

NOTICE OF PREPARATION

TO: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Interested Organizations
Members of the Public

FROM: County of Shasta
Shasta County Dept. of Resource Management,
Planning Division

CONTACT: Lio Salazar, Senior Planner
1855 Placer Street, Suite 103
Redding, CA 96001
(530) 225-5532

SUBJECT: Notice of Preparation of an Environmental Impact Report (EIR) for the Crystal Creek Aggregate Expansion Project (General Plan Amendment 19-0003, Zoning Plan Amendment 19-0002, Use Permit Amendment 19-0007, and Reclamation Plan Amendment 19-0001)

Shasta County is the Lead Agency under the California Environmental Quality Act (CEQA), and is preparing an Environmental Impact Report (EIR) for the project identified as the Crystal Creek Aggregate Expansion Project.

Attached to this Notice of Preparation (NOP) are a description of the probable environmental effects of the project (Attachment 1) and a detailed project description (Attachment 2), including a map indicating the location of the project area and relevant project related maps and figures.

The EIR will consider all substantive environmental issues which are raised by responsible agencies, trustee agencies, other interested agencies, and members of the public or related groups during the NOP process, and will analyze these potential effects in detail and to the extent necessary to make a determination on the level of significance of such effects. Discussion of those environmental effects determined to result in no impact or a less-than-significant impact will be limited to a brief explanation in the EIR of why those effects are not considered potentially significant.

The following agencies may be a Trustee Agency and/or Responsible Agency for the proposed project, or have other jurisdiction/interests concerning the proposed project.

United States Fish and Wildlife Service (USFWS)
United States Army Corps of Engineers (ACOE)
United States Mine Safety and Health Administration (MSHA)
United States Bureau of Land Management (BLM)
California Department of Fish and Wildlife (DFW)
California Department of Forestry and Fire Protection (Cal Fire)
California Department of Transportation (Caltrans)
California Department of Toxic Substances Control (DTSC)
California Department of Resources and Recycling and Recovery (CalRecycle)
California Regional Water Quality Control Board (RWQCB)
California Division of Mine Reclamation (DMR)
California Division of Occupational Safety and Health (Cal OSHA)
Shasta County Resource Management Agencies (Air Quality, Environmental Health, Building, Fire)
Shasta County Department of Public Works (DPW)
Shasta County Sheriff's Department (Sheriff)

Shasta Community Services District (SCSD)
Shasta Union High School District (SUHSD)
Redding School District (RSD)
City of Redding (COR)

Whether your agency is or is not listed above we need to know the views of your agency or organization as to the scope and content of the environmental information germane to your agency's statutory responsibilities or of interest to your organization in connection with the proposed project. Specifically, we are requesting the following:

1. Identify potentially significant environmental effects, alternatives, and recommended mitigation measures that you believe need to be explored in the EIR with supporting discussion of why you believe these effects may be significant.
2. Describe special studies and other information that you believe are necessary in order for the County to analyze the potentially significant environmental effects, alternatives, and recommended mitigation measures you have identified.
3. Provide the name, title, and telephone number of the contact person from your agency or organization that we can contact regarding your comments.
4. If you are a public agency, state if your agency will be a responsible or trustee agency for the project and list the permits or approvals from your agency that will be required for the project and its future actions.

Due to the time limits mandated by State law, your response must be received by the County of Shasta by the following deadlines:

- **For responsible and trustee agencies, not later than 30 days after you receive this notice,**
- **For all other agencies, organizations, and individuals not later than 30 days from publication of this Notice of Preparation. The 30-day review period ends on Tuesday, October 29, 2019.**

If we do not receive a response from you/your agency or organization within the applicable time frame, we will presume that you/your agency or organization has no response.

A responsible agency, trustee agency, or other public agency may request a meeting with Shasta County or its representatives in accordance with Section 15082(c) of the CEQA Guidelines. Electronic copies of the NOP are available by clicking on the Crystal Creek Aggregate Expansion Project link on the Shasta County Department of Resource Management homepage at:

http://www.co.shasta.ca.us/index/drm_index/planning_index/eirs.aspx.

Please provide your responses and any direct questions to the attention of Lio Salazar, Senior Planner, via mail/delivery to Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001 or via e-mail to lsalazar@co.shasta.ca.us. Phone (530) 225-5532.

Date: 9/30/19  Lio Salazar, Senior Planner

POTENTIAL ENVIRONMENTAL IMPACTS OF THE CRYSTAL CREEK AGGREGATE EXPANSION PROJECT

Project Location and Setting:

The project site is an existing quarry located in the community of Keswick, on the west side of Iron Mountain Road, approximately 1.5 miles north of the Intersection of Iron Mountain Road and State Highway 299 West, and directly across from the intersection of Iron Mountain Road and Laurie Ann Lane (10936 Iron Mountain Road). Detailed location information including coordinates and a map indicating the location of the project area provided in the attached detailed project description.

The existing quarry is located in an industrial area in the community of Keswick. Surrounding land uses consist of industrial to the east, low-density residential to the north and southeast, and undeveloped land to the south and west.

The topography of the existing quarry floor has been made relatively flat by the removal of the aggregate material. The existing bowl shaped quarry face extends upslope and to the west from the quarry floor with horizontal benches having been or to be established as excavation proceeds to the extent of the existing quarry boundary. There is an approximate 200-foot change in elevation from the existing quarry floor to what would be the top of the quarry face based on the current mining plan.

The project site is located within the boundary of the 2018 Carr Fire. Prior to the area being impacted by the Carr Fire, the primary vegetation type present in unmined portions of the project site and vicinity was predominantly knob cone pine and chaparral with scattered oaks and ponderosa pine. In areas where the fire burned with lesser intensity, the composition of species remains as it existed prior to the fire. Currently, in unmined portions of the project site and vicinity where the fire burned with greater intensity, vegetation consists mostly of secondary successional vegetation.

Project Description:

Crystal Creek Aggregate (CCA) proposes to expand their existing aggregate mining operation established at the project site in 1990 and subsequently expanded in 2008, and add an asphalt batch plant. The proposal would expand an approved mining use permit area of 110.24 acres and an approved reclamation plan area of 108.87 acres to 179.97 acres, in conjunction with General Plan and Zoning Plan amendments from Natural Resource Protection – Open Space (N-O) to Mineral Resource (MR) and from Unclassified (U) to Mineral Resource (MR), respectively. The overall Project area within which general plan, zoning plan, use permit and reclamation plan amendment approvals are requested is 179.97 acres.

The attached detailed project description narrative provides background information; an overview of the proposed project entitlement application approvals being sought; detailed descriptions of the proposed entitlements (including relevant figures); and discussions regarding reclamation plan objectives, phasing, prescriptions, additional policies, and CEQA Project Objectives.

Aesthetics:

The project would increase the permitted post-mining bench height from 24 feet to 40 feet and extend said benches up to the top of the existing ridgeline exposing a series of 40-foot-high vertical walls of rock, the buff color of which would contrast with the adjacent grey-green vegetated area. The bench tops would be planted with native trees and shrubs as part of the proposed reclamation plan. Reclamation would occur in phases, but for periods of time and/or until reclamation vegetation is established some rock faces would be exposed.

The EIR will provide an assessment and determination regarding the significance of the aesthetic impacts of the project.

Agriculture and Forestry Resources

The project site may include timberland as defined in Public Resources Code section 12220(g). If the project site includes timberland, the project may result in the conversion of timberland if the proposed post reclamation conditions would forestall the ability of said timberlands to be managed for one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

The EIR will provide an assessment and determination regarding the significance of Agriculture and Forestry Resources impacts of the project.

Air Quality and Greenhouse Gas Emissions:

The project would generate or increase construction and operational air contaminant and greenhouse gas emissions, including dust from construction and mining operations, diesel emissions from on- and off-road vehicles and equipment, and diesel and process emissions, including odor, from the asphalt batch plant. These emissions would have the potential to impact regional and local air quality in the vicinity of the project site and to contribute to impacts on global climate.

The EIR will provide an assessment and determination regarding the significance of Air Quality and Greenhouse Gas Emissions impacts of the project.

Biological Resources:

The project may impact terrestrial, avian, and wetland or other hydrologic habitat that survived the Carr Fire or is currently recovering from the Carr Fire, including potential habitat for candidate, sensitive, and special-status species.

The EIR will provide an assessment and determination regarding the significance of Biological Resources impacts of the project.

Cultural Resources:

The project would involve physical disturbance to ground surface and sub-surface components in conjunction with aggregate quarrying and mining activities. Such activities have the potential to impact cultural resources that may be located within the project site.

The EIR will provide an assessment and determination regarding the significance of Cultural Resources impacts of the project.

Energy:

The project would involve the use of diesel fuel, electricity, and other sources of energy during construction and operations.

The EIR will provide an assessment and determination regarding the significance of Energy impacts of the project.

Geology and Soils:

The project would expose soils to potential erosion, modify the topography of the site and increase blasting to the extent that the geologic stability of the site may be impacted, and would alter geographic features present at the site.

The EIR will provide an assessment and determination regarding the significance of Geology and Soils impacts of the project.

Hazards and Hazardous Materials:

The project would involve construction and operations that would involve the use and/or transport of potentially hazardous materials, including asphalt cement (a product of crude oil), diesel fuel, lubricants, and other industrial materials.

The EIR will provide an assessment and determination regarding the significance of Hazards and Hazardous Materials impacts of the project.

Hydrology and Water Quality:

The project would alter the drainage pattern upslope of the existing quarry and expand a post reclamation open water pond at the quarry floor. Soils exposed and/or disturbed by mining would be a potential source of polluted storm water run-off which if discharged from the site could impact downstream surface water quality.

The EIR will provide an assessment and determination regarding the significance of Hydrology and Water Quality impacts of the project.

Land Use and Planning:

The project proposes General Plan and Zoning Plan amendments from Natural Resource Protection – Open Space (N-O) to Mineral Resource (MR) and from Unclassified (U) to Mineral Resource (MR), respectively.

The EIR will provide an assessment and determination regarding the significance of Land Use and Planning impacts of the project.

Mineral Resources:

The project would expand the development and extraction of aggregate material, a mineral resource of value to the Region and State, and facilitate production of asphalt. These products could provide a public benefit to the Region and State through their potential use in public works projects.

The EIR will provide an assessment and determination regarding the significance of Mineral Resources impacts of the project.

Noise:

The project would introduce new temporary and long-term noise sources (asphalt plant construction and operations) and increase production of noise from existing sources (as a result of increased maximum and average yearly aggregate production and blasting).

The EIR will provide an assessment and determination regarding the significance of Noise impacts of the project.

Public Services:

The project site is served by the Shasta Community Services District (domestic and fire protection water), Shasta County Fire Department (fire protection and emergency medical services), and Shasta County Sheriff's Department (law enforcement).

The EIR will provide an assessment and determination regarding the significance of Public Services impacts of the project.

Transportation:

The project would increase maximum and annual average production of aggregate material and introduce the production of a new product (asphalt), including the import of material to be recycled for use in producing asphalt. Transport of materials to and from the site would result in increased use of public roads and intersections, including State Highway 299 West.

The EIR will provide an assessment and determination regarding the significance of Transportation impacts of the project.

Tribal Cultural Resources:

The project is located within the Wintu Tribe of Northern California's (Tribe) geographic area of traditional and cultural affiliation (GATCA). In accordance with Public Resources Code section 21080.3.1, the Tribe has requested formal notice of and information on projects proposed within the Tribe's GATCA for which Shasta County will serve as lead agency in accordance with the California Environmental Quality Act (CEQA).

The project would involve physical disturbance to ground surface and sub-surface components in conjunction with aggregate quarrying and mining activities. Such activities have the potential to impact tribal cultural resources that may be located within the project site.

In accordance with the requirements of Assembly Bill (AB) 52, and more specifically Public Resources Code section 21080.3.1, Shasta County will provide notice of, and information regarding, the project to the Tribe. If the Tribe requests consultation within 30 days of notification, consultation will be initiated by Shasta County and proceed in accordance with the requirements of AB52.

The EIR will provide an assessment and determination regarding the significance of Tribal Cultural Resources impacts of the project.

Utilities and Service Systems:

The project would alter the existing drainage pattern of the site which could require or result in the relocation, alteration, or new construction of storm water drainage facilities on- or off-site. The project

would increase maximum and average annual production. Construction activities and increased production could increase the generation of solid waste from the project site.

The EIR will provide an assessment and determination regarding the significance of Utilities and Service Systems impacts of the project.

Wildfire:

The project site is located in a very high fire hazard severity zone and would involve the use of heavy equipment on steep vegetated slopes and industrial production processes that involve high heat inputs.

The EIR will provide an assessment and determination regarding the significance of Wildfire impacts of the project.

Cumulative Impacts:

The probable impacts of the project may be individually limited, but cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

The EIR will provide an assessment and determination regarding the significance of Cumulative Impacts of the project.

CRYSTAL CREEK AGGREGATE PROJECT DESCRIPTION NARRATIVE

Crystal Creek Aggregate (CCA) proposes to expand their existing aggregate mining operation established in 1990 at their current location in Shasta County on Iron Mountain Road, approximately one mile northeast of State Route 299 W (refer to **Figure 1, Project Location**). The operation would expand from an approved use permit area of 110.24 acres and a reclamation plan area of 108.87 acres to 179.97 acres. The overall Project area is 179.97 acres within which general plan, zoning, use permit and reclamation plan amendments approvals are requested. This Project Description Narrative provides background information; an overview of the proposed project entitlement application approvals being sought; detailed descriptions of the proposed entitlements; and discussions regarding reclamation plan objectives, phasing, prescriptions, additional policies, and CEQA Project Objectives.

BACKGROUND

CCA was originally permitted in 1990 under Shasta County Use Permit UP-24-90 and Reclamation Plan 1-90. Subsequently in 2008 the following entitlements were approved; General Plan Amendment 07-005, Zone Amendment 07-020, Use Permit Amendment, UP-07-020, and Reclamation Plan Amendment RP-07-022.¹ A California Environmental Quality Act (CEQA) Mitigated Negative Declaration with findings as specifically set forth in Planning Commission Resolution Nos. 2008-066 and 2008-067 was also adopted to approve the various entitlements. A Property Line Adjustment 06-034 was approved on May 17, 2006.

In the early 1990s, CCA recognized that the aggregate reserves remaining within their existing land ownership could potentially be depleted by 2010. CCA began to evaluate the potential of acquiring adjacent lands owned by the U.S. Bureau of Land Management (BLM) due to the known geology of the area along with the proven quality of the aggregate material. CCA initiated an exchange for 225 acres owned by BLM adjacent to the CCA operation. The exchange was possible since it conformed to the *Redding Resource Management Plan* (RMP) approved in July 1993. The decision to approve the land exchange was issued on May 11, 2004. An environmental assessment under the National Environmental Policy Act (NEPA) was prepared and a Finding of No Significant Impact (FONSI) decision was also made on May 11, 2004.

After CCA was able to obtain the 225 acres from BLM, application was made in July 2007 to Shasta County for the following entitlements:

- Amend the General Plan land use designation of two parcels totaling approximately 115 acres from *Natural Resource Protection - Open Space (N-0)* to *Mineral Resource (MR)*;
- Rezone the same 115 acres from *Unclassified (U)* to *Mineral Resource (MR)* zone district;
- Amend the Use Permit for an existing quarry mining operation to extend the termination date of the operation from February 22, 2010 to December 31, 2072, and to expand the quarry area from 53.57 acres to 110.24 acres; and,
- Amend the Reclamation Plan to include expansion of the quarry by 56.67 acres.
- While not an entitlement requiring discretionary action by either the Planning Commission or Board of Supervisors, the Property Line Adjustment was necessary to separate the Reclamation Plan and Use Permit area from other properties owned by the Comingdeer Family.

¹ All the entitlements were approved by the Planning Commission on June 12, 2008 whereas, the General Plan and Zone Amendments were also approved, as required by State law, by the Board of Supervisors on August 5, 2008.

Of the 225 acres acquired from BLM, 115 acres were amended from *Public Land (PL)* to the *Mineral Resource (MR)* General Plan land use classification and rezoned from *Unclassified (U)* district to *Mineral Resource (MR)* district. Within the 115 acres, CCA proposed to mine 56.67 acres. This additional area approved to be mined would have extended the life of the operation another 65 years beyond 2007 to December 31, 2072. Production of up to 250,000 tons per year was approved to occur in six phases encompassing approximately ten years per phase, except for the last phase which was for 15 years. Estimates for completion of each phase were calculated based on the volume which could be sold at maximum production during an average ten year period. However, the actual completion of each phase was not time dependent since the depletion of permitted reserves was based on market demand.

CCA sells about twenty aggregate products. These products include base rock, drain rock, decorative stone, riprap, structural backfill, sand, plaster sand and specialty products. The stone products are desired due to their attractive surfaces and the sand is requested for its attractive golden color. The specialty products are utilized by businesses/public agencies for projects such as golf courses, walking paths and landscaping. A local company uses the sand as a component of a product used as substitute pavement for asphalt surfaced parking lots. The market area for some of CCA's products ranges from Portland, Oregon to the San Francisco Bay Area.

CCA plant facilities include a rock crushing/screening plant, washing operation, mobile office trailer (14 feet by 70 feet), truck scales, diesel fuel storage tanks of 1,000 and 20,000 gallons, one waste oil tank of 350 gallons, two motor oil and one lubricating oil tanks (90 gallons each), and five settling and two recycle ponds. A Reclamation Plan addresses the reclamation of the existing and proposed mined and processing areas. Based on the *County Assessors Annual Production Report* submitted by CCA between the year 1990 and 2017, gravel sold ranged between a low of approximately 48,000 tons in 1990 and a high of approximately 270,000 tons in 2001. CCA employment base is currently comprised of eight full-time and one part-time employee.

PROPOSED PROJECT APPLICATIONS

Crystal Creek Aggregate's proposed project application to Shasta County is for the following actions which involves an overall Project area of 179.97 acres:

- General Plan Amendment of 28.46 acres from *Open Space (N-O)* to *Mineral Resource (MR)* so that a Zone Amendment could be processed for approval of an area that would allow for expansion of the current Project (refer to **Figure 3**).
- Zone Amendment of 28.46 acres from *Unclassified (U)* to *Mineral Resource (MR)* necessary to be consistent with the General Plan Amendment and to allow the processing of a use permit allowing operational expansion (refer to **Figure 3**).
- Use Permit UP 07-20 Amendment to expand the mining area by 69.73 acres from 110.24 to 179.97 acres, expand hours of operation, increase yearly blasting maximums, modify quarry bench heights and widths, and to permit the installation and operation of a hot mix asphalt batch plant (refer to **Use Permit Maps, 3 Pages**).
- Reclamation Plan RP 07-022 Amendment to expand the Reclamation Plan area by 71.10 acres from 108.87 to 179.97 acres and to extend the estimated life of the mining operation by 150 years to Year 2169 (refer to **Reclamation Plan Maps, 6 Pages**).

PROPOSED GENERAL PLAN AND ZONE AMENDMENTS

To be consistent with the requested General Plan land use classification of *Mineral Resource (MR)*, a zone amendment from the *Unclassified (U)* zone district to the *Mineral Resource (MR)* zone district is also requested for 28.46 acres located within current Assessor Parcel No. 065-250-025 which currently encompasses 110.18 acres. The General Plan and Zone Amendments would be compatible with the existing general plan and zoning of the CCA plant operation which is *Manufacturing – Interim Mineral Resource overlay (M-IMR)*. These requested entitlements are supported by the *1997 Mineral Land Classification for Shasta County* by the State of California Department of Conservation that classified the existing operation and adjacent lands to the west and south as *Mineral Resource Zone Category MRZ-2* “wherein lands classified as MRZ-2 are areas that contain identified mineral resources.” The classification extends beyond the limits of the proposed Reclamation Plan and Use Permit Amendment area. Approval of the *Mineral Resource (MR)* land use classification and zone district designation also provide for land use compatibility with the existing operation. Furthermore, this action preserves and protects a mineral resource of regional and local importance to meet the future needs of the North State and in particular Shasta County.

PROPOSED USE PERMIT & RECLAMATION PLAN AMENDMENTS

As previously discussed, CCA proposes the expansion of CCA operations to 179.97 acres, based on the Reclamation Plan and Use Permit Amendments. However, CCA does not propose additional structures other than the hot mix asphalt batch plant; moving the locations of the existing scales and office, crushing and screen plant, primary and secondary entrances/exits, or creating new settling or recycle wash ponds; or removal of additional aggregate beyond the projected 450,000 CYs (900,000 tons) to be extracted and processed per year.

The addition of a hot mix asphalt batch plant is proposed due to anticipated future market demand in the area and to provide “one stop” aggregate and asphalt related supply material services at a location where access to the west, east south and north is available, particularly for projects along the SR 299 corridor. Furthermore, locating aggregate and asphalt concrete materials at one location reduces vehicle miles traveled not only in the Redding, Anderson and Shasta Lake areas, but throughout Shasta County since aggregate is not hauled to an off-site asphalt plant.

Hot Mix Asphalt (HMA) is created by mixing and heating aggregate with asphalt oil. The type of asphalt plant proposed is a drum mix type that will be powered by propane gas which produces significantly less nitrogen oxide (NOX) emissions (approximately 76 percent less), sulfur dioxide (SO₂) emissions, and some hazardous air pollutants (HAPs) than an oil fired plant.² This process is a continuous mixing type process whereby the dryer is used, not only to dry the material, but also to thoroughly mix the heated and dried aggregates with the liquid asphalt cement. After mixing, the mixture is discharged at the end of the drum and is conveyed to HMA silos where the asphalt is stored. **Use Permit Maps, Page 3 of 3**, conceptually illustrates an asphalt plant configuration.

The CCA mining, crushing, screening and washing operations will function as they currently do except the mining area will be expanded to the west and south to create a quarry area of approximately 102 acres. The pond in the quarry will increase in surface area from 23.5 acres to 66.85 acres. Likewise, the ponds depth will be lowered by 100 feet from the previously approved pond bottom elevation of 700 feet to a proposed elevation of 600 feet. The five existing five settling ponds will remain and the two water recycling ponds will be filled in once aggregate from the quarry is depleted and as part of final Project site reclamation.

² EPA, December 2000. Tables 5 and 8. *Hot Mix Asphalt Plants Emission Assessment Report*

The additional area to be mined will extend the life of the operation another 97 years beyond the currently approved 2072 termination year based on removal of 37,290,000 CYs. However, CCA requests that there be no fixed termination date and instead utilize the removal of up to the 37,290,000 CYs of aggregate as the basis for determining when the mining operation would cease. It is anticipated that extraction will occur in 11 phases encompassing approximately ten years per phase, except for the last phase which could be 15 years. Estimates of completion of each phase are calculated based on the volume which could be sold based on maximum production over a average ten year period. However, as previously noted, actual completion of each phase is not time dependent since the depletion of permitted reserves is based on market demand.

The overburden and topsoil stockpile areas contain material stripped from the quarry as well as reject material from the crushing and screening operation which includes fines generated by the wash plant. Since reclamation is dependent on the availability of finished benches, there could be up to five years’ worth of material stored at any given time. Both topsoil and overburden stockpile areas will be subject to best management practices for erosion control to be specified in the Storm Water Pollution Prevention Plan (SWPPP) for the operation. The topsoil and overburden stockpile area will be sited to facilitate reclamation.

Table 1, Reclamation Plan & Use Permit Amendments, Current & Proposed Uses & Operational Changes provides a synopsis of the current operational requirements and those proposed by the Reclamation Plan and Use Permit amendments. **Table 1** provides a comparison between the existing and proposed uses and associated areas, hours of operation, annual and total volume of aggregate extraction, and the proposed asphalt batch plant yearly output, etc.

TABLE 1 RECLAMATION PLAN & USE PERMIT AMENDMENTS CURRENT & PROPOSED USES & OPERATIONAL CHANGES & REQUIREMENTS	
Current	Proposed
Reclamation Plan area – 108.87 acres Use Permit area – 110.24 acres ³ Quarry Mining area – 47.2 acres	Reclamation Plan area – 179.97 acres Use Permit area – 179.97 acres Quarry Mining area – 102 acres
Uses: 1. Aggregate mining 2. Aggregate crushing, screening, and washing ⁴ 3. Loading & off-site sale of sand, gravel & rock 4. Material stockpiling 5. Importation of topsoil to the Project site 6. Blasting	Uses: 1. Aggregate mining 2. Aggregate crushing, screening, and washing 3. Loading & off-site sale of sand, gravel & rock 4. Material stockpiling 5. Importation of topsoil to the Project site 6. Blasting 7. Asphalt plant – Manufacture 200,000 tons of asphalt concrete (AC) 8. Use of reclaimed asphalt pavement (RAP) when required ⁵ 9. Use of rubberized asphalt concrete (RAC) when required ⁶ 10. Importation and recycling of 50,000 cubic yards (CY) of used concrete or AC when required

³ The difference in acreages is due to the June 12, 2008 Staff Report for UP 07-020 to the Planning Commission identifying an area of 110.24 acres, whereas, the Reclamation Plan Maps identify a 108.87 acre area. The difference is insignificant.

⁴ Use Permit Minor Modification UP 07-020 M1 and Reclamation Plan Minor Modification RP 07-002 M1, dated May 16, 2012

⁵ Caltrans may require a certain percentage of RAP in the production of AC.

⁶ Caltrans and some cities and counties may require a certain percentage of RAC in the production of AC.

TABLE 1 RECLAMATION PLAN & USE PERMIT AMENDMENTS CURRENT & PROPOSED USES & OPERATIONAL CHANGES & REQUIREMENTS	
Current	Proposed
Volume of aggregate to be mined – 7.96 MCYs or 15,92 MTs	Volume of aggregate to be mined – 37.29 million cubic yards (MCYs) or 74.58 million tons (MTs)
Maximum permitted annual tonnage of processed aggregate is limited to 125,000 CYs (250,000 tons)	Maximum annual tonnage of processed aggregate to be limited to 450,000 CYs (900,000 tons)
Average volume of aggregate mined – 100,000 CYs (200,000 tons) – not a permit requirement	Average volume of aggregate mined – 250,000 CYs (500,000 tons)
Importation of material restriction 50,000 CYs (100,000 tons) of topsoil/year	Importation of material restriction 50,000 CYs (100,000 tons) of topsoil/year
Mining termination date – December 31, 2072	Mining termination date – June 15, 2169
Maximum quarry bench size – 22 ft. high by 30 ft. wide	Maximum quarry bench size – 40 ft. high x 40 ft. wide
Employees – 8 full-time & 1 part-time	Employees – 14 full-time & 1 part-time
Mining hours of operation: <ul style="list-style-type: none"> • 6 a.m. to 5 p.m. Monday – Saturday PST • 6 a.m. to 6 p.m. Monday – Friday PDT • 6 a.m. to 5 p.m. – Saturday PDT 	Mining hours of operation: <ul style="list-style-type: none"> • 6 a.m. to 5 p.m. Monday – Saturday PST • 6 a.m. to 8 p.m. Monday – Friday PDT • 6 a.m. to 5 p.m. – Saturday PDT Asphalt batch plant hours of operation: <ul style="list-style-type: none"> • Only during PST – 24 hours per day – Sunday evening/ Monday morning except for Saturday evening/Sunday morning. No restrictions for public works projects
Blasting per year – 12 times only between 9:30 a.m. to 3:30 p.m., Monday – Friday	Blasting per year – 40 times only between 9:30 a.m. & 3:30 p.m., Monday – Friday with minimum two-week notice to the Planning Division
Truck traffic on Iron Mountain Road: <ul style="list-style-type: none"> • Average 45 round trips. • Maximum 220 round trips. 	Truck traffic on Iron Mountain Road: <ul style="list-style-type: none"> • To Be Determined
Agreement for extraordinary maintenance of Iron Mountain Road	Agreement with the Department of Public Works for extraordinary maintenance of Iron Mountain Road
Wetland mitigation – 1.8 acres of marshes, wetland & riparian habitat (SMARA requires a minimum mitigation ratio of 1:1)	Wetland mitigation – To Be Determined
Originally approved for propane – converted to PG&E power in 2011	PG&E power

As previously discussed, the existing pond in the quarry will increase in surface area from approximately 23.5 acres to 66.85 acres and the depth will be lowered by 100 feet. The existing five settling ponds will remain and the two water recycling ponds will be filled in once aggregate from the quarry is depleted and as part of final Project site reclamation. For accuracy and completeness, it should be noted that the existing ponds and the expansion of the quarry pond are not regulated as “waters of the United States” pursuant to the federal Clean Water Act (CWA). Regulatory guidance from 1986 on, now adopted as part of the 2015 “Definition of ‘Waters of the United States’; Final Rule,” (80 FR 37054, 37098) describes features that are not “waters of the United States.” The Rule is in force in California, and excludes the following features:

- Artificial, constructed lakes or ponds created by excavating and/or diking dry land such as farm and stock watering ponds, irrigation ponds, settling basins, log cleaning ponds, cooling ponds, or fields flooded for rice growing

- Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand or gravel that fill with water (80 FR 37098)

The above descriptions apply to not only the; quarry pond, the five settling ponds and two recycling ponds but also to the various water-filled depressions throughout the Project site created by the existing mining operation. CCA proposes retaining the ponds, but not the depressions, and adding and protecting riparian habitat around the ponds as part of the project's reclamation plan. Because they are not federally regulated, this can be accomplished without first securing CWA authorization.

Wildland Resources Managers prepared the July 2019 "Biological Review Crystal Creek Aggregate Mine Expansion, Shasta County, California" which identifies the ponds. The report provides detailed information about "the present conditions of soils, vegetation, wetlands, [and] wildlife habitats," including how the project area was affected by the Carr fire. This information helps fulfill CEQA's goal of disclosing relevant information about the baseline conditions. Project impacts on these features does not depend on whether they are subject to particular government jurisdiction.⁷

Reclamation Plan Topics

As previously noted, the proposed Use Permit Amendment also requires an amendment to the currently approved Reclamation Plan. The Reclamation Plan describes the final post-reclamation condition of the site and the procedures which will be employed to reclaim the site. The Reclamation Plan addresses the following topics some of which are discussed in this Project Description.

- Reclamation Objectives
- Existing Conditions
- Establishment of Test Plots
- Phasing
- Reclamation Prescriptions
- Post-vegetation Monitoring
- Additional Reclamation Policies

Reclamation Plan Objectives

There are two types of end use objectives for the Project site resulting in different reclamation prescriptions. There is the eastern plant site area of 46.29 acres and the middle and western Project area of 133.68 acres. These prescriptions are as follows:

Industrial Use Area: The eastern area will be reclaimed to industrial uses after mining operations terminate. This end use would be consistent with both the current and proposed general plan land use designation and zoning classification.

Mineral Reserve Area: The middle and western side of the Project site will be reclaimed as a mineral reserve area. This use is consistent with the California Department of Conservation's classification of the site as *Mineral Resource Zone (MRZ-2)*.

⁷ The report is on file with the Shasta County Planning Division.

The reclamation program primary objectives are to; (a) establish a new visually pleasing vegetative cover that provides future fire protection; (b) stabilize the finished mined surfaces and prevent erosion; and, (3) revegetate with plant species adapted to this locale.

Phasing

The purpose of phasing for this Reclamation Plan Amendment is to divide the progression of mining into clearly identifiable mining segments since the depletion of permitted reserves is based on market demand, which is difficult to forecast. This allows reclamation to be started as soon as finished mining surfaces are completed and no longer needed by the operation except under certain circumstances. An example would be a quarry bench where finished grade is reached and the bench is resoiled and vegetated, except in areas on the bench where access by employees and equipment still needs to access a future mining area phase.

Phasing allows for reclamation to be started as soon as each segment is completed. The newly established vegetation will grow even as mining continues, minimizing visible indications of the activities and resulting in a variety of vegetation patterns surrounding the larger 66.85 acre quarry pond. Phasing also assists responsible and trustee agencies to determine compliance with the Reclamation Plan since reclamation areas are specifically defined. **Reclamation Plan Maps, Page 4 of 6** provides an overview of the phasing.

Table 2, Mining Phases & Volumes identifies the proposed 11 phases and associated volume of material based on the extraction and processing of 450,000 CYs (900,000 tons) per year.

TABLE 2 MINING PHASES & VOLUMES (Million Cubic Yards)		
Phase	Reserves	Cumulative Total
1	2.68	2.68
2	2.77	5.45
3	2.29	7.75
4	2.27	10.02
5	2.30	12.31
6	2.72	15.03
7	2.15	17.18
8	2.79	19.97
9	1.80	21.77
10	2.94	24.71
11	12.59	37.29

Phases 1 through 10 contain 24,700,000 CYs of aggregate, about 66 percent of the resource, located in the quarry that is above the pond surface. Phase 11 is the mine area below the 66.85 acre pond surface that contains 12,590,000 CYs of aggregate (34%). Mining begins in Phase 1 and terminates in Phase 10. However, Phase 11 “located” under the 10 phases can be mined at any time during the Reclamation Plan period since the mining of Phase 11 is dependent on the need for the particular type of rock sought for construction activities. Mining operational issues, such as coordination of dewatering activities with mining and the blending of surface and below surface materials, also influence the timing for removing aggregate in Phase 11. Phases 1 through 10 have nearly equal amounts of reserves, which vary between 2,150,000 CYs to 2,940,000 CYs.

Reclamation Prescriptions

Reclamation prescriptions deal with various operational components which include the plant site, quarry benches and their revegetation, ponds, and reclamation within the plant area, such as removing equipment that will not be utilized for future permitted industrial uses, clean up, final grading, filling of the recycle ponds, and post vegetation monitoring. The revegetation of benches provides a fulfillment of one of the primary objectives of the reclamation program to establish a new visually pleasing vegetative cover that provides future fire protection.

A Revegetation Plan for the quarry benches was prepared to create, not only an aesthetically pleasing reclamation feature, but to also establish a fire resistant plant community on the quarry benches.⁸ The 2018 Carr Fire devastated most of the vegetation and homes in the area efforts need to be undertaken not to repeat the event that occurred. The reclamation plan presents an opportunity to lower the fire danger in the area.

One of the main methods to achieve this goal is to eliminate fuel ladders where fire proceeds from lower vegetation into the crowns of trees. By reducing the amount of flammable material present (fuel load) this reduces the spread of fires. To achieve these goals brush species are eliminated from the plant pallet. In its place, the planting of ponderosa pines, grasses and forbs is proposed. Ponderosa pines were selected since they are indigenous to the area and grow in many locations. The trees will be initially planted with 8 foot by 8 foot spacing and then thinned out at a future date. The final upland bench planting would be pines trees spaced 20 to 30 feet apart with grasses and forbs as the understory species. The spacing of the trees reduces, not only the fuel load, but also the fuel ladder which could result in fire spreading from one tree to the other. The grasses and forbs pallet include plants required for erosion control.

Also addressed as a reclamation prescription is to establish a self-sustaining population of wetland/riparian vegetative species on the waterside of the lowest final bench, within 16 feet of the water's edge around the shoreline of the new quarry pond. Clusters of native willows and cottonwoods would be planted along the pond bank. Average spacing of the clusters are to be 110 feet on-center with 6 to 10 trees per cluster. Rock jetties would be placed along the bank and woody debris would be placed along the waterline, where feasible.

Additional Reclamation Policies

Additional reclamation policies address erosion and sediment control policies, topsoil and overburden policies, and other specific final reclamation procedures dealing with interior haul roads, stockpiles, general plant areas to be reclaimed and monitoring.

CEQA PROJECT OBJECTIVES

In accordance with State CEQA Guidelines §15124(b), a clear statement of objectives and the underlying purpose of the project shall be discussed. The project applicant has identified the following objectives for the proposed project:

1. Provide a comprehensively planned project that will continue to accommodate projected growth in construction related activities and related services, and also serve to help meet the current and future demands for Portland cement concrete grade aggregate and asphalt materials in Shasta County and the north state.

⁸ Wildland Resource Managers. May 2019. Revegetation Plan for Crystal Creek Aggregate Mine Expansion, Shasta County California. On file with the Shasta County Planning Division.

-
2. Expand an existing aggregate mining operation located in a known Mineral Resource Zone Category MRZ-2 “wherein lands classified as MRZ-2 are areas that contain identified mineral resources” as identified in the 1997 Mineral Land Classification for Shasta County by the State of California Department of Conservation.
 3. Expand the existing aggregate mining operation to permit the installation and operation of a hot mix asphalt batch plant to provide “one stop” aggregate and asphalt related supply material services at a location in close proximity to the State Highway System whereby access is available to the west, east south and north and particularly for projects along the SR 299 corridor.
 4. Expand the existing aggregate mining operation that continues to be compatible and complimentary of the existing open space areas immediately to the south, west and northwest of the project site and the industrial uses to the northeast and east of the project site.
 5. Contribute to the improvement of the Shasta County economy by expanding a project that will increase sales taxes.

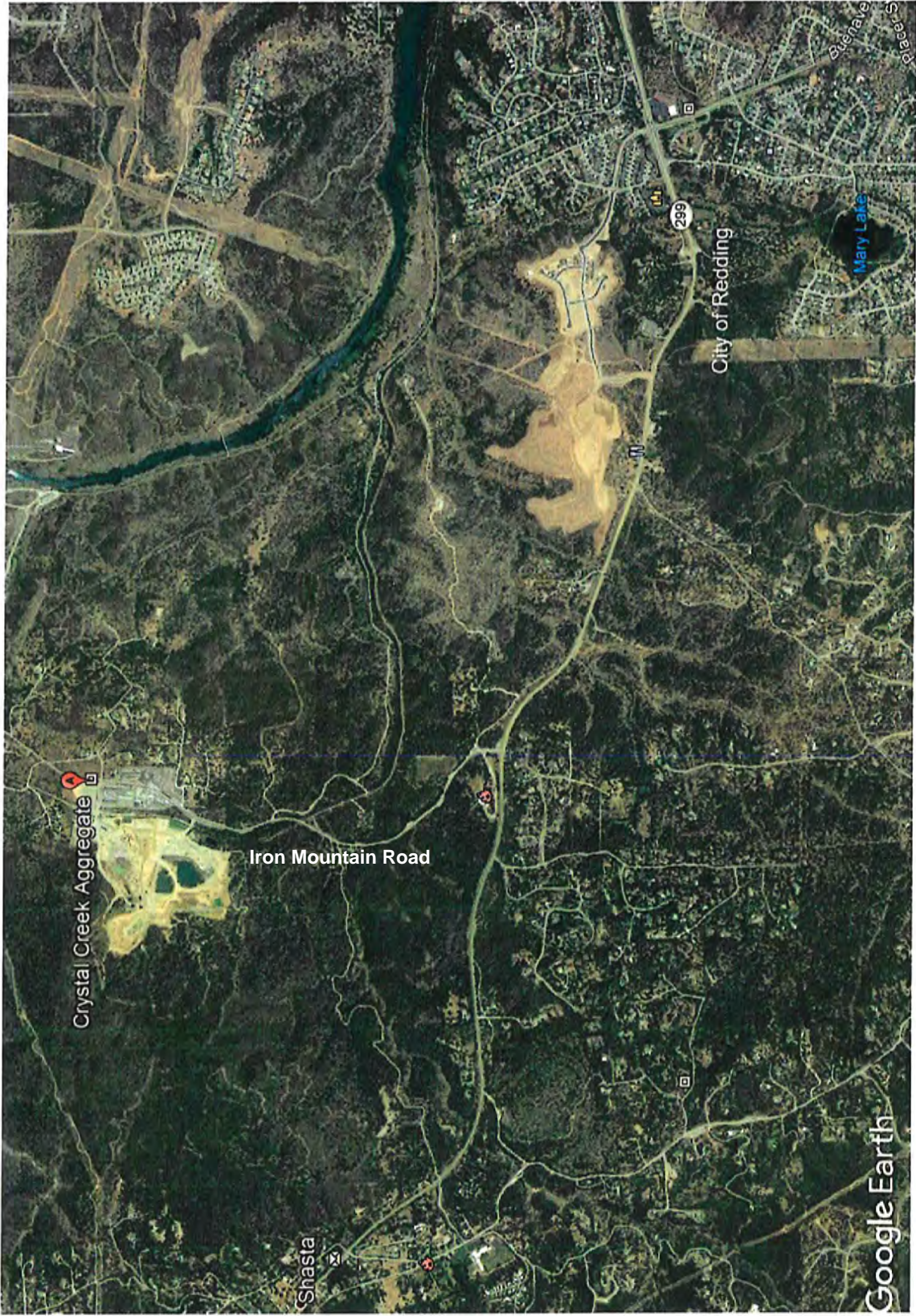
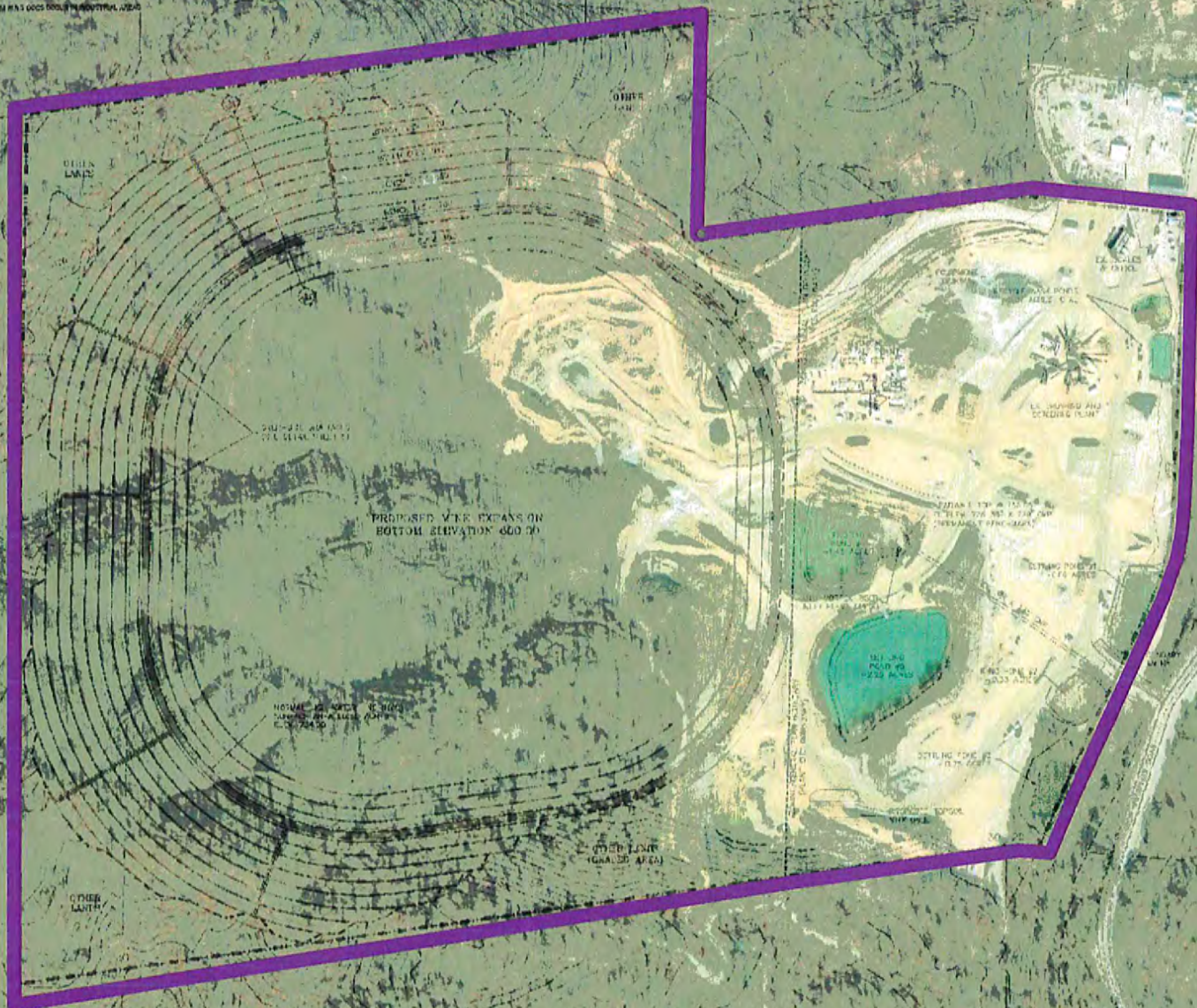


FIGURE 1 – PROJECT LOCATION

AERIAL OF MINE SITE



Source: Esri,

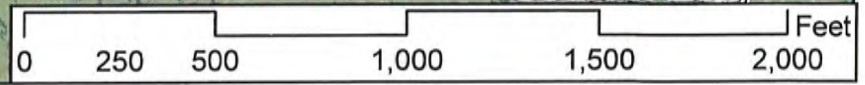
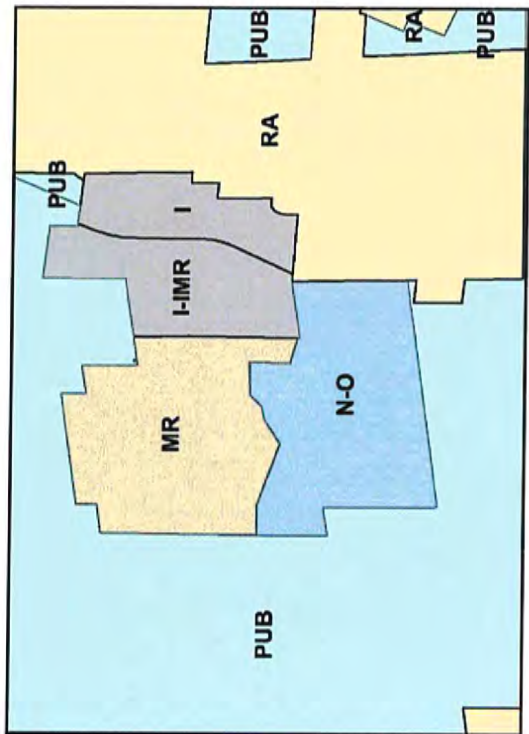
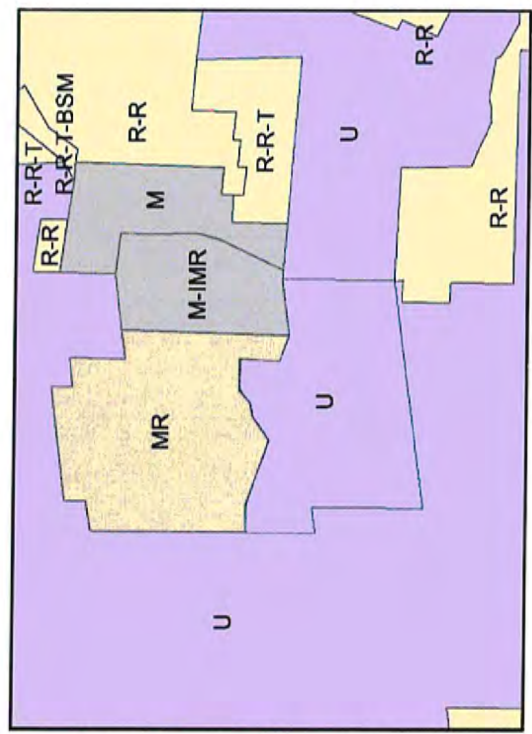




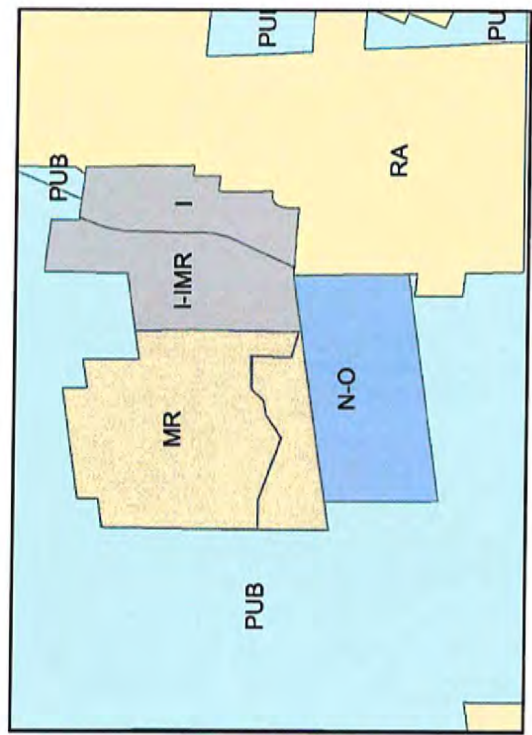
FIGURE 3 – EXISTING & PROPOSED GENERAL PLAN & ZONING DISTRICT



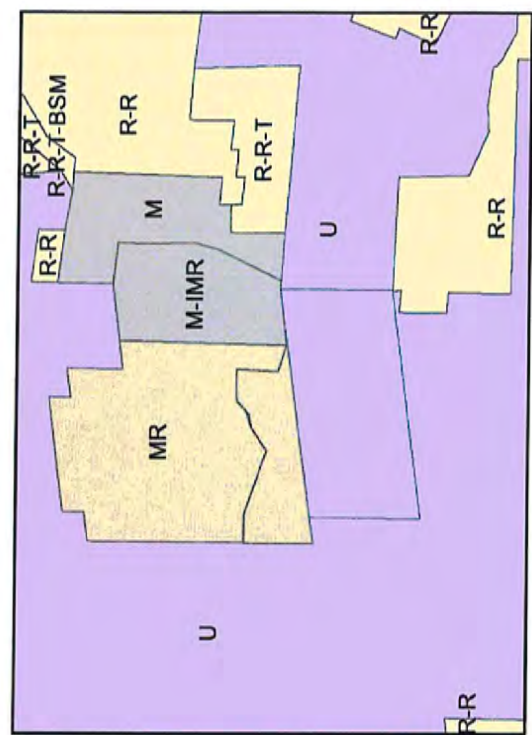
EXISTING GENERAL PLAN



EXISTING ZONING DISTRICT



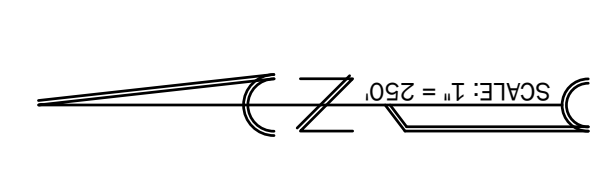
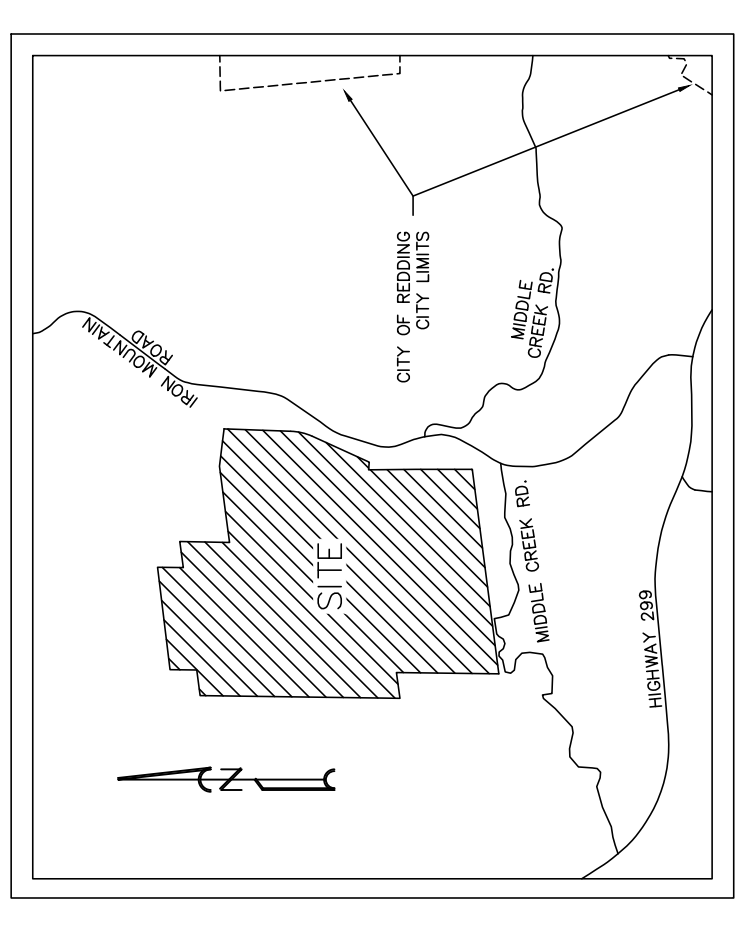
PROPOSED GENERAL PLAN



PROPOSED ZONING DISTRICT

General Plan and Zoning Mapping by The Land Designers





OWNER
 COMINGDEER FAMILY 2001 TRUST
 JERRY DALE & KERRY M TRUST
 10936 IRON MOUNTAIN ROAD
 REDDING, CA 96001
 (530) 224-7263

ENGINEER
 DUANE K. MILLER
 CIVIL ENGINEER, INC.
 PO BOX 1307
 ANDERSON, CA 96007
 (530) 365-5610

LAND PLANNER
 KEITH HAWBLIN
 LAND DESIGNERS, INC.
 1975 PLACER ST. SUITE A
 REDDING, CA 96001
 530-244-0506

APN
 065-250-002
 065-250-024
 065-250-025
 065-250-026
 065-260-010

APN	EX. GENERAL PLAN	EX. ZONING
065-250-002	I-IMR (Industrial; Interim Minerals)	M-IMR (General Industrial; Interim Mineral Resource)
065-250-024	MR (Mineral Resource)	MR (Mineral Resource)
065-250-025	MR (Mineral Resource)	MR (Mineral Resource)
PORTION OF 065-250-026	N-O (Open Space)	U (Unclassified District)
065-260-010	I-IMR (Industrial; Interim Minerals)	M-IMR (General Industrial; Interim Mineral Resource)



LEGEND

- RECORD BOUNDARY
- ADJACENT BOUNDARY
- ROW BOUNDARY
- APN BOUNDARY
- ZONING BOUNDARY
- 40' OG CONTOURS
- (EX) DRAINAGE COURSES
- (EX) CULVERT
- (EX) RECLAMATION BOUNDARY
- (N) RECLAMATION BOUNDARY
- (N) PROPOSED QUARRY LIMITS
- (EX) PONDS
- (EX) ROAD
- (EX) STOCKPILE AREAS
- AREA INCLUDED IN ZONING & GENERAL PLAN AMENDMENT

LOCATED IN SECTION 30 TOWNSHIP 32 NORTH, RANGE 5 WEST, M.D.M. IN THE UNINCORPORATED TERRITORY OF SHASTA COUNTY, CALIFORNIA

Shasta County
 Crystal Creek Aggregate, Inc.

Project Plan

DUANE K. MILLER
 CIVIL ENGINEER, INC.
 No. 29490
 530-365-5610
 D:\PROJECTS\2015\06\15-008\065\PLAN - PROPOSED PROJECT 8/27/2015

PLANS PREPARED UNDER THE SUPERVISION OF:

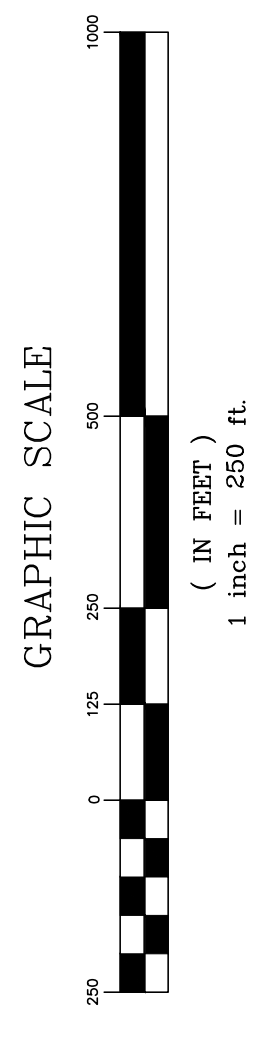
PROFESSIONAL ENGINEER
 DUANE K. MILLER
 No. 29490
 530-365-5610
 CIVIL ENGINEER
 STATE OF CALIFORNIA

DATE: 8/27/19
 SHEET: 1
 OF: 1

SCALE: 1" = 250'

REVISIONS

NO.	DATE	DESCRIPTION	BY

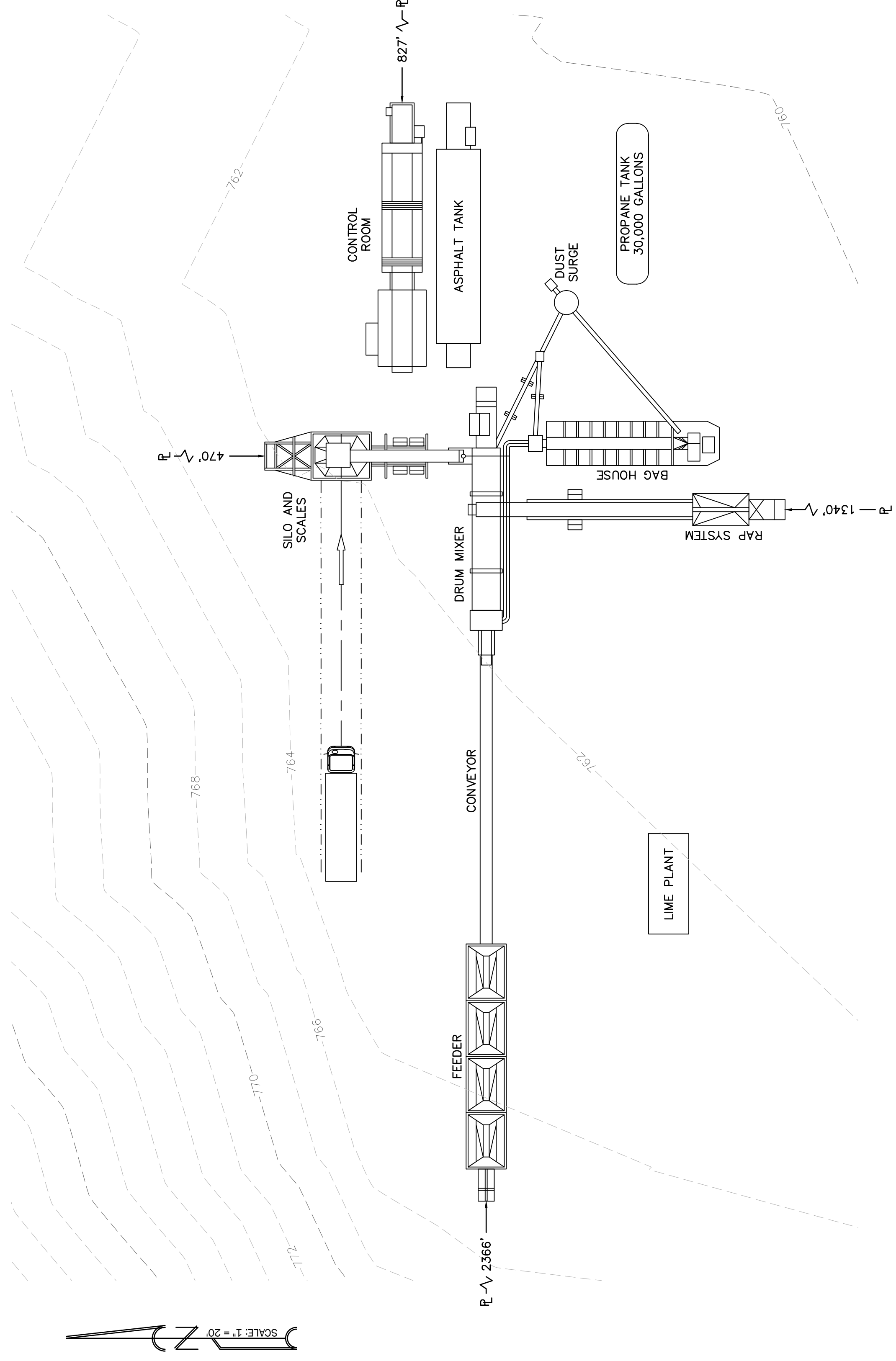
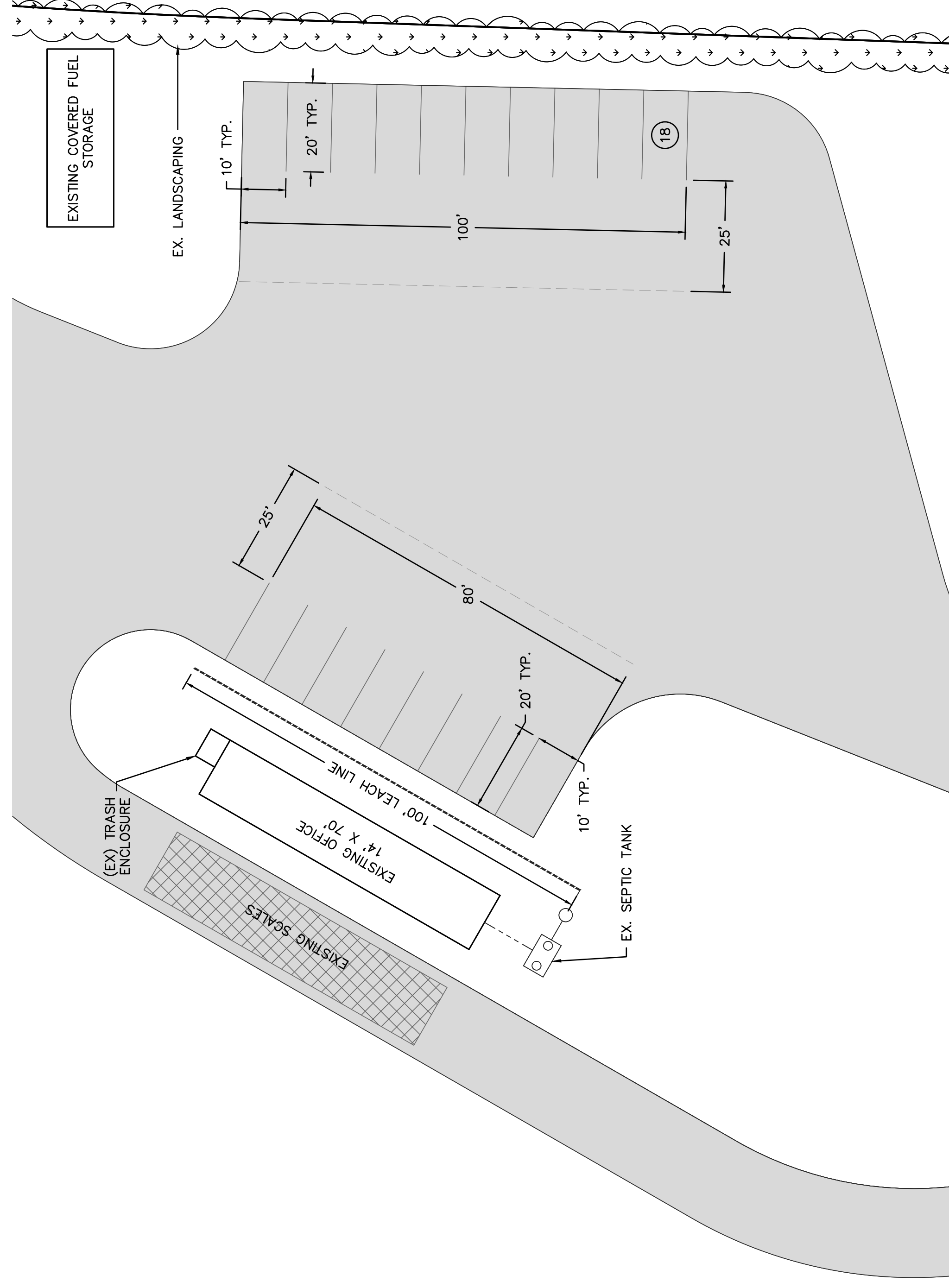


1-800-227-5600

DUANE K. MILLER
 CIVIL ENGINEER, INC.
 No. 29490
 530-365-5610

North Arrow

1. THE LAYOUT SHOWN BELOW IS AN APPROXIMATION FOR PLANNING PURPOSES ONLY.
2. DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE DISTANCES.
3. LANDSCAPING IS COMPRISED OF REDWOOD GROVES 25' ON CENTER WITH OLEANDERS SPACED IN BETWEEN.
4. NO LANDSCAPING OR VEGETATION ALONG IRON MOUNTAIN ROAD.



ND ENGINEERING
DUST SURGE

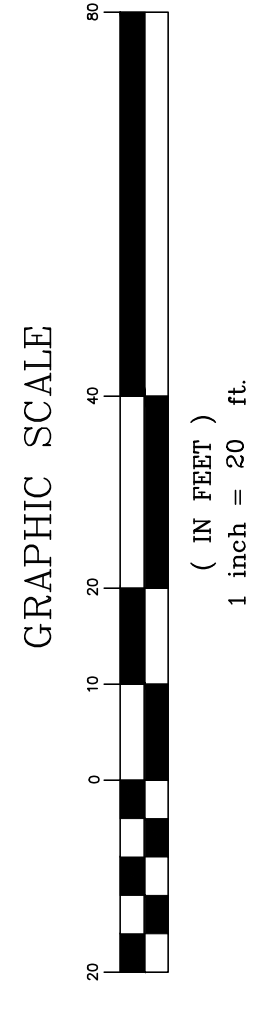


1-800-227-5600

ND ENGINEERING

REVISIONS

NO.	DATE	DESCRIPTION	BY



ND ENGINEERING
DUST SURGE

PLANS PREPARED UNDER THE SUPERVISION OF:

Shasta County
Crystal Creek Aggregate, Inc.
DUST SURGE

ND ENGINEERING	DATE	SHEET
ND ENGINEERING	ND ENGINEERING	3
ND ENGINEERING	SCALE	OF
ND ENGINEERING	1" = 20'	3

NOTES

1. A PROPERTY LINE ADJUSTMENT IS PROPOSED BETWEEN APNs 065-250-025 & 065-250-026 SO THAT THE RECLAMATION PLAN AREA IS A SEPARATE PARCEL FROM THE PROPERTY TO THE SOUTH. THE RECLAMATION AREA DOES NOT INCLUDE ALL OF THE NORTH PARCEL DUE TO THE EXCLUSION OF APN 065-250-019.
2. DETAILED GEOLOGIC DESCRIPTION IS PROVIDED IN RECLAMATION PLAN TEXT.
3. STOCKPILE AREA LOCATION AND SIZE VARY.

065-250-019
(NOT A PART OF)
(10.00 ACRES)

PROPOSED EXPANSION

SEISMIC LINES (APPROXIMATE)

EXISTING QUARRY AREA
~4.97 ACRES

EXISTING RECLAMATION PLAN AREA

065-250-026
(28.46 ACRES)

PROPOSED EXPANSION

065-250-026
(NOT A PART OF)
(81.72 ACRES)

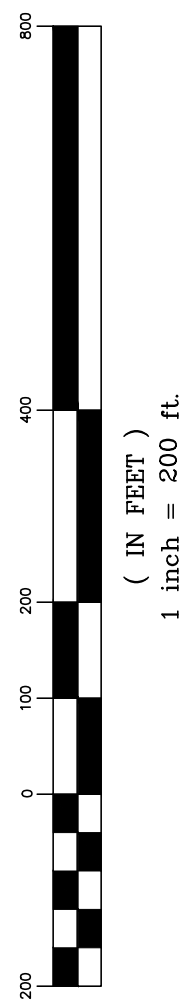
REVISIONS

NO.	DATE	DESCRIPTION	BY

MINING QUANTITIES

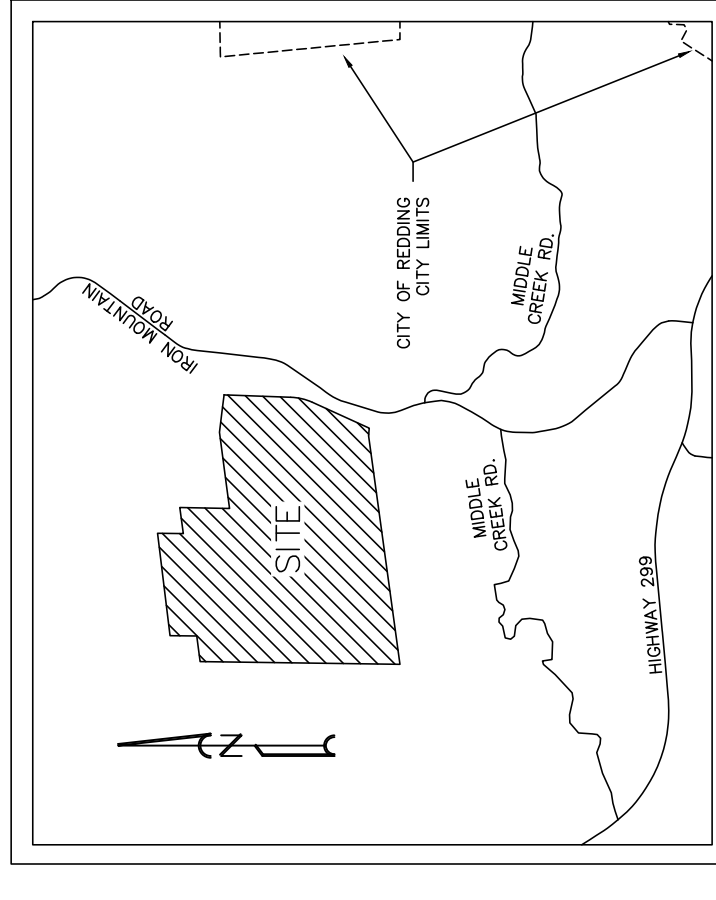
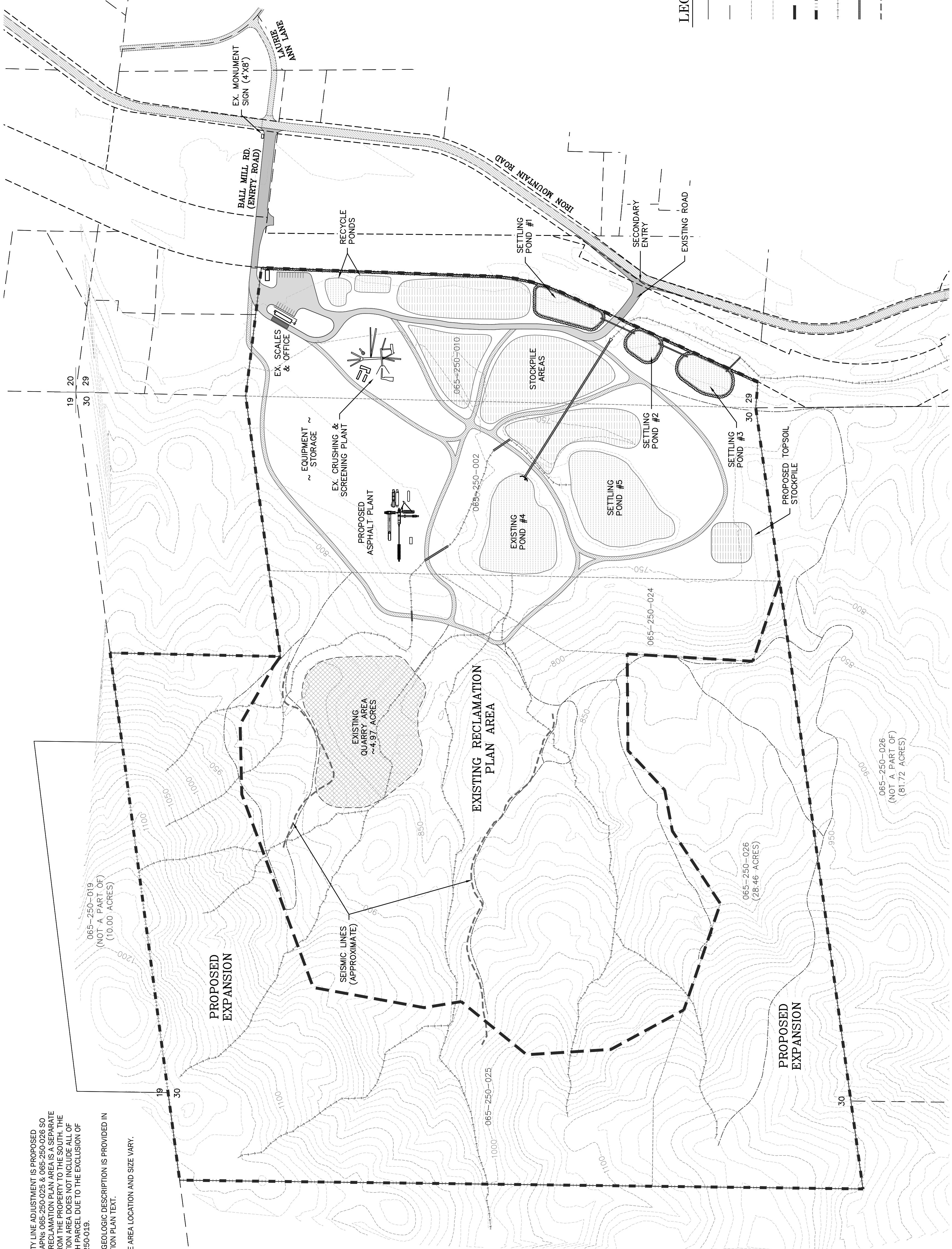
RECLAMATION AREA: 179.97 ACRES
 AREA MINED: 110.49 ACRES
 VOLUME: 37.29 MILLION C.Y.

GRAPHIC SCALE



CONTENTS

1. COVER SHEET
2. MINING PLAN
3. CROSS SECTIONS
4. PHASING PLAN
5. RECLAMATION PLAN
6. DETAILS



VICINITY MAP
NOT TO SCALE

OWNER
 COMINGDEER FAMILY 2001 TRUST
 JERRY DALE & KERRY M TRUST
 10936 IRON MOUNTAIN ROAD
 REDDING, CA 96001
 (530) 224-7263

LAND PLANNER
 KEITH HAMBLEN
 LAND DESIGNERS, INC.
 1975 PLACER ST., SUITE A
 REDDING, CA 96001
 530-244-0506

APN
 065-250-002
 065-250-024
 065-250-025
 065-250-026 (PORTION)
 065-260-010

ACREAGE
 EXISTING REC PLAN: 109.00 ACRES
 AMENDED REC PLAN: 179.97 ACRES
 PROPOSED EXPANSION: 70.97 ACRES

ENGINEER
 DUANE K. MILLER
 CIVIL ENGINEER, INC.
 PO BOX 1307
 ANDERSON, CA 96007
 (530) 365-5610

MINING OPERATOR
 CRYSTAL CREEK AGGREGATE, INC.
 10936 IRON MOUNTAIN ROAD
 REDDING, CA 96001

APN	AREA (ACRES)	EX. GENERAL PLAN	EX. ZONING
065-250-002	29.19	I-MR (Industrial; Interim Minerals)	M-IMR (General Industrial; Interim Mineral Resource)
065-250-024	6.74	MR (Mineral Resource)	MR (Mineral Resource)
065-250-025	98.48	MR (Mineral Resource)	MR (Mineral Resource)
PORTION OF 065-250-026	28.46	N-O (Open Space)	U (Unclassified District)
065-260-010	17.10	I-MR (Industrial; Interim Minerals)	M-IMR (General Industrial; Interim Mineral Resource)

LEGEND

- (EX) LANDSCAPING
- (EX) PONDS
- (EX) STOCKPILE AREAS
- (EX) QUARRY AREA
- (EX) 30' PROJECT ENTRY ROAD
- (EX) 30' ON-SITE DRIVEWAY & PARKING
- (EX) TRUCK ROUTE (20'-40' WIDE)
- (EX) UNIMPROVED SITE ACCESS TRAILS
- RECORD BOUNDARY
- ADJACENT BOUNDARY
- APN BOUNDARY
- 10' OG CONTOURS
- (EX) RECLAMATION BOUNDARY
- (N) RECLAMATION BOUNDARY
- (EX) DRAINAGE PATH
- (EX) CULVERT
- (EX) SEISMIC LINES (APPROXIMATE)

LOCATED IN SECTION 30, TOWNSHIP 32 NORTH, RANGE 5 WEST, M.D.M. IN THE UNINCORPORATED TERRITORY OF SHASTA COUNTY, CALIFORNIA

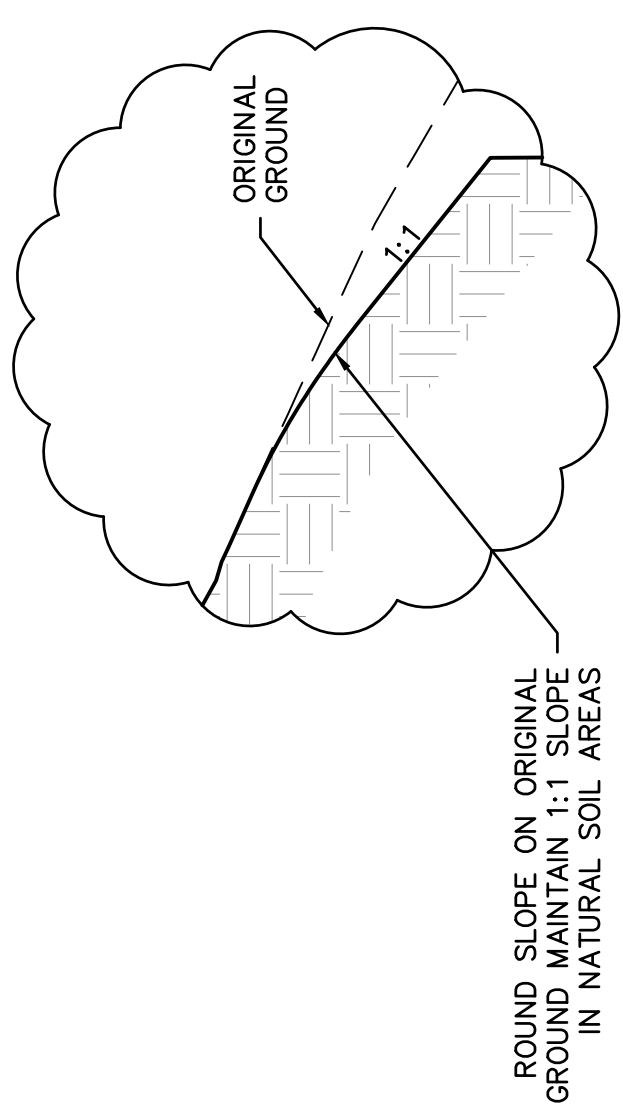
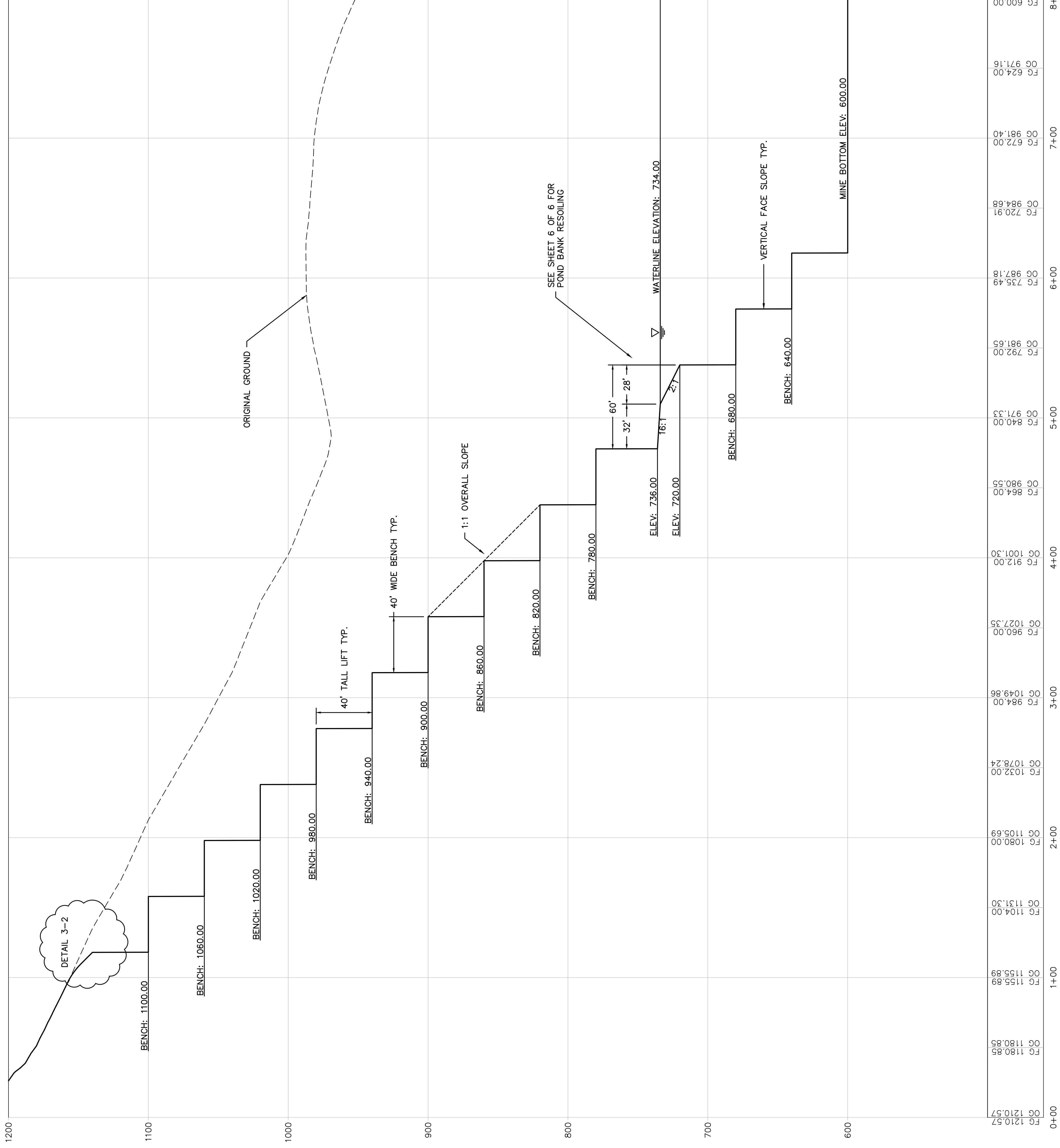
Crystal Creek Aggregate, Inc.
 Cover Sheet
 DUANE K. MILLER
 CIVIL ENGINEER, INC.
 DATE: 8/27/19
 SHEET 1 OF 6

PLANS PREPARED UNDER THE SUPERVISION OF:

Shasta County
 Crystal Creek Aggregate, Inc.
 Cover Sheet

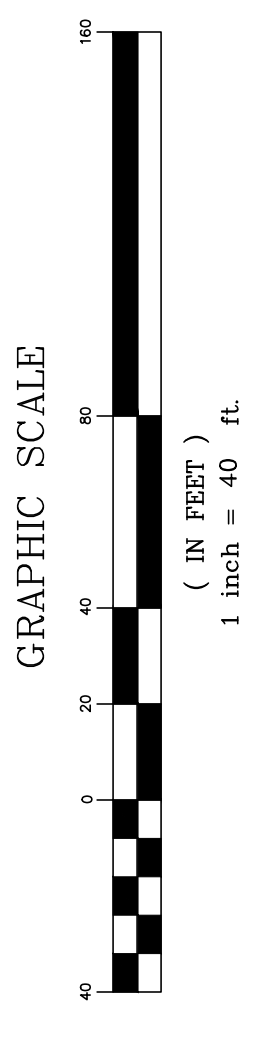
REVISIONS

NO.	DATE	DESCRIPTION	BY

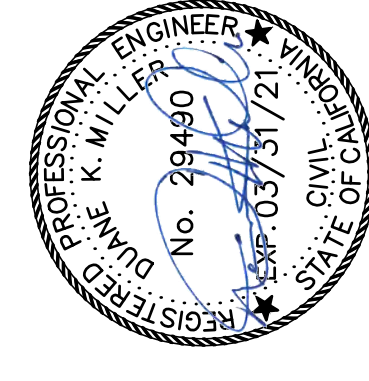


NOTE:
PARENT MATERIAL TO DICTATE FINAL SLOPE.

SCALE: 1"=20'

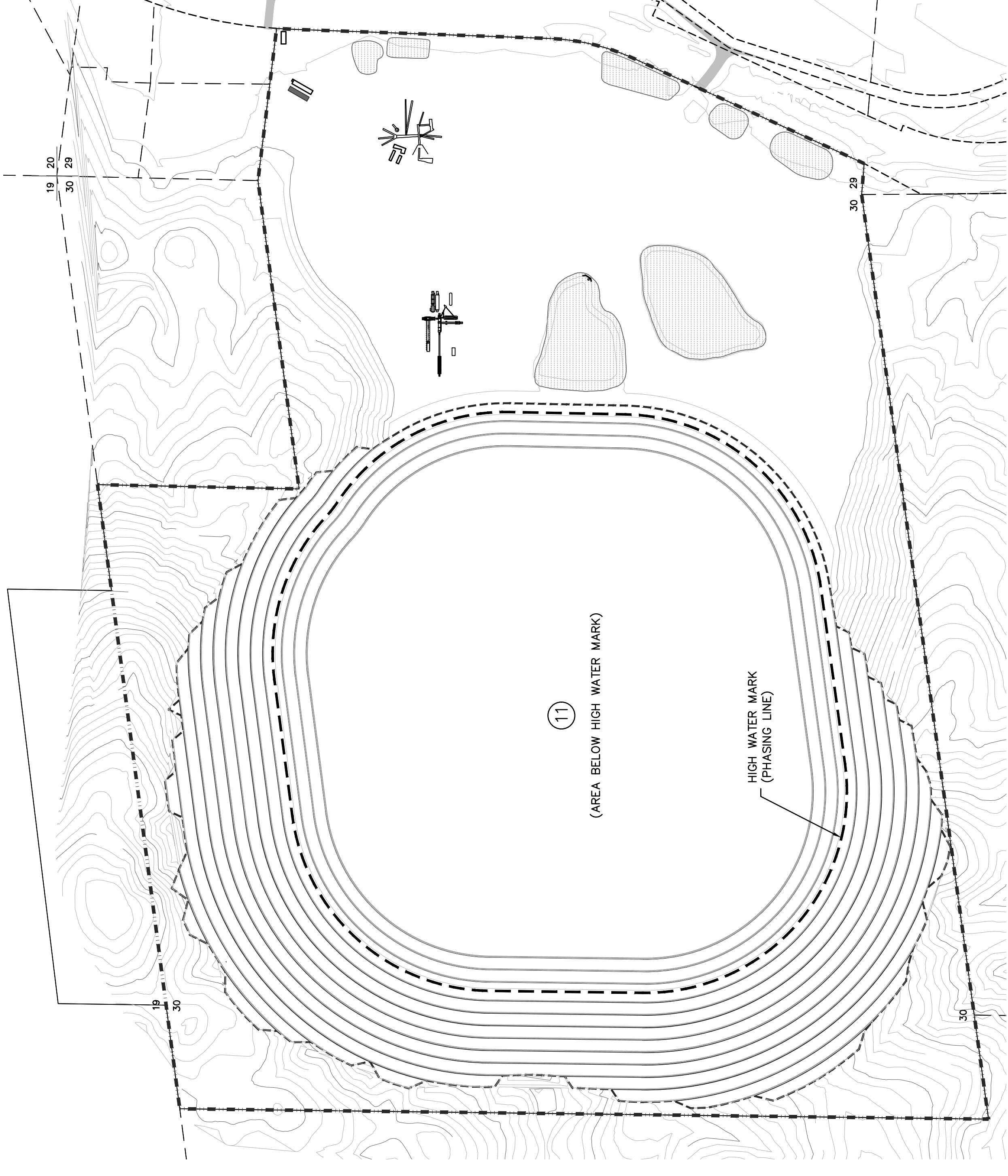
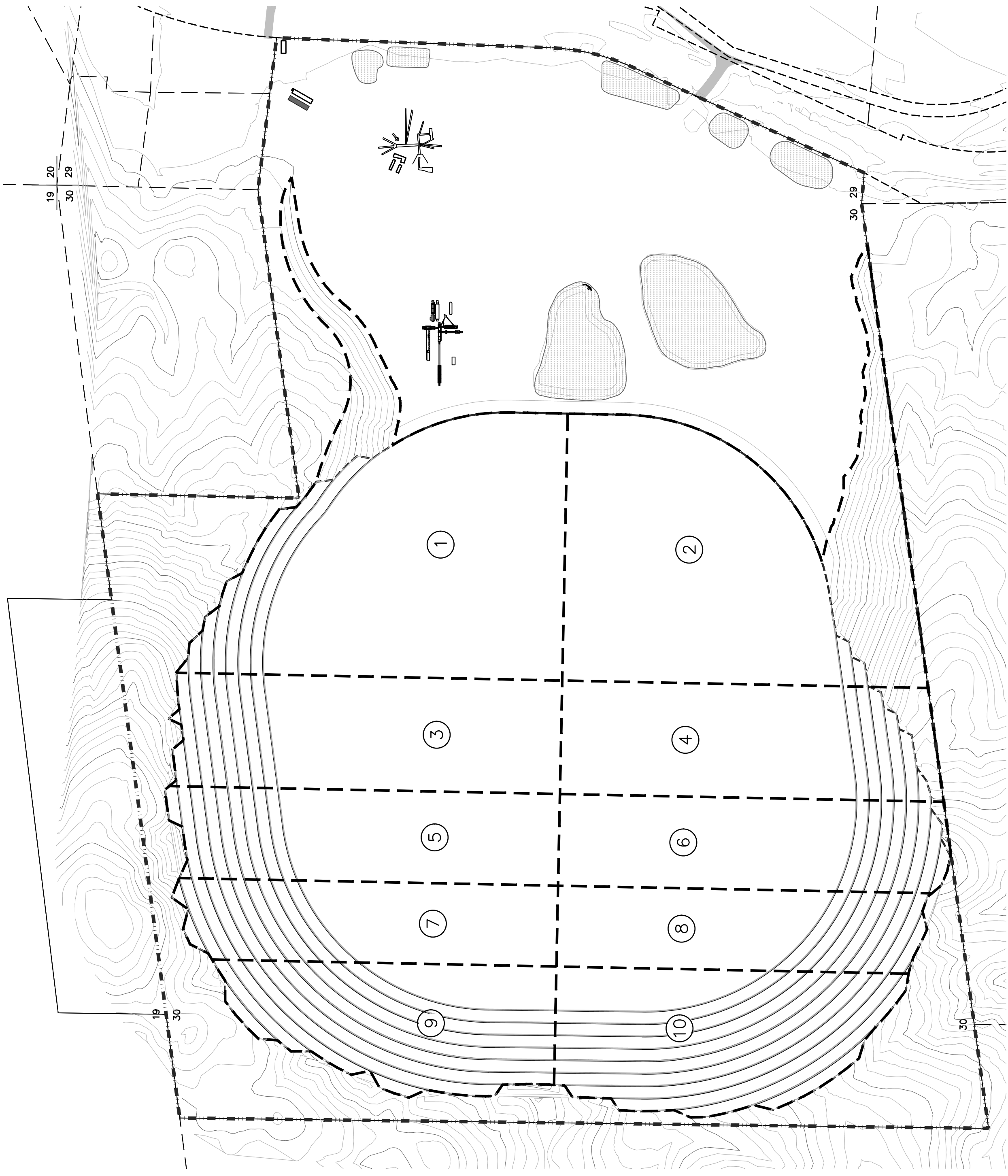


PLANS PREPARED UNDER THE SUPERVISION OF:



Shasta County	
Crystal Creek Aggregate, Inc.	
Cross Section A-A	
DATE	SHEET
NO. 29490	3
SCALE	OF
1"= 40'	6

SCALE: 1"=40'



LEGEND

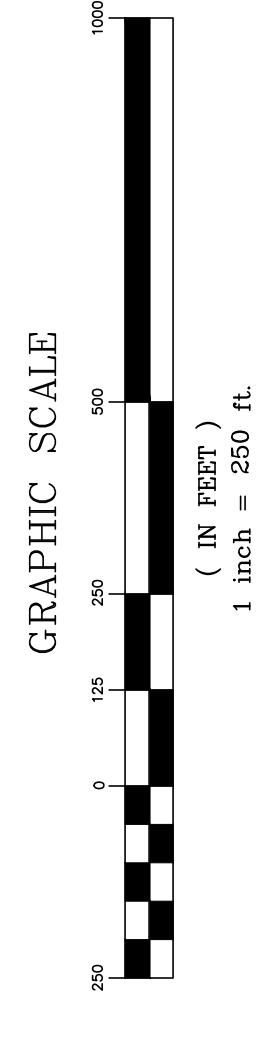
- PHASING BOUNDARY
- - - - REC PLAN BOUNDARY
- - - - ADJACENT PARCEL
- 10' FG CONTOURS
- 120
- - - - LIMITS OF QUARRY
- (N) BENCH LIP

PHASE QUANTITIES

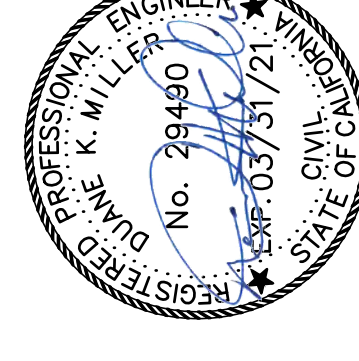
PHASE	AREA (ACRES)	VOLUME (MCY)	CUMULATIVE (MCY)
1	20.48	2.68	2.68
2	20.10	2.77	5.45
3	10.36	2.29	7.75
4	10.10	2.27	10.02
5	8.32	2.30	12.31
6	8.44	2.72	15.03
7	7.13	2.15	17.18
8	6.98	2.79	19.97
9	8.56	1.80	21.77
10	10.04	2.94	24.71
11	66.79	12.59	37.29

REVISIONS

NO.	DATE	DESCRIPTION	BY



PLANS PREPARED UNDER THE SUPERVISION OF:



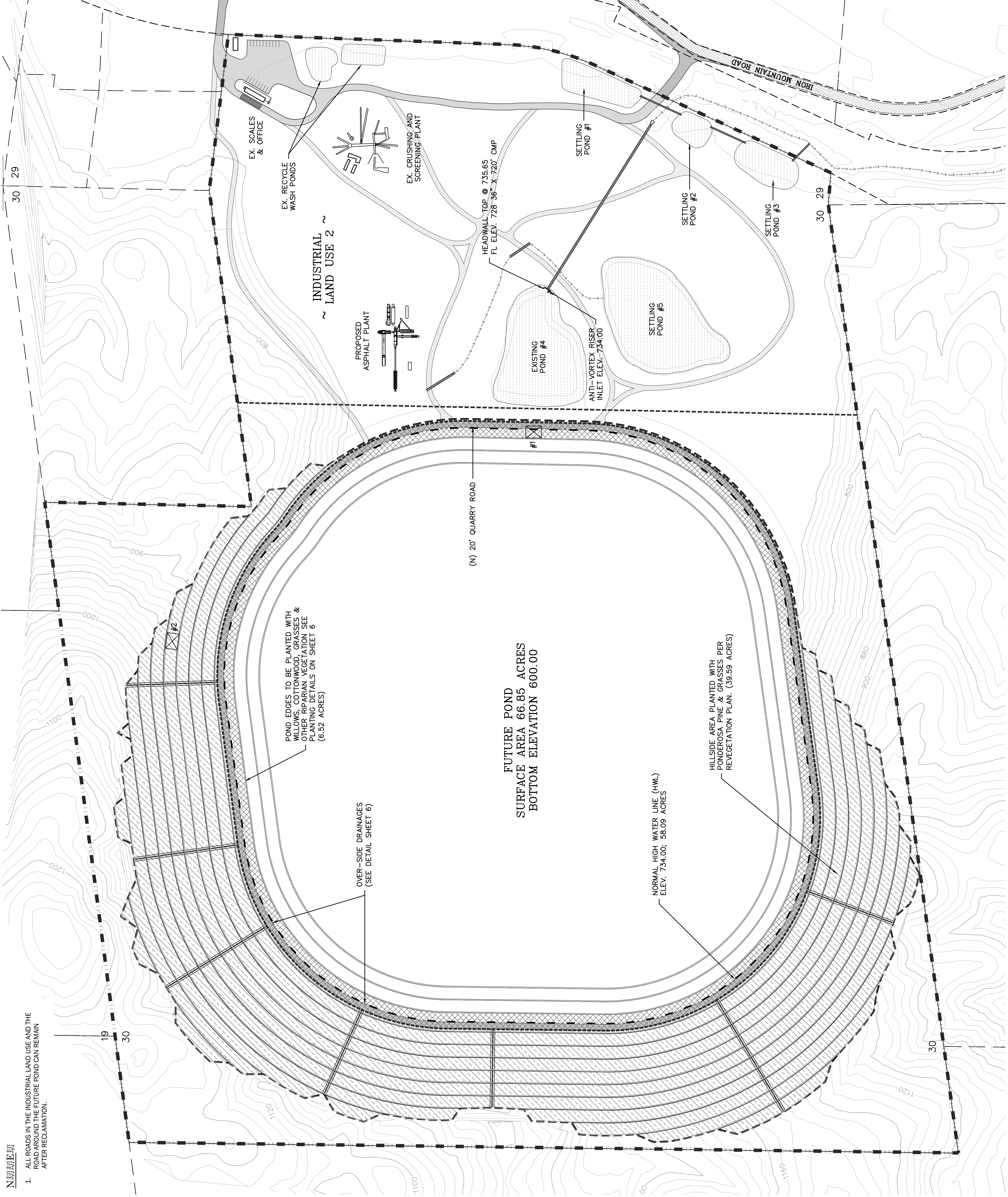
Shasta County
Crystal Creek Aggregate, Inc.

Phasing Plan

Diane K. Miles REGISTERED PROFESSIONAL ENGINEER No. 29490 CIVIL ENGINEERING STATE OF CALIFORNIA	SHEET 4 OF 6
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P:\Projects\18.000\Draw\18.008\WMS PLAN - MINE RECLAMATION 8/27/2015

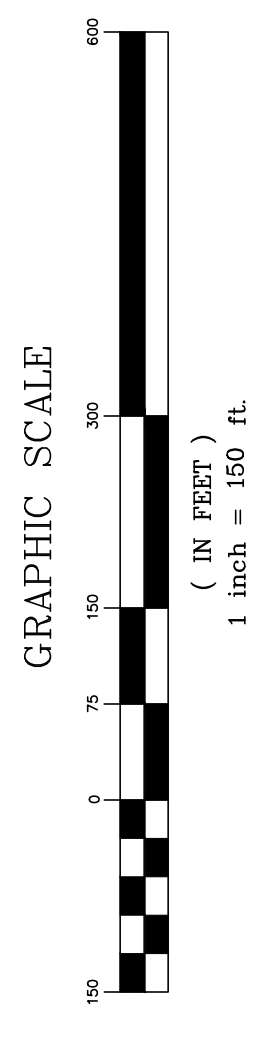
NO.	DATE	DESCRIPTION	BY



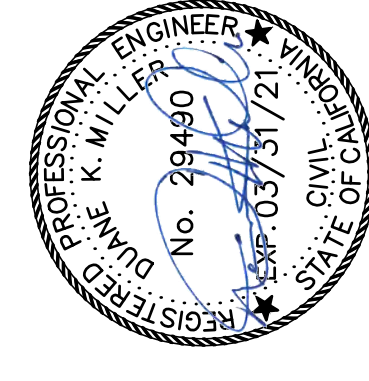
1. ALL ROADS IN THE INDUSTRIAL LAND USE AND THE ROAD AROUND THE FUTURE POND CAN REMAIN AFTER RECLAMATION.

SCALE: 1" = 150'

- LEGEND**
- PROPERTY LINE
 - - - ADJACENT PARCEL
 - REC PLAN BOUNDARY
 - - - LIMITS OF QUARRY
 - RIPARIAN PLANTING BOUNDARY
 - - - HIGH WATER LINE
 - 10' FG CONTOUR
 - ▨ POND EDGE PLANTING (6.52 ACRES)
 - ▩ BENCH REVEGETATION (35.59 ACRES)
 - ⊠ REVEGETATION TEST PLOT



PLANS PREPARED UNDER THE SUPERVISION OF:



Shasta County	
Crystal Creek Aggregate, Inc.	
Reclamation Plan	
DATE	SHEET
NOV 20 2010	5
SCALE	OF
1" = 150'	6

