MINING RECLAMATION & CLOSURE PLAN

-FOR-

MAIN EAST

AGGREGATE MINE SITE

Maricopa County, Mesa, AZ

STATE MINE INSPECTOR

DEC 26 2019

Located at:

8436 E. Apache Trail

Mesa, AZ 85207

(APN's: 218-39-005 & 218-26-013)

Prepared For:

Custom Landscape Materials, LLC

25376 W. Tonopah/Salome Hwy.

Buckeye, AZ 85326

Prepared by:

VESPRO

8502 E. Via de Ventura, Suite 101

Scottsdale, AZ 85258

Registered Professional Engineer
CERTIFICATE NO.
62327
WILLIAM
FOGELL
Date Signed 12/19/19
ARIZONA U.S.A.
Expires By: 6/30/22
(CIVIL)

September 26, 2019

December 19, 2019 (rev 1)

Vespro Project No. 18024

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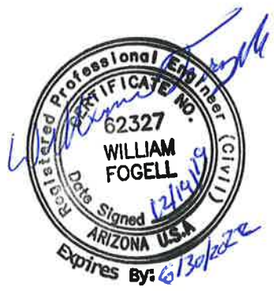

1. Administrative Information

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2. Introduction

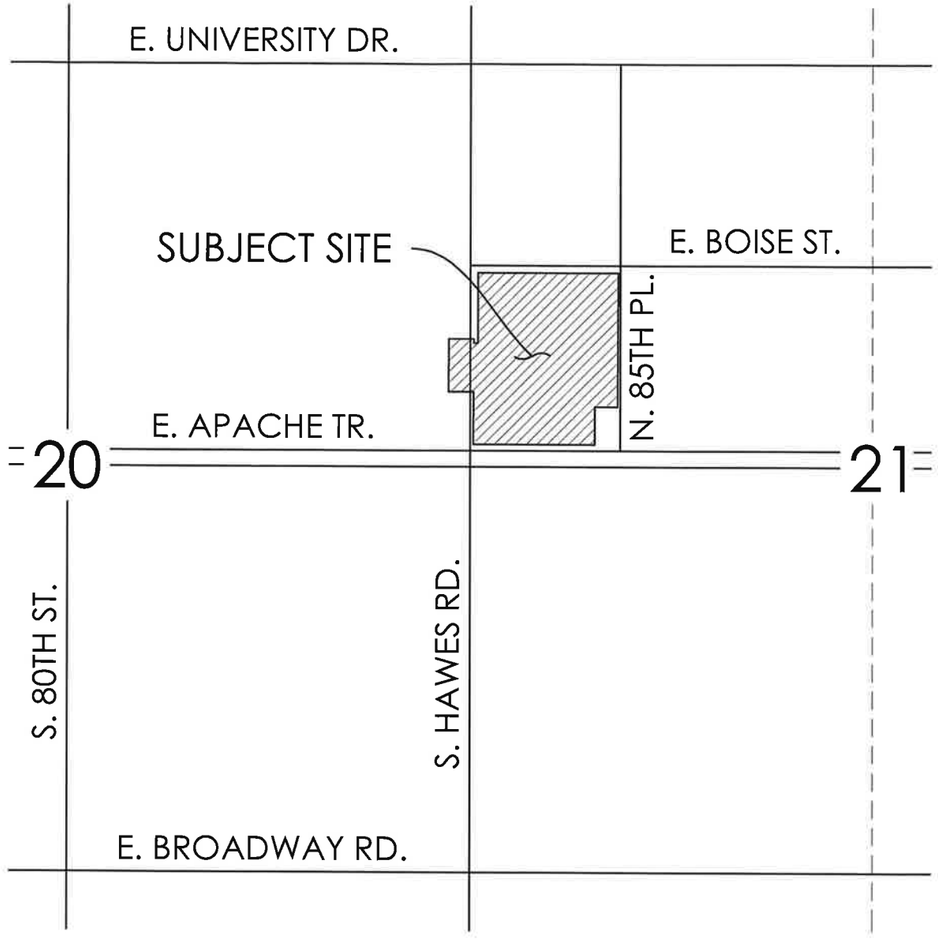
2.1 Purpose of Report

This report was prepared by Vespro on behalf of Custom Landscape Materials, LLC, a mining operator, which has executed a lease agreement to mine aggregate material on property owned by Twin Knolls Two Land, LLC, the Lessor and tentatively named "Main East". The purpose and scope of this report is to document and present the Mining Reclamation & Closure Plan for a new aggregate mining operation on private property located in Maricopa County, Arizona. The sole purpose of this report is to provide the reclamation procedures anticipated for final closure of the subject mining operation. This report has been completed in accordance with the guidelines of applicable State and County regulations that govern aggregate mining operations under their jurisdiction, and in compliance with state regulations identified in the Arizona Revised Statutes [A.R.S.] § 27-1271 et seq. (and also under Articles 6 & 7 thereof) and the Arizona Administrative Code [AAC] Title 11, Chapters 1 & 2.

2.2 Site Location Description

(Refer to Figure 1 for Vicinity Map)

The Main East aggregate mining operation is located in the NW 1/4 of Section 21 and the NE 1/4 of Section 20, Township 1 North, Range 7 East in a Maricopa County area within the general limits of Mesa, Arizona, on two parcels of land identified by the Maricopa ~~County Assessor's~~ office as APN's #218-39-005 and #218-26-013. The site is further located approximately 3,500 feet west of the Loop 202/Red Mountain Freeway, on the North side of E. Apache Trail. The subject property is bounded by public roads and residential properties on the North and East, Maricopa County public roadway to the South, and undeveloped privately-owned land to the west.



NORTH

SEC. 20 & 21, T-1-N, R-7-E

VICINITY MAP

N.T.S.

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MAIN EAST - AGGREGATE MINE
8436 E. APACHE TRAIL - MESA, AZ 85207
MARICOPA COUNTY - MESA, ARIZONA

DATE: 09/26/19 | SCALE: N.T.S. | PROJ. NO: 18024 | CAD FILE: 18024_Fig-1.dwg

FIGURE
1
1 of 1

2.3 Site Access

The subject property can be accessed from all sides except the west. The existing and proposed primary access point(s) will be from E. Apache Trail on the south side of the property. Additional gated access is also found on the east side from N. 85th Place and also the northwest corner of the property from E. Boise Street, all from surrounding public roads. E. Apache Trail is an asphalt paved divided roadway with a depressed median for drainage conveyance, and is owned/maintained by Maricopa County Dept. of Transportation (MCDOT). The property has direct right-in access from E. Apache Trail and is 3,500 feet west of the Loop 202/Red Mountain Freeway.

2.4 Existing Site Conditions and Topography

(Refer to Figure 2 for the Existing Conditions Exhibit)

The subject site parcel consists of approximately 25 acres of undeveloped desert land and is zoned as R-3 and R-8. The ultimate land use for the site is single-family residential. Although most of the site has gradual slopes, significant hills are located on the western and southwestern portions of the site. The predominant drainage from the site is from center of the site, extending from the high point at the mountaintop in each direction, as shown in Figure 2 Existing Conditions Exhibit. Defined drainage washes. The native plant species common to areas of the upper Sonoran Desert consists of mostly desert sage, scrub brush, and creosote bushes with Palo Verde trees spread throughout the site. No buildings or structures exist onsite. Common utilities such as water, sewer, electric, and communications are located adjacent to the site on the north, east and south sides. The prior use of the property removed and/or abandoned services at the southerly portion of the site along E. Apache Trail. There are overhead electric (with underslung communication) lines and poles along the west edge of N. 85th Place, but appear to be outside the bounds of the site/property. There are also overhead poles and lines in the southwest corner of the site, but will not interfere with the proposed activities.

Most of this site was previously disturbed, as there are numerous roads and old barbed wire and wood fence remnants throughout the site as well.

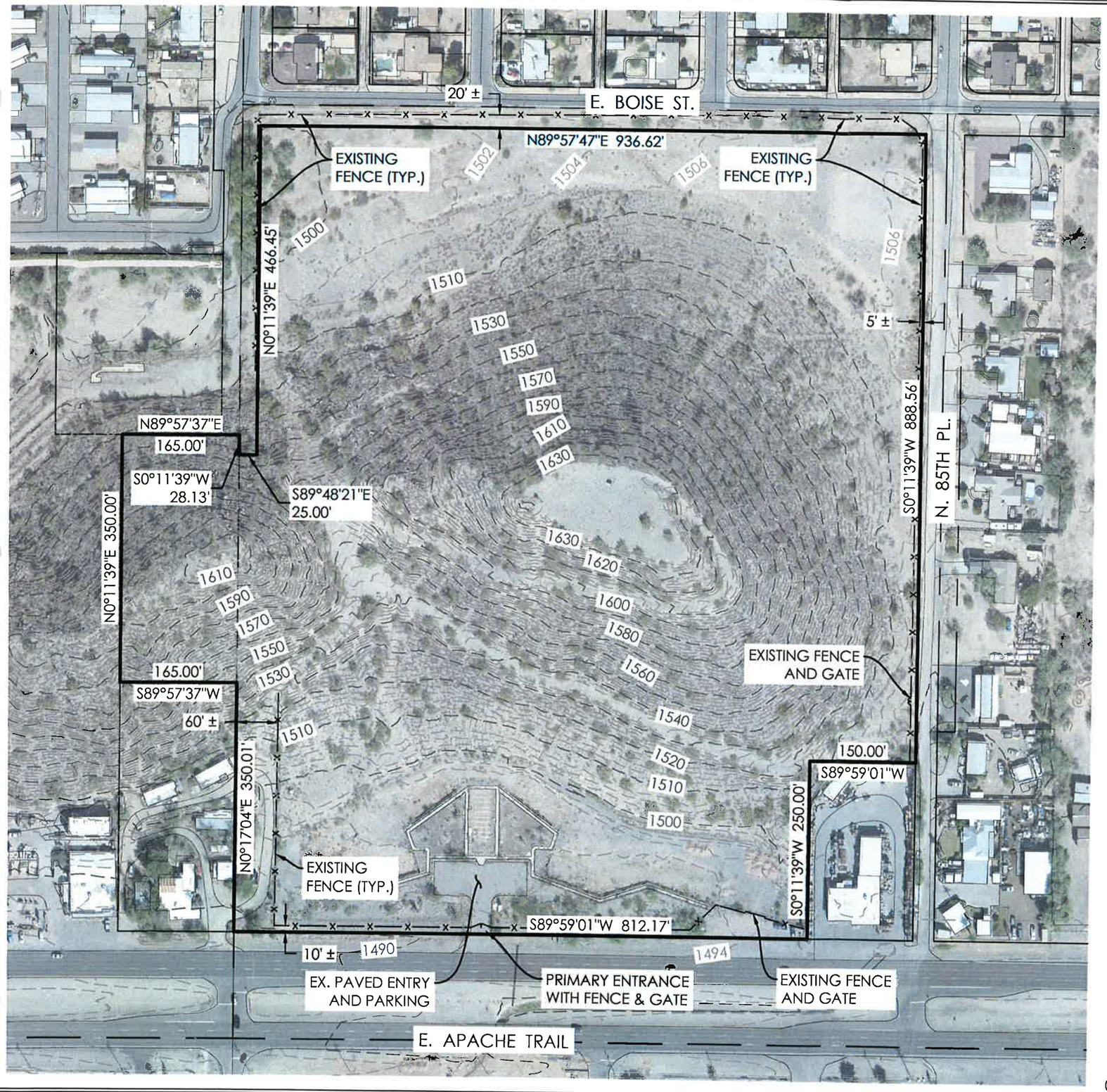
2.5 Proposed Mining Operation Description

(Refer to Figure 3 for Mining Unit Disturbance Plan)

The Main East aggregate mine is an open cut/strip mining operation. There will not be any holes (pits) on this site. The mining operation will remove hills which exist onsite by ripping the surface using a D9 or D10 bulldozer and will provide final topography which does not exceed a 2:1 fill slope. The mining operation will occur in small sequential areas. Initial work will begin on approximately 3.7 +/- acres. The ultimate final disturbed area is projected to be 19.7 +/- acres. It is anticipated that the mining operation will be completed in 8 to 12 years; however, the mining operation is dependent on the demand for its product and thus the duration of the mining operation may be shorter or longer. Site staff will consist of two to three individuals certified to do the work required daily.

All mining work will be performed with portable equipment that is brought to the site, as needed, to facilitate the demand for the product. Equipment needs are currently estimated to include one crusher, a screener, one loader, and a water truck, as shown on Appendix C. Drilling equipment may be utilized onsite but supplied and operated by a contractor, as required. Assorted shop facilities may include a portable container, mobile mounted generators, and portable sanitary facilities. Primary resources to be mined at this facility include aggregate of various sizes and uses, boulders and crushed rock. For site security and safety, a screened perimeter fence will encompass the entire site with possible security cameras for monitoring during after-hours. These systems will be implemented and maintained for the duration of all mine activity.

As the mining operation expands, movable barriers (which may include large boulders about 2-3 feet in diameter and positioned with no space between) will be placed throughout the operation as may be needed to restrict internal access, and a secured access gate with heavy lock at the points of ingress/egress to the operation. Safety signage will be posted, as required by local authority, at points of public access and within a spacing of 50 feet in areas of hazardous conditions (ie. along cut slopes or vertical drops and ingress/egress locations). These will identify the site as a mining operation and that trespassing is strictly prohibited.



OWNER / LESSOR

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APN

218-39-005
218-26-013

ZONING

EXISTING: R-3 & R1-8

AREA

SUBJECT PROPERTY = 1,103,375 FT² (25.330 ACRES) +/-

FLOOD ZONE

ACCORDING TO THE FLOOD INSURANCE RATE MAP #04013C2295L DATED OCTOBER 16, 2013, THIS PROPERTY IS LOCATED IN ZONE "SHADED X". ZONE "SHADED X" IS DEFINED AS "AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD."

NOTES

1. NO BUILDINGS CURRENTLY EXIST ONSITE.
2. FENCES EXIST ON ALL SIDES OF THE SITE.
3. OVERHEAD POWER LINES EXIST ALONG THE EASTERLY BOUNDARY OF THE SITE ON THE WEST SIDE OF N. 85TH PLACE.
4. EXISTING OFFSITE DRAINAGE ALONG ADJACENT ROADWAYS IS MAINTAINED IN THE RIGHTS-OF-WAY.

NORTH

SCALE: 1"= 150'
0 75' 150'

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MAIN EAST - AGGREGATE MINE
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EXISTING CONDITIONS EXHIBIT

DATE: 09/26/19 | PROJ. NO: 180024 | SCALE: SHOWN | CAD FILE: 18024_Fig-2.dwg | DRAWN: CAP

CUSTOM LANDSCAPE MATERIALS, LLC
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BUCKEYE, AZ 85326

FIGURE
2
1 of 1

3. Reclamation Measures for Post Mining Land Use

The general overview of this approach, regarding the intent of A.R.S 27-1271 (11) is as follows:

Mining operations can vary widely, with statutes and rules being interpreted relative to proposed mining activity, based on a mine's location and environmental conditions. This proposed private mining site is located near an area that will most likely be annexed by the City of Mesa. The owner of this property intends to develop the site as a single-family residential subdivision for a zoning R-3 and R1-8, proposed for post mining land use. The reclamation of this mine will be an interim condition prior to development of this property by the owner that is leasing the property. The owner is responsible for maintaining this reclamation plan after termination of the lease agreement.

Any restrictions to public access to this site will remain in place until this post development occurs and will be maintained by the owner of the property. The site will be safely secured from public access.

All overburden stockpiles will be removed by spreading the remaining material in manner that will minimize erosion and allow vegetation to naturally reclaim the land. Hydroseeding will be incorporated into the closure process as a method to mitigate local erosion from sheet flow runoff in areas of freshly deposited material. This method combined with other methods, such as lateral scarification of fill slopes and rounding transition areas, will be applied using Best Management Practices (BMP). Hydroseeding will promote retention of fine material that may collect on the aggregate rock surface and effectively perform as temporary erosion control until a portion of local perennial plant species is re-established. A robust variety of local plant species will be selected, depending on the season in affect during closure. Hydroseeding will be evenly distributed over the exposed aggregate surface to promote growth that will sustain an interim post-mining condition until final land development is initiated by the Owner."

Rock cuts may be filled to a final slope of 2:1 with terraced bench landings every 10 feet vertical of open slope face on loose material. Each bench will have a 5% reverse slope, at a minimum of 4 feet wide, to minimize collusion of material and erosion from rainfall

runoff captured along the slope and conveyed by channels, per this Reclamation Plan. The Operator is responsible for submitting and maintaining an Erosion Control Plan or Stormwater Pollution Prevention Plan (SWPPP) to ADEQ, as part of the Notice of Intent (NOI), when disturbing more than one acre of land. Haul road areas will be scarified and covered to promote natural growth of grasses seeded, unless maintained as a temporary access road, as shown on the Post-Mining Reclamation Plan, shown in Appendix D.

As material is sold, mining operations will progress in small phases. In each phase, areas of operation will include the mining, processing, and stock piling areas. Cover final reclamation surface cover material is the remaining finished mining surface consisting of crushed rock aggregates. This helps protect against soil erosion and dust control as mining in each area is completed and the area is reclaimed.

A contract was created between the Owner (Twin Knolls Two Land, LLC), as the Lessor, and the operator (Custom Landscape Materials, LLC), as the Lessee, with an agreement currently in place for finishing the aggregate mining operation suitable for the post mining land use, as defined herein. Additionally, as stated in the report, the nature of the aggregate mining proposed is not to create a pit but to remove (mine) existing hills and provide 2:1 slopes at all transitions to existing terrain.

In the event that Lessee does not finish the mining activity, either due to economic conditions or failure to perform its obligations under the agreement with the owner, the Lessee has modified the Reclamation Plan to identify the reclamation requirements that necessary to close the site, based on the following sections.

3.1 Earthwork

Worksheets are provided in Appendix B which identifies the earthwork reclamation cost of this unlikely abandonment condition. As the mining operation progresses the mine face may be exposed and some piles of aggregate may exist (however it is significant to note that the aggregate which is mined has significant value and if not sold by the Lessee, due to abandonment, the Owner would have the right to sell the aggregate or use it for the post land use proposed residential development. Estimates for costs to operate and rent earthmoving equipment, needed for finished grading of this site to a reclaimed condition, assumed an average operator of a D6R Dozer for grading slopes along a 1:1 rock face to a 2:1 slope. Costs associated with this activity are include in Appendix B.

3.2 Removal of Equipment / Facilities and Value of Equipment

Appendix B also provides the estimated cost of removal of equipment from the site. However, as stated in the reclamation plan, the Lessee's mining equipment has a significant value. The estimated value of the equipment is also provided in Appendix B – Value of Aggregate Mining Equipment.

It is extremely unlikely that the Lessee would abandon its mining equipment in light of its value, and if the equipment was abandoned by the Lessee the Lessor/Owner would seize the equipment. The value of the equipment far exceeds all reclamation costs. Therefore, it is not reasonable to provide for a reclamation cost associated with the removal of the equipment.

3.3 Stabilization & Erosion Control

As identified in the Reclamation Plan, the Lessee will implement an Erosion Control Plan, also referred to as a Storm Water Pollution Prevention Plan (SWPPP) to contain sediment and prevent erosion. The SWPPP Plan will be implemented prior to the construction / mining activity. The SWPPP plan will be implemented on this site and maintained and renewed, as required, throughout the duration of this mining operation. This SWPPP addresses preliminarily anticipated controls to mitigate potential erosion as mining activity

is anticipated. This is the responsibility of the operator to establish these controls and maintain them.

Routing of runoff generated during operations will have appropriate Best Management Practices (BMP's) applied in a concerted effort to minimize potential for erosion. The Erosion Control Plan document is a live document requiring changes as site conditions change and mining progresses; therefore, some SWPPP measures may need to be implemented in the event of closure. The Reclamation Cost Estimate for reclamation SWPPP measures is provided for in Appendix B.

Existing site drainage was analyzed and runoff patterns of concentrated flow channels were identified at locations shown on Mining Unit & Disturbance Plan. Current runoff conditions will be mitigated with this plan, shown for the finished grade topography.

3.4 Finished Topography

(The post mining topography is show in Figures 3,4 & 5)

The post mining land use is anticipated to be single family residential. The property owner has completed a concept grading plan for the proposed residential subdivision which provides the final post mining topography. Mining operations will occur while maintaining a raised section around the outer perimeter of mine operations. This will in affect create a bowl or natural ridgeline around the outer perimeter of operations for the duration of mining activity. This effectively shields the community by abating noise and view from the surrounding homes, north and east of the site. Additionally, the finished topography was extended to the northeast corner of the site to include drainage the historic flow that meandered in an uncontrolled manner down N 85th Place before discharging at Apache Trail. All retention basins are designed to capture the first flush runoff from the entire site and discharging at historic locations. The overall runoff coefficient for post mining conditions will remain unchanged and will provide attenuation of peak runoff flows generated from this site.

3.5 Timeline / Schedule for Operation and Reclamation

Scheduling for the Main East Aggregate Mining operation is to begin in the Spring of 2020. Duration of mining operation is projected to be 8 to 12 years. However, the actual duration

will depend on product demand and therefore the duration of the mining operation may be longer or shorter. As stated above, the nature of the proposed mining operation is that the site is reclaimed as the mining operation progress, since the final reclaimed cover consists of the final mining surface which consists of various sizes aggregate. Each smaller phase area will maintain SWPPP controls and will be reclaimed before moving to the next area of expansion. This progression will continue and equipment will be removed from the site as the operation closes out. Once the mining operation is complete, the specific mining related equipment will be removed. Following this, final stabilization and reclamation will be achieved and a final inspection of any applicable permanent BMP's will be completed. Then, demobilization and removal of any grading and remaining pertinent equipment will follow. No additional site work or reclamation procedures are anticipated to be necessary after final demobilization. However, at least two more inspections may be required prior to the post mining land use being established.

3.6 Post-Mining Land Use

The post mining land use is anticipated to be single-family residential but is currently undetermined.

(*See Appendix D for Post-Mining Reclamation Plan*)

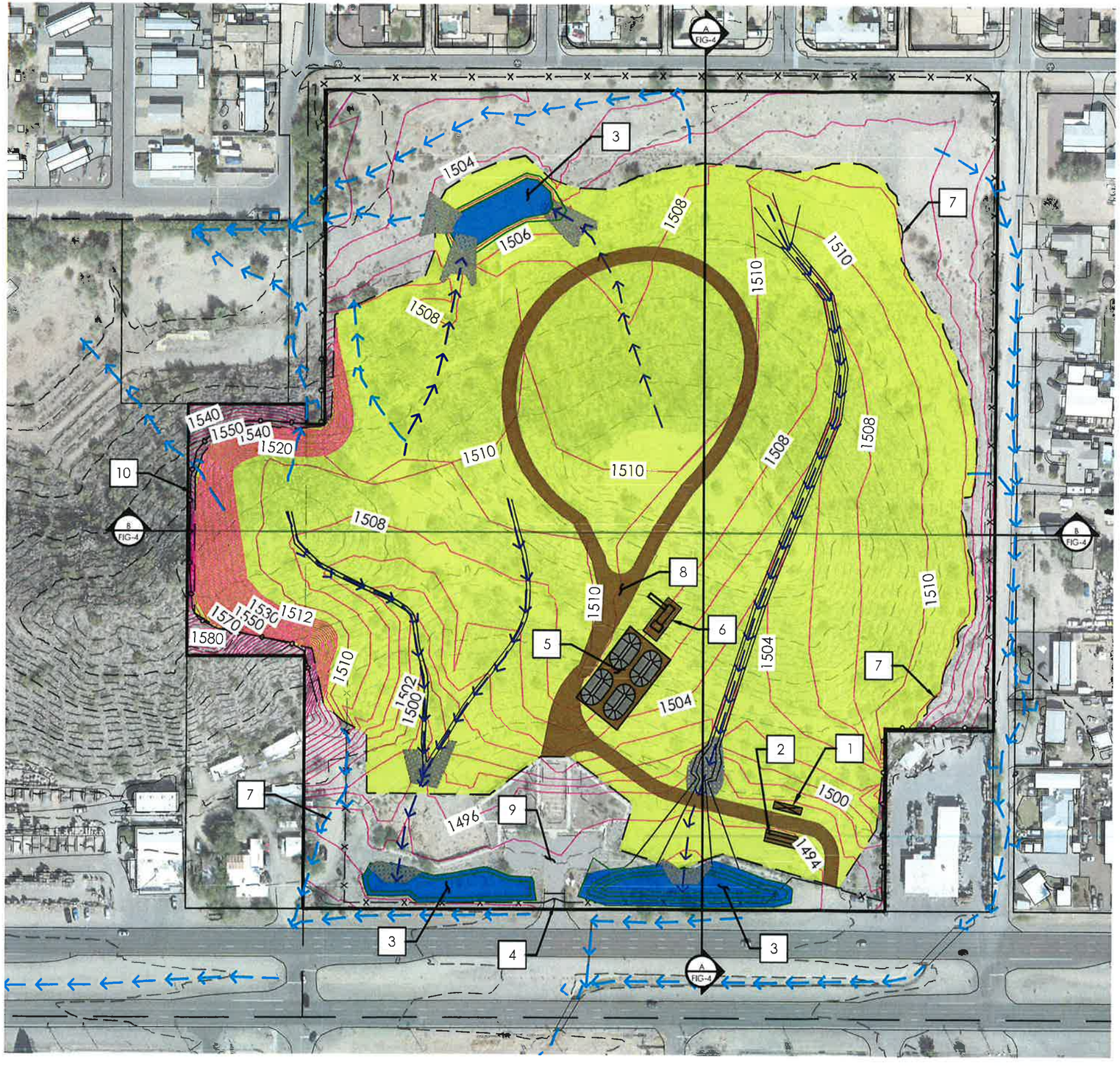
3.7 Reclamation Summary

The proposed mining activity is unique with respect to its setting and conditions and it is reasonable that the intent of ARS 27-1271(11) be interpreted and applied in view of its unique setting and conditions. In particular the land is private, the Lessee and Owner (Lessor) have an agreement in place to complete the project, the finished mining surface as completed in small phases that are consistent with the final reclamation cover, per a binding contract agreement with Owner, that is consistent with the post mining land use, as shown on the Post-Mining Reclamation Plan shown in Appendix D. The value of the

mining equipment, facilities, and appurtenances represent over $950,000, exceeding the estimated cost of all reclamation costs, as shown in Appendix B.

However, in the unlikely event that the Lessee does not finish the mining activity and reclamation and closure for any reason, the Lessee has identified the associated reclamation costs, herein. In such an event a bond will be provided as identified in this Reclamation Plan. The Lessee has identified the reclamation cost for such an event, as provided in Appendix C Reclamation Bonds Summary Worksheet. The grand total bond amount is $117,872.

(*The Statement of Responsibility is provided in* ***Appendix A***)



MINE SITE FEATURES:

ID	DESCRIPTION	AREA
1	PORTABLE OFFICE BUILDING	800 SF
2	WEIGH STATION (40'X12')	480 SF
3	TEMPORARY STORMWATER HOLDING BASINS TO CAPTURE FIRST FLUSH VOLUME OF RUNOFF.	31,170 SF
4	EXISTING PAVED PRIVATE COMMERCIAL DRIVEWAY ENTRANCE WITH 20' DOUBLE WIDE SCREENED CHAIN LINK SWING GATE ENTRANCE	750 SF
5	STOCK PILE AREA GRADED BACK TO 2:1 SLOPE WITH 1% MIN GRADE TO DRAIN. INSTALL SILT FENCE AROUND BASE OF STOCK PILES FOR EROSION CONTROL	9,375 SF (125'X75')
6	ROCK CRUSHER	200 SF
7	APPROX. LIMITS OF AGGREGATE MINING DISTURBANCE. FENCED IN AREA W/ SCREENING ADJACENT TO PUBLIC AREAS	856,750 SF
8	HAUL ROAD (COMPACTED GRAVEL)	33,400 SF (1670 LF)
9	PAVED PARKING AREA (EX. TO REMAIN)	6465 SF
10	ROCK FACE CUT (W/ FENCE PROTECTION)	31,370 SF (750 LF)

AREA

SUBJECT PROPERTY = 1,103,375 FT² (25.330 ACRES) +/-
DISTURBED AREA = 856,750 FT² (19.668 ACRES) +/-

LEGEND

- PROPERTY LINE
- LIMITS OF DISTURBANCE
- FENCE LINE / BARRIER
- HISTORIC DRAINAGE
- PROPOSED DRAINAGE
- AGGREGATE MINING AREA
- MINING EQUIPMENT / ROAD
- DRAINAGE BASIN

NORTH

SCALE: 1"= 150'
0 75' 150'

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MAIN EAST AGGREGATE MINE
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MINING UNIT & DISTURBANCE PLAN

DATE: 09/26/19 | PROJ. NO: 180324 | SCALE: AS SHOWN | DRAWN: CAP
CAD FILE: 18024_Fig-3.dwg

CUSTOM LANDSCAPE MATERIALS, LLC
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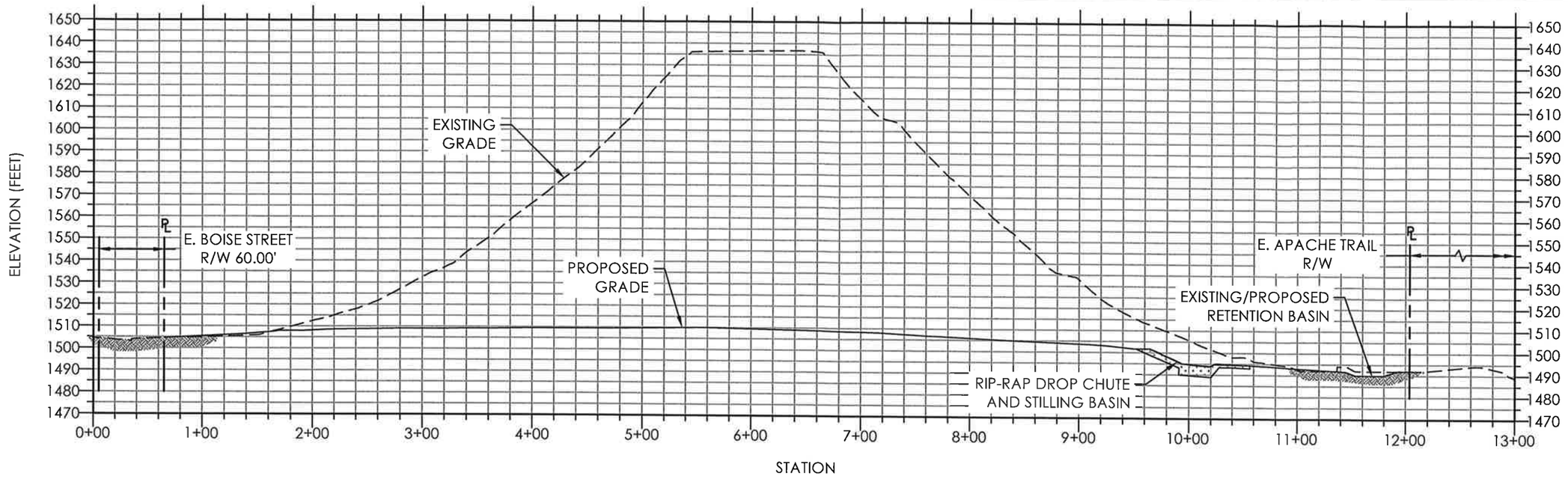
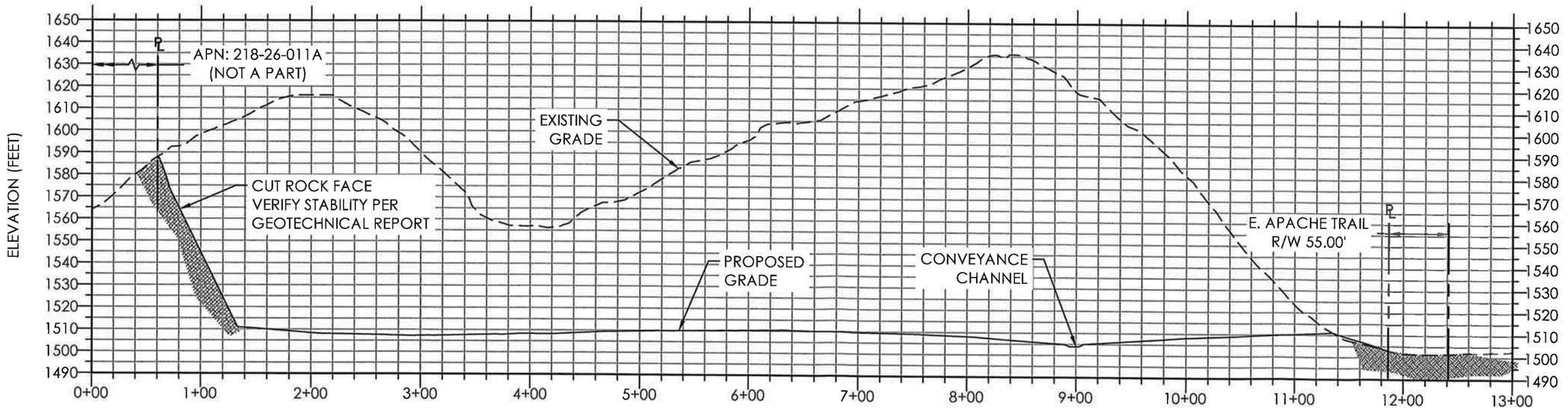
BUCKEYE, AZ 85326

FIGURE
3
1 of 1



A ER01 LOOKING EAST

NOT TO SCALE



B ER01 LOOKING NORTH

NOT TO SCALE

SCALE: 1"= 150'

0 75' 150'

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MAIN EAST - AGGREGATE MINE
8436 E. APACHE TRAIL - MESA, AZ 85207
MINING UNIT & DISTURBANCE SECTIONS

DATE: 09/26/19 | PROJ. NO: 180024 | SCALE: AS SHOWN | CAD FILE: 18024_Fig-4.dwg | DRAWN: CAP

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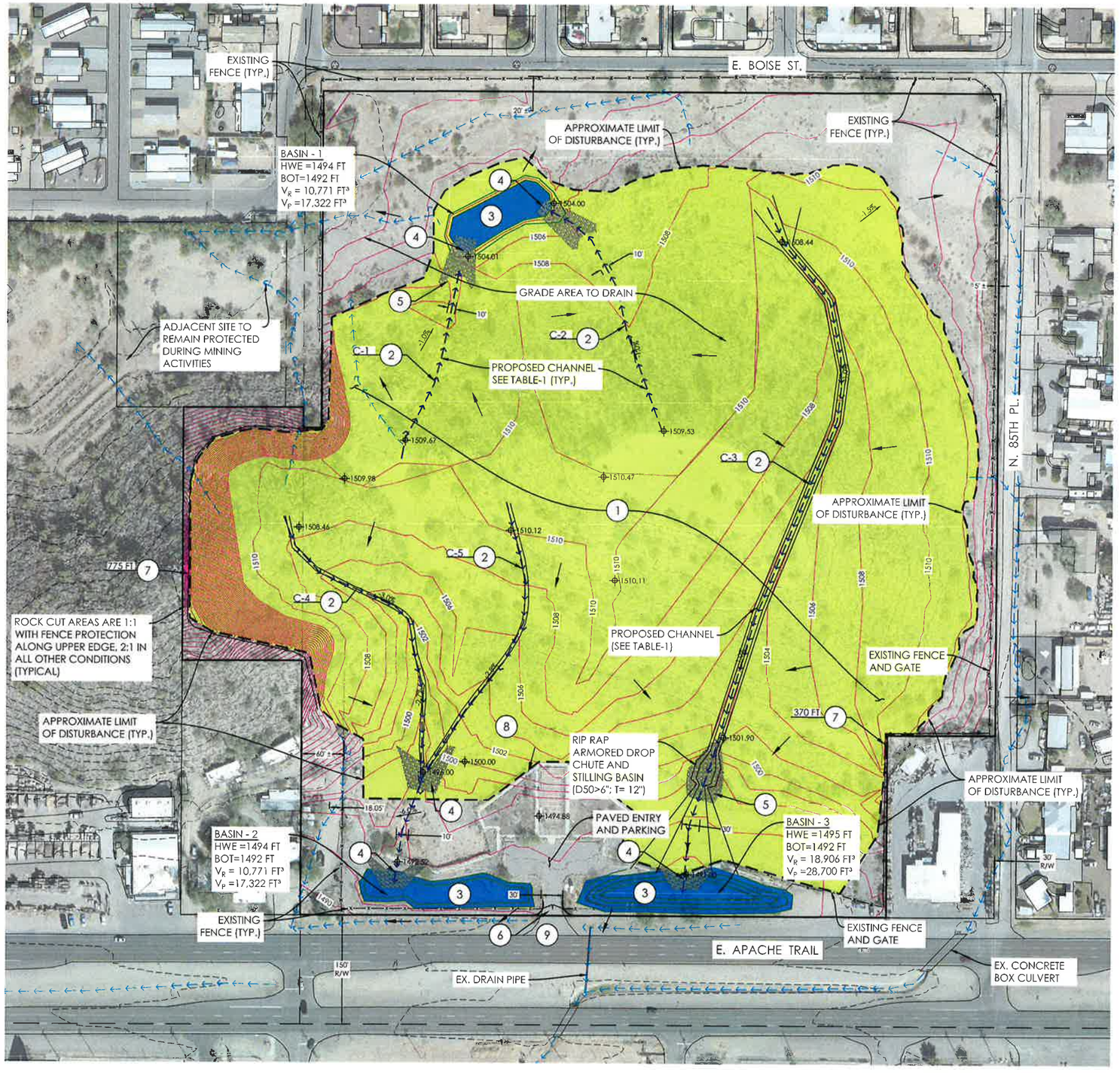
25376 W. TONOPAH/SALOME HIGHWAY
BUCKEYE, AZ 85326

FIGURE
4
1 of 1

Figure 5

Post-Mining Reclamation Plan

(*See Appendix D for full size plan*)



CONSTRUCTION NOTES

1. RECLAIM AREA BY PLACING SELECT SITE MATERIAL TO A DEPTH OF COVER REQUIRED TO GRADE DISTURBED AREAS PER PLAN, AS AN INTERIM SURFACE. TO DRAIN INTO FIRST FLUSH BASINS, AS SHOWN ON PLANS,
2. CONSTRUCT EARTHEN CHANNEL PER PLAN, ALL EMBANKMENTS SHALL INCLUDE EROSION PROTECTION, AS NOTED BELOW,
3. CONSTRUCT FIRST FLUSH DETENTION BASIN PER PLAN, (SEE VOLUME REQUIREMENTS SHOWN ON TABLE -1 THIS SHEET),
4. PLACE ANGULAR RIP-RAP AT DROP INLETS FOR EROSION PROTECTION, PER PLAN,
5. CONSTRUCT RIP-RAP ARMORED PLUNGE POOL AT BASE OF ROCK DROP CHUTE, 18" DEEP; 20' BOTTOM WIDTH WITH 8:1 SIDE SLOPES, PLACE 12" CHECK DAM ON DOWNSTREAM SIDE TO DISCHARGE INTO A 30' WIDE SWALE WITH 20:1 SIDE SLOPES,
6. REPLACE ACCESS GATE WITH LOCKING DOUBLE WIDE SWING GATE WITH FIRE ACCESS, PER LOCAL FIRE DEPARTMENT REQUIREMENTS,
7. INSTALL CHAIN LINK FENCE PER PLAN,
8. CONSTRUCT STABILIZED HAUL ROAD AS NECESSARY,
9. CONSTRUCTION ENTRANCE PER MCDOT REQUIREMENTS FOR RURAL PARKWAY COMMERCIAL ACCESS DRIVES

ENVIRONMENTAL RECLAMATION NOTES:

1) ALL DISTURBED AREAS ARE SHALL BE PROTECTED AGAINST EROSION AND MAINTAINED BY THE OWNER AS ACKNOWLEDGED PER SEPARATE INSTRUMENT, ENTIRE SITE SHALL BE PROTECTED BYU CHAIN LINK FENCING WITH LOCKED GATES AND 24 HOURS ONSITE SECURITY CAMERAS OR GUARD,
2) RECLAIMED AREAS ARE TO BE REZONED FOR RESIDENTIAL LAND USE BY THE OWNER. OWNER IS RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL MEASURES SHOWN HEREIN, DURING POST MINING LAND USE,
3) STABILIZED CHANNEL SIDE SLOPES SHALL BE CONSTRUCTED AT 4:1 MAX (< 3 FEET DEEP),
4) ROCK FACE CUTS < 10FT, USE MAX 2:1 SLOPES, USE 1:1 SIDE SLOPES WITH FENCING ALONG UPPER EDGE OF FACE, IF CUT WALLS ARE GREATER THAN 10 FEET HIGH, THEN CONSTRUCT A 4FT WIDE BENCH WITH 5% REVERSE SLOPE (GRADE TO DRAIN <2% ALONG FACE),
5) ALL GRADING ELEVATIONS SHALL BE AS-BUILT AT CRITICAL LOCATIONS REQUIRED TO VERIFY PLAN CONFORMANCE,
6) ANY MODIFICATIONS TO THIS PLAN WILL REQUIRE A NEW PLAN TO BE RESUBMITTED TO ASMI FOR APPROVAL,
7) INTERNAL HAUL ROADS (~20' WIDE, <5% GRADE) ARE FOR ACCESS TO THE UPPER LEVEL AREAS ONLY AND SHALL BE MAINTAINED AS ALL WEATHER ACCESS ROADS WITH DRAINAGE LESS THAN 6" DEEP AT CROSSINGS,

EROSION CONTROL FEATURES :

FIRST FLUSH VOLUME OF RUNOFF: V_{ff}=0.5" *A

CHANNEL DESIGN

CHANNEL ID	DESIGN FLOW (CFS)
C-1	4.58
C-2	8.69
C-3	19.91
C-4	6.74
C-5	5.22
C-4-5	18.61

FIRST FLUSH BASIN DESIGN

BASIN ID	V_{ff} Provided (cf)	V_H REQUIRED (cf)
B-1	8677	8301
B-2	12696	11642
B-3	22654	16727
TOTAL	44027	36670

EXCAVATION QUANTITIES

Cut volume	1,186,937 Cu, Yd,
Fill volume	17,116 Cu, Yd,
Net volume	1,169,821 Cu, Yd,<Cut>

LEGEND

- PROPERTY LINE
- LIMITS OF DISTURBANCE
- FENCE LINE / BARRIER
- HISTORIC DRAINAGE
- PROPOSED DRAINAGE
- AGGREGATE MINING AREA
- MINING EQUIPMENT / ROAD
- DRAINAGE BASIN

NORTH

SCALE: 1"= 70'

0 35' 70' 140' 210'

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REVISIONS

MAIN EAST - AGGREGATE MINE
8436 E. APACHE TRAIL - MESA, AZ 85207
POST-MINING RECLAMATION PLAN

PROJECT NO:	18024
DRAWING DATE:	09/26/19
DRAWN BY:	WEF
CHECKED BY:	CAP
DRAWING SCALE:	AS SHOWN
DRAWING FILE:	18024_Fig-5.dwg

FIGURE
5
1 of 1

4. References

1. Arizona State Mine Inspector, Aggregate Mining Unit Reclamation Plan Guidelines, Division of Mined Land Reclamation, August 2007.

2. Bureau of Land Management, Arizona State Office, *Arizona Mining Permitting Guide, 1st Edition*, May 2011

3. Caterpillar Performance Handbook, June 2018

Appendix A

Reclamation Statement of Responsibility

Reclamation Statement of Responsibility

Custom Landscape Materials, LLC assumes responsibility for the reclamation of surface disturbances that for the Main East Aggregate Mine are attributable to the aggregate mining operation consistent with this Reclamation & Closure Plan, pursuant to Arizona Revised Statutes (A.R.S. Chapter 6) A.R.S. § 27-1201 et seq., and any promulgated rules, in A.C.C. Title 11, Chapter 3.

All areas that have been disturbed at the Main East Aggregate Mine site will be reclaimed to a safe and stable condition, before and directly after mine operations conclude, and Custom Landscape Materials, LLC will maintain financial assurance as needed per A.R.S. § 27-1291 and A.R.S. § 27-1292, to carry out the required reclamation as hereby stated per A.R.S. § 27-1271 (B)(2).

In witness whereof, Custom Landscape Materials, LLC, as Lessee of the Main East aggregate mining operation, has hereunder caused its name signed and the same attested by the signature of, Sam Schippers, Vice President of Custom Landscape Materials, LLC, thereunto authorized this 17 day of December, 2019.

Custom Landscapes Materials, LLC,

its Vice President.

By: _____
Signature

Name: Sam Schippers

Title: Vice President

ACKNOWLEDGEMENT

State of Arizona)
) S.S.
County of Maricopa)

On this 19th day of December 2019, before me, the undersigned notary public, personally appeared Sam Schippers, who acknowledged self to be the Vice President of Custom Landscape Materials, LLC, that being duly authorized to do so, executed the foregoing, Statement of Responsibility for the purposes therein contained by signing his name and executed the foregoing the Statement of Responsibility.

The purposes therein contained.

In witness whereof, I have hereunto set my hand and official seal.

_____
Notary Public

Date December 19, 2019

My commission expires: August 4, 2023

EIRIAN TRAN, NOTARY PUBLIC
COMM. NO. 569372
COMM. EXP. 08-04-2023
MARICOPA CO., AZ

Appendix B

Reclamation Costs and References

Equipment Removal Costs and Value of Equipment

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ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS

Main East Aggregate Mining - Reclamation Estimate **DATE:** 9/27/2019

WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE		TOTAL
EQUIPMENT REMOVAL					
Removal of Debris and/or Waste	1	LS	$525.00	$/LS	$525.00
Removal of Mining Equipment	3	EA	$525.00	$/EA	$1,575.00
Removal of Grading Equipment	2	EA	$525.00	$/EA	$1,050.00
Removal of Accessory Equipment	3	EA	$325.00	$/EA	$975.00
			SUBTOTAL =		**$4,125.00**
EARTHMOVING					
Cut / Fill (grading of in-place material)	0	CY	$3.00	$/CY	$0.00
Rock Excavation	0	CY	$20.00	$/CY	$0.00
Fill and Sloping of Rock Faces to 2H:1V	4,259	CY	$3.00	$/CY	$12,775.50
			SUBTOTAL =		**$12,775.50**
LANDSCAPING					
Landscape (including irrigation)	0	SF	$2.50	$/SF	$0.00
Landscape (including irrigation)	0	SF	$1.50	$/SF	$0.00
			SUBTOTAL =		**$0.00**
SEDIMENT / EROSION CONTROL					
Diversion Berms / Channels	0	LF	$105.00	$/LF	$0.00
Rip-Rap Stone	0	Ton	$70.00	$/Ton	$0.00
Temporary Cover (seed, mulch, d.g., etc.)	19	Acres	$3,500.00	$/Acre	$66,500.00
			SUBTOTAL =		**$66,500.00**

PROJECT TOTAL =	**$83,401**
Cost Index	1.0583
Adjusted total cost	**$88,366**

8502 E. Via De Ventura, Suite 101, Scottsdale, AZ 85258 | Ph 480-393-3640 | Fx 480-393-3839 | www.vespro.com

List of Equipment	Labor (1)	Equipment (2)	Total Cost	
D9 Dozer	$44.00	$125.00	$169.00	/hr
Water Truck	$33.54	$100.00	$133.54	/hr
Hydro seeding (3)			$3,500.00	/acre

(1) Inflation (Jan 2006 to Aug 2019 Per the Bureau of Labor Statistics web site) 1.29 index
(2) based on daily rental rates from Red Mountain Heavy equipment rentals 2018 Price charts
(3) ADOT bid tab items

Estimated Value of Used Mining Equipment

Caterpillar 966H Loader	$180,000
Portable Jaw Crusher 30"x42"	$200,000
Portable 6'x20' screen	$150,000
Portable Generator	$280,000
Portable Scale and scale house	$50,000
Water truck	$90,000
Total Used Equipment Value	**$950,000**

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2019

ADOT Bid Tab

2020009 A	CU.YD.	REMOVAL OF STRUCTURAL CONCRETE			
Bid Rank	Department Estimate	6.000	$525.000	$4,200.00	
1	GRANITE CONSTRUCTION COMPANY		$675.000	$5,400.00	+28.6%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$900.000	$7,200.00	+71.4%
3	FNF CONSTRUCTION, INC.		$465.000	$3,720.00	-11.4%
8070011	MONTH	LANDSCAPING ESTABLISHMENT (24 MONTHS)			
Bid Rank	Department Estimate	24.000	$4,000.000	$96,000.00	
1	GRANITE CONSTRUCTION COMPANY		$3,047.000	$73,128.00	-23.8%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$2,000.000	$48,000.00	-50.0%
3	FNF CONSTRUCTION, INC.		$2,000.000	$48,000.00	-50.0%
8101014	L.FT.	EROSION CONTROL (SEDIMENT WATTLE 20")			
Bid Rank	Department Estimate	18,309.000	$3.000	$54,927.00	
1	GRANITE CONSTRUCTION COMPANY		$10.000	$183,090.00	+233.3%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$3.000	$54,927.00	+0.0%
3	FNF CONSTRUCTION, INC.		$6.500	$119,008.50	+116.7%
8101016	CU.YD.	EROSION CONTROL (ROCK MULCH)			
Bid Rank	Department Estimate	200.000	$70.000	$14,000.00	
1	GRANITE CONSTRUCTION COMPANY		$207.000	$41,400.00	+195.7%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$150.000	$30,000.00	+114.3%
3	FNF CONSTRUCTION, INC.		$125.000	$25,000.00	+78.6%
8101018	SQ.YD.	EROSION CONTROL (STABILIZED CONSTRUCTION ENTRANCE/ EXIT GRAVEL PAD)			
Bid Rank	Department Estimate	980.000	$15.000	$14,700.00	
1	GRANITE CONSTRUCTION COMPANY		$28.000	$27,440.00	+86.7%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$15.000	$14,700.00	+0.0%
3	FNF CONSTRUCTION, INC.		$25.000	$24,500.00	+66.7%
8101035	L.FT.	EROSION CONTROL (SEDIMENT LOGS) (20")			
Bid Rank	Department Estimate	14,860.000	$5.000	$74,300.00	
1	GRANITE CONSTRUCTION COMPANY		$5.500	$81,730.00	+10.0%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$5.000	$74,300.00	+0.0%
3	FNF CONSTRUCTION, INC.		$12.000	$178,320.00	+140.0%
8050003	ACRE	SEEDING (CLASS II)			
Bid Rank	Department Estimate	24.000	$3,500.000	$84,000.00	
1	GRANITE CONSTRUCTION COMPANY		$4,129.000	$99,096.00	+18.0%
2	FISHER SAND & GRAVEL CO. DBA SOUTHWEST ASPHALT PAVIN		$4,000.000	$96,000.00	+14.3%
3	FNF CONSTRUCTION, INC.		$4,250.000	$102,000.00	+21.4%

Project: MAIN EAST - Aggregate Mining
Date: 9/12/2019
Prepared by: Peter Vesecky, PE, RLS

WORKSHEET 6A
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE–GRADING

Earthmoving Activity:

Spoil/Slope Configuration

Characterization of Dozer Used (type, size, etc.):

D6N XL Track-Type Dozer with Semi-U Blade

Description of Dozer Use (% grade, effective blade width, operating speed, etc.):

0%-6% grade range, 124" effective blade width, 3.5 mph avg. operating speed
Downhill 30%

Productivity Calculations:

Operating Adjustment Factor = .75 (operator factor) x 0.7 (material factor) x 0.25 (efficiency factor) x 1.0 * (grade factor)
x 1.0 (weight correction factor) x 1.0 (production method/blade factor) x 1.0 (visibility factor) x 1.0 (elevation factor) = 0.13

Hourly Production = 3.5 (average speed) mi/hr x 10.33 (effective blade width) ft x 5,280 ft/mi x 1 ac/43,560 ft²

= 4.38 ac/hr

Net Hourly Production = 4.38 (hourly production) ac/hr x 0.13 (operating adjustment factor) = 0.57 ac/hr

Hours Required = 0.6 (area to be graded **) ac ÷ 0.57 (net hourly production) ac/hr = 1 hr

* Conservative factors due to nature of fractured rock.

** Worst Case - ave ht 35' rock faces, 750' wide - finish slope required 2:1,
area = 35x750/2 = 26,250 / 43,560 = 0.60 acres

Data Source(s):

Caterpillar Performance Handbook, Edition 42, January 2012

CATERPILLAR PERFORMANCE HANDBOOK

a publication by Caterpillar, Peoria, Illinois, U.S.A.

JUNE 2018

Performance information in this booklet is intended for estimating purposes only. Because of the many variables peculiar to individual jobs (including material characteristics, operator efficiency, underfoot conditions, altitude, etc.), neither Caterpillar nor its dealers warrant that the machines described will perform as estimated.

NOTE: Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Materials and specifications are subject to change without notice.

SEBD0351-48

MODEL	D6N XL		D6N LGP	
Emission Standards	Tier 4 Final/Stage IV/ Japan 2014 (Tier 4 Final)		Tier 4 Final/Stage IV/ Japan 2014 (Tier 4 Final)	
Flywheel Power:				
Power Shift	124 kW	**166 hp**	124 kW	**166 hp**
Operating Weight:				
Power Shift Differential Steer	16 757 kg	**36,943 lb**	18 346 kg	**40,446 lb**
Engine Model	**C7.1 ACERT**		**C7.1 ACERT**	
Rated Engine RPM	**2200**		**2200**	
No. of Cylinders	**6**		**6**	
Bore	105 mm	**4.13"**	105 mm	**4.13"**
Stroke	135 mm	**5.3"**	135 mm	**5.3"**
Displacement	7.1 L	**433 in³**	7.1 L	**433 in³**
Track Rollers (Each Side)	**7**		**8**	
Width of Standard Track Shoe	610 mm	**24"**	840 mm	**33"**
Length of Track on Ground	2605 mm	**102.6"**	3110 mm	**122.4"**
Ground Contact Area (w/Std. Shoe)	3.18 m²	**4929 in²**	5.24 m²	**8122 in²**
Track Gauge	1890 mm	**74.4"**	2160 mm	**85"**
GENERAL DIMENSIONS:				
Height (To Top of ROPS Canopy)	**NA****		**NA****	
Height (To Top of ROPS Cab)	3088 mm	**121.6"**	3202 mm	**126"**
Overall Length (with VPAT Blade)	5035 mm	**198.2"**	5401 mm	**212.6"**
without Blade	3735 mm	**147"**	4146 mm	**163.2"**
with SU Blade	5165 mm	**203.3"**	–	
Width (over Trunnion)	2630 mm	**103.5"**	–	
Width (w/o Trunnion — Std. Shoe)*	2500 mm	**98.4"**	3000 mm	**118"**
Ground Clearance	394 mm	**15.5"**	507 mm	**20"**
Blade Types and Widths:				
Semi-U	3154 mm	**124.2"**	–	
VPAT	3272 mm	**128.8"**	4080 mm	**160.6"**
Fuel Tank Refill Capacity	277 L	**73.2 U.S. gal**	277 L	**73.2 U.S. gal**
Diesel Exhaust Fluid Refill Capacity	19 L	**5 U.S. gal**	19 L	**5 U.S. gal**

*Width (w/o Trunnion — Std. Shoe) is also w/o VPAT Blade.
**Canopy not available.

Appendix C

Reclamation Bond Summary Worksheet

Project: Main East Aggregate Mine
Date: 09/26/2019
Prepared by: Peter Vesecky

WORKSHEET 16
RECLAMATION BOND SUMMARY SHEET

1.	**Total Facility and Structure Removal Costs**	$ 4,125	
2.	**Total Earthmoving Costs**	$ 12,775	
3.	**Total Revegetation Costs**	$ 66,500	
4.	**Total Other Reclamation Activities Costs**	$ 0	
5.	**Total Direct Costs** (sum of Lines 1 through 4)	$ 83,500	
6.	***Inflated Total Direct Costs*** (Line 5 x inflation factor *)		$ 88,365
7.	**Mobilization/Demobilization (1 % of Line 6)** (1% to 10% of Line 6)	$ 884	
8.	**Contingencies (3 % of Line 6)** (3% to 5% of Line 6)	$ 2650	
9.	**Engineering Redesign Fee (2.5 % of Line 6)** (2.5% to 6% of Line 6)	$ 2209	
10.	**Contractor Profit/ Overhead (10 % of Line 6)** (see Graph 1)	$ 8837	
11.	**Project Management Fee (10 % of Line 6)** (see Graph 2)	$ 8837	
12.	***Total Indirect Costs*** (sum of Lines 7 through 11)		$ 23417
13.	**GRAND TOTAL BOND AMOUNT** (sum of Lines 6 and 12)		$ 117,872

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* **Inflation factor = ENR Construction Cost Index (CCI) for current mo/yr / ENR CCI for mo/yr 5 years prior to current mo/yr = 1.058 = _____**

Identify current month/year used in formula above: Jan 2019
Identify prior month/year used in formula above: August 2014

ENR = *Engineering News Record*, McGraw-Hill Construction Information Group, New York, NY; http://www.enr.com.

Formula assumes permit term or time until next bond adequacy evaluation is 5 years. Adjust timeframe as necessary.

Appendix D

Post-Mining Reclamation Plan

Reclamation SWPPP Measures