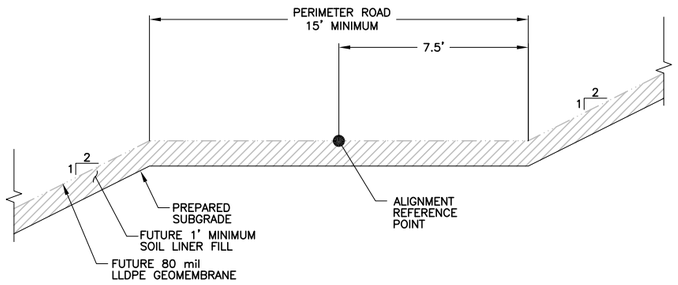
DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM
FILENAME	74201125GP02	DRAWING No.	A420
		REV	1



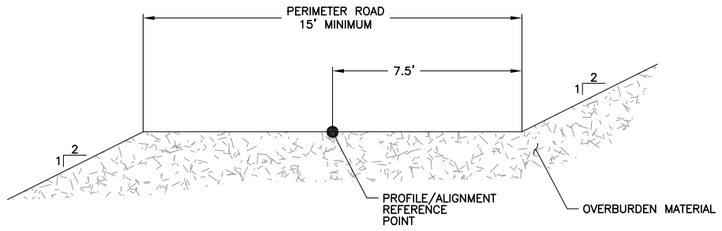
N1 / A400 — N1 / A430 TYPICAL ROAD (BURIED GEOMEMBRANE)
NTS



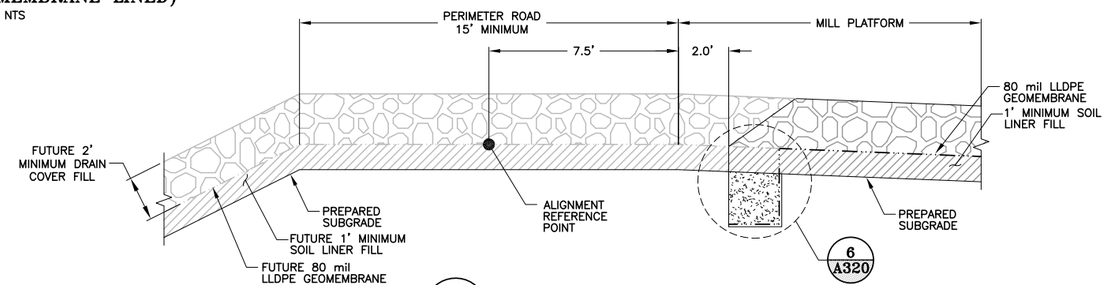
N2 / A400 — N2 / A430 TYPICAL ROAD
NTS



P / A400 TYPICAL CONSTRUCTION ROAD (FUTURE GEOMEMBRANE LINED)
NTS



Q / A400 TYPICAL CONSTRUCTION ROAD (NO/BURIED GEOMEMBRANE)
NTS



S / A430 TYPICAL NORTH PERIMETER ROAD
NTS

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

XREF. NO

PLOT SCALE

NOTES:

1. COMPACTED SOIL LINER FILL OR OTHER FILL APPROVED BY THE MANAGER TO BACKFILL ANCHOR TRENCH. ANCHOR TRENCHES INTERNAL TO THE VLF WILL BE BACKFILLED WITH SOIL LINER FILL FOR THE UPPER 1FT (MIN.).
2. REFER TO PROJECT SPECIFICATIONS REGARDING MINIMUM DRAIN COVER FILL DEPTHS FOR WORKING OVER GEOSYNTHETICS AND PIPING WITH RUBBER TIRE OR TRACK MOUNTED EQUIPMENT.
3. HAUL ROAD WIDTH IS 80ft AND CONSTRUCTION BENCH WIDTH IS 15FT.
4. BEFORE TRAFFIC CAN ACCESS THE HAUL ROAD, ORE WILL BE PLACED ABOVE THE DRAIN COVER FILL TO A MINIMUM THICKNESS AS REQUIRED BY THE VEHICLE TYPE.

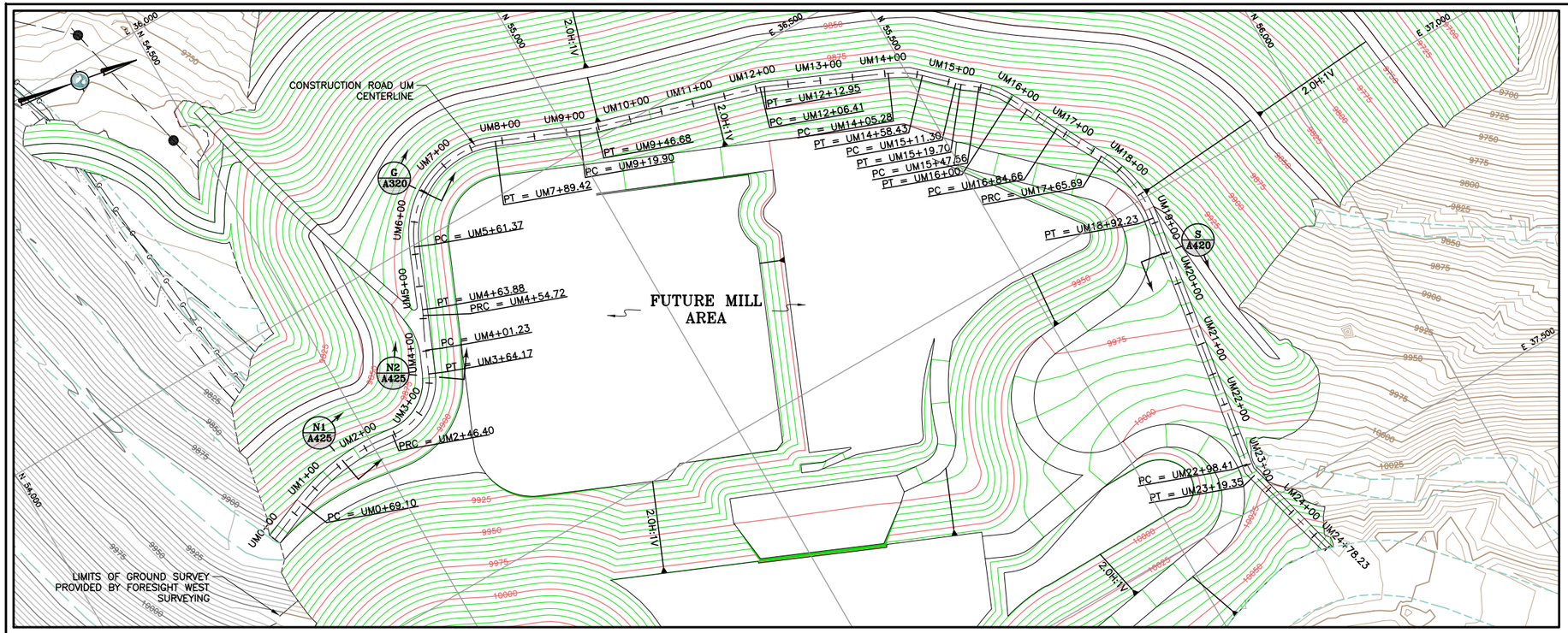
0	8/16/12	ISSUED FOR CONSTRUCTION	JNM / CMT

COLORADO REGISTERED
JANNEY-MOORE
37571
PROFESSIONAL ENGINEER
8-16-12

CLIENT	CRIPPLE CREEK & VICTOR GOLD MINING COMPANY
PROJECT	MILL SITE EARTHWORKS
TITLE	OVERBURDEN STORAGE AREA SECTIONS AND DETAILS

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME	DRAWING No.	REV
74201125GP04	A425	0



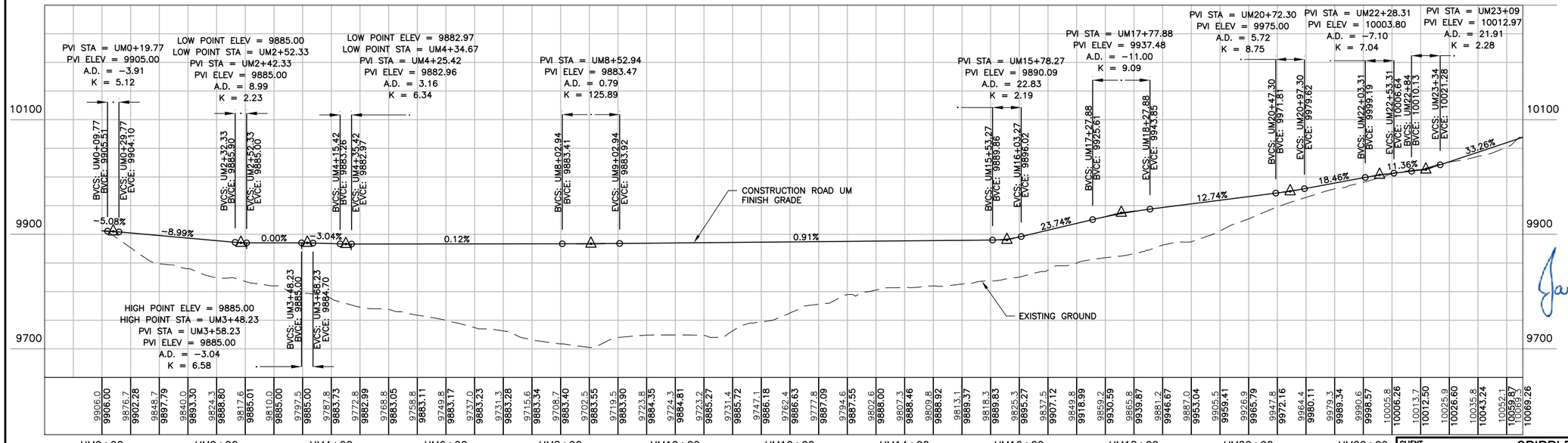
LEGEND:

- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (AERIAL SURVEY)
- EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- PROPOSED GROUND SURFACE CONTOUR AND EL. FEET
- DAYLIGHT LINE
- UM6+00 CONSTRUCTION ROAD UM CENTERLINE
- EXISTING UNIMPROVED ROAD/TRAILS
- EXISTING GEOMEMBRANE LINER LIMITS
- EXISTING GAS LINE
- EXISTING POWERLINES
- EXISTING PIPELINE
- RETAINING WALL

NOTES:

1. UM CONSTRUCTION ROAD CENTERLINE ALIGNMENT DATA CAN BE FOUND ON DRAWING A440.
2. DETAIL N1 APPLIES BETWEEN STATIONS UM0+00 AND UM2+01.
3. DETAIL N2 APPLIES BEWTEEN STATIONS UM2+01 AND UM4+28.
4. DETAIL G APPLIES BETWEEN STATIONS UM4+28 AND UM16+30.
5. DETAIL S APPLIES BETWEEN STATIONS UM16+30 AND UM24+78.

100 0 100 200 FEET



100 0 100 200 FEET
VERTICAL SCALE

100 0 100 200 FEET
HORIZONTAL SCALE

VERTICAL EXAGGERATION = 1X

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO – PHASE 1 – REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO – PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO – PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

XREF: NO

PLOT SCALE

1	8/16/12	RE-ISSUED FOR CONSTRUCTION	JNM / JNM
0	3/02/12	ISSUED FOR CONSTRUCTION	JNM / CMT

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COLORADO REGISTERED JANNEY-MOORE 37571 PROFESSIONAL ENGINEER 8-16-12

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

TITLE: OVERBURDEN STORAGE AREA CONSTRUCTION ROAD UM PLAN AND PROFILE

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125GP03 | DRAWING No.: A430 | REV: 1

9550 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH DM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	DM0+00	55885.22	36019.87			
PC	DM0+20.19	55867.76	36009.74			
				07–23–31	905	116.76
PT	DM1+36.94	55763.27	35957.82			
PI	DM3+29.87	55585.31	35883.29			

9950 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH LM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI/PC	LM0+00	55,794.57	37,317.93			
				89–32–02	22.5	35.16
PT	LM0+35.61	55,768.49	37,299.93			
PC	LM1+17.22	55,753.36	37,219.27			
				05–09–51	50	4.51
PT	LM1+21.73	55,752.73	37,214.81			
PC	LM2+63.84	55,739.22	37,073.34			
				14–31–57	220	55.80
PT/PI	LM3+19.64	55,726.96	37,019.06			

9906 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH VM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	VM0+00	54297.39	36807.8			
PC	VM0+12.17	54309.02	36804.2			
				25–24–20	365	161.85
PT	VM1+74.02	54469.05	36791.61			
PC	VM2+30.32	54524.78	36799.65			
				15–24–02	431.93	116.1
PT/PI	VM3+46.42	54640.52	36800.67			

9650 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH FM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	FM0+00	56315.75	36760.75			
PC	FM0+19.97	56308.42	36742.18			
				10–40–21	600	111.76
PT	FM1+31.73	56257.98	36642.63			
PC	FM1+75.23	56234.79	36605.82			
				22–52–30	675	269.49
PT	FM4+44.72	56050.02	36412.1			
PC	FM5+66.85	55949.88	36342.2			
				07–37–25	720	95.8
PT	FM6+62.65	55875.2	36282.31			
PC	FM6+90.77	55854.48	36263.3			
				02–16–23	50	1.98
PT	FM6+92.76	55852.99	36261.99			
PC	FM7+48.48	55810.46	36225.96			
				10–08–59	50	8.86
PT	FM7+57.34	55803.24	36220.87			
PC	FM8+06.85	55760.41	36196.03			
				07–23–18	700	90.27
PT	FM8+97.11	55679.63	36155.89			
PC	FM11+04.21	55488.62	36075.87			
				07–28–14	380	49.55
PT	FM11+53.76	55441.8	36059.76			
PC	FM13+74.03	55229.3	36001.79			
				03–31–18	50	3.07
PT	FM13+77.10	55226.36	36000.89			
PC	FM15+76.73	55037.36	35936.62			
				12–27–38	650	141.36
PT	FM17+18.09	54899.65	35905.97			
PI	FM17+21.55	54896.21	35905.59			

UM BENCH CONSTRUCTION ROAD CENTERLINE

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	UM0+00	54296.76	36786.06			
PC	UM0+69.10	54360.54	36759.46			
				30–47–03	330	177.3
PRC	UM2+46.40	54534.32	36737.37			
				74–58–21	90	117.77
PT	UM3+64.17	54629.81	36683.7			
PC	UM4+01.23	54644.4	36649.63			
				04–32–24	675	53.49
PRC	UM4+54.72	54667.38	36601.35			
				05–15–09	100	9.17
PT	UM4+63.88	54671.26	36593.05			
PC	UM5+61.37	54708.51	36502.96			
				90–06–36	145	228.04
PT	UM7+89.42	54898.17	36424.47			
PC	UM9+19.90	55018.66	36474.56			
				06–15–50	245	26.78
PT	UM9+46.68	55043.9	36483.47			
PC	UM12+06.41	55293.18	36556.41			
				07–29–39	50	6.54
PT	UM12+12.95	55299.31	36558.65			
PC	UM14+05.28	55475.28	36636.28			
				19–38–50	155	53.15
PT	UM14+58.43	55519.32	36665.57			
PC	UM15+11.30	55557.7	36701.92			
				04–48–46	100	8.4
PT	UM15+19.70	55564.03	36707.44			
PC	UM15+47.56	55585.8	36724.84			
				24–02–20	125	52.44
PT	UM16+00	55618.8	36765.1			
PC	UM16+84.66	55657.66	36840.31			
				01–44–09	2675	81.04
PRC	UM17+65.69	55695.94	36911.73			
				38–09–28	190	126.54
PT	UM18+92.23	55717.46	37034.06			
PC	UM22+98.41	55653.22	37435.13			
				23–59–40	50	20.94
PT	UM23+19.35	55654.27	37455.89			
PI	UM24+78.23	55695.11	37609.44			

9750 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH HM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	HM0+00	56166.71	37129.19			
PC	HM1+73.65	56144.79	36956.92			
				47–50–18	540	450.86
PT	HM6+24.52	55918.15	36582.25			
PC	HM7+21.40	55838.7	36526.81			
				07–37–16	1150	152.97
PT	HM8+74.37	55719.45	36431.19			
PC	HM8+95.37	55703.97	36417			
				15–30–03	225	60.87
PT	HM9+56.24	55654.13	36382.38			
PC	HM9+94.34	55620.19	36365.06			
				04–18–13	320	24.04
PT	HM10+18.37	55598.39	36354.95			
PC	HM12+23.34	55409.34	36275.76			
				07–28–25	230	30
PT	HM12+53.34	55380.99	36266.01			
PC	HM14+75.81	55166.36	36207.48			
				03–31–33	50	3.08
PT	HM14+78.89	55163.42	36206.58			
PC	HM16+85.53	54967.77	36140.05			
				47–37–38	425	353.28
PT	HM20+38.82	54625.9	36170.17			
PI	HM20+65.73	54602.32	36183.15			

9850 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH JM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	JM0+00	55964.4	37150.56			
PC	JM0+31.41	55958.36	37119.74			
				02–42–14	50	2.36
PT	JM0+33.77	55957.85	37117.43			
PC	JM1+25.82	55935.9	37028.03			
				11–37–02	50	10.14
PRC	JM1+35.96	55934.5	37018.01			
				52–52–37	335	309.16
PT	JM4+45.13	55791.64	36756.13			
PC	JM5+49.55	55706.05	36696.31			
				07–34–29	1210	159.97
PT	JM7+09.52	55581.36	36596.28			
PC	JM7+13.85	55578.17	36593.36			
				19–47–51	215	74.29
PT	JM7+88.14	55515.91	36553.5			
PC	JM9+88.78	55330.85	36475.99			
				07–28–51	95	12.4
PT	JM10+01.18	55319.13	36471.96			
PC	JM12+25.21	55102.99	36413.05			
				03–32–30	50	3.09
PT	JM12+28.30	55100.03	36412.14			
PC	JM14+42.09	54897.63	36343.29			
				47–35–58	207.5	172.38
PT	JM16+14.48	54730.8	36357.92			
PC	JM17+24.51	54634.39	36410.95			
				49–25–05	39.5	34.07
PT/PI	JM17+58.58	54601.45	36413.31			

9850 ELEVATION CONSTRUCTION ROAD CENTERLINE (BENCH TM)

	STATION	NORTHING	EASTING	DELTA (D–M–S)	RADIUS (FT)	LENGTH (FT)
PI	TM0+00	54587.03	36417.45			
PC	TM0+00	54587.03	36417.45			
				71–15–27	7.5	9.33
PT	TM0+09.33	54581.7	36424.38			
PC	TM1+48.24	54576.92	36563.21			
				28–42–34	107.5	53.87
PT	TM2+02.11	54561.93	36614.36			
PC	TM2+17.80	54553.93	36627.86			
				73–48–11	37.5	48.3
PRC	TM2+66.10	54512.29	36645.03			
				27–15–27	342.5	162.94
PT	TM4+29.04	54350.91	36642.62			
PI	TM4+60.93	54319.8	36649.67			

0	3/02/12	ISSUED FOR CONSTRUCTION	JNM / CMT

DISCLAIMER

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CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

PROJECT: MILL SITE EARTHWORKS

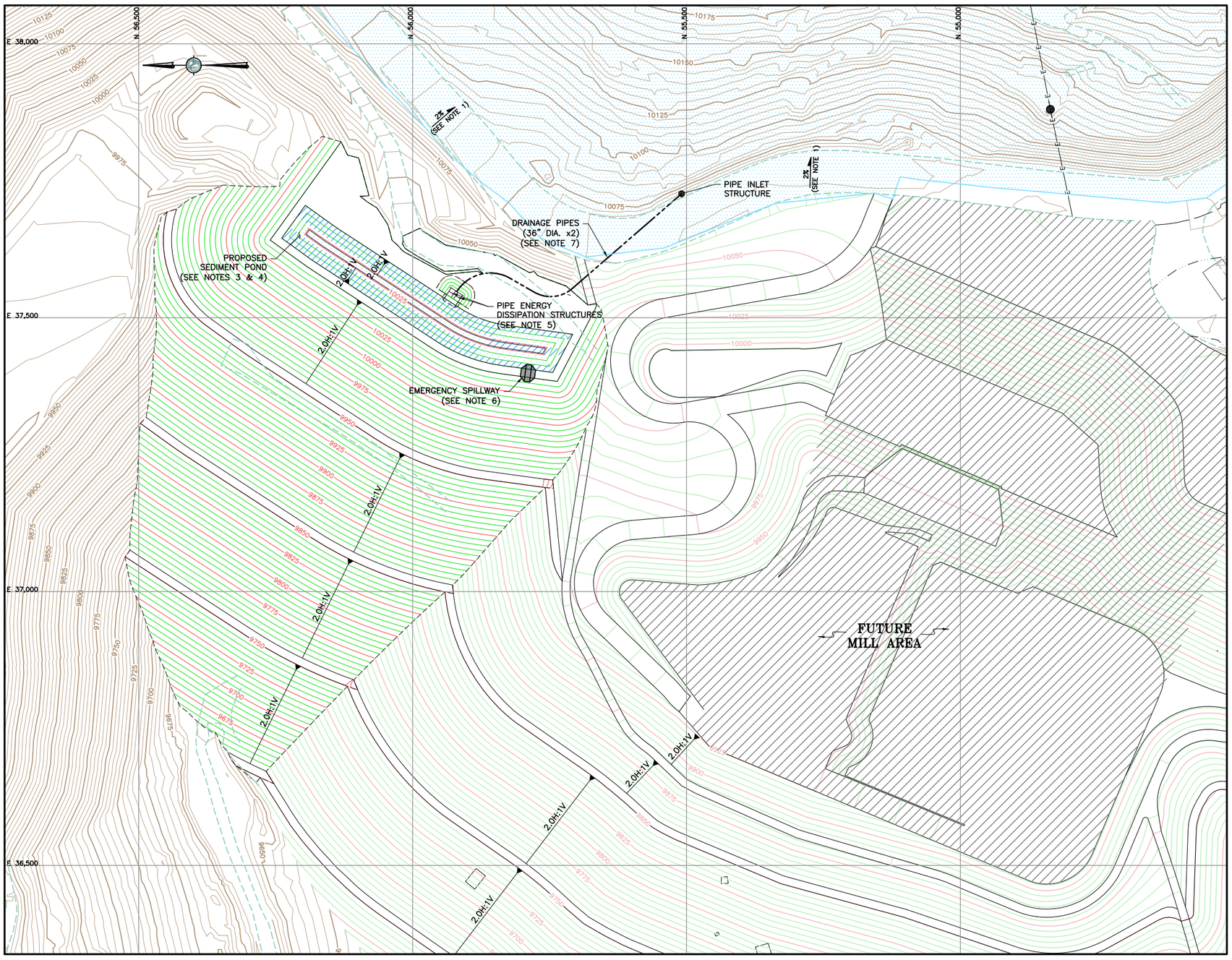
TITLE: OVERBURDEN STORAGE AREA CONSTRUCTION ROAD HORIZONTAL ALIGNMENT DATA

DESIGNED BY	CMT	CHECKED BY	JNM
DRAWN BY	CMT	APPROVED BY	JNM

FILENAME: 74201125KD06 | DRAWING No.: A440 | REV: 0

XREF: NO

PLOT SCALE



LEGEND:

- 9200 EXISTING GROUND SURFACE CONTOUR AND EL, FEET (LAND SURVEY)
- 9200 PREVIOUSLY CONSTRUCTED GROUND SURFACE CONTOUR AND EL. FEET
- 9200 PROPOSED GROUND SURFACE CONTOURS AND EL, FEET
- DAYLIGHT LINE
- EXISTING UNIMPROVED ROAD/TRAILS
- POND LINER 80 mil SINGLE-SIDED TEXTURED (TEXTURED FACE DOWN) LLDPE GEOMEMBRANE
- FUTURE MILL AREA
- WATERSHED AREA (SEE NOTE 2)

NOTES:

1. LOB HAUL ROAD TO BE SUPER ELEVATED TO DRAIN TO THE EAST SIDE OF THE ROAD.
2. 100-YEAR, 24-HOUR STORM PRODUCES A Q=110.9 CFS.
3. SEDIMENT POND HAS A CAPACITY OF 350,872 CUBIC FEET, WHICH WILL HOLD 2x 10-YEAR, 24-HOUR STORM.
4. CC&V WILL USE PUMPS TO EVACUATE THE SEDIMENT POND UNTIL SQUAW GULCH VLF IS BUILT. AFTER SQUAW GULCH VLF IS BUILT THE POND WILL DRAIN INTO SQUAW GULCH VLF.
5. THE PROPOSED OUTLET ENERGY DISSIPATER WILL BE A 'PRECON IMPACT BAFFEL 4' OR APPROVED EQUIVALENT STRUCTURE.
6. THE EMERGENCY SPILL WAY IS DESIGNED TO PASS THE 100-YEAR, 24-HOUR STORM.
7. THE DRAINAGE PIPES ARE DESIGNED TO PASS THE 100-YEAR, 24-HOUR STORM.

REFERENCE:

EXISTING GROUND TOPOGRAPHY WAS CREATED BY COMBINING THE FOLLOWING FILES RECV FROM FORESIGHT WEST SURVEYING, INC.:
- SQUAW GULCH BASE TOPO - PHASE 1 - REVISED.DWG (RECV MARCH 14, 2010)
- SQUAW GULCH BASE TOPO - PHASE 2.DWG (RECV APRIL 24, 2010)
- SQUAW GULCH BASE TOPO - PHASE 3.DWG (RECV MAY 4, 2010)
- CCV TOPO EXPANSION 12-29-10 NORTH AREA.DWG (RECV JANUARY 13, 2011)
- CCV TOPO EXPANSION 01-28-11 SOUTH AREA.DWG (RECV JANUARY 28, 2011)
- SH67 TOPO 7-07-11.DWG (RECV JULY 11, 2011)
- VLF2 TOPO EXPANSION 8-05-11.DWG (RECV AUGUST 9, 2011)
- 09028-COMOSITE-TOPO MLE LIMITS.DWG (RECV MAY 28, 2010 FROM CC&V)

100 0 100 200 FEET

COLORADO REGISTERED
JAN N. JANNEY-MOORE
PROFESSIONAL ENGINEER
No. 37571
8-16-12

0	8/16/12	ISSUED FOR CONSTRUCTION	JNM / TJK

CLIENT: CRIPPLE CREEK & VICTOR GOLD MINING COMPANY

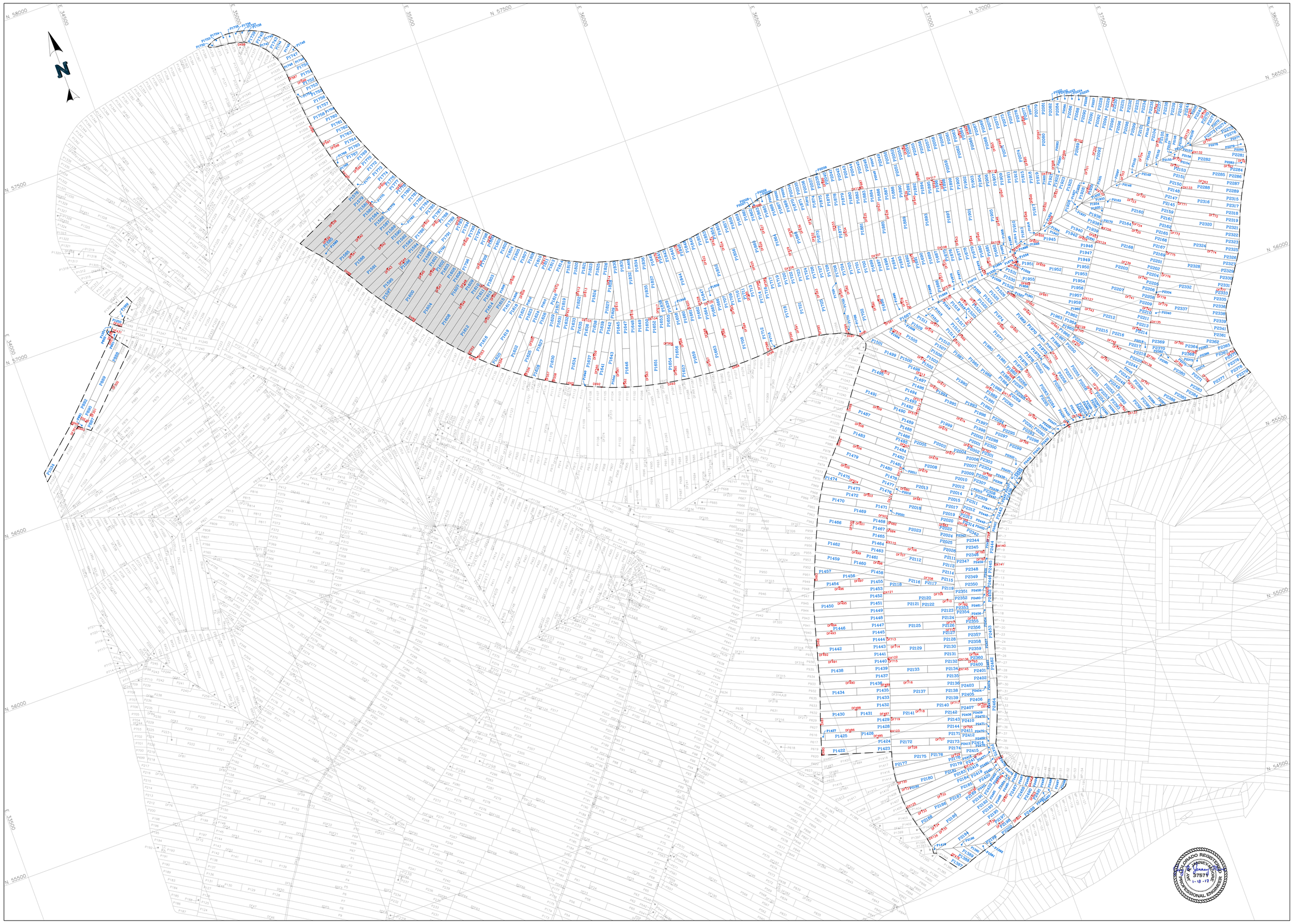
PROJECT: MILL SITE EARTHWORKS

TITLE: CONCEPTUAL LOB HAUL ROAD STORMWATER MANAGEMENT

DESIGNED BY	TJK	CHECKED BY	JNM
DRAWN BY	TJK	APPROVED BY	JNM
FILENAME	74201125KM10	DRAWING No.	A500
		REV	0

XREF: NO

PLOT SCALE



LEGEND:

- LIMITS OF GEOMEMBRANE ACCEPTANCE
- P1708 PANEL NUMBER
- DF589 DESTRUCT FUSION NUMBER AND REPAIR
- DX184 DESTRUCT EXTRUSION NUMBER AND REPAIR
- P1077 PREVIOUSLY CERTIFIED PANEL NUMBER
- DF584 DESTRUCT FUSION NUMBER AND REPAIR
- DX85 DESTRUCT EXTRUSION NUMBER AND REPAIR
- AREA OF LEAK LOCATION TESTING (SEE NOTE 1)

NOTES:

1. PANELS SHADED IN GRAY HAD LEAK LOCATION TESTING PERFORMED TO ENSURE THAT NO DAMAGE TO THE GEOMEMBRANE HAD OCCURRED DURING DRAIN COVER FILL PLACEMENT.

0 100 200 FEET

COLORADO REGISTERED PROFESSIONAL ENGINEER
JOHN N. MARKS
37574
1-18-17

REV	DATE	DESCRIPTION	TECH	ENG
1	01/18/17	RE-ISSUED FOR RECORD OF CONSTRUCTION	ACW	JNM
0	10/14/16	ISSUED FOR RECORD OF CONSTRUCTION	ACW	JNM

APPROVED BY: JNM
CHECKED BY: JNM
DESIGNED BY: ACW
DRAWN BY: ACW

DISCLAIMER

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NewFields

CLIENT: NEWMONT MINING CORP.

PROJECT: SQUAW GULCH VLF

TITLE: GEOMEMBRANE PANEL LAYOUT AS-BUILT

FILENAME: 106.006.008Mr1

DRAWING NO.: 6

REVISION: 1

P:\Projects\0106.006 CCAV COA and EDS\A-CAD\DWGS\106.006.008Mr1.dwg—1/18/2017 10:45 AM

STATE OF COLORADO

Russell - DNR, Elliott <elliott.russell@state.co.us>

TR 130 - Fourth Adequacy Review Response

Norma Townley <Norma.Townley2@newmont.com> Thu, Jan 19, 2023 at 3:57 PM
To: Elliott Russell - DNR <elliott.russell@state.co.us>
Cc: "Cunningham - DNR, Michael" <Michaela.Cunningham@state.co.us>, "Cazier -, Tim" <Tim.Cazier@state.co.us>, "Crepeau, Michael" <CrepeauM@co.teller.co.us>, Johnna Gonzalez <Johnna.Gonzalez@newmont.com>, Katie Blake <Katie.Blake@newmont.com>, Norma Townley <Norma.Townley2@newmont.com>

Mr. Russell, attached is our TR 130 Fourth Adequacy Review Response along with attachments. If you have any questions or concerns please reach out to Johnna.Gonalez@Newmont.com or Katie.Blake@Newmont.com. Thank you.

Newmont
CRIPPLE CREEK & VICTOR

Norma Townley

Business Assistant | Newmont | T 719-851-4255

Newmont

Cripple Creek & Victor Gold Mine

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100 N.3rd Street

Victor CO 80860

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Email: Norma.Townley2@Newmont.com

6 attachments

2023Jan19_ARresposne_TR130_Final.docx.pdf
703K

Mill Sump Analysis.pdf
175K

As-built Mill Platform.pdf
5847K

Mill IFC Drawings 1 of 2.pdf
8330K

Mill IFC Drawings 2 of 2.pdf
6075K

Geomembrane Panel Layout As Built Revision 1.pdf
1278K