CHAPTER 2.0 – DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES

2.1 Proposed Project

The Proposed Project includes a SPA, MUP, Reclamation Plan, and Boundary Adjustment for the extraction and processing of construction aggregate and an IDEFO on within a 105-acre impact footprint on a 410-acre Project site located in the unincorporated community of East Otay Mesa in the southernmost portion of San Diego County. In addition, the Project Applicant intends to purchase property for inclusion into the proposed 305-acre Otay Hills Conservation Area (OHCA). The areas intended for purchase are not comprised of whole legal lots; therefore, the Project Applicant has filed a Boundary Adjustment for APNs 648-050-12, 13, 14, and 17 (PDS2018-BC-18-0017).

Implementation of the Proposed Project would require a major amendment to the Subarea Plan and the issuance of an amended Section 10(a)(1)(B) permit. It is anticipated that direct impacts to the proposed HCP Covered Species would likely be limited to initial vegetation clearing, which is expected to occur over the entire development footprint within the first 15 years. Indirect impacts are not expected to be significant after completion of Phase 2, which is expected to be completed within approximately 22 years of project initiation. The Major Amendment and amended ITP would address the incidental take of HCP Covered Species on the Proposed Project site through the expiration of the County's existing Section 10 permit in 2048. A habitat conservation plan (Otay Hills HCP) demonstrating how the taking would be avoided, minimized, and mitigated has been prepared (see section 2.3.1.8 below) to support issuance of an amended permit. The USFWS anticipates processing a separate Environmental Assessment and Finding of No Significant Impact under NEPA for the issuance of the amended ITP. If additional take authorization is deemed necessary after 2048, a new ITP would be required along with a new NEPA document.

The extractive operations would take place over four phases within an approximately 105-acre impact area. Depending on the rate of production, the Proposed Project would have a lifespan of approximately 120± years. Approximately 85.4 million tons of mineral resources would be extracted from the Project footprint area and over 31 million cubic yards (cy) of inert debris would be received.

As discussed in Subchapter 1.3, *Background Information* an application for a SPA was submitted to the County that addressed the land use concerns associated with long-term use of the Project site following the end of mining operations. The SPA would change the designation of approximately 33 acres of Mixed Industrial land to Conservation/Limited Use. These lands are found to the north and east of the Project site. In addition, approximately 78 acres of land currently designated Rural Residential would be designated as Mixed Industrial and approximately 189 acres of Rural Residential would be designated as Conservation/Limited Use (Figure 2-1, *Proposed Specific Plan Amendment*). Table 2-1, *Change in East Otay Mesa Specific Plan Designation*, shows the proposed changes to land use designation acreage when compared to the current plan totals.

The SPA is proposed to establish a long-term land use policy for the area planned for extractive operations, IDEFO, and subsequent industrial use. Through adoption of the proposed SPA, and

approval of the MUP and Reclamation Plan, the Proponent would have the land use entitlement to operate a rock quarry for the production of construction aggregate and associated processing activities and for operation of an IDEFO. In addition to the regulations adopted with the EOMSP, operation of the rock quarry would be required to follow the requirements of the San Diego County Grading Ordinance (Chapter 87.700 et seq.), SMARA (Division 2, Chapter 9, Section 2710 et seq.) and the California Department of Resources Recycling and Recovery (CalRecycle) regulations relating to the operation of an IDEFO (Title 14, Natural Resources–Division 7, Chapter 3). Within the first 20 years of operation and prior to any fill activities associated with Phase 4, the owner/operator would submit an Enforcement Agency Notification to the County of San Diego Local Enforcement Agency (LEA) along with an Operations Plan. The LEA would inspect the IDEFO on a quarterly basis.

As mining operations are occurring, the site would be backfilled and reclaimed to pad areas. (see Subchapter 2.3.1.2 for more detail). Post-mining land uses on these pads would be consistent with the underlying land use designation which would be Mixed Industrial. The Reclamation Plan would therefore include all necessary steps to prepare the Project site for uses permitted by the Mixed Industrial land use designation.

2.1.1 Project Components

2.1.1.1 *Operational and Technical Characteristics*

The Proposed Project would include a hard rock extraction operation that would extract and process rock for construction aggregate purposes. Rock that has been processed for use in manufacturing other products (such as concrete or asphaltic concrete) is typically referred to as aggregate. Materials would be extracted using blasting to fracture and loosen the hard rock resources, followed by extraction and processing to size and sort the materials. Anticipated operations at the site would include the following:

- Phased recovery of rock resources
- Materials processing (primary and secondary plants)
- Concrete batch production
- Cement-treated base (CTB) production
- Asphalt batch production
- Recycling of asphalt and concrete products
- IDEFO

The aggregate extraction operation would occur on a 105-acre area while the bulk of the processing activities would take place within this area on a 16.1-acre pad located at the northern portion of the Project site (Figure 2-2, *Extraction Impact Footprint*).

Some crushing and screening may occur in the pit area during Phases 2 and 3. Hours of operation for processing activities would primarily be from 5:00 AM to 10:00 PM, with operations outside these hours as needed for public health, safety and welfare concerns. This may include California

Department of Transportation (Caltrans) projects that must occur outside normal business hours. Maintenance of equipment and export of material would occur 24 hours per day.

Mineral resource recovery operations would be conducted through the use of drilling and blasting to fracture rocks. Based on anticipated production levels of 0.6 to 1.6 million tons per year, blasting would occur approximately once each week. Blasting operations would be conducted by a licensed blasting contractor, in strict compliance with pertinent Federal, State, and County requirements. All blasting materials would be transported to the site for each blasting sequence and no explosives would be stored at the site. A single drill rig would be used to drill a pattern of bore holes each with a 3- to 6-inch diameter. Approximately 90 holes would be drilled in a 10,800-square foot (sf) area, laid out in a 10-by-12-foot grid, to a depth of 45 feet. A contractor then loads the holes with carefully metered explosives. The "shot" is timed to detonate each hole(s) in sequence. This minimizes the ground vibration and noise of the blast, while maximizing fracture of the rock. Some dust is created as a result of the blast. However, the dust would be fully dissipated within 30 to 60 seconds following the shot. The rock would be broken up to sizes less than 18 inches in diameter by the blasting.

Following blasting, the rock resource can be moved with conventional earthmoving equipment. A front-end loader would be used to load off highway rock trucks for transport of fractured rock to the primary processing plant.

Six processing plants are proposed within the Project impact footprint: two materials processing plants (primary and secondary), a concrete batch plant, a CTB plant (rock/sand/cement powder mixture), a recycling plant, and an asphalt batch plant (Figure 2-3, *Proposed Facilities Layout*). The primary plant is loosely defined as the process that takes the raw material and crushes it to a size suitable for further processing and screening. Typically, a primary plant would crush the rock, screen out unusable fine material, and deposit the crushed rock in a surge pile for use by the secondary plant. The primary plant is independent of the secondary plant and can be used without operating the secondary plant. It is anticipated that the primary plant equipment would consist of a jaw crusher, a screen, and a primary crusher.

The secondary plant would consist of two or four rock crushers to further reduce the size of the rock, five to seven screens to sort the material by size, and a washer to clean dirt from certain types of material to meet end product specifications. Materials washing would require construction of a 90- by 160-foot pond to recycle and store water. Front end loaders would be needed to load trucks. Rock which has been processed for use in manufacturing other products, such as concrete and asphaltic concrete, is typically referred to as aggregate.

Finished aggregate would be stockpiled and/or stored in overhead loading bins. The stockpiles would be approximately 35 feet high. The aggregate would then be loaded onto trucks either with a front-end loader or by gates on the bottom of overhead loading bins. Prior to leaving the extraction area, loaded trucks would be top-watered to prevent roadway dust and would pass across a scale to determine the total weight of the truck and identify the type and weight of the aggregate. Dust from the overhead loading bins would be controlled with a state-of-the-art dust control system, using best available control technology (BACT) and monitoring by the APCD.

Buildings associated with the Proposed Project would likely include an office building, a small truck scale office, and small maintenance shop. These facilities would be located near the secondary plant. Site operations would likely employ approximately 10 to 15 persons. On-site parking would be required.

A single perimeter light would be located at the facility entrance, focused on the entry and away from the street. On-site night-lighting associated with mining/processing would include approximately 18 metal halide fixtures, with a variety of wattage, as detailed below.

- Four 100-watt fixtures
- One 175-watt fixture
- Seven 250-watt fixtures
- One 400-watt fixture
- Five 500-watt fixtures

The concrete ready-mix plant on site would be set up so that materials could be conveyed directly from the aggregate stockpiles to the concrete ready-mix plant. Within the concrete ready-mix plant, appropriate quantities of aggregate of various types, cement, and water would be weighed to make up batches of ready-mix concrete. These materials would then be discharged into a mixer drum on a ready mix concrete truck. Compliance with APCD permits would require the use of BACT, which would ensure a relatively emission- and dust-free operation.

The concrete ready-mix plant would consist of a feed hopper, feed conveyor, batching plant, cement storage silos, and an operations building. A conveyor would feed the required aggregate into the aggregate storage bins. The cement and aggregates would then be weighed and added to the mixer truck with water and additives. Trucks would be loaded under the batcher in an area that would be ducted to a baghouse; this process controls dust during loading. Once loaded, the trucks would deliver concrete to various locations. The highest point for the concrete ready mix plant would be 75 feet.

Cement and fly ash powder are used in the processing of concrete. These two materials would be brought on site daily in 26-ton loads, which would require ten trucks with attached powder trailers per day. Once on site, these materials would be unloaded into dry silos by means of blowers that effectively would pump the materials through 4-inch lines. The entire transfer process would be fully enclosed; therefore, any dry material spillage is unlikely. Once in the silos, the material would be transferred to the concrete batch plant through similar piping.

Cement additives are necessary for creating a number of useful reactions (e.g., delaying concrete setting) within the concrete. These additives would be stored on site in contained areas. When more additives are required, new totes would be delivered, or a tanker truck from the vendor would come and fill up the tanks. Delivery of cement additives is anticipated to occur two to three times per month, one truck at a time. The entire process of filling the on-site tanks would occur in a fully contained area. Once in the tanks, the additives would be automatically metered into the plant via a computerized batch control system.

The Hot Mix Asphalt (HMA) plant would be sited such that materials could be conveyed from the aggregate stockpiles for direct loading of the asphalt plant by conveyor. The asphalt plant would discharge the various types of aggregate into a large rotating drum, where the aggregate is heated by natural gas to drive off water. (Note that there would be no storage of natural gas on site.) The heated materials would then be mixed with asphalt to make asphalt concrete. As in the case of the concrete batch plant, compliance with APCD permits would require the use of BACT, which would ensure a relatively emission- and dust-free operation.

The total height of the HMA plant would be approximately 75 feet. Three silos, which look like grain silos on a farm, would be the tallest structures at the facility. The tall elevation is needed to allow for a surge of material to be stored and for gravity to discharge it to the trucks. The next highest structure would be the baghouse and its ducting, which typically stands 45 feet high.

The HMA would be loaded out via a silo surge system. This process works by positioning a truck under the load out area and placing the required mix amount into the truck bed via gravity feed. There would be no chemicals or loss of material during this procedure. Once full, the truck would drive out of the loading bay and proceed to the job site.

A CTB plant would be located at the site. CTB is a rock/sand mixture that has been mixed with cement powder to provide improved strength and stability for highway and foundation projects.

A concrete and asphalt recycling plant also would be included as part of the Proposed Project. This process would involve the import of used concrete and asphalt materials, crushing, and then exporting the material for use as road base or foundation material. These materials also may be blended with rock originating from the site to improve performance characteristics.

The primary processing (which includes the use of a jaw crusher) may be extended to the extraction areas using conveyor belts. Some crushing and screening would eventually occur below grade, within the pit area. The HMA plant, aggregate processing plant, and concrete ready mix plant would be stationary and therefore, would not be relocated. Equipment shown on the southern end of the 16.1-acre pad (Figure 2-3), including the recycling plant and primary crusher, is portable and would eventually be relocated to the quarry floor as excavation progresses below grade.

2.1.1.2 *Phasing*

The Proposed Project would consist of site preparation for the processing plant equipment and a phased extraction and backfilling operation. Ongoing backfilling of the site during the open pit extraction phase of the Project would allow reclamation to progress concurrently with the extraction operation. Assuming a start year of late 2020, Table 2-2, *Project Timeline*, provides a timeline for the Project phases. The project timeline includes the following phases of development:

- Phase 1: Site Preparation
- Phase 2: Extraction to Natural Grade Elevation
- Phase 3: Open Pit Extraction
- Phase 4: IDEFO (Landfill)

The variables used to prepare the Project timeline include assumptions that could change over time. That is particularly true for Phase 4, where the amount of inert debris that would be available to fill the proposed landfill is dependent upon variables that would change: (1) regional economy, which affects the rate of construction; (2) level of recycling; and (3) competition from other inert landfill sites.

Phase 1 – Site Preparation

Phase 1 involves site preparation activities prior to mining including initial grading to establish access routes, extending water and power service to the site, and grading pad areas for the processing plant location. Site preparation operations would be located in the northern portion of the site. Phase 1 grading consists of minor cutting of the landform to create a relatively flat working surface for the processing plant. Construction of the processing plant, concrete batch plant, asphalt plant, cement treated base plant, and site office would also be commenced. This initial phase would include 14.8 acres on the Project site, plus associated activities required to construct the access road. Ultimately, the processing area would also extend into the northern portion of Phase 2 and consist of 16.1 acres. Activities in Phase 1 are expected to continue for about one year.

Phase 2 – Extraction to Natural Grade Elevation

Phase 2 would involve commencement of extractive operations within the extraction footprint. This phase is divided into three sub phases, with Phase 2a occurring in the north and ending with Phase 2c in the south. Phase 2 would consist of cutting the landform to the natural grade elevation that exists along the western perimeter of the site. The natural grade elevation of the mesa (west of the site) ranges between 580 and 650 feet above mean sea level (AMSL).

During Phase 2a, aggregate resources would be recovered immediately adjacent to the Phase 1 area and over a 17.1-acre area of the site. Extractive operations in Phase 2a are expected to remove 4.2 million tons and would continue for approximately 4.5 years depending on the demand for aggregate resources. As aggregate resources are depleted from Phase 2a, extraction operations would transition into Phase 2b.

Phase 2b operations would include extraction of material from a 24.2-acre area and is expected to continue for approximately 5.5 years depending on the demand for aggregate resources. This phase is expected to remove 4.7 million tons of material.

Phase 2c operations would begin as extraction operations are completed within Phase 2b. Phase 2c would consist of extracting 10.5 million tons of material from the remainder of the extraction footprint (45.4 acres). Phase 2c is expected to continue for approximately 11 years depending on the demand for aggregate resources.

As operations progress in Phase 2, slope areas within Phase 1 and Phase 2 would be seeded with a non-invasive erosion control mix. Prior to seeding, topsoil that is removed ahead of extractive operations would be reapplied to slope areas where conditions allow. A portion of the slopes that are seeded along the eastern perimeter of the pit would be used as a biological buffer adjacent to sensitive environmental habitats proposed to be set aside by the Project to the east of the proposed extractive operations. A native seed mix would be used for these areas.

Phase 3 – Open Pit Extraction

As Phase 2 is completed, mine operations would continue to Phase 3. Like Phase 2, Phase 3 is divided into sub phases. Phases 3a through 3d would also progress in a north to south direction. Extraction operations that would occur during Phases 3b through 3d would extend to a maximum depth of approximately 525 feet from the existing grade (or approximately 700 feet from the top of eastern cut slope), unless groundwater (not stormwater) is encountered in the pit. If groundwater is encountered, excavation would halt at that elevation and reclamation would begin within a year. As part of the reclamation process, the site would be utilized as an IDEFO. Backfilling is expected to continue throughout the Phase 3 operations, on a phase-by-phase basis.

The Phase 3a operations would involve additional extraction of material from an 8.5-acre area that would extend below the finished grade to form a sub-grade depression. Phase 3a extraction operations would extend below the Phase 2a area and would have a maximum depth of approximately 285 feet from the existing grade (or 415 feet from the top of eastern cut slope). This phase is expected to remove 2.9 million tons and would continue for approximately 3 years depending on the demand for aggregate resources. As extraction operations advance in Phase 3a and space becomes available, backfilling of the Phase 3a sub-grade depression would commence. Inert fill material would be used to backfill the depression.

Phase 3b operations would consist of extracting 12.2 million tons of material from a 22.1-acre area, over approximately 12 years depending on the demand for aggregate resources.

It is anticipated that Phase 3c would extract 18.3 million tons of material from a 22.1-acre area, over approximately 18 years depending on the demand for aggregate resources. Phase 3d operations are expected to extract 32.6-million tons from a 33.7-acre area, over approximately 33 years depending on the demand for aggregate resources.

Phase 4 – Inert Debris Engineered Fill Operation (Landfill)

As extraction operations advance in Phase 3, the pit would be backfilled with inert fill material (fill dirt) on a phase by phase basis. Phase 4a would consist of backfilling a portion of the Phase 3a pit area. It is anticipated that this would require 2.1 million tons of imported fill material and would take approximately five years to complete. Phase 4b would involve backfilling the remainder of Phase 3a and portions of Phases 3b, 3c, and 3d. This would be followed by Phase 4c, which would backfill the remainder of Phase 3b and continue to backfill portions of Phase 3c and 3d. Phases 4d and 4e operations would include backfilling the remainder of Phases 3c and 3d. Table 2-3, *Extraction/Backfilling Summary for Phases 1 through 4*, provides a summary of the individual extraction and backfilling phases that would occur during the Project.

The assumptions used above include an average annual production of one million tons. The rate of backfill is estimated at 500,000 cy per year. This backfill rate was determined by studying backfill rates at other sites in San Diego County. A cross-sectional overview of the extraction and backfilling phases is provided in Figures 2-4 through 2-9. Figure 2-10, *Final Site Plan Extraction*, shows the final extraction configuration and easements.

Throughout the phased mine plan, fill material that is used for backfilling would be compacted to form pad areas. All fill material would be inspected upon arrival to ensure that contaminated soils

or garbage are not present. All backfilling operations would be supervised by a geotechnical engineer to ensure that the fill materials are adequately compacted to satisfy the needs of the post mining land use.

There are a limited number of landfills that accept fill materials in San Diego County. Inert fill material is produced from a variety of sources, but typically is a by-product of sub-grade excavations for parking garages or development that results in export of naturally occurring soil. In addition, clean demolition materials from redevelopment projects need to be placed in an inert fill materials site.

Where inert landfills are unavailable in the local community, these fill materials must be disposed of in local sanitary landfills or hauled to locations where fill receiver sites are available. Aggregate production sites hold the greatest potential for accepting a relatively large quantity of fill materials. There are a number of mining operations throughout southern California that utilize inert fill material to backfill and compact the mining void in order to reclaim the site to useable land. Depending on the rate at which fill material is imported to the site, it is anticipated that Phase 4 activities would continue for approximately 64 years throughout the extraction operation. Phase 4 operations are anticipated to continue for approximately 15 to 25 years beyond extraction operations based on market demand and available space in the pit.

2.1.1.3 *Traffic and Access*

During Phase 1, all truck trips would be related to the construction of the site office and plant equipment. There would be no trips related to mining or landfilling activities during Phase 1. It is anticipated that less than 148 average daily passenger car equivalent (PCE) trips would be experienced during this time. During Phase 2, truck trips would be limited to trips required for the extraction operation and materials imports for the onsite processing facilities. There would be no trips related to landfilling activities during Phase 2. Operations would produce approximately 0.6 to 1.6 million tons of aggregate annually. This level of activity would result in 1,332 PCE trips per day, related to Phase 2 and Phase 3 activities and based on an average production scenario. During Phase 4, 390 PCE trips on an average day would result from imported material and landfilling operations. Therefore, 1,722 average daily PCE trips should be expected when both extraction and Inert Debris Engineered Fill operations are occurring (Phases 3 and 4).

Primary access to the site would be from Calzada de la Fuente, a dedicated access road that connects the northern end of the site with Alta Road. The access road connects with Alta Road approximately one-half mile north of the intersection with Otay Mesa Road. A number of potential truck routes are possible. Potential access routes are listed as follows:

- Trucks leaving the site would follow Alta Road to Otay Mesa Road. Trucks would turn right (west) onto Otay Mesa Road to the intersection with SR 905. Truck traffic would then disperse for deliveries on the Otay Mesa or extend to other areas in the region via SR 125 or Interstate 805 (I-805) and I-5.

- Trucks leaving the site would follow Alta Road to Otay Mesa Road. Trucks would turn right (west) onto Otay Mesa Road to the intersection with Sanyo Avenue. Turning south on Sanyo Avenue to the intersection with Airway Road and then turning west. Airway

Road extends across Otay Mesa to the intersection with Cactus Road. Traffic would then turn north on Cactus Road to the intersection with Otay Mesa Road and then turning west to connect with I-805 and/or I-5.

2.1.1.4 *Utilities*

The Otay Water District (OWD) would supply potable water. As discussed in the EOMSP Final EIR, the Project site is located within the OWD; however, it is not located within the OWD's southern service area (Improvement District 7), which is an assessment district used to fund infrastructure. The OWD also indicated in the EOMSP Final EIR that adequate water facilities would exist to service development below the 700-foot contour elevation (which includes the Project site). A Service Availability Letter from OWD dated January 2020 for the Proposed Project confirmed that the Project site is within the OWD service area and adequate water resources are available for the Proposed Project (Appendix O)with annexation into Improvement District 22. The Proposed Project design includes provision for annexation to the OWD Service Area. A connection into the existing 12-inch water line in Alta Road is proposed as part of Project design and would be located underground along the proposed access road to the processing area discussed previously.

The Proposed Project would not involve any uses that would discharge wastewater to the sanitary sewer, nor would there be an on-site wastewater system. The employees would be provided portable toilet facilities which would be managed by the operator and the waste would be transported off-site for treatment.

A 120-foot-wide San Diego Gas & Electric (SDG&E) easement, including power lines, runs diagonally through the Project site (Figure 2-11, *SDG&E Facilities and Vegetation Management Zone*). Five SDG&E utility poles exist within the Project impact footprint site and four additional poles are located approximately 50 feet from the impact grading footprint near the proposed site access and along the eastern perimeter. There are three 230 kilovolt (kV) utility towers located approximately 50 feet from the impact footprint, along the eastern perimeter. An SDG&E 20-foot natural gas pipeline easement runs along the western and southern boundary of the project area. Several SDG&E electrical and natural gas lines exist within the impact footprint and tie-ins would be constructed underground along the proposed access road to the processing area, as discussed above for water lines. A 20-foot-wide natural gas pipeline easement that was formerly within or parallel to the noted SDG&E easement has been relocated, and now extends generally parallel to the western impact footprint boundary just inside the Project impact footprint. SDG&E utility towers (230 kilovolts [kV]), located along the eastern perimeter of the extraction footprint, would be approached during Phase 2 of the Project. The Project has been designed so that disturbance would remain at a 50-foot setback from the towers. The plant equipment has been designed to avoid these towers and associated overhead power lines as much as possible.

2.1.1.5 *Vegetation Management (Fuel Modification) Zones and Landscaping*

Pursuant to the requirements contained in the Conceptual Fire Protection Plan (EnviroMINE 2019a; EIR Appendix K), a buffer, or vegetation management zone, of at least 100 feet wide would surround all enclosed, inhabited structures over 250 sf in size (Figure 2-11). The vegetation management zone would begin at the structures or processing equipment and extend out on all

sides to the unmodified vegetation. In addition, a vegetation management zone would be located around all retention basins, water district and power line rights-of-way, and roads within the Project's impact footprint.

Drought-tolerant trees and shrubs would be planted at the edge of the property to screen quarry activities from Calzada de la Fuente (Figure 2-12, *Landscaping Layout*). The proposed planting area would be approximately 9,705 sf. Screening canopy trees may include species such as Brisbane box (*Lophostemon confertus*), Australian willow (*Geijiera parvifolia*) and coast live oak (*Quercus agrifolia*). Landscaping also would include evergreen scrubs such as lemonade berry (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*) and Yankee Point California lilac (*Ceanothus griseus horizontalis 'Yankee Point'*). The proposed landscaping would be watered using irrigation equipped with rain sensors to automatically shut off the system during periods of high rainfall.

It is assumed that the lots to the south of the power plant would be developed in the near future with heavy industrial uses (by others) that would screen quarry activities from views along Alta Road; therefore, no screening landscaping is proposed in this location.

2.1.1.6 *Reclamation*

As discussed in Subchapter 1.2, a Reclamation Plan is required for this Project pursuant to SMARA. The Otay Hills Reclamation Plan (EnviroMINE 2019b) is contained in Appendix B of this EIR and describes the phased reclamation of extraction areas and sets forth standards to assure adequacy of the plan measures. Upon completion of each phase, reclamation would be commenced. Although reclamation would occur in each phase as recovery operations are concluded, these activities would be similar on all areas of the site. Final reclamation would occur when all recovery operations have been completed. These activities would include final grading to establish the final land form, removal of plant equipment, application of topsoil resources, and revegetation.

Following completion of all recovery operations, processing and operating equipment would be removed from the site unless this equipment would continue to be used following reclamation. At this time, it is anticipated that the concrete and asphalt plants would remain on the site following reclamation.

Pad areas would be treated with appropriate erosion control measures to stabilize the site against accelerated erosion and sedimentation. The site would be managed in this manner until an appropriate land use is identified. Post-mining land uses would be consistent with the underlying land use designations.

Portions of the slopes would be prepared for seeding as a biological buffer adjacent to sensitive biological habitats proposed to be set aside by the project to the east of the proposed extractive operations.

2.1.1.7 *Post-extraction Land Use*

Reclamation of the extraction site is designed to conform to the planning goals described in the EOMSP. As discussed previously, the parcels are currently designated Mixed Industrial and Rural

Residential. Uses within Mixed Industrial allow a wide range of commercial and industrial use, while uses within Rural Residential are limited in scope.

The Proposed Project includes an application for a SPA to change the land use designations for long-term use of the Project site following the end of mining operations. The SPA would change the designation of approximately 33 acres of Mixed Industrial land to Conservation/Limited Use. These lands are found to the north and east of the proposed impact footprint. In addition, approximately 78 acres of land currently designated as Rural Residential would be designated Mixed Industrial, and 189 acres of land currently designated Rural Residential would be designated as Conservation/Limited Use (Figure 2-1). The SPA would result in the proposed mining footprint having a designation of Mixed Industrial.

As mining operations are occurring, the site would be backfilled and reclaimed to pad areas. Post-mining land uses on these pads would be consistent with the underlying land use designation. The Reclamation Plan includes all necessary steps to prepare the Project impact footprint for uses permitted by the Mixed Industrial land use designation.

Completion of the reclamation plan would result in the creation of nearly level pad areas that would total up to 85 acres in size. Future development following resource depletion would likely be limited to the pads, as other areas of the impact footprint would be devoted to slope lands.

The parcels are currently designated Mixed Industrial and Rural Residential. While the Proposed Project does not include residential use of the site, future development of these areas can be expected. When and if this is proposed, future development of the Project site would need to be consistent with the land use regulations set forth in the County General Plan, EOMSP and zoning ordinance. If future land uses were proposed that are not consistent with the EOMSP, a specific plan amendment and further environmental review would be required in accordance with CEQA.

2.1.1.8 *Otay Hills Habitat Conservation Plan*

The Otay Hills HCP has been prepared and identifies avoidance, minimization, and mitigation measures that would be implemented for 18 HCP Covered Species. The Otay Hills HCP also includes species-specific conservation goals and objectives and the establishment, management, and monitoring of the OHCA. The OHCA would encompass approximately 305 acres of biological open space including 103.4 acres of private property already classified as MSCP Hardline Preserve (but not currently managed and monitored) and an additional 201.6 acres that would become MSCP Hardline Preserve. The OHCA would be preserved by a Federal Conservation Easement and a Biological Open Space Easement dedicated to the County. The Project Applicant would establish an endowment that would fund management and monitoring of the OHCA in perpetuity by a Resource Manager approved by the County and Wildlife Agencies, according to the RMP which is part of the Otay Hills HCP. Some of the main tasks included in the RMP would be the maintenance of fences and signage, weed removal, QCB surveys, sensitive bird and plant surveys, and annual reporting.

2.1.1.9 *Off-site Parcel*

A 4.7-acre parcel, located offsite to the west of the Proposed Project, is currently identified as open space on the Otay Crossings Commerce Park project site and would be isolated by the Proposed

Project activities (refer to the Off-site Impact Footprint on Figure 2-2). Therefore, it is considered impacted from a biological perspective (see Section 4.3, *Biological Resources* for more detail). It is anticipated that this parcel would be dedicated to the County as open space as required by the Otay Crossings project's conditions of approval but is not part of the OHCA. However, if the future use of this 4.7-acre parcel involves a use other than open space, development would be subject to further CEQA review.

2.2 Approach Used to Develop Alternatives

Section 15126.6(a) of the State CEQA Guidelines requires the discussion of "a range of reasonable alternatives to the project, or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." Section 15126.6(f) also states that "the range of alternatives in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f)(1) of the CEQA Guidelines provide several factors that may be considered in regard to the feasibility of an alternative; those factors include: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site (if an off-site alternative is evaluated). However, no one of these factors establishes a fixed limit on the scope of alternatives.

The goal of the screening process was to identify potential suitable aggregate sites in the southwestern portion of San Diego County because this market area is not currently well served by sources of construction aggregate production sites. Alternatives were formulated based on the Project objectives identified in Subchapter 1.4, *Goals and Objectives*, of this Draft EIR. Based on this screening process, Subchapter 2.7 identifies alternatives that were eliminated from further consideration and Subchapters 2.2 through 2.5 describe the alternatives that were carried forward for evaluation in this Draft EIR.

The alternatives selected for analysis are described below and evaluated in detail in Chapter 4.0 of this EIR and include:

- Extraction to Natural Grade Alternative
- Extraction to Varying Depth Alternative
- No Project/Existing Plan Alternative
- No Project Alternative

A comparison of the environmental impacts for Proposed Project and the alternatives is presented in Chapter 4 and in Table S-1.

2.3 Extraction to Natural Grade Alternative

This alternative would include only Phases 1 and 2 of the Proposed Project as described previously in Section 2.3.1.2, *Phasing*. The impact footprint would be the same; however, the aggregate would only be extracted to natural grade elevation and the lifespan of this alternative would be

approximately 20 years versus up to 120 years for the Proposed Project (Figure 2-13, *Extraction to Natural Grade Alternative*). Approximately 19 million tons of aggregate would be extracted under this alternative versus 89.2 million tons under the Proposed Project. Annual production amounts are anticipated to be similar to the Proposed Project (i.e., between 0.6 and 1.6 million tons of aggregate per year). The operational characteristics would be the same as described for Proposed Project; however, the IDEFO (inert landfill) would not be included since the deep pit associated with Phase 3 of the Proposed Project would not occur.

Similar to the Proposed Project, the proposed construction aggregate operation would be developed in phases. The timing for Phases 1 and 2 could change in the future depending upon aggregate needs in southern San Diego County, such that the phases presented herein could change and/or more than one phase could be in use at any one time.

2.4 Extraction to Varying Depth Alternative

The Extraction to Varying Depth Alternative would include the same operations and footprint as the Proposed Project (Figures 2-14a and 2-14b, *Extraction to Varying Depth Alternative*), except that the ultimate pit depth would be reduced from approximately 525 feet below the existing grade (under the Proposed Project) to a shallower depth. This alternative would result in a final extraction depth between 50 and 200 feet below the existing grade and would consist of four phases. These phases would be consistent with Phases 1 through 4 of the Proposed Project. Phase 1 would include site preparation and the construction of the processing plant. Phase 2 would consist of cutting the landform to the natural grade elevation that exists along the western perimeter of the site. The natural grade elevation of the mesa (west of the site) ranges between 580 and 650 feet AMSL. Extraction would progress in a north to south direction. Extraction operations during Phase 3 would extend below the Phase 2 area, to a maximum pit floor elevation of 380 to 530 feet AMSL, depending on the final depth of extraction. Phase 4 would involve backfilling the pit with inert fill material and compacting the material to form pad areas (IDEFO). Similar to the Proposed Project, the pit would be backfilled consecutively with extraction that occurs during Phase 3.

The total anticipated production of the quarry under this alternative would have an estimated life of 36 to 60 years and would extract approximately 35 to 60 million tons of mineral resource from the site, depending on the final depth of extraction. Annual production amounts are anticipated to be similar to the Proposed Project (i.e., between 0.6 and 1.6 million tons of aggregate per year).

Similar to the Proposed Project, the proposed construction aggregate operation would be developed in phases. The timing for Phases 1 through 4 could change in the future depending upon aggregate needs in southern San Diego County, such that the phases presented herein could change and/or more than one phase could be in use at any one time.

2.5 No Project/Existing Plan Alternative

Under the No Project/Existing Plan Alternative, the 316 acres of the 410-acre Project site that are within the EOMSP area would be developed as envisioned in the EOMSP which is the existing plan for the Project site. The MUP would not be proposed and there would be no construction aggregate facility or inert landfill on site.

Current land use designations for the Project site under the EOMSP allow for Mixed Industrial and Rural Residential uses (Figure 2-15, *No Project/Existing Plan Alternative*). The Rural Residential areas are located in the hillier portions of the Project site. The Hillside Residential land use category allows low-density (1 dwelling unit [du]/20 gross acres) rural residential land use. Within the Project site, approximately 254 acres are designated for Hillside Residential use under the EOMSP. Therefore, at full buildout of the Project site, there could be up to 12 single-family dwelling units. Rural Residential areas with steep slopes and sensitive biological resources are given a "G" Designator and are subject to the Sensitive Resource Area Regulations of the Zoning Ordinance, which require a Site Plan Review Process. A County-approved Resource Conservation Plan also is required prior to any development, including clearing and grading. The EOMSP promotes dwelling unit clustering to protect sensitive environmental resources.

The Mixed Industrial areas generally are located in the flatter, central and southern portions of the western side of the Project site and cover approximately 62 acres. The Mixed Industrial use designation is primarily intended for wholesale storage and distribution, research services, and general industrial uses. Compatible commercial uses such as construction sales and services, automotive and equipment uses, and custom manufacturing are also permitted. As outlined within the EOMSP, buildout of the "planning area" is expected to occur by the year 2020. During this development period, interim uses such as agricultural and vehicular storage, construction equipment yards, and materials storage yards, and nurseries, are allowed within the designated Mixed Industrial use areas, as long as they are compatible with planned industrial uses.

It is likely that an ITP would also be required under this alternative, as some portion of the Project site would be developed. Approximately 122 acres of vegetation would be directly affected upon implementation of the No Project/Existing Plan Alternative, based on full development of the 62-acre Mixed Industrial area and partial development of the 254-acre Rural Residential area. It is assumed that there would be a five-acre impact footprint for each of the 12 single-family rural residences, resulting in a total impact footprint of 60 acres within the Rural Residential area. Because no specific development plan exists for this alternative, the total impacts to individual vegetation communities and associated sensitive plant and animal species are not available for this alternative.

2.6 No Project Alternative

In accordance with Section 15126.6(e) of the State CEQA Guidelines, the No Project Alternatives includes a discussion of: (1) the existing conditions at the time the NOP is published; and (2) circumstances under which the Project does not proceed, taking into account what would be reasonably expected to occur in the future by others (e.g., in accordance with the EOMSP).

Under the No Project Alternative, no construction aggregate extraction operation or IDEFO developed by the Project Proponent would occur on the Project site. The Project site would remain as it is today, consisting of the undeveloped land crossed by a series of dirt roads used primarily by the U.S. Border Patrol for domestic security purposes. No changes in the existing environment would be expected.

Under the No Project Alternative, an ESA ITP through the Subarea Plan amendment process would not be required as the site would not be developed and incidental take of listed animals would be

avoided. Land would not be dedicated for conservation and no management and monitoring of species and their habitats would occur.

2.7 Comparison of Alternatives

Table 2-4, *Comparison of Proposed Project and Alternatives,* compares the Proposed Project to the action alternatives as well as the No Project Alternative. Categories include impact footprint, extraction depth, lifespan of alternative, amount of extracted material, annual production average, proposed land uses and anticipated required actions/permit.

2.8 Alternatives Eliminated from Further Consideration

2.8.1 Larger Impact Footprint on Proposed Project Site

The size of the original Project proposed by the Project Proponent was 688 acres with an impact footprint of approximately 210 acres. Given the potential impacts to sensitive biological resources, this alternative was rejected by the County and Wildlife Agencies and is no longer being considered.

2.8.2 Reduced Footprint Alternative

As discussed in Subchapter 2.2.1, the impact footprint has been reduced by approximately 105 acres based on potential impacts to sensitive biological resources. Reducing the mining impact footprint from 210 acres to the proposed 105 acres resulted in a deeper pit design so that an acceptable volume of rock (reserve) could be achieved. Additional reductions to this reserve based on the smaller footprint would be infeasible from a production standpoint.

2.8.3 Alternative Locations of New Facilities

In accordance with State CEQA Guidelines Section 15126.6(f)(2), an alternative project site location should be considered if development of another site is feasible and if development of another site would avoid or substantially lessen significant impacts of the Proposed Project. State CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in looking at an off-site alternative is "whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location."

At the direction of the Project Proponent, a study was conducted by EnviroMINE in 1999 to identify potential suitable aggregate development properties in the southwestern portion of San Diego County because this market area is not currently well served by sources of construction aggregate production sites. At present, there is only one aggregate production facility (Otay Valley Quarry) in the southwestern portion of the County. Materials that are not produced within the general market area must be transported into the area of use. Often, the cost of transporting the aggregates becomes a significant expense and can outweigh the cost of producing the aggregate when delivery distance exceeds 25 miles. Increased trucking also adds to roadway congestion, air quality and greenhouse gas concerns. Due to these factors, it is preferable to produce aggregates close to the point of consumption (within 15 to 20 miles).

Aggregates are produced throughout San Diego County and are normally within close proximity of the area of use. However, as the County becomes more urbanized, the proximity of aggregate production sites to the urban market area is beginning to extend to greater distances. Urban development is often located over important aggregate resources which results in a loss of aggregate development potential for the developed area. In addition, the perceived negative impacts of extraction of construction aggregates (e.g., noise, dust, truck traffic, etc.) are often opposed by the surrounding communities. Therefore, aggregate development is sought in areas close to urban development with limited conflicting land uses.

In consideration of the above issues, the purpose of the study was to identify suitable sites for aggregate development within the south San Diego market area. The limits of the market area were an approximate 15-mile radius from the producing site such that all areas of the southwestern portion of the County could be serviced. The characteristics of a suitable aggregate production site are described below.

Suitable Geology. The southwest San Diego County market area does not have an abundance of suitable quality rock that can be utilized for construction aggregates. The coastal plain is primarily composed of sedimentary geology. This material typically does not yield suitable quality rock for construction aggregate use. Areas suitable for construction aggregate use are found at the eastern margin of the coastal plain within the Santiago Peak volcanics formation. These rocks are mostly volcanic and range in composition from basalt to rhyolite but are predominately dacite and andesite. Santiago Peak volcanics are the source of rock for a number of past and present quarries in the County.

Property Ownership. A production site must be large enough to provide a reserve base that would allow amortization of the high costs of permitting and equipping a new site. At a minimum, a 30-million-ton reserve is needed. This quantity of material provides roughly 20 to 30 years of longevity at a given location.

A search of suitable properties capable of meeting this need was concentrated on the Santiago Peak formation. A review of Assessor's property data, including Assessor's Parcel Maps and property ownership, was conducted. The selection criteria included a minimum of 100-acre combined ownership, located within the Santiago Peak formation between the International Border and Sweetwater Reservoir. Three potential sites were identified, including the Proposed Project site. The other two potential sites included the 184-acre West San Miguel Mountain site (Figure 2-15, *West San Miguel Mountain Site*) and the 908-acre South Otay Lake site (Figure 2-16, *South Otay Lake Site*).

A number of other properties were also considered, including U.S. government-owned lands that extend across substantial areas to the east, but were eliminated from consideration because they are planned for inclusion within the MSCP habitat preserve.

Central Location within the Market Area. Historically, aggregate production sites have been located in proximity to the area of consumption due to the high density of the projects and the difficulty and high expense involved in moving these products. Generally, individual aggregate production sites compete for customers within a limited geographic area, which may be 20 to 30 square miles depending on local availability of suitable aggregate material and geographic

density of demand. The average haul distance for aggregate products in San Diego County is estimated to be 16 miles based largely on transportation cost. In consideration of the transportation constraints, an optimal 15-mile radius was established as a selection criterion. The Proposed Project and the two candidate sites listed above meet the market area selection criteria.

Accessibility. Site accessibility is an important factor in determining marketing viability because of the types of equipment that commonly access a construction aggregate facility (i.e., large trucks). All of the potential locations identified above would need to have access improvements prior to commencement of operations. The West San Miguel location would require construction of an access road more than one mile in length, requiring approvals from multiple property owners and jurisdictions. The South Otay Lake property would require substantial improvements for site access, though fewer property owners and agencies would be involved in the approval of an access alignment. It should be noted that the Proposed Project would require substantially fewer roadway improvements than the other properties, as it is served by a direct access road, Calzada de la Fuente. Also, one property owner owns the access alignment to the Proposed Project site.

Access to Important Services. Important utility services necessary for operation of a construction aggregate facility would include water (materials washing, dust control, and constituent of ready-mix concrete) and power (operating the processing plant and other support activities). Water used for the ready-mix concrete must be relatively free from impurities, and total salts must be low. Due to the high quantities of water consumed by batching facilities, companies typically try to locate sites in areas where groundwater is available. Therefore, the highest priority in siting for water availability would be in a location where high-quality groundwater sources are available. Due to the location of the Santiago Peak Volcanics formation, however, adjacency to alluvial aquifers is not common. The second priority would be a location near a domestic water source. The South Otay Lake property is not located within the service area for the OWD. The West San Miguel site is located within the jurisdiction of the OWD but is not within a water service area and would require annexation into a service area. The West San Miguel site is not close to any existing water connection and it would require a substantial effort to bring in water to this site. In contrast, the Proposed Project site is very close to an existing water line. Electrical power is available to both of the two properties, although the West San Miguel property would require the greatest amount of expense to extend power to the site.

Environmental Factors. Of particular concern for undisturbed areas of south San Diego County are impacts to biological resources. During the search for a potential aggregate production site, potential impacts to biological resources were considered. All three sites, including the Proposed Project, encompass portions of the MSCP preserve boundaries. As discussed in subsection 1.2, the Proposed Project site includes both Major and Minor Amendment Areas. The San Miguel site contains both MSCP Hard Line Preserve and Major Amendment Area (Figure 2-16) and the South Otay Lake site contains a large portion of MSCP hard line preserve (Figure 2-17). As such, site development constraints with respect to biological resources were viewed as equal for all the alternative sites, including the Proposed Project. The San Miguel site is also close to existing residential uses to the south which may not be compatible with proposed mining activities.

Reasons for Elimination

The site selection study judged the suitability of the potential aggregate production sites by creating a numerical rating system based on the siting factors described above as well as determining whether any of the significant effects of the Project would be avoided or substantially lessened by putting the project in another location. Based on the scoring criteria, the two alternative locations were determined to be marginally suitable for development aggregate production. In contrast, the Project site was determined to be fully suitable. Therefore, alternative locations for a new aggregate operation were not considered a viable alternative to consider in detail.

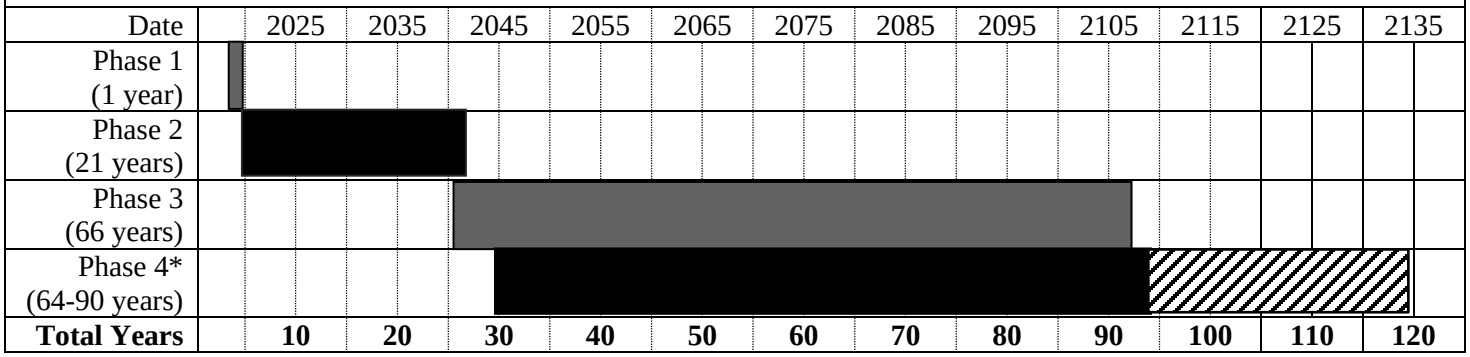
2.8.4 Expansion of Existing Aggregate Facilities

The same criteria were applied to expansion of existing facilities with respect to the location of the facility to serve the southwest San Diego County market area. Currently, there is only one existing aggregate production site, the Otay Valley Quarry, within the 15-mile radius (Figure 2-18, *Otay Valley Quarry*). This facility is operated by Vulcan Materials Company. However, even with this facility, the currently permitted aggregate reserves in the western San Diego County region will only meet 36 percent of the 50-year demand (California Department of Conservation, California Geological Survey 2017). It is projected that these reserves will support the region for 20 years or less. The operator will not be able to expand the mining surface area due to open space/conservation constraints located north and east of the impact footprint. The area surrounding the existing operation is also becoming more urbanized (e.g., Mattress Firm Amphitheater and residential uses) and there are more potential land use conflicts. For these reasons, the Existing Aggregate Site Expansion Alternative was eliminated from detailed analysis because expansion of existing aggregate facilities would not result in avoiding or substantially lessening significant impacts compared to the Proposed Project for the reasons described above.

Table 2-1
CHANGE IN EAST OTAY MESA SPECIFIC PLAN DESIGNATION (acres)

Zone	Existing Plan	Proposed SPA	Net Change
Mixed Industrial	670	715	+45
Rural Residential	314	47	-267
Conservation/Limited Use	242	464	+222

Table 2-2
PROJECT TIMELINE



* The pace of backfilling would depend on available space in the pit and market demand; therefore, the timing for Phase 4 could vary.

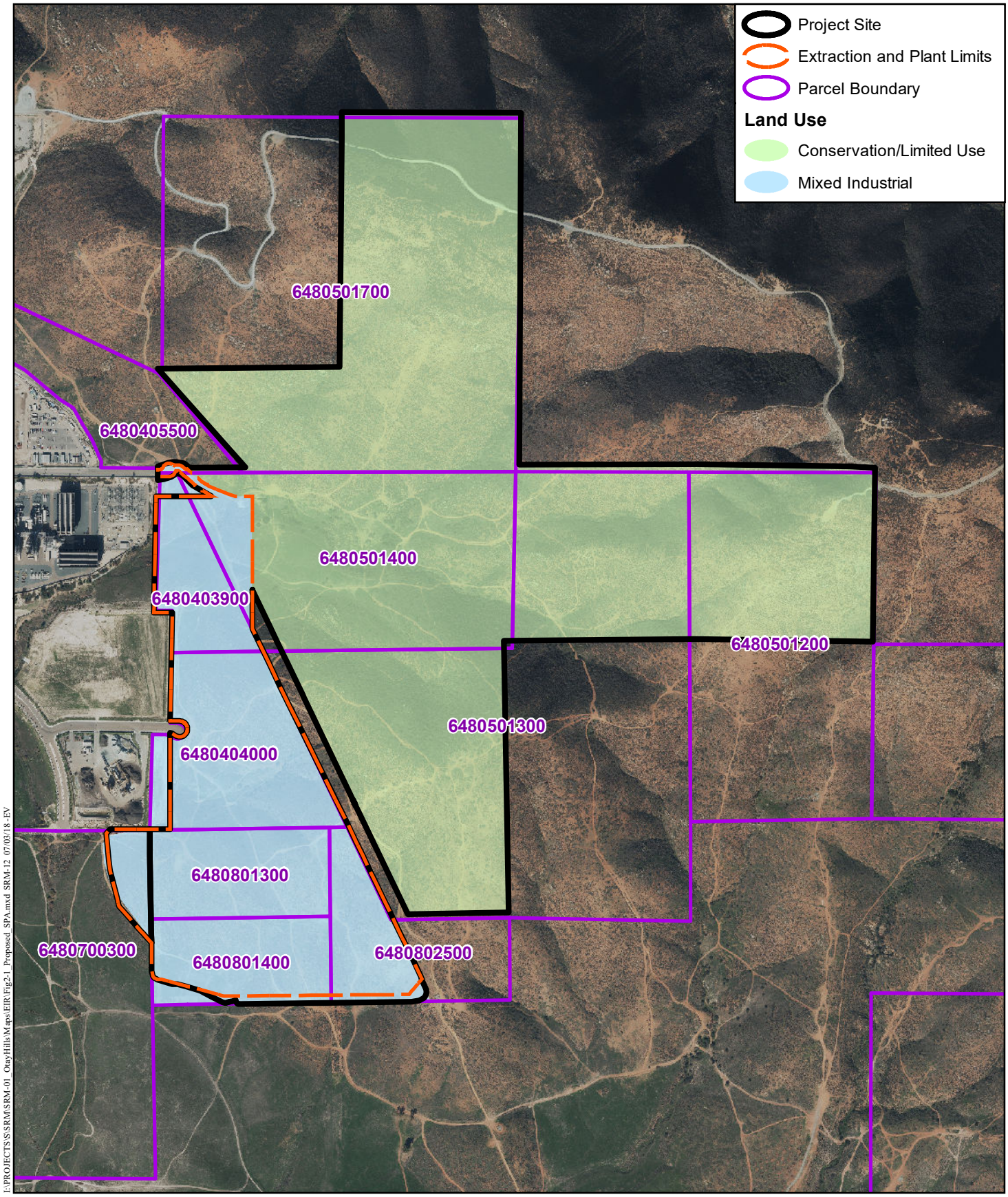
Table 2-3
EXTRACTION/BACKFILLING SUMMARY FOR PHASES 1 THROUGH 4

Phase	Extraction Amount (tons)	Surface Area (acres)	Years to Complete Extraction	Phase	Fill Volume (cy)	Years to Complete Backfill
1	None	14.8	0	1	None	0
2a	4,195,840	17.1	4.5	2a	None	0
2b	4,747,600	24.2	5.5	2b	None	0
2c	10,511,600	45.4	11	2c	None	0
3a	2,937,000	8.5	3	4a	2,123,500	5
3b	12,152,800	22.1	12	4b	3,852,300	8
3c	18,255,000	22.1	18	4c	8,027,000	17
3d	32,607,960	32.6	33	4d	9,146,000	19
				4e	7,465,700	15
Total	**85,407,800**	**101.5***	**87**		**30,614,500**	**64**

*Total surface area calculated based on the sum of the Phase 1 and 2 footprint. Phase 3 is below grade beneath the Phase 2 surface footprint and therefore was not included in the calculation.

Table 2-4
COMPARISON OF PROPOSED PROJECT AND PROJECT ALTERNATIVES

Project/ Alternative	Impact Footprint	Extraction Depth	Lifespan	Amount of Extracted Aggregate	Annual Production Amounts	Proposed Land Uses	Required Actions
No Project	none	N/A	N/A	N/A	N/A	Undeveloped	No ESA Incidental Take Permit, No MUP or other discretionary permits
Proposed Project	105 acres	Approx. 525 feet below existing grade	Approxi mately 120 years	85.4 million tons	0.6 to 1.6 million tons	Mining/ IDEFO/ Open Space	All permits identified in Table 1.5.2-1 would be required
Extraction to Natural Grade	105 acres	Natural grade elevation	20 years	19 million tons	0.6 to 1.6 million tons	Mining (No IDEFO)/ Open Space	All permits identified in Table 1.5.2-1 would be required
Extraction to Varying Depth	105 acres	50 to 200 feet below existing grade	36 to 60 years	35 to 60 million tons	0.6 to 1.6 million tons	Mining/ IDEFO/ Open Space	All permits identified in Table 1.5.2-1 would be required



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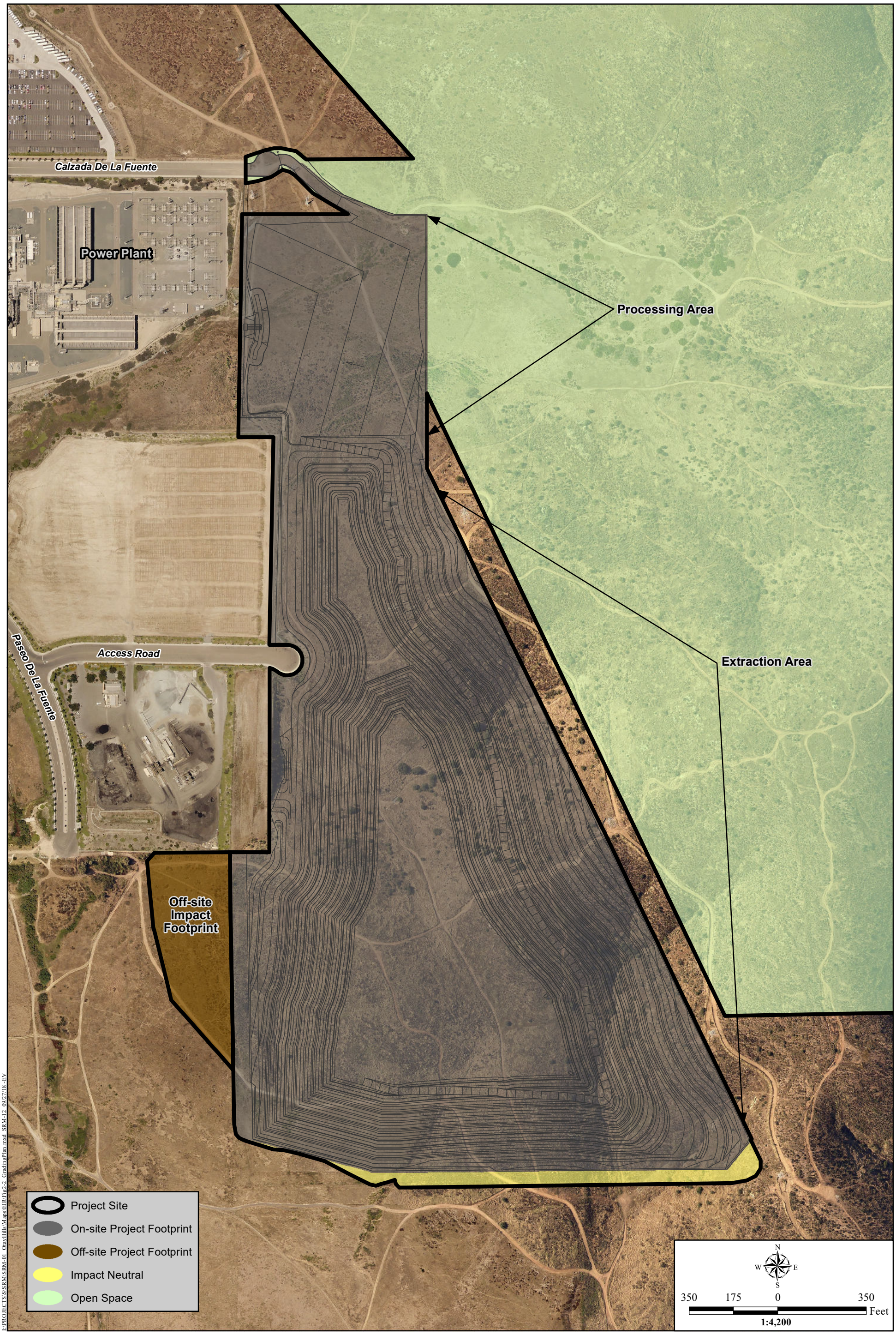
Proposed Specific Plan Amendment

OTAY HILLS EIR

HELIX Environmental Planning

N 0 1,000 Feet

Figure 2-1



Extraction Impact Footprint

OTAY HILLS EIR

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Figure 2-2

Parking

14'-Wide SDG&E
DG Access Road

Ready-Mix
Plant

Lab

Office

Parking

Pond

Recycle
Water

Asphalt
Plant

Aggregate Processing
Plant & Stockpiles

CTB Plant

Primary Crusher
& Stockpiles

Concrete & Asphalt
Recycle Plant

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Proposed Facilities Layout

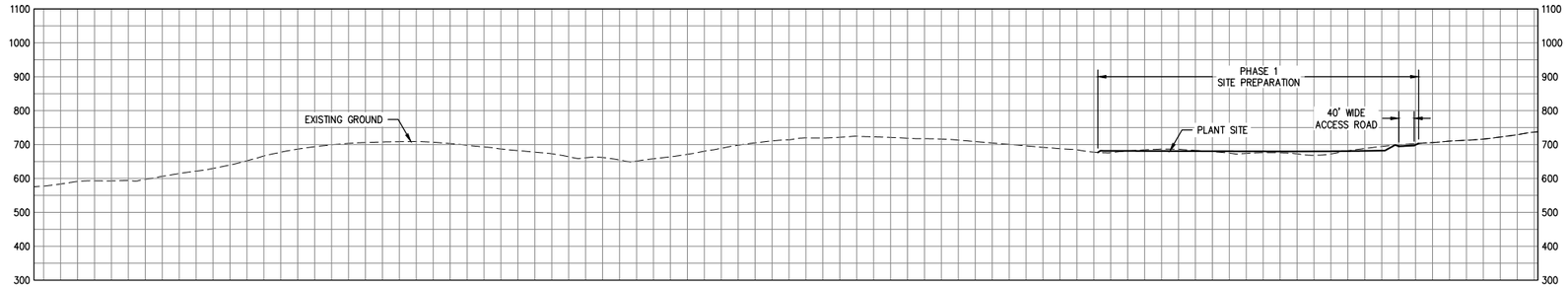
OTAY HILLS EIR

HELIX
Environmental Planning

N

0 100 Feet

Figure 2-3



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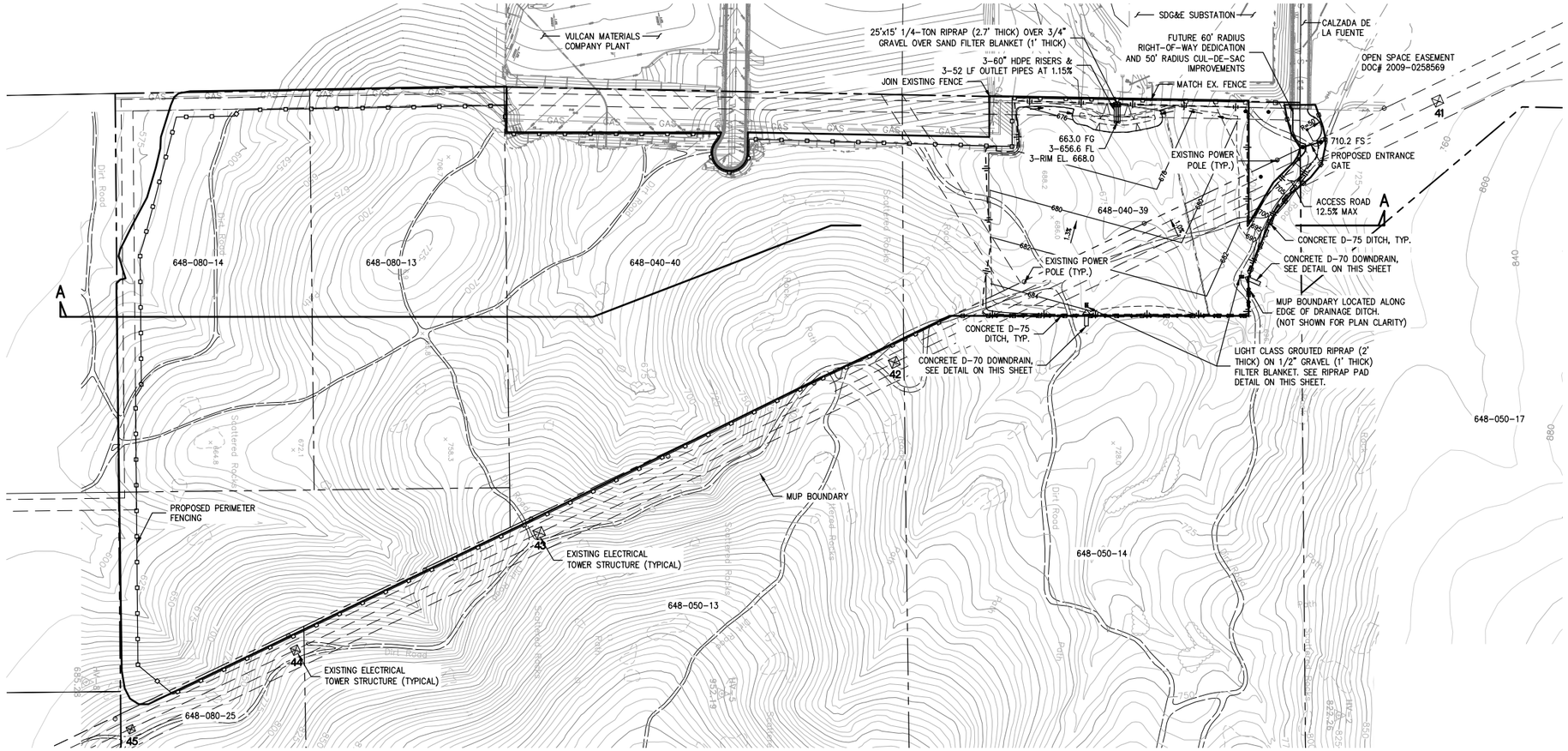

Source: Chang Consultants 2018

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Cross-section, Phase 1 (Site Preparation)

OTAY HILLS EIR

Figure 2-4

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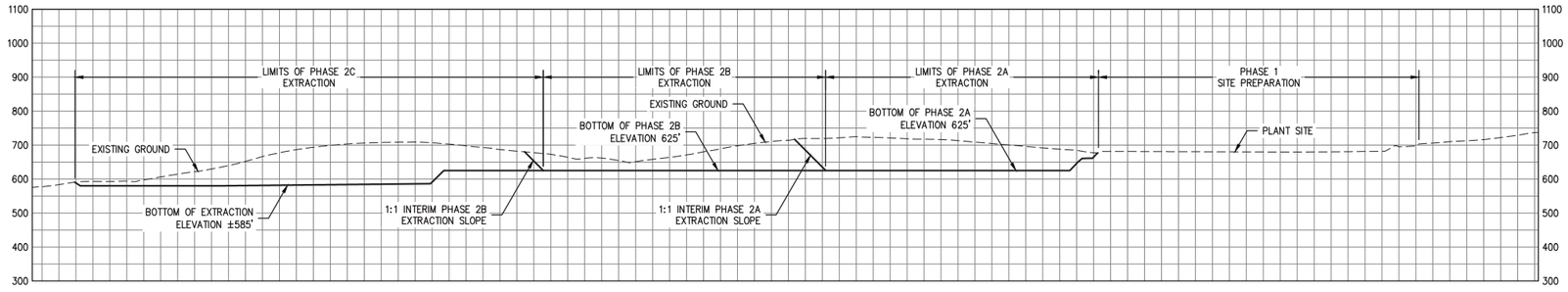

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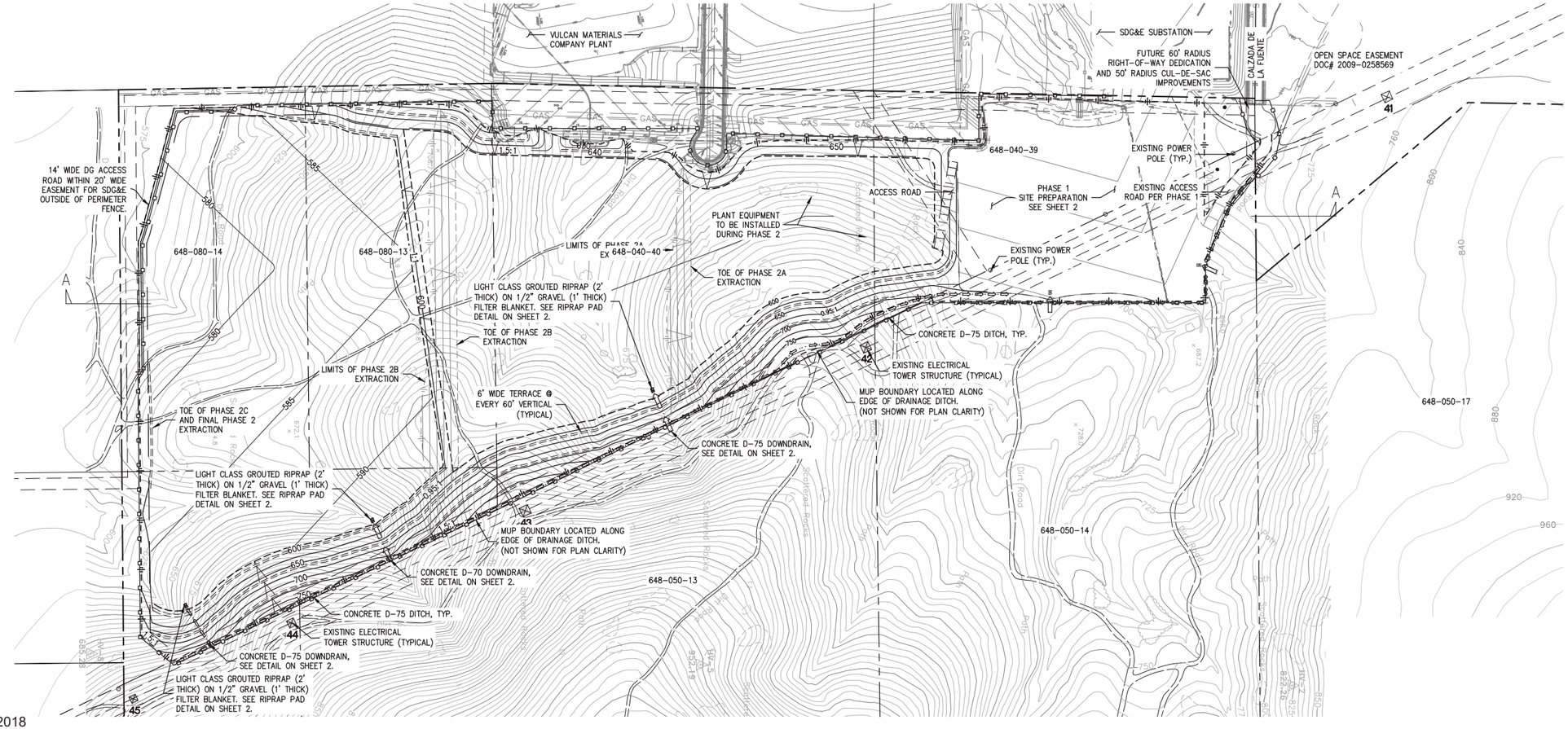

Source: Chang Consultants 2018

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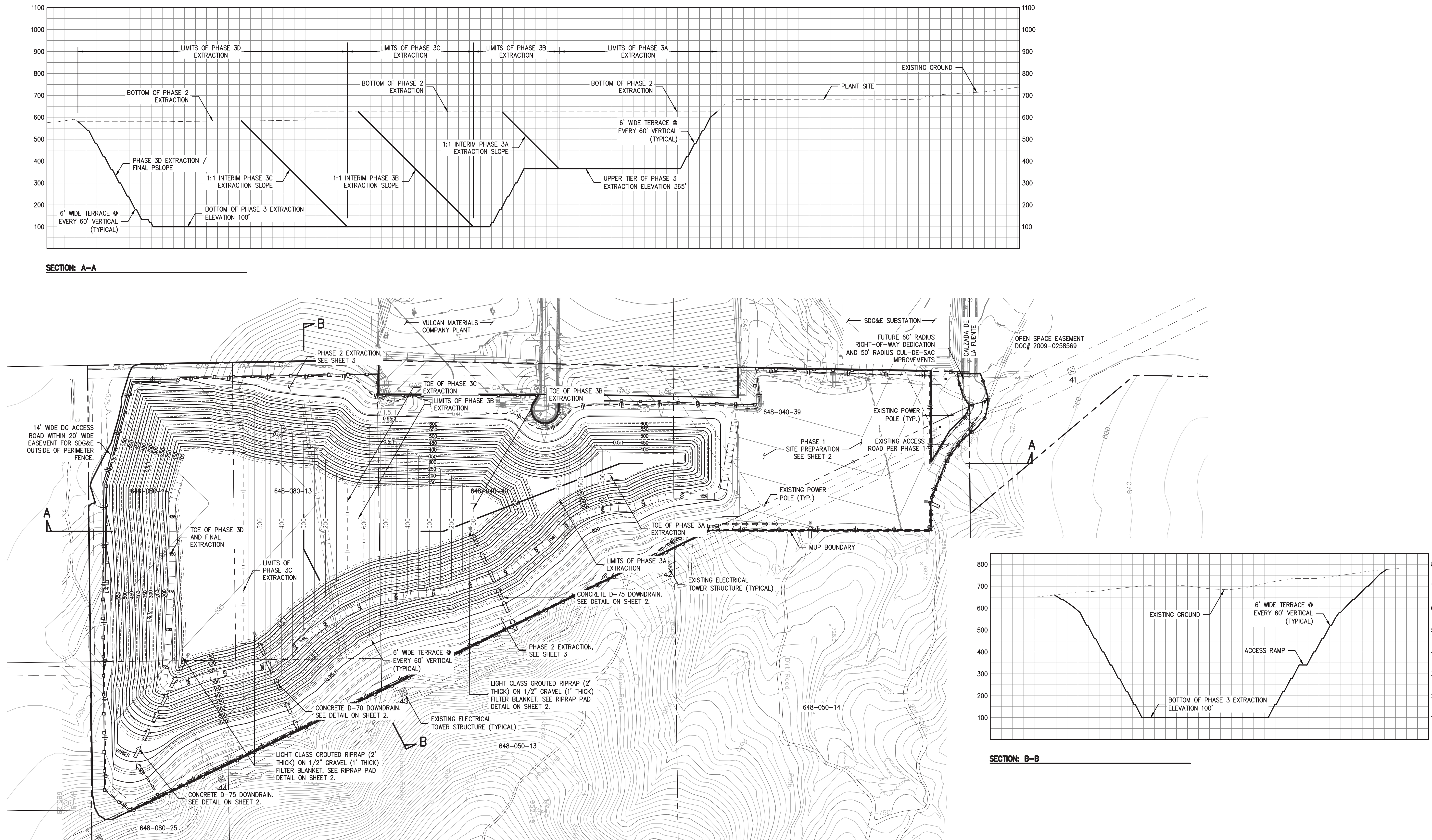
Cross-section, Phase 2 (2a, 2b & 2c) Extraction

OTAY HILLS EIR

Figure 2-5

HELIX Environmental Planning



Source: Chang Consultants 2018

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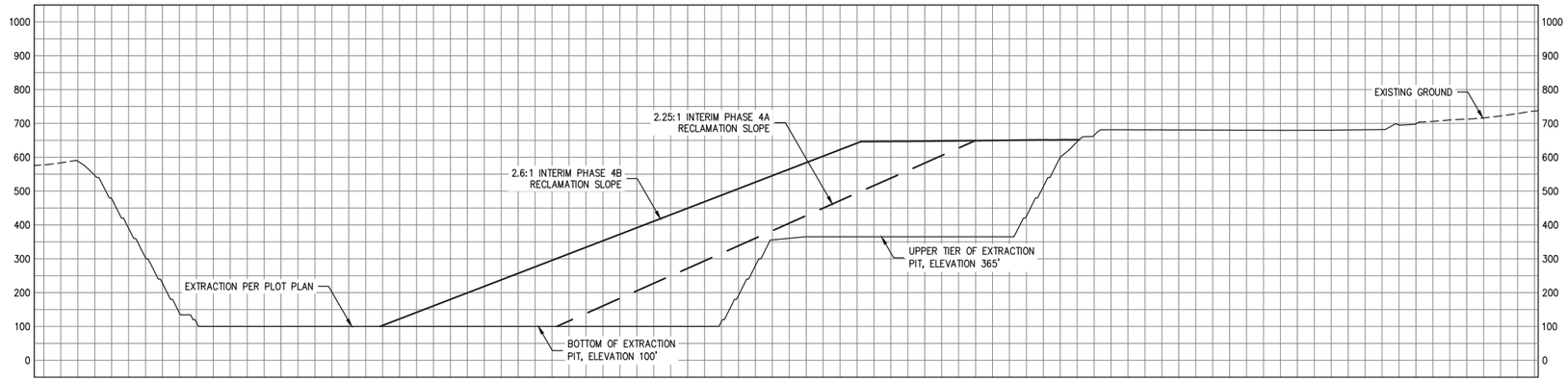
Cross-section, Phase 3 (3a, 3b, 3c & 3d) Extraction

OTAY HILLS EIR

HELIX Environmental Planning

Figure 2-6



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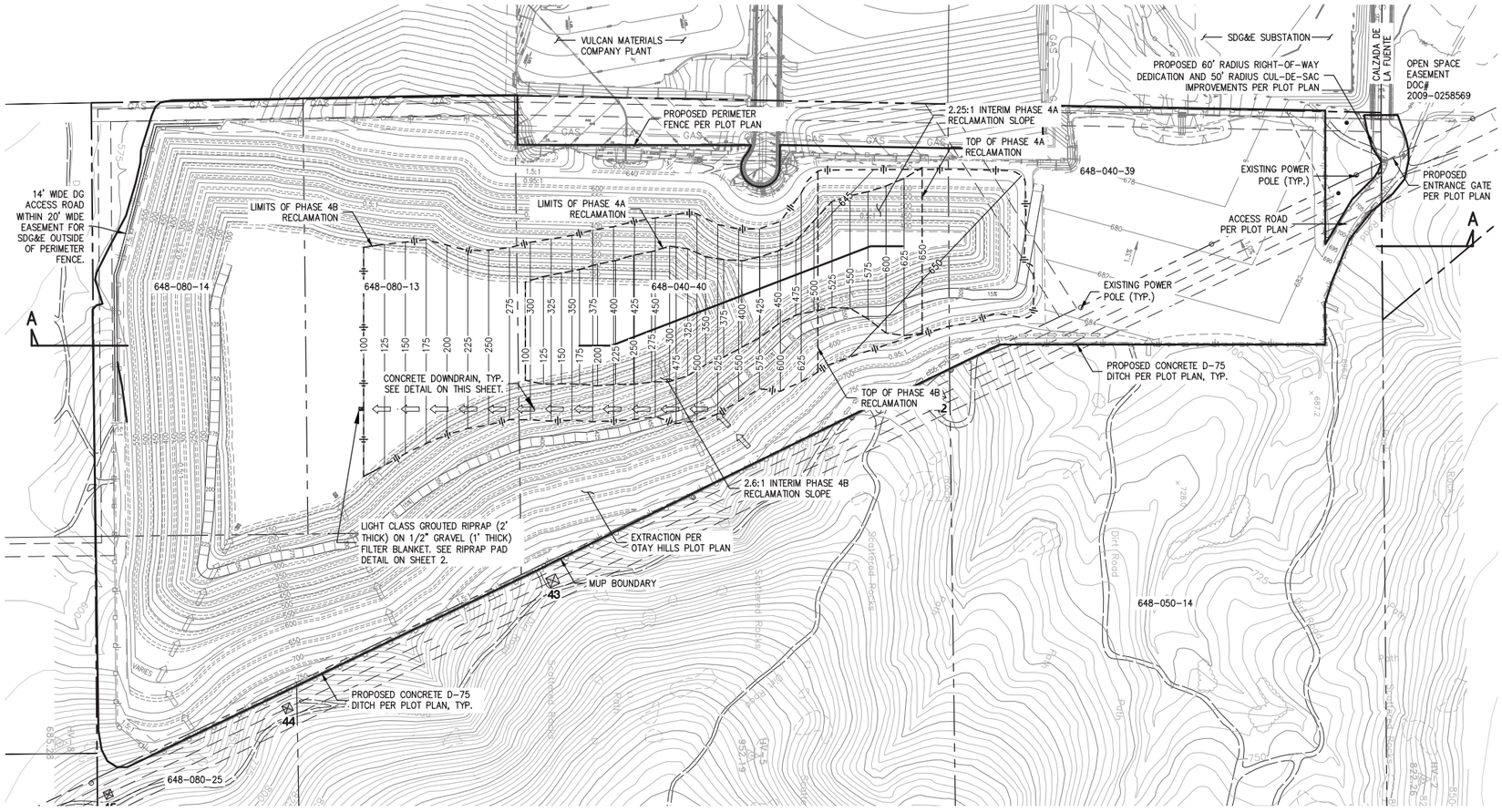

Source: Chang Consultants 2018

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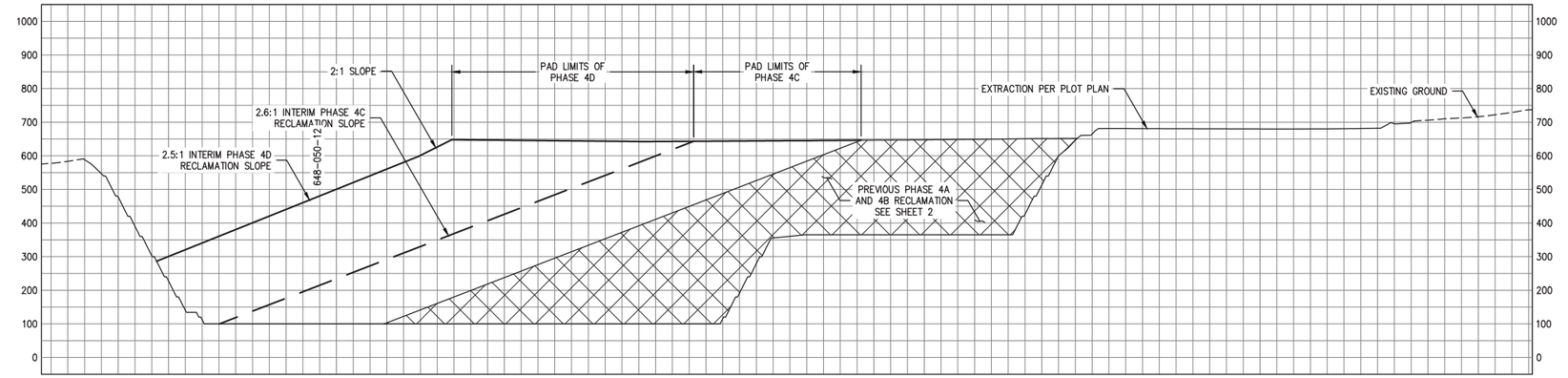
Cross-section, Phase 4 (4a & 4b) Reclamation

OTAY HILLS EIR

Figure 2-7

HELIX Environmental Planning



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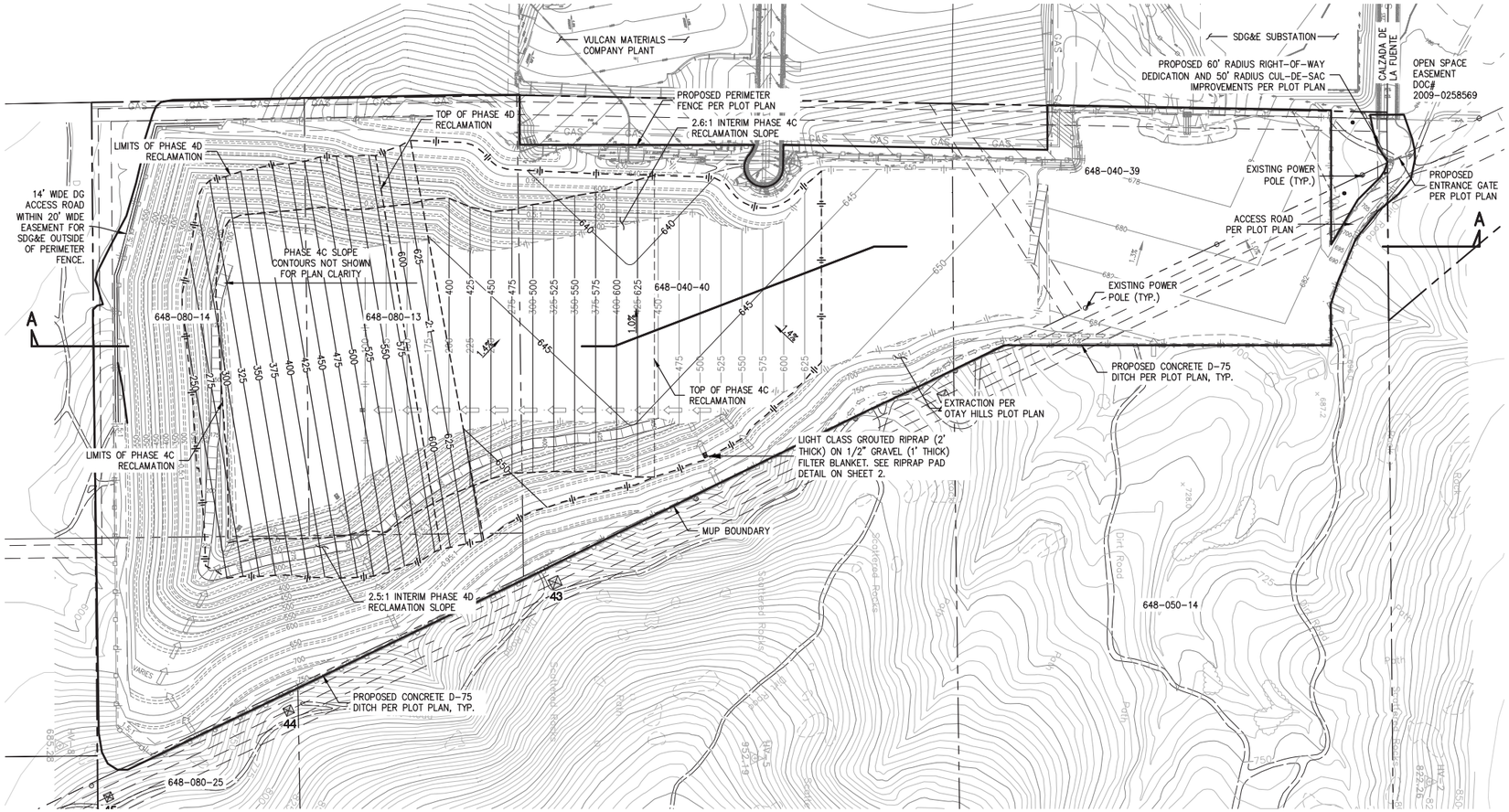

Source: Chang Consultants 2018

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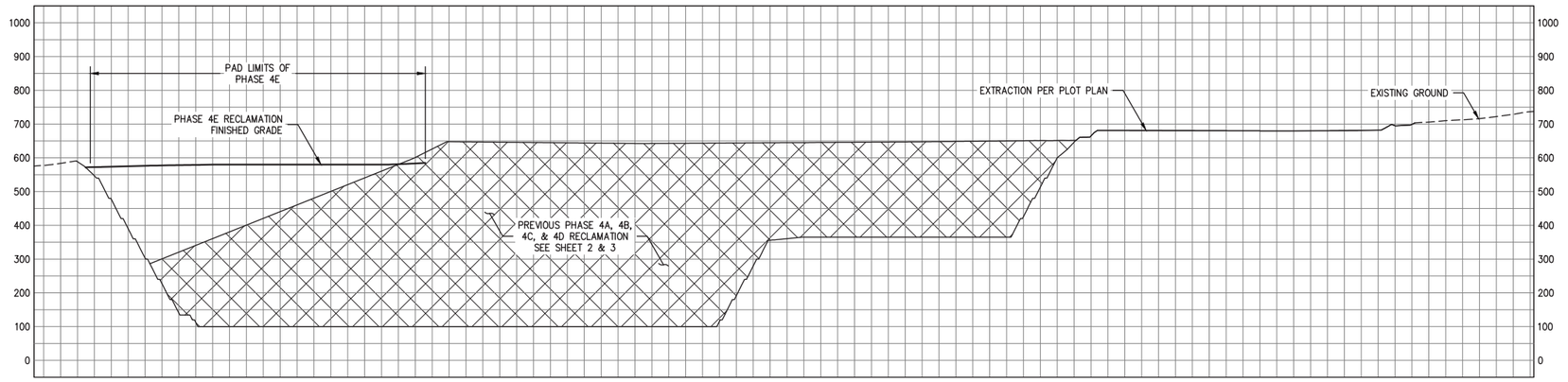
Cross-section, Phase 4 (4c & 4d) Reclamation

OTAY HILLS EIR

Figure 2-8

HELIX Environmental Planning



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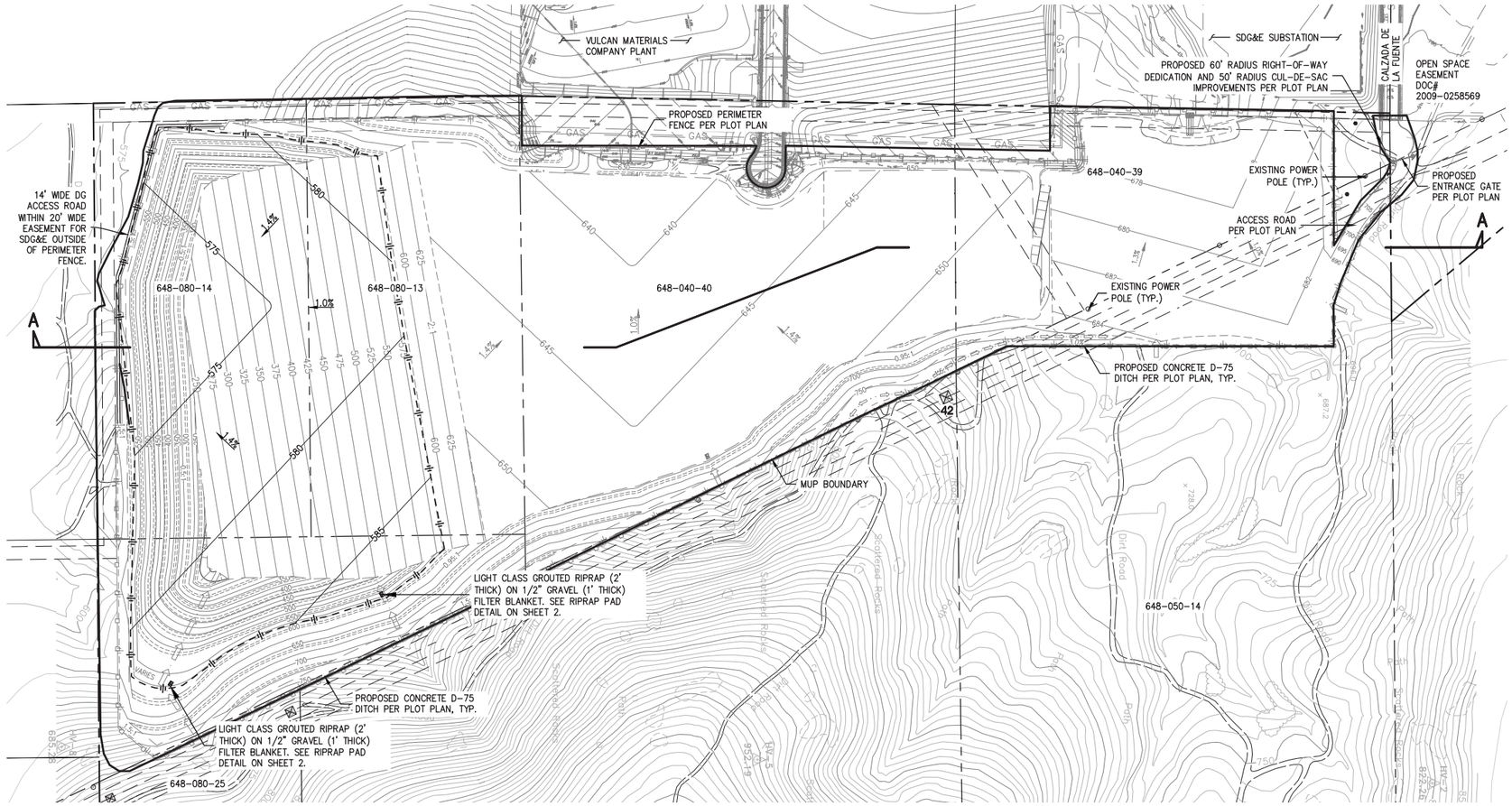

Source: Chang Consultants 2018

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Cross-section, Phase 4 (4e) Reclamation

OTAY HILLS EIR

Figure 2-9

HELIX Environmental Planning

A.L.T.A. NOTE:
DECEMBER 2001 A.L.T.A. SURVEY PERFORMED BY ALTA CONSULTANTS WAS USED FOR THE BOUNDARY AND EASEMENTS.

5-FOOT CONTOUR TOPOGRAPHIC MAPPING PREPARED BY TOWILL, INC., DATED APRIL 12, 2000. BENCHMARK AND CONTROL POINTS FOR 5-FOOT TOPOGRAPHIC MAPPING WERE PROVIDED BY BDS ENGINEERING, INC. 40-FOOT CONTOUR TOPOGRAPIC MAPPING FROM THE COUNTY OF SAN DIEGO.

T 18 S. R 1 E.

VULCAN MATERIALS COMPANY PLANT

SDG&E SUBSTATION

CALZADA DE LE FUENTE

20' GAS EASEMENT PER FILE 2001-0109364

40' TEMP. CONSTRUCTION EASEMENT PER FILE 2001-0109364

20' SDG&E EASEMENT PER FILE 2003-1080136

20' SDG&E EASEMENT PER FILE 85-352966 TO BE ABANDONED

200' ELECTRIC POWER TRANSMISSION EASEMENT PER FILE 2001-0109363

OPEN SPACE EASEMENT DOC# 2009-0258569

PROPOSED 60' RADIUS RIGHT-OF-WAY DEDICATION AND 50' RADIUS CUL-DE-SAC IMPROVEMENTS PER PLOT PLAN

PROPOSED PERIMETER FENCE PER PLOT PLAN

60' ROAD EASEMENT PER FILE 2002-0200939

APPROX. LOCATION PROP. SDG&E POLES

CENTERLINE 60' ACCESS EASEMENT PER FILE 1997-0652033 AND 120' SDG&E EASEMENT PER FILE 85-352

30' ACCESS EASEMENT PER FILE 97-0652033

PROPOSED ENTRANCE GATE PER PLOT PLAN

72' ACCESS EASEMENT PER FILE 2002-0200939

20' GAS ESMT. PER FILE 2001-0109364

14' WIDE DG ACCESS ROAD WITHIN 20' WIDE EASEMENT FOR SDG&E OUTSIDE OF PERIMETER FENCE.

MUP BOUNDARY

LIGHT CLASS GROUTED RIPRAP (2' THICK) ON 1/2" GRAVEL (1' THICK) FILTER BLANKET. SEE RIPRAP PAD DETAIL ON SHEET 2.

PROPOSED CONCRETE D-75 DITCH PER PLOT PLAN, TYP.

40' TEMP. CONSTRUCTION ESMT. PER FILE 2001-0109364

CENTERLINE 60' EASEMENT PER FILE 1997-0652033 AND 120' SDG&E EASEMENT PER FILE 85-352966

648-080-14
648-080-13
648-040-40
648-040-39
648-050-17
648-050-14
648-080-25
648-080-26
648-050-13

N00°58'54"W 1320.66'
N01°07'23"E 1352.50'
N01°07'23"E 1350.23'
N01°07'23"E 752.77'
N89°29'11"E 1352.85'
N89°29'14"E 1352.85'
N89°29'14"E 1365.74'
N89°32'54"E 1347.09'

Source: Chang Consultants 2018

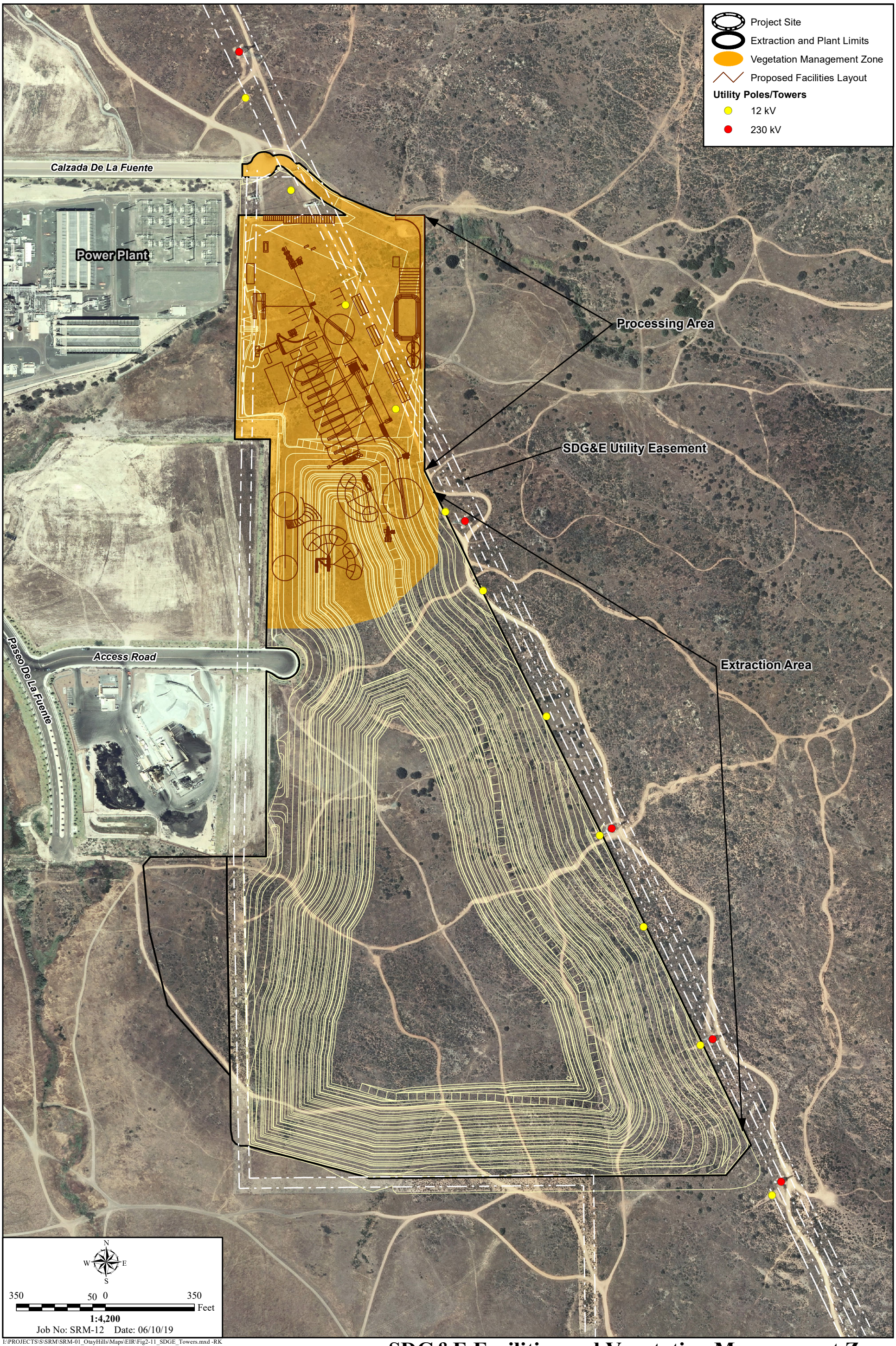
I:\PROJECTS\S\SRM\SRM-01_OtayHills\Maps\EIR\Fig2-10_SP_Extraction.indd -EV

Final Site Plan Extraction

OTAY HILLS EIR

Figure 2-10

HELIX Environmental Planning



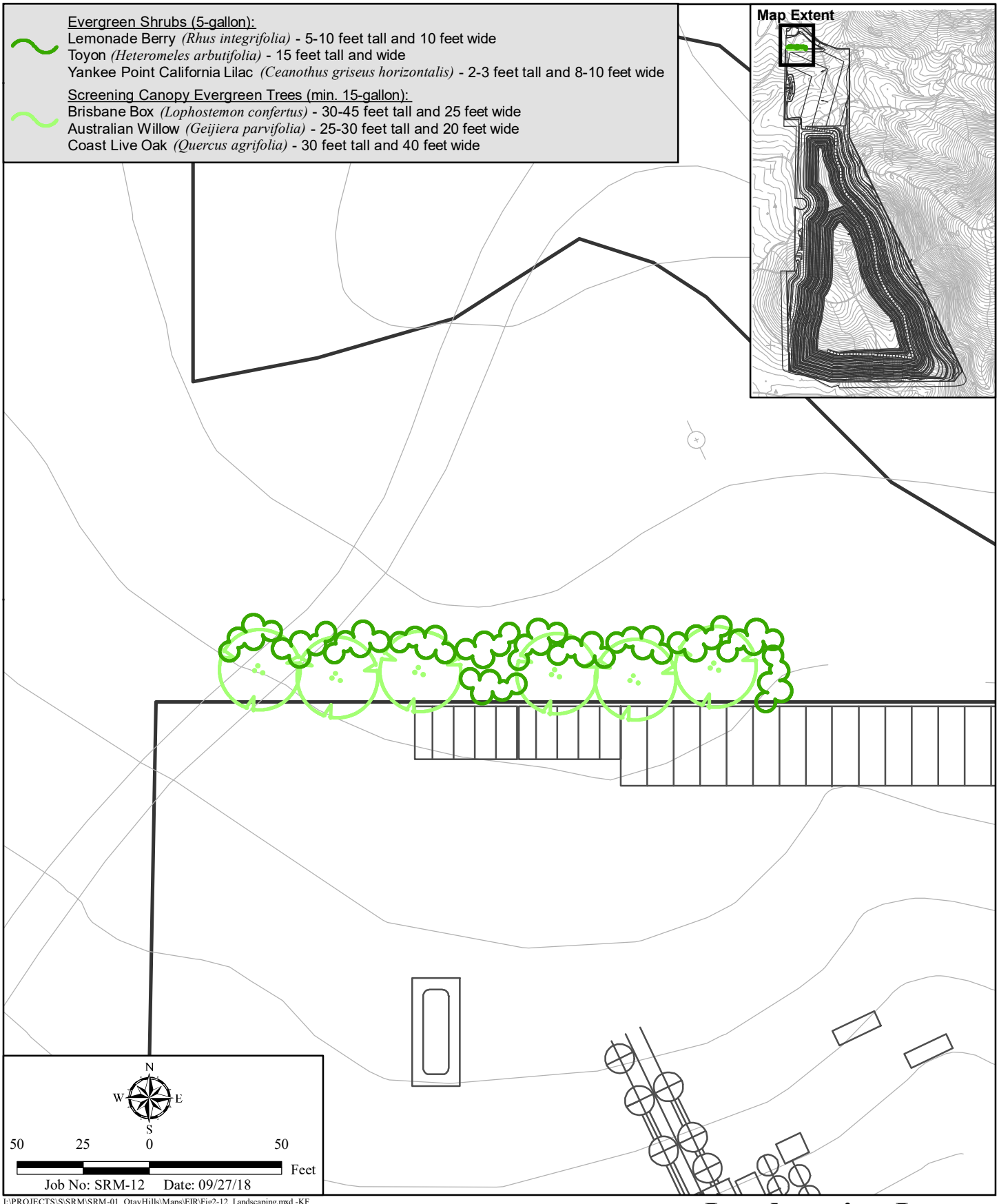
I:\PROJECTS\S\SRM\SRM-01_OtayHills\Maps\EIR\Fig2-11_SDGE_Towers.mxd -RK

SDG&E Facilities and Vegetation Management Zone

OTAY HILLS EIR

HELIX Environmental Planning

Figure 2-11

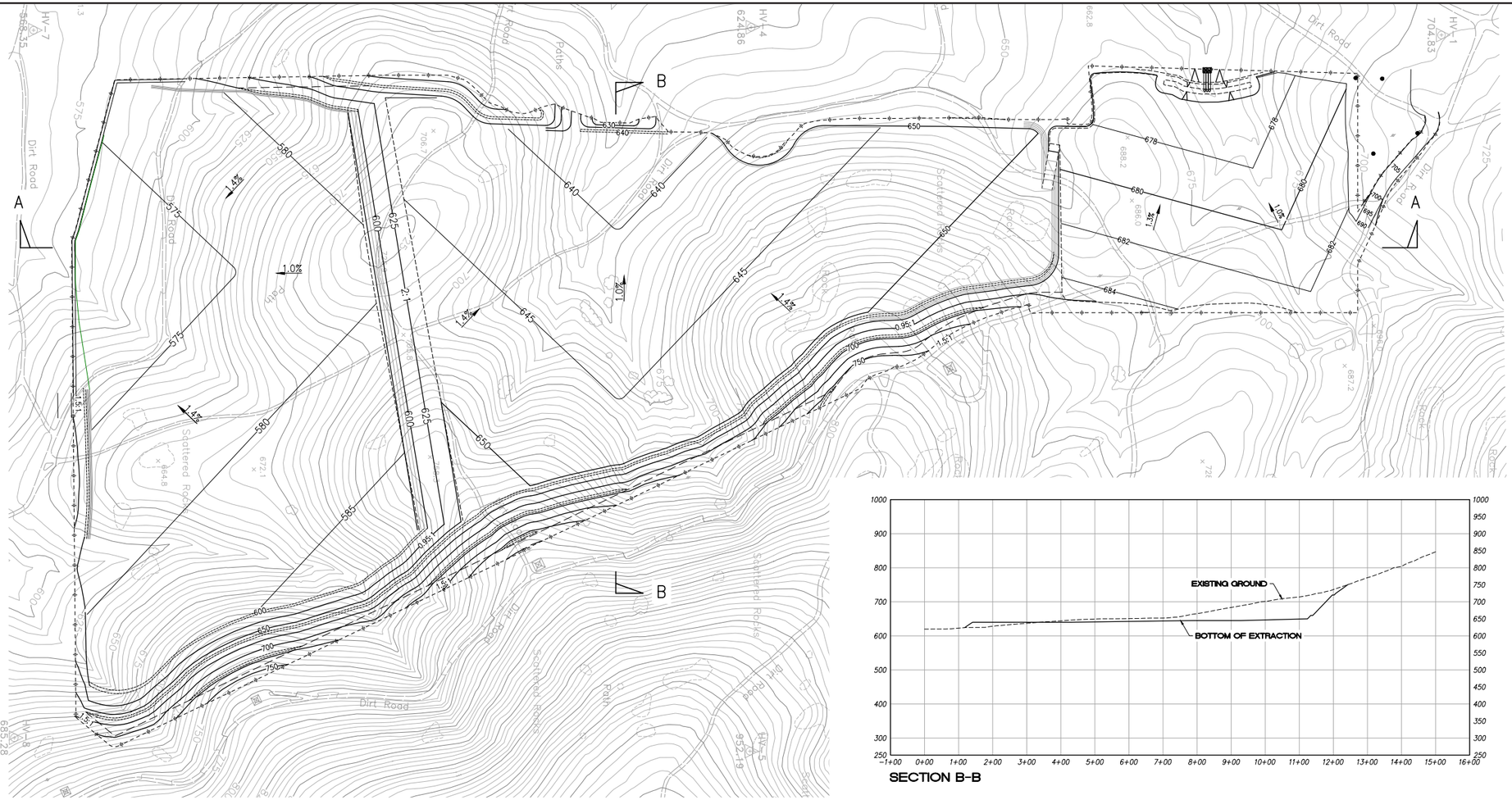


Landscaping Layout

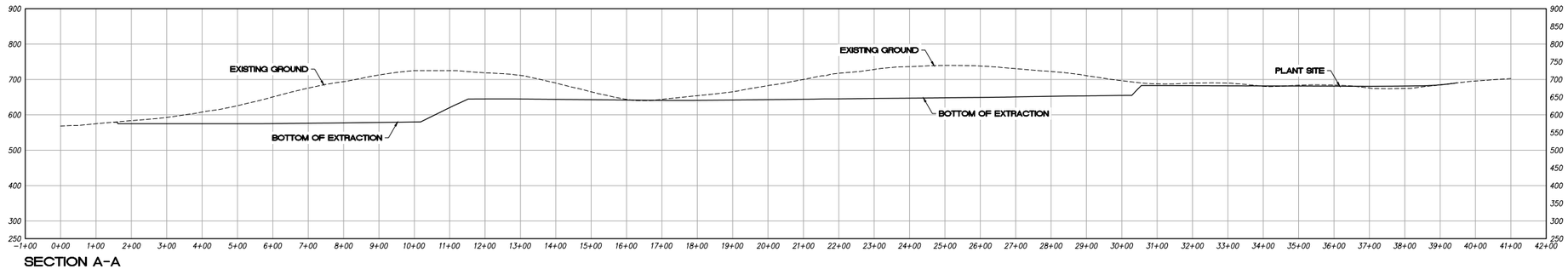
OTAY HILLS EIR

HELIX Environmental Planning

Figure 2-12



SECTION B-B



SECTION A-A

Source: Chang Consultants 2018

0 50 100 200

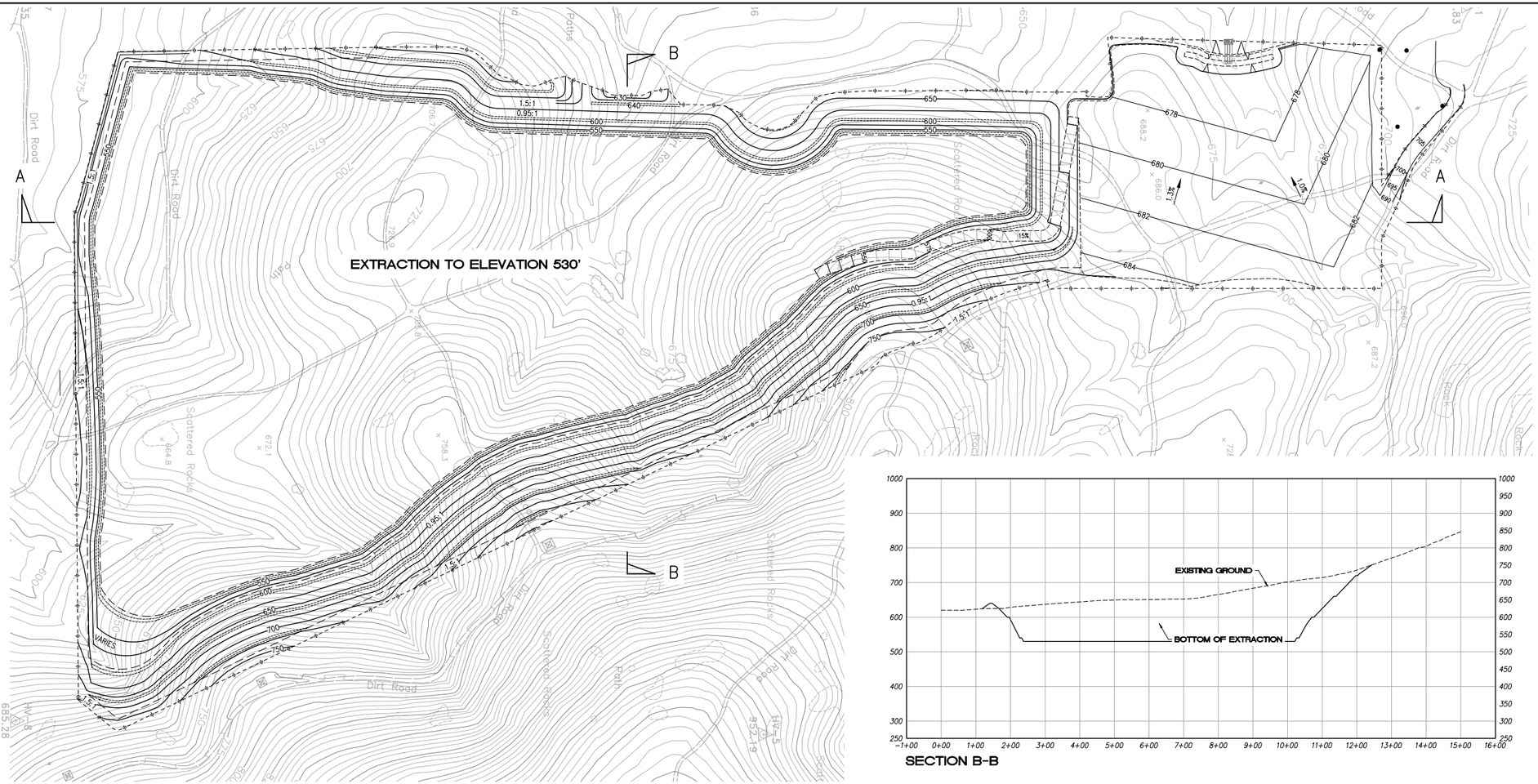
I:\Gis\SSRM-01 Mining\Maps\EIR\Fig2-15 ExtractionNatAlternative.indd -EV

Extraction to Natural Grade Alternative

OTAY HILLS EIR

Figure 2-13

HELIX Environmental Planning



RAW EARTHWORK QUANTITIES
15,844,000 CY EXPORT

Source: Chang Consultants 2018

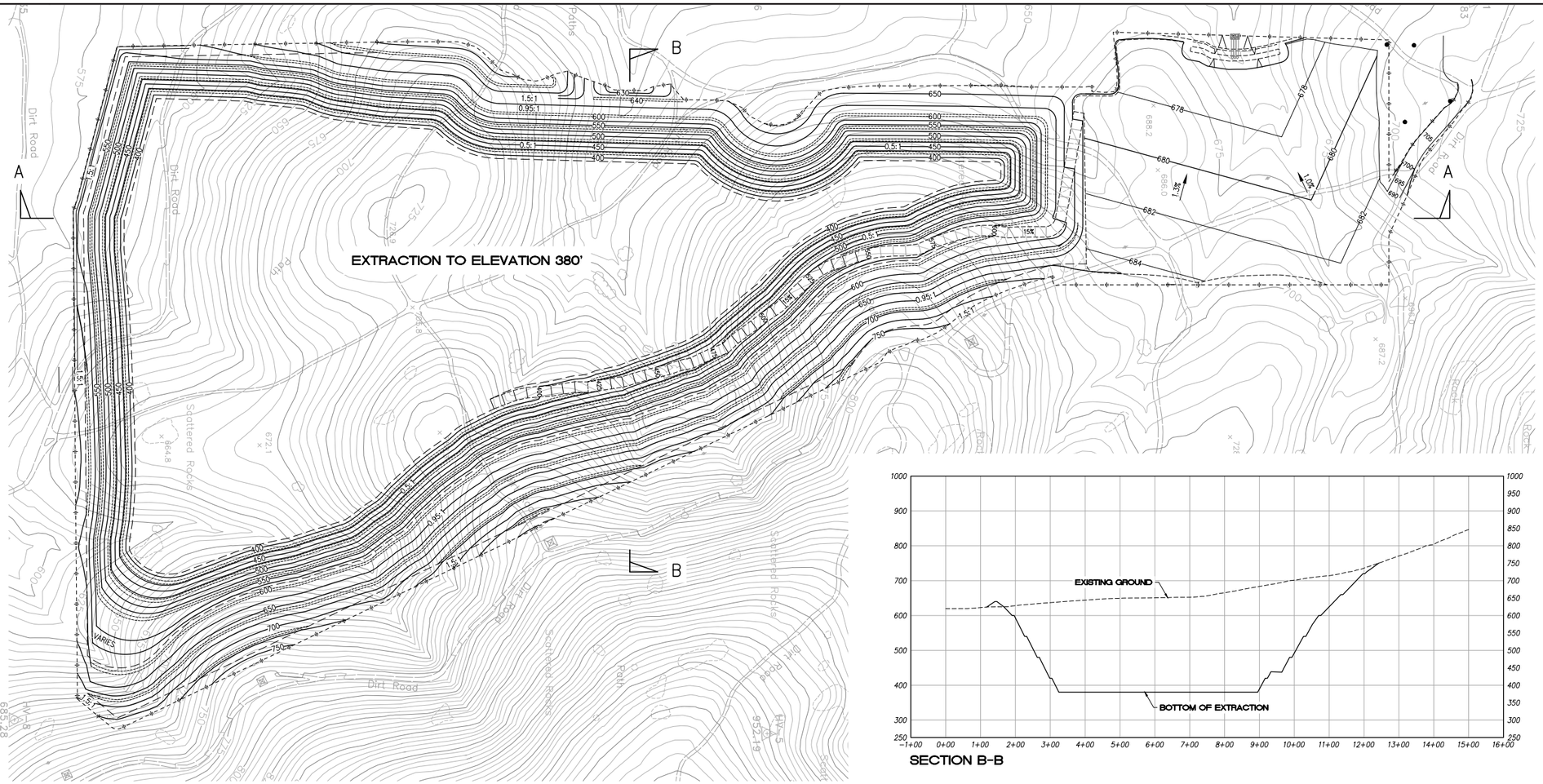
I:\Gis\SSRM-01 Mining\Maps\EIR\Fig2-16 Extraction500ftAlternative.indd -EV

Extraction to Varying Depth Alternative - Extraction to 50 Feet

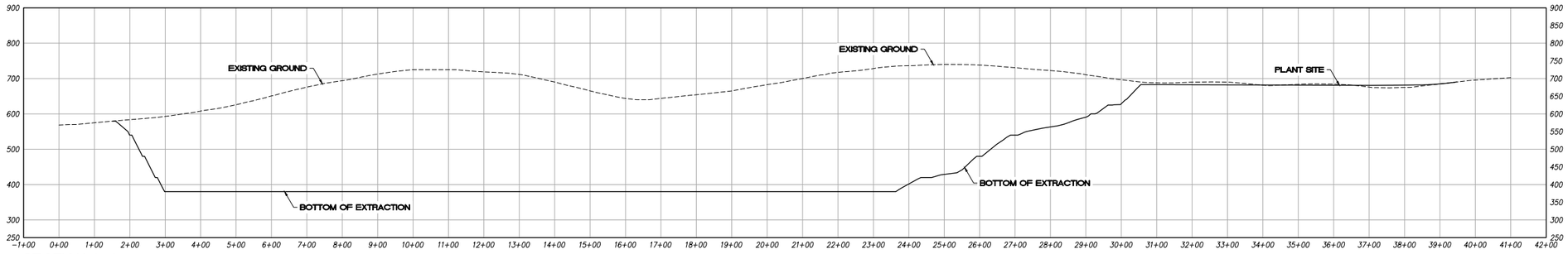
OTAY HILLS EIR

Figure 2-14a

HELIX Environmental Planning



SECTION B-B



SECTION A-A

RAW EARTHWORK QUANTITIES
26,902,400 CY EXPORT

Source: Chang Consultants 2018

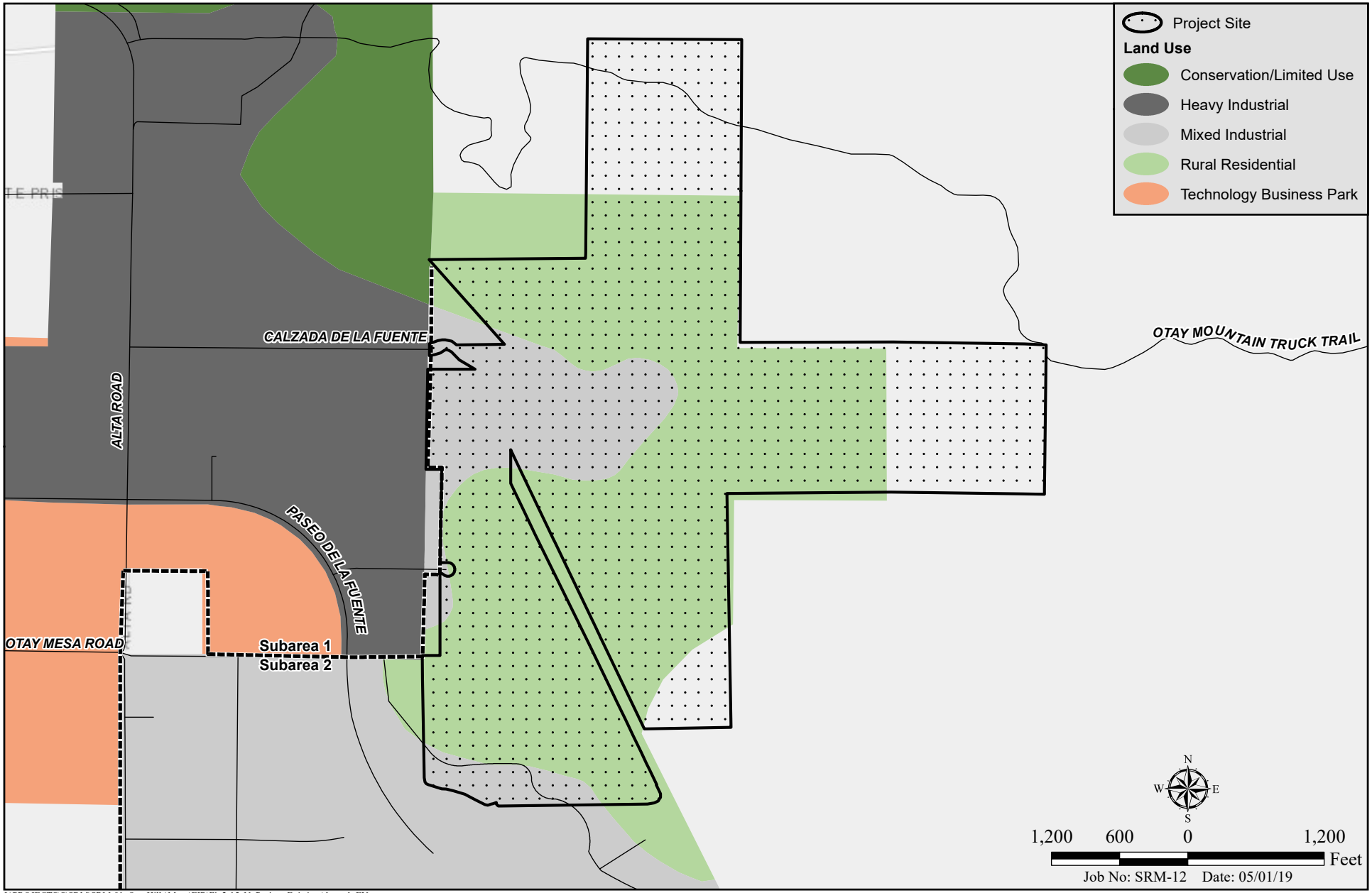
I:\Gis\SSRM-01 Mining\Maps\EIR\Fig2-17_Extraction200BAlternative.indd -EV

Extraction to Varying Depth Alternative - Extraction to 200 Feet

OTAY HILLS EIR

Figure 2-14b

HELIX Environmental Planning



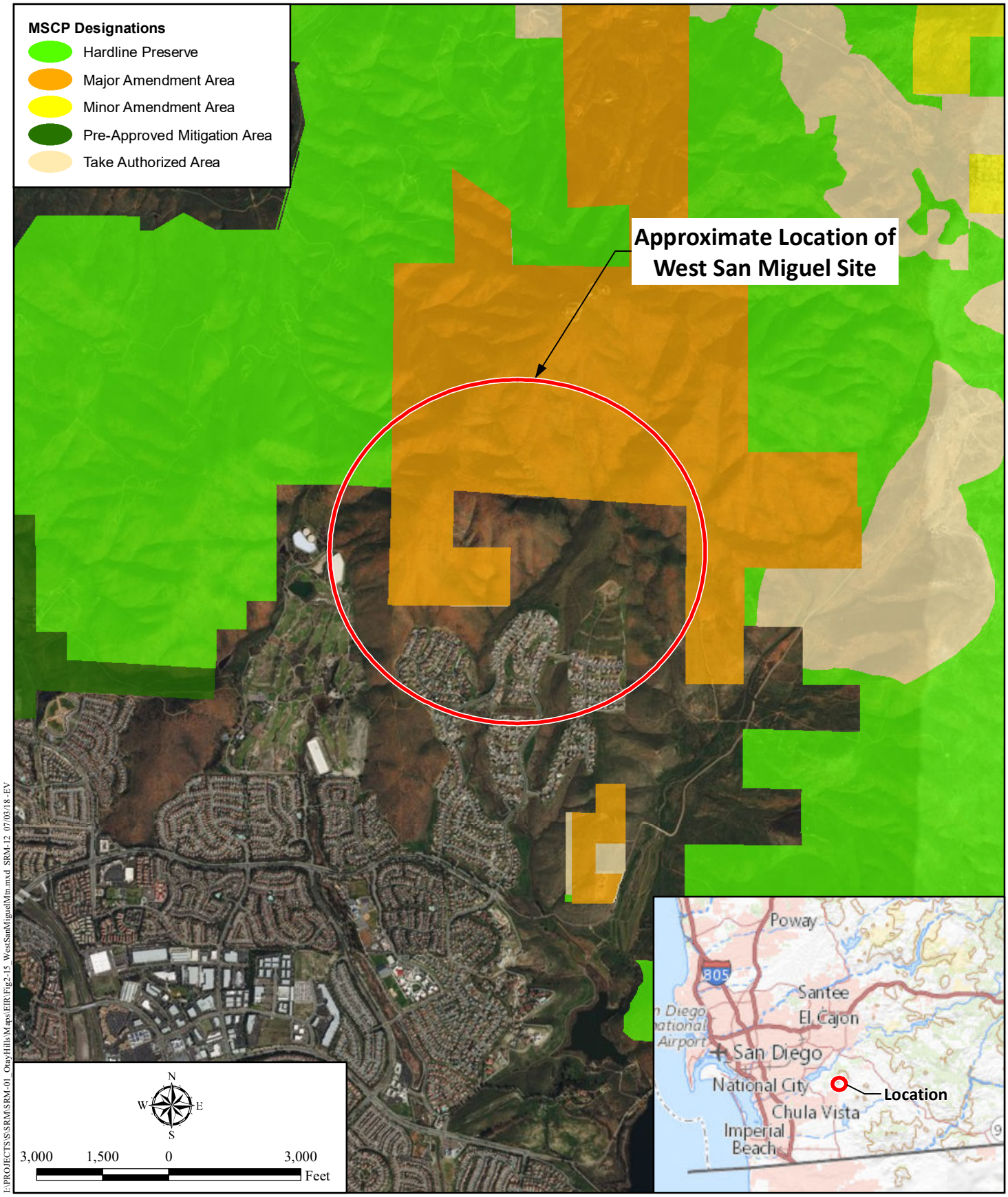
I:\PROJECTS\S\SRM\SRM-01_OtayHills\Maps\EIR\Fig2-15_NoProject_ExistingAlt.mxd -EV

No Project/Existing Plan Alternative

OTAY HILLS EIR/EIS

HELIX Environmental Planning

Figure 2-15



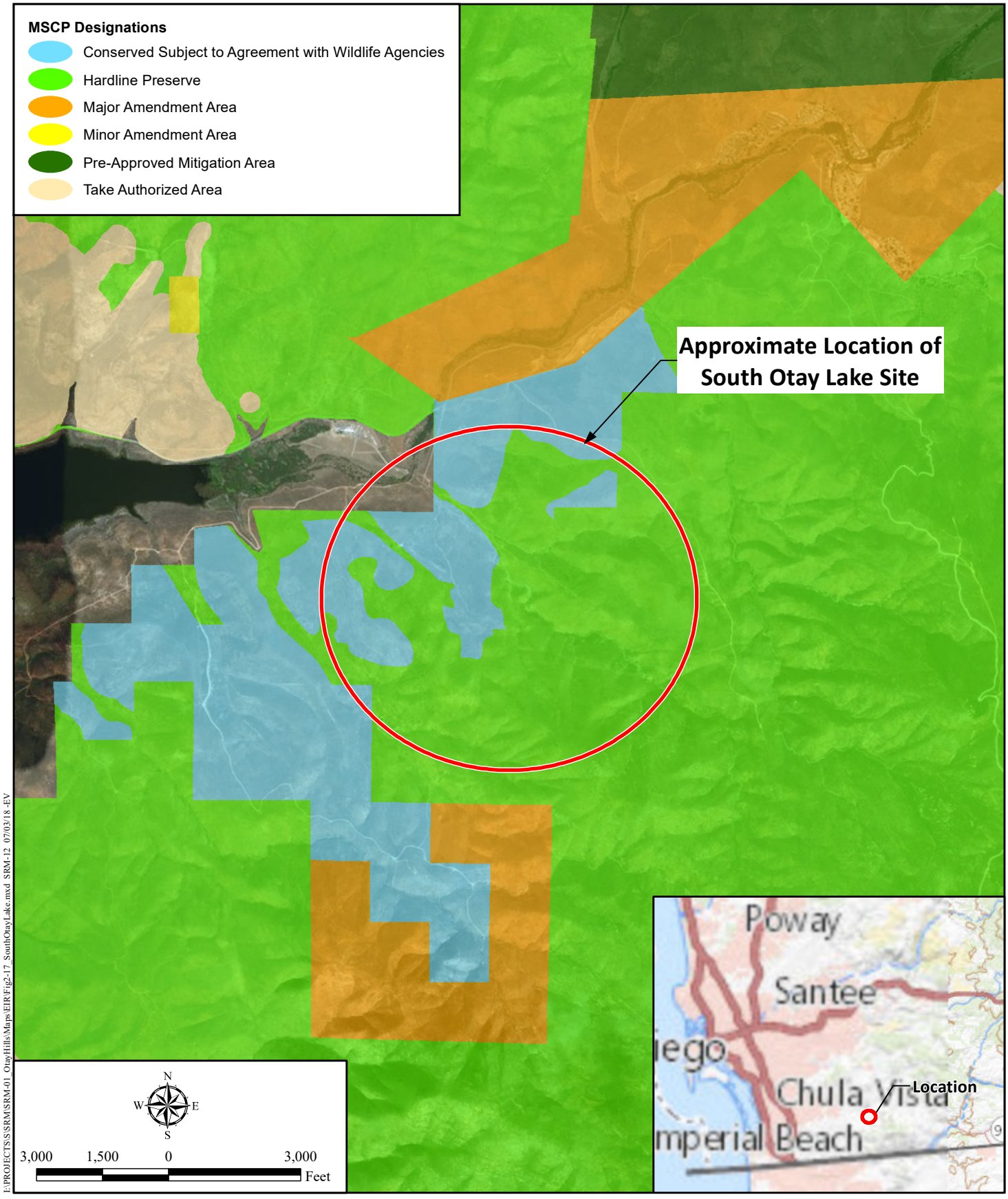
I:\PROJECTS\S\SRM\SRM-01_OtayHillsMaps\EIR\Fig2-15_WestSanMiguelMtn.mxd SRM-12 07/03/18 EV

West San Miguel Mountain Site

OTAY HILLS EIR

HELIX Environmental Planning

Figure 2-16



South Otay Lake Site

OTAY HILLS EIR/EIS

HELIX Environmental Planning

Figure 2-17

I:\PROJECTS\SSRM\SRM-01 OtayHillsMaps\EIR\Fig2-18 OtayValleyQuarry.mxd SRM-12 07/03/18 EV

Otay Valley Quarry

OTAY HILLS EIR

HELIX Environmental Planning

N 0 600 Feet

Figure 2-18