PERMANENTE QUARRY

RECLAMATION PLAN MINOR AMENDMENT

FOR THE UTILITY ROAD RECLAMATION AND BOUNDARY ADJUSTMENT

CALIFORNIA MINE ID NO. 91-43-0004

MARCH | 2019

Initially filed November 16, 2018, revised March 2019

Lead Agency:
Santa Clara County
Department of Planning and Development
70 West Hedding Street, East Wing, 7th Floor, San Jose, CA 95110

Operator:
Lehigh Southwest Cement Company
24001 Stevens Creek Blvd., Cupertino, CA 95104

Lehigh Hanson
HEIDELBERGCEMENT Group

TABLE OF CONTENTS

Name and Address of Owner/Operator

Hanson Permanente Cement, Inc.
Lehigh Southwest Cement Company
24001 Stevens Creek Blvd
Cupertino, California 95014
Contact: Erika Guerra
Telephone: (408) 257-7476 ext. 106
E-mail: erika.guerra@lehighhanson.com

Name and Address of Agent

Lehigh Southwest Cement Company
24001 Stevens Creek Blvd
Cupertino, California 95014
Contact: Erika Guerra
Telephone: (408) 257-7476 ext. 106
E-mail: erika.guerra@lehighhanson.com

STATEMENT OF RECLAMATION RESPONSIBILITY

I certify that the information in this reclamation plan is correct, to the best of my knowledge, and that all of the owners of possessory interest in the property in question have been notified of the planned operation and potential uses of the land after reclamation. I also certify that I am authorized on behalf of Lehigh Southwest Cement Company to accept responsibility for reclaiming the mined lands described and submitted herein, with any modification required by Santa Clara County and agreed to as conditions of approval.

Signed this 26 day of March, 2019.

Erika Guerra Digitally signed by Erika Guerra
Date: 2019.03.26 04:22:26 -07'00'

Erika Guerra
for Lehigh Hanson, Inc. (Owner/Operator)

1. INTRODUCTION

1.1 Purpose

Lehigh Southwest Cement Company (Lehigh) has prepared this minor reclamation plan amendment (Minor Amendment) to amend the approved June 26, 2012, reclamation plan and to include additional areas within the reclamation plan as requested by the Santa Clara County (County) Planning Department. The amendments will add approximately 63 acres of land to the existing 1,238.6-acre reclamation plan boundary to include:

- the existing utility road and the area immediately adjacent to the road that will be used to perform reclamation activities (e.g., erosion control) (1.3 acres of existing disturbed area);
- the existing Plant Quarry Road (5.4 acres of existing disturbed area); and
- existing maintenance roads located west of Stevens Creek Quarry (4.2 acres of existing disturbed area).

The resulting reclamation plan boundary will encompass 1,301.6 acres. The Minor Amendment will not expand the area in which mineral deposits are harvested or otherwise expand or change any aspect of the existing surface mining operations. See Figure 1, "Utility Road Footprint and Boundary Adjustment," and Figure 2, "Overall Reclamation Plan Amendment Boundary Adjustment," for a map of these areas.

1.2 Reclamation Overview

The adjustment to the reclamation plan boundary will add approximately 63 acres to the existing 1,238.6 reclamation plan boundary. This adjustment includes three new areas, as discussed in the following subsections. Figure 2 shows these areas.

1.2.1 Utility Road Area

The utility road and adjacent area totals 1.3 acres, and all reclamation activities will occur within this area (see Figure 1). The utility access road is a preexisting roadway that was previously limited to general-purpose access and utility company (currently Pacific Gas and Electric Company [PG&E]) access to power lines in the area. A portion of the utility access road is included in the approved reclamation plan (see Figure 3.16-14). In spring 2018, the road was improved to allow off-road haul trucks from the neighboring Stevens Creek Quarry to obtain aggregate material from the Permanente Quarry aggregate plant. This area has not been mined. Santa Clara County (County) directed Lehigh to cease using the utility road and amend the approved 2012 reclamation plan to include the utility road disturbance area. Use of the road for transport of mine materials to Stevens Creek Quarry has ceased at this time. The utility road will continue to be used only for intermittent light-duty vehicle access and utility company access (i.e., road use will revert to historical uses).

The existing utility road will be retained following mining operations to provide long-term access by public utilities and Lehigh, as needed. Drainage improvements that convey surface water from the utility road to the existing system of surface water controls at the rock plant area will be maintained. Improvements, monitoring, and maintenance will be consistent with the existing approved storm water pollution prevention plan (SWPPP). Where site-specific reclamation standards apply to the utility access road, they are described in this amendment.

1.2.2 Plant Quarry Road

The County has requested that Lehigh include an approximately 3,600-foot segment of the existing Plant Quarry Road within the amended Reclamation Plan boundaries, and adjacent areas, totaling 5.4 acres of disturbed area. This road is one of the primary access roads connecting the eastern and western portions of the property. A portion of the segment was constructed in or about 1939 and the entire segment was completed by 1980. Historically, the road has provided general support for cement manufacturing and mining operations on the property. The County requested that Lehigh include this road segment within the reclamation plan boundaries on the basis that the segment is currently used by off-road quarry trucks that circulate between the North Quarry and Rock Plant. These trucks transport aggregate materials from the North Quarry to the Rock Plant on a different road and use the Plant Quarry Road in their return trip to the North Quarry.

This boundary change will not involve any new reclamation closure requirements, When the road segment is no longer needed to support active mining operations, it will remain in place to provide general site access or to continue serving the cement plant, a separately permitted industrial use that is not subject to SMARA.

1.2.3 Maintenance Roads

The reclamation boundary amendment includes existing maintenance roads located westerly of the utility road, totaling approximately 4.2 acres of disturbed area. These roads are used for general maintenance and site access. Lehigh is including these roads in the Minor Amendment in light of the County's request that other access roads in the immediate area be included. This boundary change will not involve reclamation closure requirements because the roads will remain in place to provide general site access.

2. SITE DESCRIPTION

2.1 Location, Size, and Legal Description

The Permanente Quarry property includes 3,510 acres and 34 assessor's parcels. Of the total site acreage, 2,656 acres are subject to the County's land use jurisdiction (Santa Clara County 2011). The boundary adjustment for the maintenance road is within a portion of Accessor's Parcel Numbers (APNs) 351-11-001. The boundary adjustment for the utility road is with a portion of APN 351-10-033. The boundary adjustment for the Plant Quarry Road is within portions of APNs 351-10-033, 351-11-001, 351-10-008, and 351-09-022. These parcels are generally located in the southeastern portion of the property, within the County's unincorporated jurisdiction. These parcels are vested.

2.2 Vested Rights and Approved Reclamation Plans

Permanente Quarry is a "vested" surface mining operation, as determined following a County Board of Supervisors public hearing on February 8, 2011. The vested right, therefore, includes the right to continue surface mining operations within the area determined subject to those vested rights. The boundary modification and utility road are located entirely within the vested rights boundary and do not significantly change on-site activities. Therefore, this reclamation plan boundary does not intensify the existing vested, mining-related operations at the site.

The initial reclamation plan for Permanente Quarry was approved in 1985. It was comprehensively updated in 2012 to comply with all current standards under the California

Surface Mining and Reclamation Act (SMARA). The approved plan provides for a postreclamation land condition suitable for open space uses. This use is consistent with the applicable land-use policies and zoning requirements.

2.3 Planning Boundaries

The approved reclamation plan is consistent with current practices and in advance of statutory changes enacted in 2017, identified a "reclamation plan boundary" (Public Resources Code [PRC] § 2772[c][5][B]). The reclamation plan boundary is identified for planning purposes as the intended limits of mining and reclamation at the time of plan approval. Such limits must be periodically revised where additional mining operations are planned, such that reclamation is planned for all mined lands. SMARA defines "mined lands" to include appurtenant roads. (PRC § 2729.) Also, SMARA provides that a reclamation plan must identify mine-related access roads and if they will be reclaimed at the end of mining or remain for postmining use (PRC § 2772[c][5][E]). This Minor Amendment implements these requirements by incorporating the existing utility road, Plant Quarry Road, and maintenance roads into the reclamation plan boundary.

2.4 Relationship of This Amendment to Approved Reclamation Plan

SMARA recognizes that reclamation plans may need to be amended as mining progresses. In general, the 2012 reclamation plan defined the existing site conditions and the specifications for reclamation (e.g., erosion control) that continue to apply to the plan for reclamation proposed in this amendment. Table 1, "List of Approved Plan Subjects and Utility Road Amendments," provides relevant compliance elements of the approved reclamation plan and the changes provided in this amendment.

TABLE 1
LIST OF APPROVED PLAN SUBJECTS AND UTILITY ROAD AMENDMENTS

Approved Plan Subjects	Utility Road Amendment
GENERAL INFORMATION	
• Permitted Mineral Products • Production Amount (Annual/Gross) • End Date of Operations • Estimated Final Reclamation Date • End Use	No changes to approved plan
BOUNDARIES	
• Property Boundary • Reclamation Plan Boundary • Setbacks	• No change • Revised (see Figures 1 and 2) • No change
SLOPES—GRADING	
• Fill Slopes • Cut Slopes	No changes to approved plan
EROSION	
• Best Management Practices • Grading • Vegetation	Drainage improvements are installed to convey surface water from the utility road to the existing system of surface water controls at the rock plant area. Improvements, monitoring, and maintenance will be consistent with the site storm water pollution prevention plan.
PONDS	
Design—Function *Capacity (area/depth/volume)* *Maintenance*	No changes to approved plan

Approved Plan Subjects	Utility Road Amendment
STREAM AND WETLAND PROTECTION	
• Berms (distance/length/height) • BMPs • Drainage • Grading and Slopes • Stockpiles • Stream Diversions	No changes to approved plan
SENSITIVE WILDLIFE AND PLANT PROTECTION	
• List Species • Protection Measures	No changes to approved plan
SOIL/OVERBURDEN STOCKPILE MANAGEMENT	
Topsoil: *Location* *Slope Stability* *BMPs*	No changes to approved plan
Overburden: *Location* *Slope Stability* *BMPs*	No changes to approved plan
Topsoil Application: *Amendments* *Depth* *Moisture* *Application Methods*	No changes to approved plan
REVEGETATION	
• Test Plots • Species Mix • Density • Percent Cover • Species Richness • Protection • Success Monitoring • Invasive Species Control	No changes to approved plan
STRUCTURES, EQUIPMENT, CLOSURE OF ADITS, OTHER RECLAMATION PLAN REQUIREMENTS	No changes to approved plan

In accordance with PRC § 2772(b), a "Chart of Required Content" is required that provides an index identifying the page number, section, appendix, or other location in the reclamation plan and any amendments containing content meeting the requirements of PRC §§ 2772, 2773, 2773.3 and California Code or Regulations (CCR) Articles 1 and 9. This is a new requirement since the 2012 reclamation plan was approved. Appendix A, "Index of Required Content," provides that chart.

3 DESCRIPTION OF RECLAMATION ACTIVITIES

As noted in Table 1, many of the same actions and activities provided in the approved plan would be applied to the approximately 63-acre project area. A summary of the reclamation activities are provided in the following subsections.

3.1 Slope Stabilization

In response to the County's NOV discussed in Section 1.2, Lehigh retained Stantec, Inc. to perform a slope stability evaluation of the utility road. Stantec performed a geotechnical evaluation of the slope stability of the typical cut and fill slopes used for the utility road (see Appendix B, "Slope Stability Evaluation"). Stantec selected a cross section that has greater cut

and fill heights and steeper cut and fill slopes than other sections of the road and therefore provided a worst-case assessment of the road stability. Stantec concluded that the road cuts appear to be stable with minor erosion.

The results of the stability analysis concluded that the cut slopes are stable (factor of safety [FOS] greater than 1.0) during both the static and pseudo-static conditions. The fill slope is stable under static conditions, but the FOS is less than 1.0 for pseudo-static conditions. Some sloughing is likely to occur during a seismic event, but mitigating the slope movements will be limited to grading and revegetating the slope. The Stantec analysis concluded, "There is no infrastructure or any sort of facility below the road that can be impacted by potential slope movements." The road will be monitored and maintenance requirements will be tracked to help identify erosion locations and areas where additional grading may be required to minimize future erosion. The ditch along the length of the utility road will be evaluated for storm flows and armoring will be considered if peak flow velocities exceed the resisting strength of the channel material and/or erosion occurs.

Stantec recommended (and Lehigh implemented in the fall of 2018) that slopes be seeded to establish vegetation, which reduces erosion potential. The reclamation plan and SWPPP require that any necessary seeding occurs before the each rainy season. Stantec also recommended monitoring bedrock slopes for erosion, and grading these areas if necessary.

3.2 Stormwater and Erosion Control

The utility road is graded to drain along a rock-lined channel and water bars on the west side of the road. These features facilitate infiltration and settle sediment from stormwater. Approximately halfway down the road, a drop inlet collects water in the rock-lined channel and discharges through a drain pipe that conveys runoff down the slope and discharges at the bottom of the slope. Conveying runoff in a pipe reduces erosion of the utility road. Exposed slopes created during construction of the road improvements were hydroseeded after straw wattles were placed perpendicular to the slopes to reduce erosion and sediment migration. Stormwater and erosion controls during operation and reclamation activities associated with the utility road will be consistent with the approved reclamation plan (see Attachment F of the approved reclamation plan) and current SWPPP, updated in October 2018. The SWPPP includes best management practices (BMPs) such as the use of straw wattles, drainage channels, swales, silt fencing, revegetation, monitoring, and maintenance.

3.3 Revegetation

Revegetation consists of the general hydroseeding mix listed in Table 4 of the approved reclamation plan. This seed mix has been applied to exposed areas on either side of the utility road. Hydroseeding was performed on October 2018 pursuant to the timing requirements in the approved reclamation plan and will generally take place between September 1 and December 1 of each year, as needed to control potential erosion and sedimentation.

3.4 Monitoring

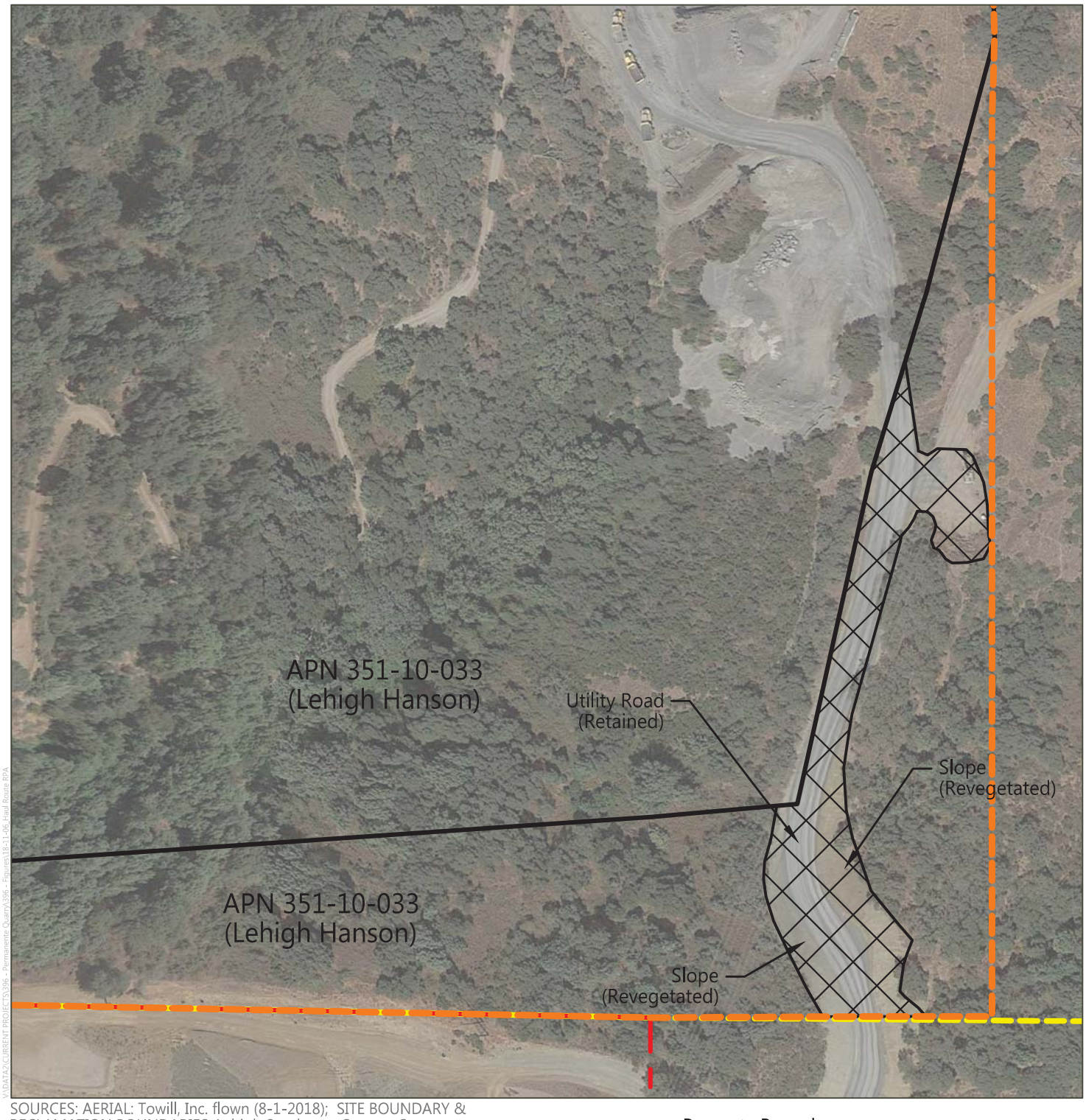
Stormwater and erosion-control monitoring and maintenance will be consistent with the approved reclamation plan and approved SWPPP.

4. FINANCIAL ASSURANCE

Permanente Quarry has an existing financial assurance posted with Santa Clara County and the California Division of Mine Reclamation in the amount of $54,657,484. This reclamation plan amendment will result in an additional 63 acres of surfaces. The utility road, Plant Quarry Road, and additional maintenance roads will remain after the site is reclaimed.

The County reviews financial assurances annually. Financial assurances are adjusted, if necessary, to reflect changes in the estimated cost of reclamation activities and lands reclaimed the previous year.

FIGURES



SOURCES: AERIAL: Towill, Inc. flown (8-1-2018); SITE BOUNDARY & RECLAMATION BOUNDARIES: Lehigh Southwest Cement Company, generated Nov. 2018; compiled by Benchmark Resources in 2019

Property Boundary

Vested Rights Boundary

Existing Reclamation Boundary

Amended Reclamation Boundary

Utility Road Disturbance Area (1.3 acres)

N

0 150 300 600 Feet

Utility Road Footprint and Boundary Adjustment

PERMANENTE QUARRY UTILITY ROAD
RECLAMATION PLAN AMENDMENT

Figure 1

SOURCES: AERIAL: Towill, Inc. flown (8-1-2018); SITE BOUNDARY & RECLAMATION BOUNDARIES: Lehigh Southwest Cement Company, generated Nov. 2018; compiled by Benchmark Resources in 2019

Property Boundary

Vested Rights Boundary

Existing Reclamation Boundary

Amended Reclamation Boundary (amended area adds an additional 63.0 acres)

Utility Road Disturbance Area (1.3 acres)

N

0 300 600 1,200 Feet

Overall Reclamation Plan Amendment Boundary Adjustment

PERMANENTE QUARRY UTILITY ROAD
RECLAMATION PLAN AMENDMENT
Figure 2

APPENDICES

APPENDIX A
INDEX OF REQUIRED CONTENT

APPENDIX A
INDEX TO REQUIRED CONTENT

Mine Name: Permanente Quarry

Reclamation Plan: Permanente Quarry Reclamation Plan Amendment (approved 2012) (RP)

End Use: Open space

Amendments: Permanente Quarry Reclamation Plan Minor Amendment, Utility Road Reclamation and Boundary Adjustment (RPA)

Date: 2019

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
GENERAL CONSIDERATIONS			
PRC 2772(b)	Required contents chart: A chart identifying the location (e.g. page number, chapter, appendix, or other location in the reclamation plan) of content that meets the requirements of PRC Sections 2772, 2773, 2773.3 and CCR Articles 1 and 9 (as delineated in this checklist).	X	This table
PRC 2772(c)(1)	Contact information: Name and address of the surface mining operator and any person designated by the operator as an agent for service of process (must reside in CA).	X	RP: Section 3.1, pg. 25 RPA: pg. ii
PRC 2772(c)(2)	Material quantity and type: The anticipated total quantity and type of minerals to be mined (see Annual Report Instructions, Exhibit B, for mineral types and units of measure).	X	RP: Section 3.2, pg. 25
PRC 2772(c)(3)	Dates: The initiation and termination dates of mining (be as specific as possible, e.g. December 31, 2030).	X	RP: Section 3.2, pg. 25
PRC 2772(c)(4)	Depth of mining: The maximum anticipated depth of surface mining in relation to a verifiable benchmark such as Mean Sea Level.	X	RP: Section 3.2, pg. 26
PRC 2772(c)(5) (A-F)	Reclamation plan maps shall include: Size and legal description of lands affected by surface mining operations;	X	RP: Attachment A; Figure 1.0-4, pg. 5
	Names and addresses of owners of all surface interests and mineral interests;	X	RP: Section 3.1, pg. 25 RPA: pg. ii
	Property lines, setbacks, and the reclamation plan boundary;	X	RP: Figures 1.0-5, 1.0-6, pgs. 6–7
	Existing and final topography with contour lines at appropriate intervals;	X	RP: Existing— RP: Figure 2.7-1, Final—3.61-14
	Detailed geologic description of the area of the surface mining operation;	X	RP: Figure 2.6-1, pg. 22
	Locations of railroads, utility features, and roads (access roads, temporary roads to be reclaimed, and any roads remaining for the end use).	X	RP: Figure 3.13-1, pg. 39
	All maps, diagrams, or calculations that are required to be prepared by a California-licensed professional shall include the preparer's name, license number, signature & seal.	X	RP: Not applicable in 2012

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
PRC 2772(c)(6)	Mining method and schedule: A description of the mining methods and a time schedule that provides for completion of mining on each segment so that reclamation can be concurrent or phased.	X	RP: Section 3.3, page 26; Section 3.16, pg. 43
PRC 2772(c)(7)	Subsequent use(s): A description of the proposed subsequent use(s) after reclamation	X	RP: Section 3.15, page 40
	Evidence that all landowners have been notified of the proposed use.	X	RPA: Pg.ii
PRC 2772(c)(9)	Impact on future mining: A statement regarding the impact of reclamation on future mining on the site.	X	RP: Section 3.22, pg. 104
PRC 2772(c)(10)	Signed statement: Statement signed by the operator accepting responsibility for reclamation of the mined lands per the reclamation plan.	X	RP: Pg. 105 RPA: Pg.ii
PRC 2776(b-c)	Pre-SMARA areas: Reclamation plans shall apply to operations conducted after January 1, 1976 or to be conducted in the future. Mined lands disturbed prior to January 1, 1976 *and not disturbed after that date* may be excluded from the reclamation plan.	X	RP: Section 3.3, pg. 28; Section 3.16, pg. 80
CCR 3502(b)(2)	Public health and safety: A description of how any potential public health and safety concerns that may arise due to exposure of the public to the site will be addressed.	X	RP: Section 3.5, pg. 31; Section 3.11, pg. 37; Section 3.21, pg. 104
CCR 3709(a)	Equipment storage and waste disposal: Designate areas for equipment storage and show on maps.	X	RP: Figures 3.3-1, pg. 29; 3.3-2, pg. 30; 3.7-1, pg. 34; 3.7-2, pg. 35; 3.7-3 pg. 36; 3.16-12, pg. 58; Waste: Figure 3.3-1, pg. 29
	All waste shall be disposed of in accordance with state and local health and safety ordinances.	X	RP: Section 3.20, pg. 104
CCR 3709(b)	Structures and equipment removed: Structures and equipment should be dismantled and removed at closure, except as demonstrated to be necessary for the proposed end use.	X	RP: Section 3.20, pg. 104
CCR 3713(a)	Well closures: Drill holes, water wells, monitoring wells will be completed or abandoned in accordance with laws, unless demonstrated necessary for the proposed end use.	X	RP: 3.20, pg. 104
CCR 3713(b)	Underground openings: Any portals, shafts, tunnels, or openings will be gated or protected from public entry, and to preserve access for wildlife (e.g. bats).	X	RP: Section 3.15, pg. 46 (conveyor tunnel)
GEOLOGY AND GEOTECHNICAL			
PRC 2772(c)(5)	A description of the general geology of the area	X	RP: Section 2.5, pg. 9

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
	A detailed description of the geology of the mine site.	X	RP: Section 2.5, pg. 9; Attachment C
PRC 2773.3	If a metallic mine is located on, or within one mile of, any "Native American sacred site" and is located in an "area of special concern, " the reclamation plan shall require that all excavations and/or excess materials be backfilled and graded to achieve the approximate original contours of the mined lands prior to mining.	—	Not applicable (NA)
CCR 3502(b)(4)	The source and disposition of fill materials used for backfilling or grading shall be considered in the reclamation plan.	X	RP: Section 3.17.2, pg. 62
CCR 3502(b)(3)	The designed steepness and treatment of final slopes must consider the physical properties of slope materials, maximum water content, and landscaping.	X	RP: Section 3.17.2, pg. 62; Attachment C RPA: Appendix B
	The reclamation plan shall specify slope angles flatter than the critical gradient for the type of slope materials.	X	RP: Section 3.17.2, pg. 62; Attachment C RPA: Appendix B
	When final slopes approach the critical gradient, a Slope Stability Analysis will be required.	X	RP: Section 3.17.2, pg. 62; Attachment C RPA: Appendix B
CCR 3704.1	Backfilling required for surface mining operations for metallic minerals.	—	NA
CCR 3704(a)	For urban use, fill shall be compacted in accordance with Uniform Building Code, local grading ordinance, or other methods approved by the lead agency.	—	NA
CCR 3704(b)	For resource conservation, compact to the standards required for that end use.	X	RP: Attachment C
CCR 3704(d)	Final reclamation fill slopes shall not exceed 2:1 (H:V), except when allowed by site-specific engineering analysis, and the proposed final slope can be successfully revegetated. See also Section 3502(b)(3).	X	RP: Section 3.17.2, pg. 62; Attachment C RPA: Appendix B
CCR 3704(e)	At closure, all fill slopes shall conform with the surrounding topography or approved end use.	X	RP: Section 3.17.2, pg. 62; Figure 3.16-13, pg. 59
CCR 3704(f)	Final cut slopes must have a minimum slope stability factor of safety that is suitable for the end use and conforms with the surrounding topography or end use.	X	RP: Section 3.17.2, pg. 62; Figure 3.16-13, pg. 59 RPA: Appendix B
HYDROLOGY AND WATER QUALITY			
PRC 2770.5	For operations within the 100-year flood plain (defined by FEMA) and within one mile up- or downstream of a state highway bridge, Caltrans must be notified and provided a 45-day review period by the lead agency.	—	NA

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
PRC 2772(c)(8)(A)	Description of the manner in which contaminants will be controlled and mine waste will be disposed.	X	RP: Section 3.15, pg. 40
PRC 2772(c)(8)(B)	The reclamation plan shall include a description of the manner in which stream banks/beds will be rehabilitated to minimize erosion and sedimentation.	X	RP: 3.19, pg. 80
PRC 2773(a)	The reclamation plan shall establish site-specific sediment and erosion control criteria for monitoring compliance with the reclamation plan.		RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3502(b)(6)	Temporary stream and watershed diversions shall be detailed in the reclamation plan.	X	RP: 3.19, pg. 80
CCR 3503(a)(2)	Stockpiles of overburden and minerals shall be managed to minimize water and wind erosion.	X	RP: Section 3.17.3.1, pg. 65
CCR 3503(b)(2)	Operations shall be conducted to substantially prevent siltation of groundwater recharge areas.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment E, F
CCR 3503(a)(3)	Erosion control facilities shall be constructed and maintained where necessary to control erosion.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3503(b)(1)	Settling ponds shall be constructed where they will provide a significant benefit to water quality.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3503(d)	Disposal of mine waste and overburden shall be stable and shall not restrict natural drainage without suitable provisions for diversion.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3503(e)	Grading and revegetation shall be designed to minimize erosion and convey surface runoff to natural drainage courses or interior basins.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
	Spillway protection shall be designed to prevent erosion.	X	RP: Section 3.18, pg. 76; Attachment F
CCR 3706(a)	Surface mining and reclamation activities shall be conducted to protect on-site and downstream beneficial uses of water.	X	RP: Section 2.8, pg. 15; RP: Section 3.18, pg. 76; Attachment F
CCR 3706(b)	Water quality, recharge potential, and groundwater storage that is accessed by others shall not be diminished.	X	RP: Section 2.8, pg. 15; RP: Section 3.18, pg. 76; Attachment F
CCR 3706(c)	Erosion and sedimentation shall be controlled during all phases of construction, operation, reclamation, and closure of surface mining operations to minimize siltation of lakes and water courses as per RWQCB/SWRCB.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
CCR 3706(d)	Surface runoff and drainage shall be controlled to protect surrounding land and water resources.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
	Erosion control methods shall be designed for not less than 20 year/1 hour intensity storm event.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3706(e)	Impacted drainages shall not cause increased erosion or sedimentation. Mitigation alternatives shall be proposed in the reclamation plan.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3706(f)(1)	Stream diversions shall be constructed in accordance with the Lake and Streambed Alteration Agreement (LSAA) between the operator and the Department of Fish and Wildlife.	X	RP: 3.19, pg. 80
CCR 3706(f)(2)	Stream diversions shall also be constructed in accordance with Federal Clean Water Act and the Rivers and Harbors Act of 1899.	X	RP: 3.19, pg. 80
CCR 3706(g)	All temporary stream diversions shall eventually be removed and the affected land reclaimed.	X	RP: 3.19, pg. 80
CCR 3710(a)	Surface and groundwater shall be protected from siltation and pollutants in accordance with the Porter-Cologne Act, the Federal Clean Water Act, and RWQCB/SWRCB requirements.	X	RP: Section 3.9, pg. 37; Section 3.18, pg. 76; Attachment F
CCR 3710(b)	In-stream mining shall be conducted in accordance with Section 1600 et seq. of the California Fish and Game Code, Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act of 1899.	—	NA
CCR 3710(c)	In-stream mining shall be regulated to prevent impacts to structures, habitats, riparian vegetation, groundwater levels, and banks.	—	NA
	In-stream channel elevations and bank erosion shall be evaluated annually using extraction quantities, cross-sections, and aerial photos.	—	NA
CCR 3712	Mine waste and tailings and mine waste disposal units are governed by SWRCB waste disposal regulations and shall be reclaimed in accordance with this article: CCR Article 1. Surface Mining and Reclamation Practice. Section 3500 et seq.	X	RP: Section 3.15, pg. 40
SENSITIVE SPECIES AND HABITAT			
CCR 3502(b)(1)	A description of the environmental setting (identify sensitive species, wildlife habitat, sensitive natural communities, e.g. wetlands).	X	RP: Section 2.9, pg. 15, Attachment D
	Impacts of reclamation on surrounding land uses.	X	RP: Section 2.3, pg. 8
CCR 3503(c)	Fish and wildlife habitat shall be protected by all reasonable measures.	X	RP: Section 3.17.1, pg. 61, Attachment D

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
CCR 3703(a)	Sensitive species shall be conserved or mitigated as prescribed by the federal and California Endangered Species Acts.	X	RP: Section 3.17.1, pg. 61, Attachment D
CCR 3703(b)	Wildlife habitat shall be established on disturbed land at least as good as pre-project, unless end use precludes its use as wildlife habitat.	—	NA
CCR 3703(c)	Wetlands shall be avoided or mitigated at 1:1 minimum for both acreage and habitat value.	X	RP: Section 3.17.1, Section 18, pg. 76; pg. 61, Attachment D
CCR 3704(g)	Piles or dumps shall not be placed in wetlands without mitigation.	X	RP: Section 3.15, pg. 40; Section 3.17.3.1, pg. 65
CCR 3710(d)	In-stream mining shall not cause fish to be trapped in pools or off-channel pits, or restrict migratory or spawning activities.	—	NA
TOPSOIL			
CCR 3503(a)(1)	Removal of vegetation and overburden preceding mining shall be kept to a minimum.	X	RP: Section 3.4, pg. 31
CCR 3503(f)	When the reclamation plan calls for resoiling, mine waste shall be leveled and covered with a layer of finer material. A soil layer shall then be placed on this prepared surface.	X	RP: Section 3.17.3, pg. 64; Attachment B
	The use of soil conditioners, mulches, or imported topsoil shall be considered where such measures appear necessary.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3704(c)	Mine waste shall be stockpiled to facilitate phased reclamation and kept separate from topsoil or other growth media.	X	RP: Section 3.17.3, pg. 64; Attachment B; Section 3.16, pg. 43
CCR 3705(e)	If soil is altered or other than native topsoil, soil analysis is required. Add fertilizers or soil amendments if necessary.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3711(a)	All salvageable topsoil shall be removed as a separate layer.	X	RP: Section 3.17.3, pg. 64; Attachment B
	Topsoil and vegetation removal should not precede mining by more than one year.	X	RP: Section 3.4, pg. 31, Attachment B
CCR 3711(b)	Topsoil resources shall be mapped prior to stripping and location of topsoil stockpiles shown on map included in the reclamation plan.	X	RP: Section 3.4, pg. 31, Section 3.17.3, pg. 64; Attachment B
	Topsoil and other growth media shall be maintained in separate stockpiles.	X	RP: Section 3.4, pg. 31, Section 3.17.3, pg. 64; Attachment B
	Test plots may be required to determine the suitability of growth media for revegetation purposes.	X	RP: Section 3.17.3.3, pg. 72

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
CCR 3711(c)	Soil salvage operations and phases of reclamation shall be set forth in the reclamation plan to minimize the area disturbed and to achieve maximum revegetation success.	X	RP: Section 3.4, pg. 31; Section 3.17.3, pg. 64; Attachment B
CCR 3711(d)	Topsoil and growth media shall be used to phase reclamation as soon as can be accommodated following the mining of an area.	X	RP: Section 3.4, pg. 31; Section 3.16, pg. 43; Section 3.17.3, pg. 64; Attachment B
	Topsoil stockpiles shall not be disturbed until needed for reclamation.	X	RP: Section 3.4, pg. 31; Section 3.17.3, pg. 64; Attachment B
	Topsoil stockpiles shall be clearly identified with signs.	X	RP: Section 3.4, pg. 31; Section 3.17.3, pg. 64; Attachment B
	Topsoil shall be planted with vegetation or otherwise protected to prevent erosion and discourage weeds.	X	RP: Section 3.4, pg. 31; Section 3.17.3, pg. 64; Attachment B
CCR 3711(e)	Topsoil shall be redistributed in a manner resulting in a stable, uniform thickness consistent with the end use.	X	RP: Section 3.4, pg. 31; Section 3.17.3, pg. 64; Attachment B
REVEGETATION			
PRC 2773(a)	The reclamation plan shall be specific to the property and shall establish site-specific criteria for evaluating compliance with the reclamation plan with respect to revegetation.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3503(g)	Available research regarding revegetation methods and selection of species given the topography, resoiling characteristics, and climate of the mined areas shall be used.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(a)	Baseline studies shall be conducted prior to mining activities to document vegetative cover, density, and species richness.	X	RP: Section 3.17.3, pg. 64; Attachment B
	Vegetative cover shall be similar to surrounding habitats and self-sustaining.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(b)	Test plots shall be conducted simultaneously with mining to ensure successful implementation of the proposed revegetation plan.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(c)	Decompaction methods, such as ripping and disking, shall be used in areas to be revegetated to establish a suitable root zone for planting.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(d)	Roads shall be stripped of roadbase materials, resoiled, and revegetated, unless exempted.	X	RP: Section 3.15, pg. 40

Authority	Requirements/Practices/Standards	Applicable	Source/Page or Explanation
CCR 3705(f)	Temporary access shall not disrupt the soil surface on arid lands except where necessary for safe access. Barriers shall be installed to keep unauthorized vehicles out.	X	RP: Section 3.15, pg. 40; Section 3.17.3, pg. 64; Attachment B
CCR 3705(g)	Use local native plant species (unless non-native species meet the end use).	X	RP: Section 3.17.3, pg. 64; Attachment B
	Areas to be developed for industrial, commercial, or residential shall be revegetated for the interim period to control erosion.	—	NA
CCR 3705(h)	Planting shall be conducted during the most favorable period of the year for plant establishment.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(i)	Use soil stabilizing practices and irrigation when necessary to establish vegetation.	X	RP: Section 3.18, pg. 76
CCR 3705(j)	If irrigation is used, demonstrate that revegetation has been self-sustaining without irrigation for two years prior to the release of financial assurance.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(k)	Weeds shall be monitored and managed.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR 3705(l)	Plant protection measures such as fencing and caging shall be used where needed for revegetation success. Protection measures shall be maintained until revegetation efforts are successfully completed and the lead agency authorizes removal.	X	RP: Section 3.17.3, pg. 64; Attachment B
CCR3705(m)	Quantitative success standards for vegetative cover, density, and species richness shall be included in the reclamation plan.	X	RP: Section 3.17.3, pg. 64; Attachment B
	Monitoring to occur until success standards have been achieved.	X	RP: Section 3.17.3, pg. 64; Attachment B
	Sampling techniques for measuring success shall be specified. Sample size must be sufficient to provide at least an 80 percent statistical confidence level.	X	RP: Section 3.17.3, pg. 64; Attachment B
AGRICULTURE			
CCR 3707(a)	Where the end use will be agriculture, prime agricultural land shall be returned to a fertility level specified in the reclamation plan.	—	NA
CCR 3707(b)	Segregate and replace topsoil in proper sequence by horizon in prime agricultural soils.	—	NA
CCR 3707(c)	Post reclamation productivity rates for prime agricultural land must be equal to pre-project condition or to a similar site for two consecutive years.	—	NA
	Productivity rates shall be specified in the reclamation plan.	—	NA
CCR 3707(d)	If fertilizers and amendments are applied, they shall not cause contamination of surface or groundwater.	X	RP: Attachment B
CCR 3708	For sites where the end use is to be agricultural, non-prime agricultural land must be reclaimed to be capable of sustaining economically viable crops common to the area.	—	NA

APPENDIX B
SLOPE STABILITY EVALUATION

To:	Talia Flagan	From:	Paul Kos
	Lehigh Hanson		Denver CO Office
File:	Lehigh Utility Road Geotech Review Stantec PN 233001289	Date:	March 13, 2019

Response to Notice of Violation Regarding the Existing Utility Road

Background

Lehigh Hanson improved an approximately 800-foot long portion of an existing utility road that climbs southerly from the Permanente aggregate plant and continues along a ridge toward the neighboring quarry site (**Figure 1**). The alignment has been in use for 50 plus years and does not represent an engineered design. This roadway began as a narrow, bulldozed exploration and utility access road. It was subsequently used as a maintenance road to access this portion of the property, and by Pacific Gas and Electric Company (PG&E) to access power lines in the area. The road was improved to also allow for off-site materials transport. The utility road would continue to be used for one or more of these purposes following mining operations.

Figure 1: Utility Road Location

Existing Conditions

The utility road was improved along its preexisting alignment. While the road appears to have been built without an engineered design, it is within typical mining industry standards for grading, slopes, and drainage controls. A key consideration of this road is the fact that it is an internal road that cannot be accessed by the public and will remain as it serves the primary access to the southern property and an easement for PG&E. Roads such as this are typically constructed following existing site practices that have been proven to work at the site, thus little to no engineering is required. Photographs of the improved road are included below. **Figure 2** shows the observed current road cross-section and presents the range of excavation heights. **Figure 3** shows the observed current fill profile. It should be noted that the slopes pictured have been revegetated since these photographs were taken.

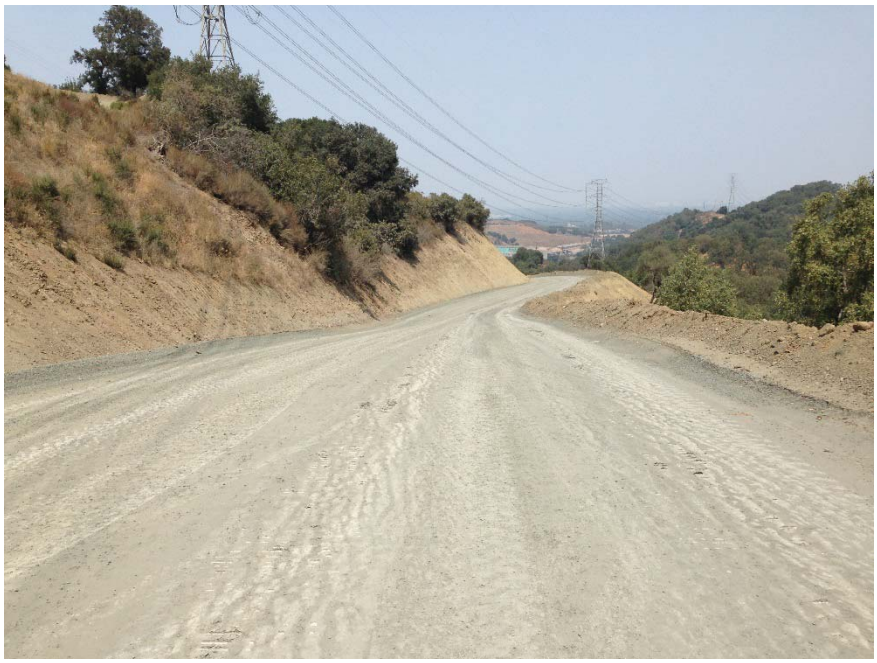


Figure 2: Observed Current Road Cross-Section

Figure 3: Observed Current Road Fill Profile

The road is steep compared to public roads with grades up to 20%. These grades are common for unpaved access roads not intended for public use and mine haul roads. The road is sloped toward the hillside, which directs stormwater to the inside of the road. Water flows either to the aggregate plant at Permanente Quarry to the north or Stevens Creek Quarry to the south, where it enters one of the existing stormwater management systems.

A safety berm was constructed on the outside edge of the utility road, consistent with MSHA requirements and standard safety practices, and improves the safety of maintenance or utility worker use. This configuration consisting of a berm on the outside and a ditch on the inside is a preferred design for haul roads, because it limits the potential for discharges to the environment. The cut slopes vary, but they are generally steep at approximately 1:1. The cut heights are up to 30 feet. The fill slopes are also steep at approximately 1.3:1, with fill slopes up to 50 feet high. Temporary internal mine roads are often constructed with cut and fill slopes in this range, and any erosion that occurs is managed by the site maintenance crews. Stantec personnel visited the utility road, and no cracking, slumping, or any other signs of slope movement were identified. An example of a current cross-section of the existing utility road, using topography based on a recent LIDAR survey, is included as **Figure 4**.

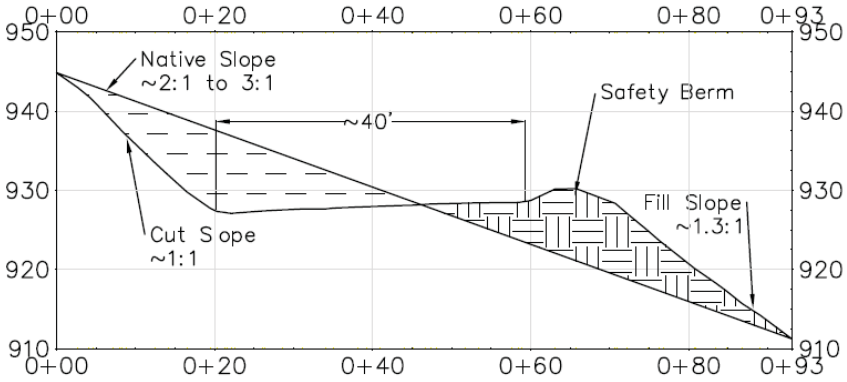


Figure 4: Existing Typical Haul Road Configuration

Slope Stability Discussion

Comment 5 of the NOV requires Lehigh to submit slope stability calculations pursuant to California Code of Regulations, Title 14, § 3704(f). This regulation applies to final cut slopes and requires a slope stability factor of safety suitable with the proposed end land use. As discussed above, the utility road will be retained following mine reclamation for internal site access and will not be open for public use.

Slope Stability Evaluation

Stantec performed a geotechnical evaluation of the slope stability of the typical cut and fill slopes for the improved road. The evaluated cross-section selected has greater cut and fill heights and steeper cut and fill slopes than other sections of the road and therefore provides a worst-case assessment of the road stability. The bedrock for the evaluation consists of greenstone based on observation of the roadcuts by Stantec engineers. These road cuts appear to be stable with minor erosion.

The greenstone rock strength varies in the project area, depending on the amount of shearing and weathering that has occurred at each location. Low-quality rock is not known to be present in the immediate area of the road, and median strength parameters were used for this assessment. These parameters, listed in **Table 1** below, are consistent with previous analyses performed for roads and highwalls at the Lehigh property (Golder, 2011).

The fill material rock strength is consistent with the material strength parameters used for waste rock fill slope assessments at the Lehigh property (Golder, 2011). The waste rock at the property generally consists of greenstone, and Stantec feels the shear strength values are representative of the materials that will be encountered, albeit conservative due to no consideration for cohesion. There is a thin layer of residual soil between the greenstone and fill material, and Stantec used material strength parameters for soils that have previously been used for slope assessments at the Lehigh property (Golder, 2011) for this material. These parameters are listed in **Table 1** below.

Table 1: Shear Strength Values

Material	Unit Weight (pcf)	Friction Angle (degrees)	Cohesion (psf)
Fill	125	35	0
Soil	120	30	200
Greenstone	165	23	1,400

Stantec modeled the slope stability factors of safety for static and pseudo-static conditions using Slope/W 2012 (Version 8.14) software. Slope/W performs a two-dimensional, limit-equilibrium analysis to calculate the factor of safety. The pseudo-static analysis used a seismic coefficient of 0.15, which is consistent with previous analyses at the Lehigh property (Golder, 2011).

The slope stability results identify the minimum factors of safety for each analysis, and these results are included in **Table 2** below and in **Attachment 1**. The results indicate that the cut slopes are stable (FOS>1.0) during both the static and pseudo-static conditions. The fill slope is stable under static conditions, but the FOS is less than 1.0 for pseudo-static conditions. This suggests that some sloughing is likely to occur during a seismic event but mitigating the slope movements would be limited to grading and revegetating the slope. There is no infrastructure or any sort of facility below the road that can be impacted by potential slope movements.

Table 2: Slope Stability Results

Slope	Static FOS	Pseudo-Static FOS
Cut Slope	2.16	1.70
Fill Slope	1.06	0.78

The utility road was improved following accepted mining practices and based on the results of the stability analyses is considered to be stable for internal use. Any erosion or sloughing that occurs during a seismic event is expected to be minor and managed through routine inspections and maintenance.

Recommendations for Further Investigations

The foregoing results are based on limited data. Should a more refined analysis or verification be necessary, Stantec recommends a further geologic and geotechnical investigation to evaluate the road configuration for slope stability, drainage, and practicality. This investigation should identify stable areas (i.e. solid rock) and determine if there are any areas along the alignment that have an increased potential for erosion or slope stability issues. The investigation should include an evaluation of soil type and depth, weathered bedrock locations and extent of weathering, shear zones, and rock type and structure. The existing roadcuts should provide adequate access and coverage of the area of interest. No drilling should be expected, but test pits may be required to confirm soil depths. A significant database of laboratory strength testing results exists for this site, and the rock types can be compared to this existing data set. However, should conditions be outside the range of typical rock conditions, likely due to weathering or structure, Stantec recommends laboratory testing of the materials in question to obtain location-specific strength parameters.

Recommendations for Future Actions

Stantec recommends several actions to improve the functionality of the road and minimize erosion and maintenance requirements. Foremost, the slopes should continue to be seeded to establish vegetation, which will reduce erosion. Similar to what was completed in 2018, the seeding should occur before each rainy season, as necessary.

Sections identified during any future geotechnical evaluation as having soil or weathered bedrock could be laid back or otherwise supported to improve the stability of the cut slope if possible. Unconsolidated fill and highly weathered material should be graded to a 2:1 slope where possible to promote slope stability and reduce erosion. These areas may be graded to a steeper slope where necessary to limit the disturbance area; however, this may result in an increase in maintenance requirements. Bedrock slopes should be monitored for erosion, and these areas graded if necessary. A typical road design showing limited fill placement is included as **Figure 5**.

Stantec also recommends monitoring the road and tracking maintenance requirements to help identify erosion locations quickly and areas where additional grading may be required to minimize future erosion. The ditch along the length of the utility road should be evaluated for storm flows and armoring should be considered if peak flow velocities exceed the resisting strength of the channel material and/or erosion occurs.

Response to Notice of Violation Regarding the Existing Utility Road

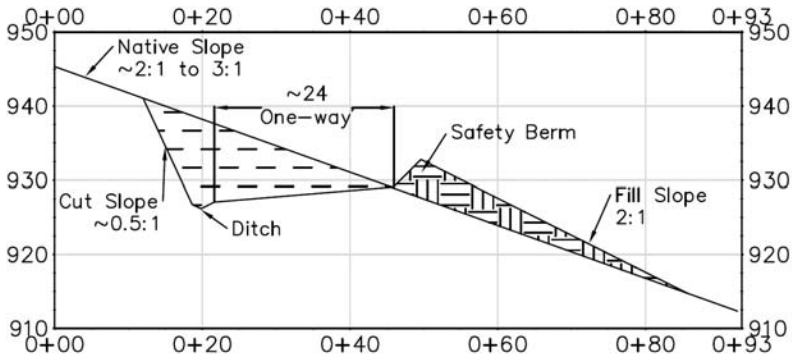


Figure 5: Recommended Typical Haul Road Design

Closure

This report has been prepared for Lehigh Hanson to provide a conceptual evaluation of the recent improvements to the existing utility road based on site observations and provided data. Future studies are expected to verify the assumed conditions, and this should be confirmed prior to the commencement of any construction activities. As mutual protection to Lehigh, the public, and Stantec, this memorandum and its figures are submitted for exclusive use by Lehigh Hanson. We specifically disclaim any responsibility for losses or damages incurred through the use of our work for a purpose other than as described in this memorandum. Our memorandum and recommendations should not be reproduced, except in whole, without our express written permission.

Stantec Consulting Services Inc.

Paul Kos, P.E.
Senior Geological Engineer

Phone: (720) 889-6122
Paul.Kos@stantec.com

Caroline Randolph Loar, CEG
Associate, Engineering Geologist

(303) 382-4968
Carolyn.RandolphLoar@stantec.com

Response to Notice of Violation Regarding the Existing Utility Road

Attachment: Stevens Creek Quarry NOV Response
Stability Analysis Results

Reference: Golder, 2011. Geotechnical Evaluations and Design Recommendations (Revised), Permanente Quarry Reclamation Plan Update, Santa Clara County, California, Revision 1.1_12-7-11. November 2011.

March 13, 2019

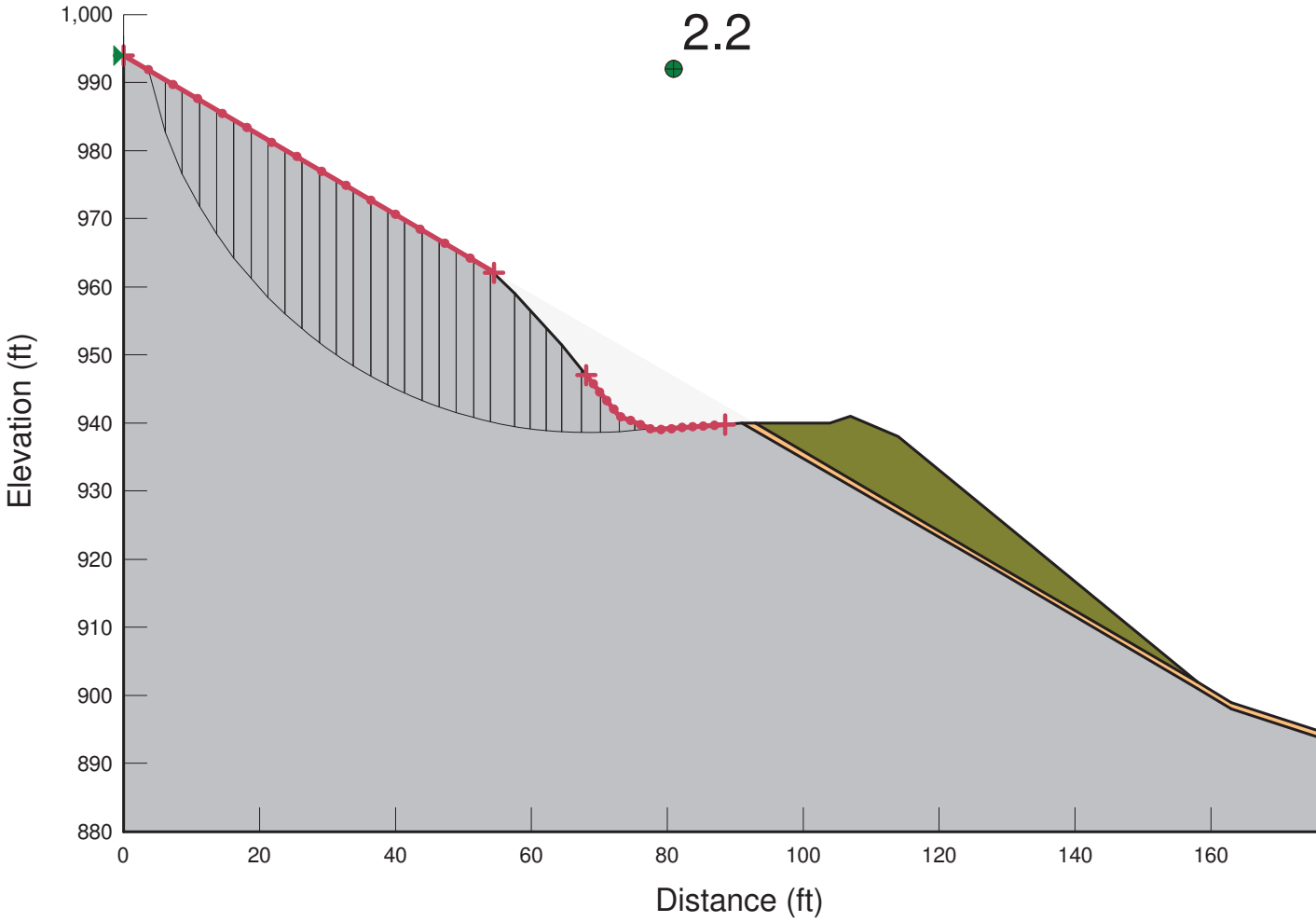
Response to Notice of Violation Regarding the Existing Utility Road

Attachment 1

Slope Stability Analysis Results

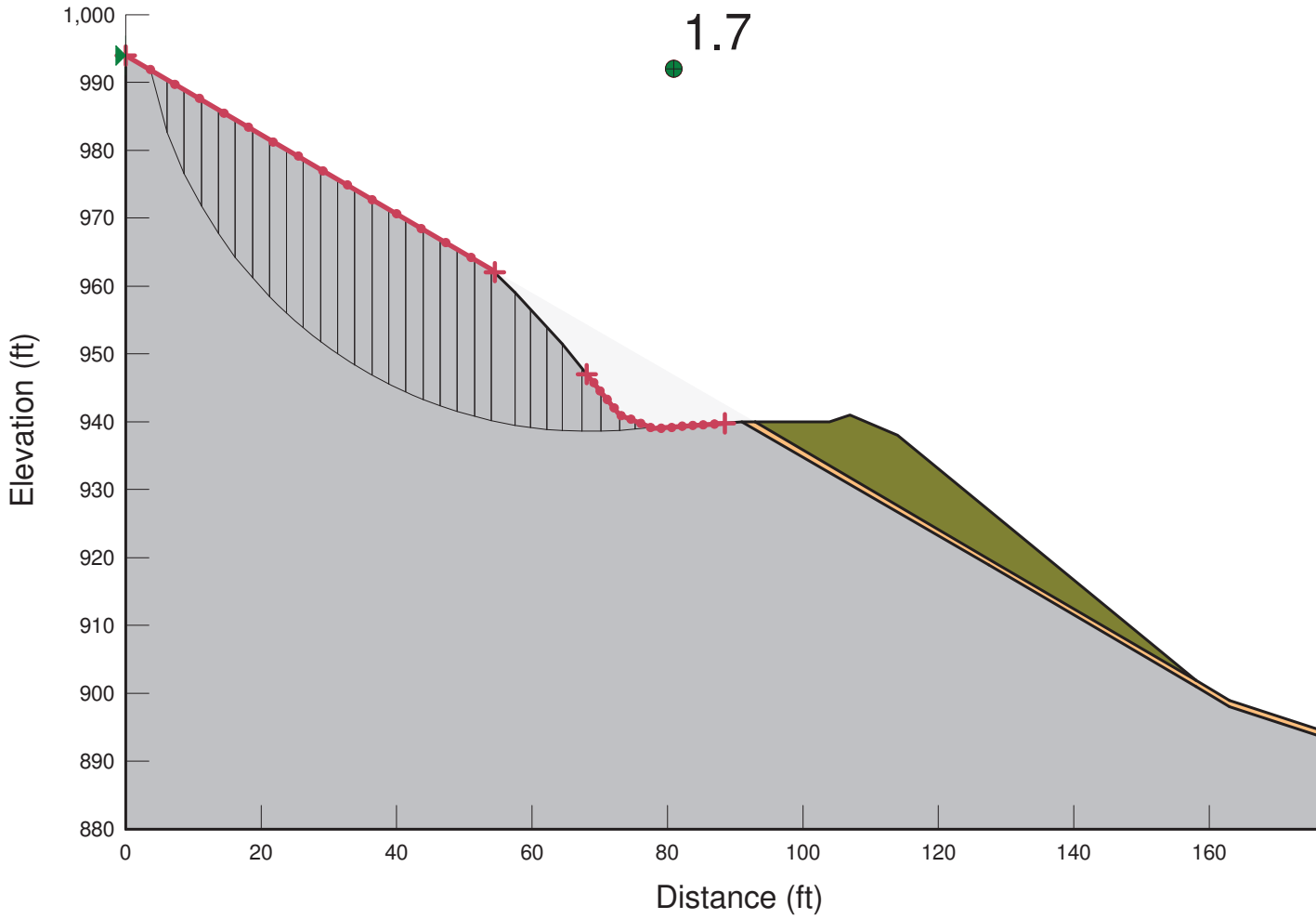
File Name: Existing Road.gsz
Name: 1. Cut Slope
Method: Spencer

Name: Waste Rock Unit Weight: 125 pcf Cohesion': 0 psf Phi': 35 °
Name: Residual Soil Unit Weight: 120 pcf Cohesion': 200 psf Phi': 30 °
Name: Greenstone Unit Weight: 165 pcf Cohesion': 1,400 psf Phi': 23 °



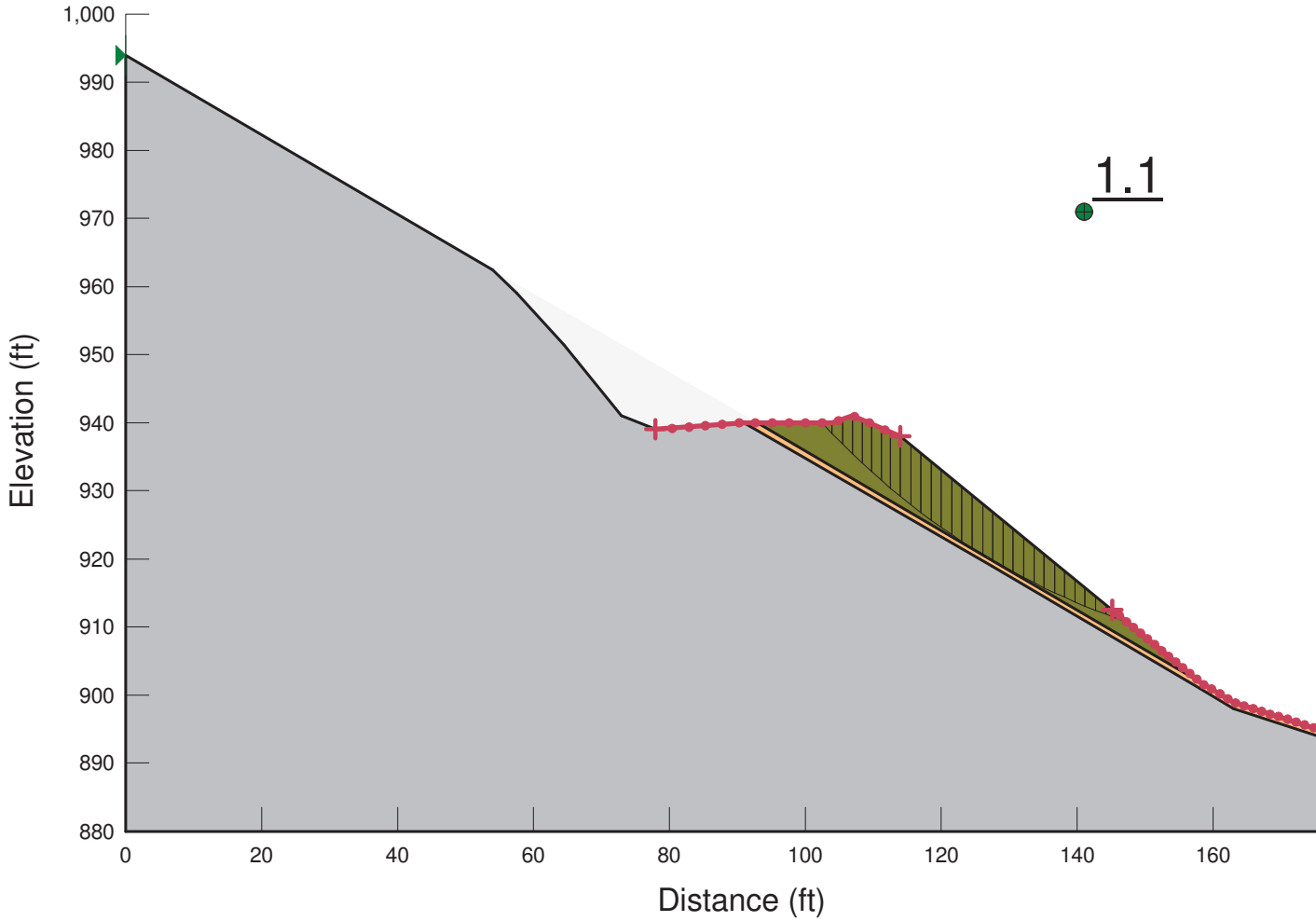
File Name: Existing Road.gsz
Name: 1. Cut Slope - Pseudo-static
Method: Spencer

Name: Waste Rock Unit Weight: 125 pcf Cohesion': 0 psf Phi': 35 °
Name: Residual Soil Unit Weight: 120 pcf Cohesion': 200 psf Phi': 30 °
Name: Greenstone Unit Weight: 165 pcf Cohesion': 1,400 psf Phi': 23 °



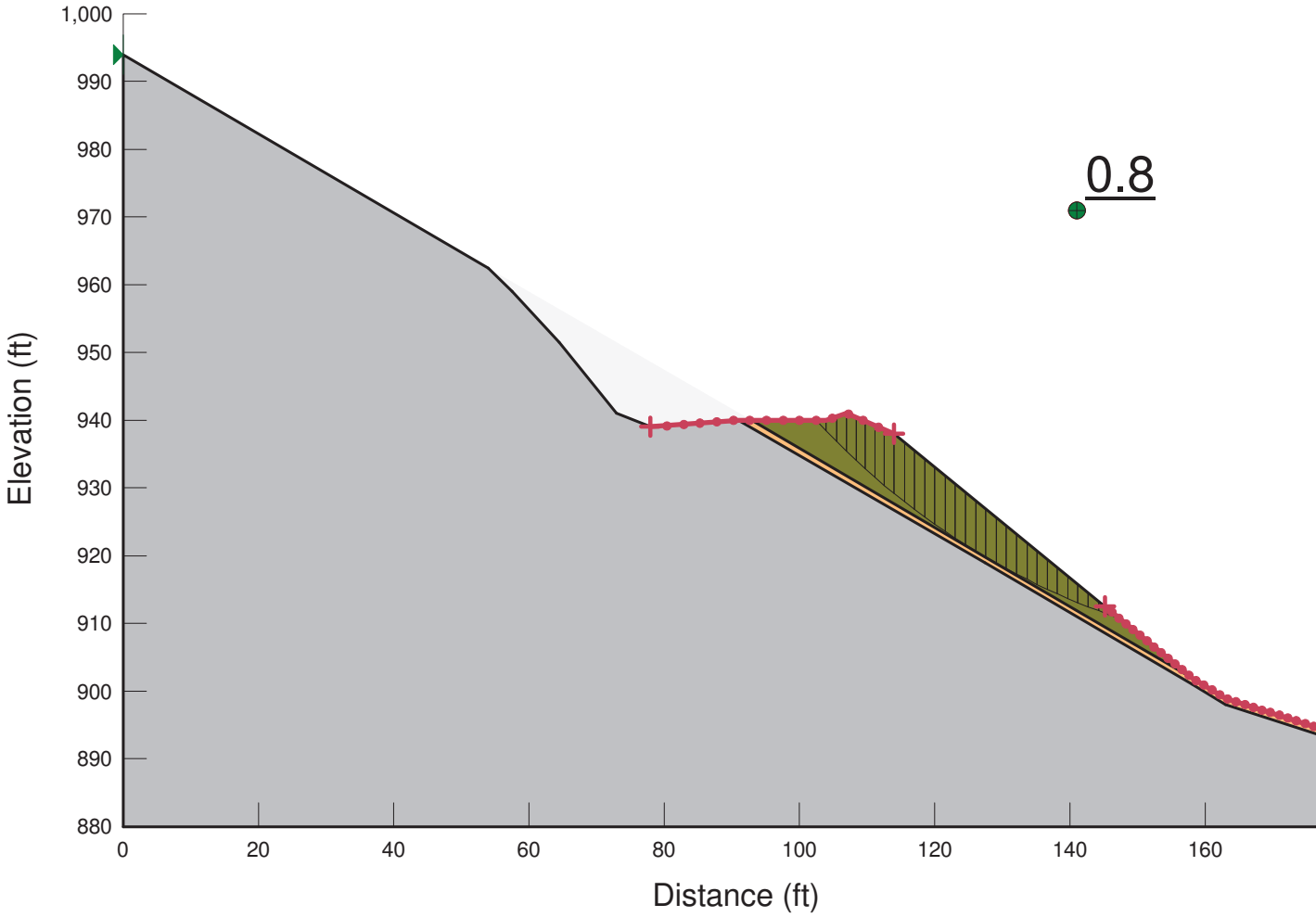
File Name: Existing Road.gsz
Name: 2. Fill Slope
Method: Spencer

Name: Waste Rock Unit Weight: 125 pcf Cohesion': 0 psf Phi': 35 °
Name: Residual Soil Unit Weight: 120 pcf Cohesion': 200 psf Phi': 30 °
Name: Greenstone Unit Weight: 165 pcf Cohesion': 1,400 psf Phi': 23 °



File Name: Existing Road.gsz
Name: 2. Fill Slope - Pseudo-static
Method: Spencer

Name: Waste Rock Unit Weight: 125 pcf Cohesion': 0 psf Phi': 35 °
Name: Residual Soil Unit Weight: 120 pcf Cohesion': 200 psf Phi': 30 °
Name: Greenstone Unit Weight: 165 pcf Cohesion': 1,400 psf Phi': 23 °



PERMANENTE QUARRY RECLAMATION PLAN MINOR AMENDMENT FOR THE UTILITY ROAD RECLAMATION AND BOUNDARY ADJUSTMENT

PROJECT DESCRIPTION

PURPOSE

Lehigh Southwest Cement Company (Lehigh) has prepared this minor reclamation plan amendment (Minor Amendment) to amend the approved June 26, 2012, reclamation plan and to include additional areas within the reclamation plan as requested by the Santa Clara County (County) Planning Department. The amendments will add approximately 63 acres of land to the existing 1,238.6-acre reclamation plan boundary to include:

- the existing utility road and the area immediately adjacent to the road that will be used to perform reclamation activities (e.g., erosion control) (1.3 acres of existing disturbed area);
- the existing Plant Quarry Road (5.4 acres of existing disturbed area); and
- existing maintenance roads located west of Stevens Creek Quarry (4.2 acres of existing area).

The resulting reclamation plan boundary will encompass 1,301.6 acres. The Minor Amendment will not expand the area in which mineral deposits are harvested or otherwise expand or change any aspect of the existing surface mining operations. See Figure 1, "Utility Road Footprint and Boundary Adjustment," and Figure 2, "Overall Reclamation Plan Amendment Boundary Adjustment," for a map of these areas.

RECLAMATION OVERVIEW

The adjustment to the reclamation plan boundary will add approximately 63 acres to the existing 1,238.6 reclamation plan boundary. This adjustment includes three new areas, as discussed in the following subsections. Figure 2 shows these areas.

Utility Road Area

The utility road and adjacent area totals 1.3 acres, and all reclamation activities will occur within this area (see Figure 1). The utility access road is a preexisting roadway that was previously limited to general-purpose access and utility company (currently Pacific Gas and Electric Company [PG&E]) access to power lines in the area. A portion of the utility access road is included in the approved reclamation plan (see Figure 3.16-14). In spring 2018, the road was improved to allow off-road haul trucks from the neighboring Stevens Creek Quarry to obtain aggregate material from the Permanente Quarry aggregate plant. This area has not been mined. Santa Clara County (County) directed Lehigh to cease using the utility road and amend the approved 2012 reclamation plan to include the utility road disturbance area. Use of the road for transport of mine materials to Stevens Creek Quarry has ceased at this time. The utility road will continue to be used only for intermittent light-duty vehicle access and utility company access (i.e., road use will revert to historical uses).

The existing utility road will be retained following mining operations to provide long-term access by public utilities and Lehigh, as needed. Drainage improvements that convey surface water from the utility road to the existing system of surface water controls at the rock plant area will be maintained. Improvements, monitoring, and maintenance will be consistent with the existing

approved storm water pollution prevention plan (SWPPP). Where site-specific reclamation standards apply to the utility access road, they are described in this amendment.

Plant Quarry Road

The County has requested that Lehigh include an approximately 3,600-foot segment of the existing Plant Quarry Road within the amended Reclamation Plan boundaries, and adjacent areas totaling 5.4 acres of existing disturbed area. This road is one of the primary access roads connecting the eastern and western portions of the property. A portion of the segment was constructed in or about 1939 and the entire segment was completed by 1980. Historically, the road has provided general support for cement manufacturing and mining operations on the property. The County requested that Lehigh include this road segment within the reclamation plan boundaries on the basis that the segment is currently used by off-road quarry trucks that circulate between the North Quarry and Rock Plant. These trucks transport aggregate materials from the North Quarry to the Rock Plant on a different road and use the Plant Quarry Road in their return trip to the North Quarry.

This boundary change will not involve reclamation closure requirements. When the road segment is no longer needed to support active mining operations, it will remain in place to provide general site access or to continue serving the cement plant, a separately permitted industrial use that is not subject to SMARA.

Maintenance Roads

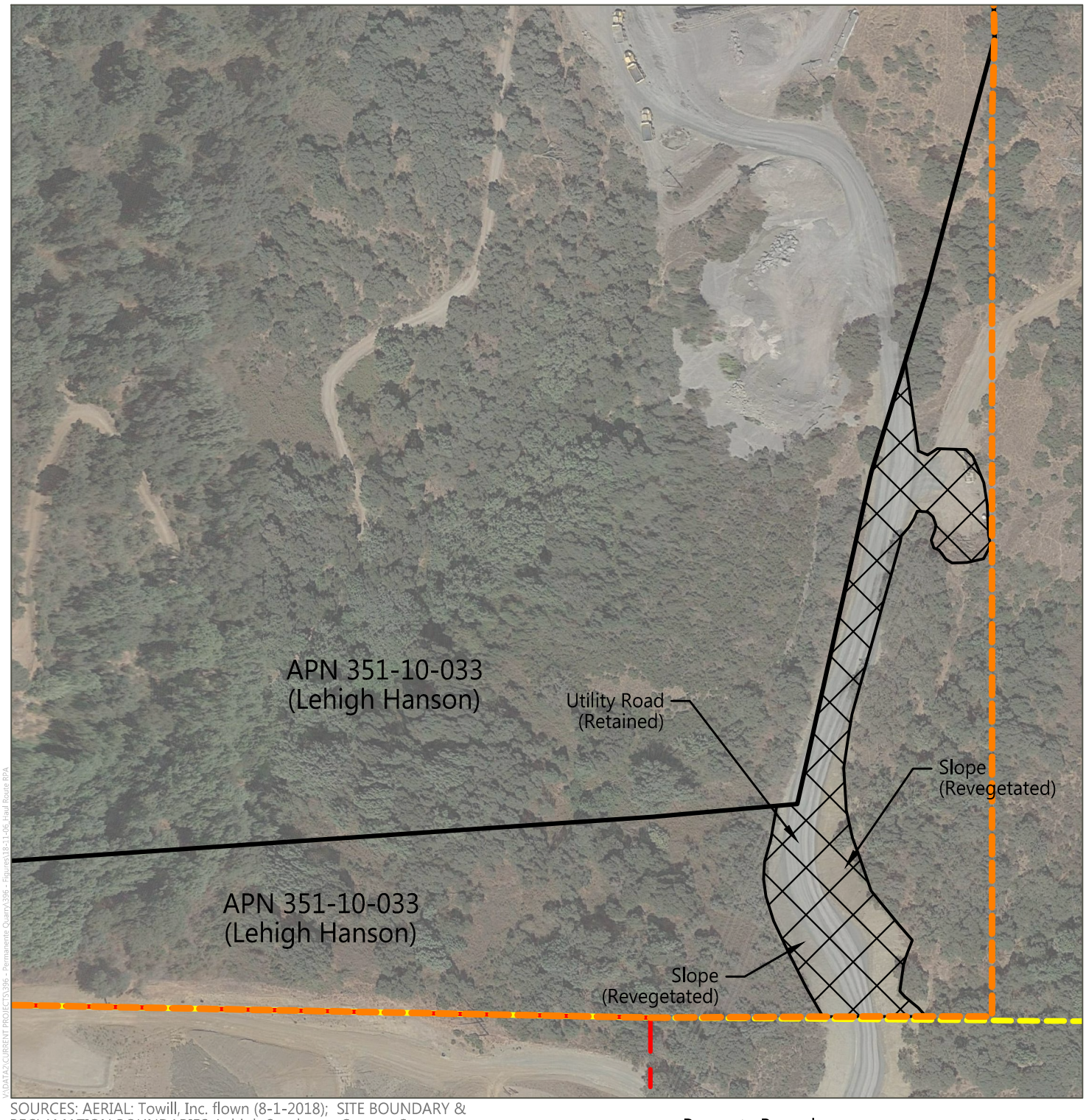
The reclamation boundary amendment includes existing maintenance roads located westerly of the utility road. These roads are used for general maintenance and site access and constitute approximately 4.2 of existing disturbed area. This boundary change will not involve reclamation closure requirements because the roads will remain in place to provide general site access.

LOCATION, SIZE, AND LEGAL DESCRIPTION

The Permanente Quarry property includes 3,510 acres and 34 assessor's parcels. Of the total site acreage, 2,656 acres are subject to the County's land use jurisdiction (Santa Clara County 2011). The boundary adjustment for the maintenance road is within a portion of Accessor's Parcel Numbers (APNs) 351-11-001. The boundary adjustment for the utility road is with a portion of APN 351-10-033. The boundary adjustment for the Plant Quarry Road is within portions of APNs 351-10-033, 351-11-001, 351-10-008, and 351-09-022. These parcels are generally located in the southeastern portion of the property, within the County's unincorporated jurisdiction. These parcels are vested.

VESTED RIGHTS AND APPROVED RECLAMATION PLANS

Permanente Quarry is a "vested" surface mining operation, as determined following a County Board of Supervisors public hearing on February 8, 2011. The vested right, therefore, includes the right to continue surface mining operations within the area determined subject to those vested rights. The boundary modification and utility road are located entirely within the vested rights boundary and do not significantly change on-site activities. Therefore, this reclamation plan boundary does not intensify the existing vested, mining-related operations at the site.



SOURCES: AERIAL: Towill, Inc. flown (8-1-2018); SITE BOUNDARY & RECLAMATION BOUNDARIES: Lehigh Southwest Cement Company, generated Nov. 2018; compiled by Benchmark Resources in 2019

Property Boundary

Vested Rights Boundary

Existing Reclamation Boundary

Amended Reclamation Boundary

Utility Road Disturbance Area (1.3 acres)

N

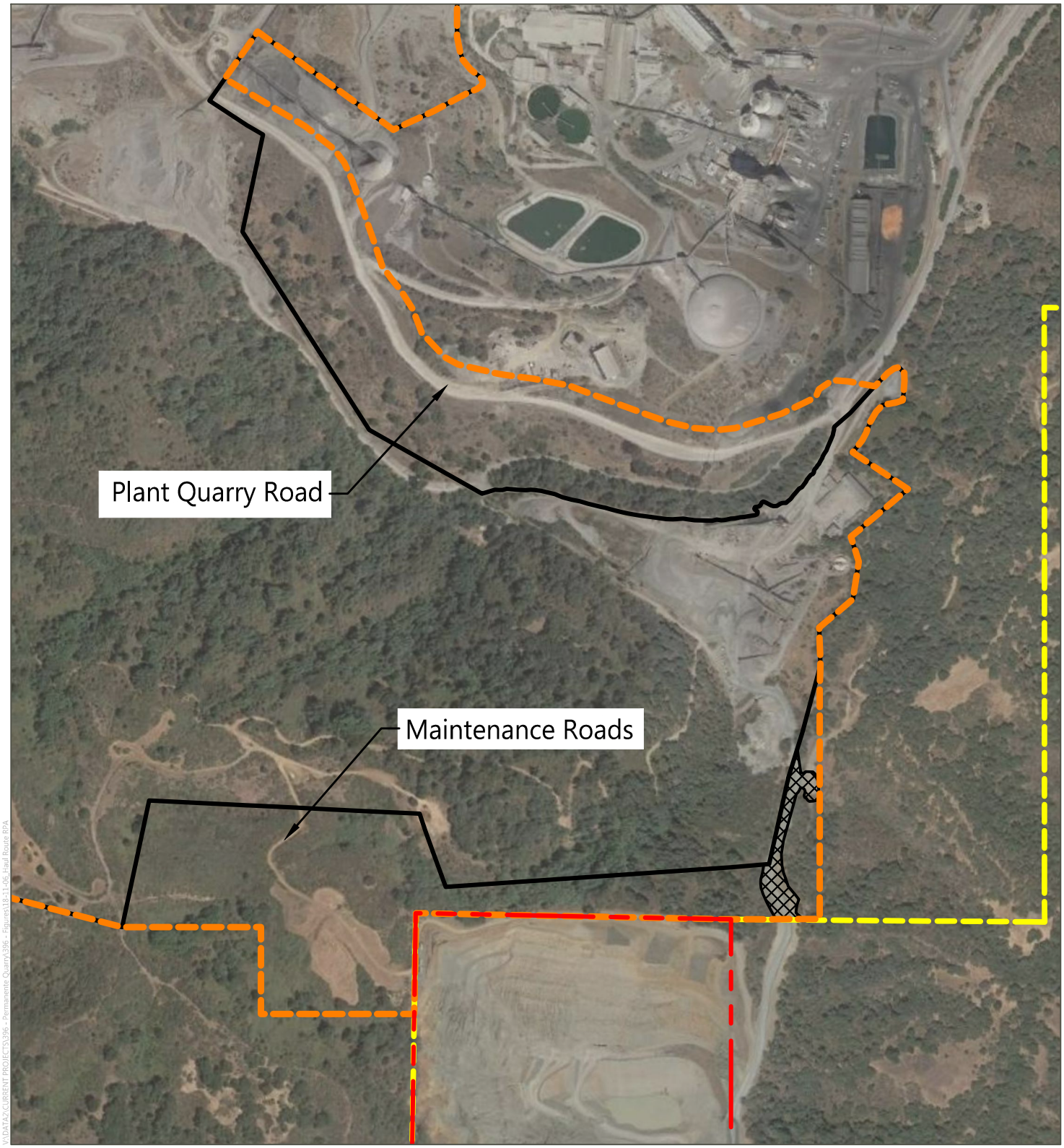
0 150 300 600 Feet

Utility Road Footprint and Boundary Adjustment

PERMANENTE QUARRY UTILITY ROAD
RECLAMATION PLAN AMENDMENT

Figure 1

THIS PAGE
INTENTIONALLY
LEFT BLANK



SOURCES: AERIAL: Towill, Inc. flown (8-1-2018); SITE BOUNDARY & RECLAMATION BOUNDARIES: Lehigh Southwest Cement Company, generated Nov. 2018; compiled by Benchmark Resources in 2019

Property Boundary

Vested Rights Boundary

Existing Reclamation Boundary

Amended Reclamation Boundary (amended area adds an additional 63.0 acres)

Utility Road Disturbance Area (1.3 acres)

N

0 300 600 1,200 Feet

Overall Reclamation Plan Amendment Boundary Adjustment

PERMANENTE QUARRY UTILITY ROAD
RECLAMATION PLAN AMENDMENT

Figure 2

THIS PAGE
INTENTIONALLY
LEFT BLANK

The initial reclamation plan for Permanente Quarry was approved in 1985. It was comprehensively updated in 2012 to comply with all current standards under the California Surface Mining and Reclamation Act (SMARA). The approved plan provides for a postreclamation land condition suitable for open space uses. This use is consistent with the applicable land-use policies and zoning requirements.

PLANNING BOUNDARIES

The approved reclamation plan is consistent with current practices and in advance of statutory changes enacted in 2017, identified a "reclamation plan boundary" (Public Resources Code [PRC] § 2772[c][5][B]). The reclamation plan boundary is identified for planning purposes as the intended limits of mining and reclamation at the time of plan approval. Such limits must be periodically revised where additional mining operations are planned, such that reclamation is planned for all mined lands. SMARA defines "mined lands" to include appurtenant roads. (PRC § 2729.) Also, SMARA provides that a reclamation plan must identify mine-related access roads and if they will be reclaimed at the end of mining or remain for postmining use (PRC § 2772[c][5][E]). This Minor Amendment implements these requirements by incorporating the existing utility road, Plant Quarry Road, and maintenance roads into the reclamation plan boundary.