

PROJECT DESCRIPTION
GRANGER SOLAR/PHOTOVOLTAIC SOLAR FARM
VALLEY CENTER, CALIFORNIA
SEPTEMBER 2015

PDS2015-MUP-15-019; ENVN. LOG NO. PDS2015-ER-15-02-006

PROJECT LOCATION

The proposed Granger Solar Project (proposed “Project”) site is located in the community of Valley Center, California in north-central San Diego County. The subject site is located just east of Mesa Crest Road, with Avenida Annalie forming the southern property boundary. The County Assessor Number (APN) is 129-162-07, totaling approximately 40 acres. Refer to Figure 1, Regional Location Map; Figure 2A, Local Vicinity Map/Surrounding Land Uses; and, Figure 2B, USGS Quad Map: Pala Quadrangle.

PROPOSED PROJECT

The Project proponent is preparing an application for development and operation of a photovoltaic (PV) solar farm to be located on privately-held lands near Valley Center. The Project requires approval from the County of San Diego for a Major Use Permit (MUP) to allow for the construction, operation, and maintenance of such facilities for the long-term generation of solar energy.

The proposed PV solar facilities would be installed on a portion of the approximately 40-acre property. The fenced MUP boundary would encompass approximately 27 acres. The MUP boundary would include the solar field plus the proposed landscaped screening areas. The unaffected (undeveloped) acreage onsite (approximately 13 acres) would remain in its present state upon implementation of the proposed Project as currently designed; refer to Figure 3A, Major Use Permit Plot Plan.

Project access to the site will be from Mesa Crest Road. No offsite roadway or gen-tie improvements are required, with exception of providing an asphaltic concrete (AC) taper to ensure adequate access to/from the site; refer to Figure 3A, Major Use Permit Plot Plan.

The Project design would consist of PV solar panels mounted on a collection of single-axis tracking (SAT) systems supported by machine-driven metal “H” piles or round pipe columns. The single-axis system proposes solar panels aligned in rows that rotate to face east in the morning and west in the afternoon hours, tracking the sun about a north/south axis to maximize solar absorption.

The point of interconnection (POI) for transmission purposes would occur at an existing utility pole within the Mesa Crest Road right-of-way (ROW), adjacent to the western Project boundary, just north of the proposed Project entry drive. As designed, the Project would underground the

utility lines between the solar panels within the interior of the site. These lines would extend to the switchgear pad; refer to Figure 3A, Major Use Permit Plot Plan. From the switchgear pad, the line would be undergrounded to the existing SDG&E utility pole which supports a 12 kV (overhead) distribution line. Where the line meets the existing utility pole, the line would be extended aboveground to connect to the existing SGD&E distribution line. Energy generated by the Project would ultimately be delivered to the existing Lilac Substation (69/12kV), located approximately 1.8 miles to the southwest of the property along Gabler Drive. No offsite improvements to either the existing transmission lines or substation are required or proposed.

The PV panels would be mounted on a single-axis tracker. The center axis of the single-axis trackers would have a nominal height of three feet above grade; refer to Figure 3B, Major Use Permit Plot Plan (Details). The PV panels would rotate through a 90 degree arc during the day. The maximum height of the top of panel would measure an average of seven feet at full tilt. In certain cases where the ground surface undulates underneath the panels, the height of the top of panel could reach a maximum of approximately 12 feet (as measured from the ground surface); however, when viewed, the top of the panels would appear to the viewer to generally maintain a consistent height across the horizon. The panels themselves would be approximately 39 inches long by 77 inches long.

The direct current (DC) power generated by the PV panels would be transmitted via underground cable to one proposed inverter/transformer pad and/or one proposed switchgear pad located within the proposed onsite development area where the DC power would be converted to alternating current (AC) power. The inverter/transformer equipment pad would be approximately 16 feet wide by 33 feet long; the switchgear pad would be approximately 7.5 feet wide by 8.5 feet long. The equipment installed on the pads would measure a maximum of approximately 10 feet in height (above pad elevation). The pad would support two 1,500 kilowatt (kW) inverters and one three (3) megavolt ampere (MVA) transformer. All inverter/transformer and switchgear structures would be constructed of non-flammable materials (e.g. steel). The AC power from the inverter stations would be transmitted via underground AC cable to the switchgear. The switchgear would contain breakers, relays, and monitoring and metering equipment necessary to provide for the safe and efficient transfer of power to SDG&E.

Security would be maintained through installation of a 7-foot high chain-link fence (with plastic or wooden slats; 8-foot high maximum) around the perimeter of the MUP area. Wooden slats or plastic strips would be inserted along portions of the northern, western, and southern portions of the fence, in combination with proposed landscaping, to further screen the development from view; refer to Figure 3D, Conceptual Landscape Plan.

The Biological Constraints Report (Michael Baker International, September 2015) prepared for the Project identifies the following habitats on and adjacent to the subject property (includes a 100-foot wide buffer from property boundary): southern mixed chaparral; coastal sage scrub; coast live oak woodland; flat-topped buckwheat scrub; native grassland; non-native grassland;

extensive agriculture; extensive agriculture; disturbed habitat and developed lands. Overall, the Project as designed would impact approximately 25.6 acres of onsite habitat (within the MUP footprint). Mitigation would be required (total of approximately 15 acres), likely in the form of offsite purchase of credits in a County-approved mitigation bank, to ensure that Project impacts on biological resources are reduced to less than significant; refer also to the Biological Constraints Report, available under separate cover.

Further, the Project site formerly supported limited agricultural uses (container nursery), and soils designated as Prime Soils and Farmland of Statewide Importance, as defined by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), are present onsite. Development of the Project site with the solar facilities would (temporarily) remove approximately 5.51 acres of such lands from agricultural use. The Project would result in installation of the solar equipment onsite, consisting of foundations (i.e. inverter/transformer and switchgear equipment pads), piling footprints, access driveways, and existing and proposed paved areas (i.e. entrance drive) that would cover a portion of the ground surface, thereby restricting such lands from potential agricultural use during the time that the solar facility remains on the property.

Mitigation for impacts to agricultural resources is proposed to occur either onsite through dedication of lands (1:1 ratio of impacts to mitigation required, or 5.51 acres) containing the same resources (soils that meet the soil quality for Prime Farmland and Farmlands of Statewide Importance) within an open space easement (within the proposed MUP development area). The preservation of such lands on the property would be limited to the life of the MUP. Alternatively, mitigation could occur in the form of purchase of agricultural credits on offsite lands, pursuant to the County's Purchase of Agricultural Easement (PACE) program, thereby allowing such lands to be preserved only for agricultural-related uses in perpetuity. Such offsite preservation may be by the purchase of an agricultural easement or agricultural land, over an existing agricultural operation.

One small structure (storage shed) and miscellaneous infrastructure associated with the former agricultural uses (container nursery) onsite are located outside of the MUP area to the east of the proposed PV facility on the 40-acre property. This structure would remain with Project implementation.

No groundwater wells are present onsite within the MUP boundary. Water for the Project would be provided by the Valley Center Municipal Water District (VCMWD). The Project site is currently within the District boundaries, and therefore, annexation into a district for water service is not required. The Project water meter is connected to an existing water line located within the Mesa Crest Road ROW. As such, the extension of water lines to serve the site is not needed.

County of San Diego General Plan Land Use Designations and Zoning

Existing County General Plan land use designations and zoning for the affected parcel is given in Table 1, below. No changes to either the existing General Plan land use or zoning are proposed

with the Project. The proposed Project would be an allowable use on the site with County approval of an MUP.

TABLE 1
EXISTING GENERAL PLAN LAND USE / REGIONAL CATEGORY / ZONING

Assessor Parcel Number	Approximate Acreage	General Plan Land Use Designation	Regional Category	Zoning
129-162-07	40.1*	Semi-Rural Residential (SR-2) 1 DU/2AC	Semi-Rural Lands	General Agriculture (A72)

*Acreage taken from Assessor Parcel Sheets.

The County of San Diego General Plan was adopted on August 3, 2011 by the County Board of Supervisors. The following demonstrates conformance of the proposed Project with applicable goals and policies in the General Plan. In addition, the Valley Center Community Plan, which is part of the County's General Plan, identifies goals and policies at the community level that may affect the Project.

County of San Diego General Plan

Chapter 5 – Conservation and Open Space Element

Air Quality, Climate Change and Energy

GOAL COS-14 – Sustainable Land Development

Policies

COS-14.4 Sustainable Technology and Projects. *Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.*

The Project would provide clean, renewable solar power to the local SDG&E distribution network. The Project would not produce emissions or greenhouse gases (GHGs), and would assist SDG&E in reducing its reliance on fossil-fired plants for power generation.

COS-14.7 Alternative Energy Sources for Development Projects. *Encourage development projects that use energy recovery, photovoltaic, and wind energy.*

The Project would utilize highly efficient PV panels to produce energy.

COS-14.3 Incentives for Sustainable and Low GHG Development. *Provide incentives such as expedited project review and entitlement processing for developers that maximize use of sustainable and low GHG land development practices in exceedance of State and local standards.*

The Project would produce low-cost, renewable, sustainable power, and would not produce emissions or GHGs during operation. Further, the Project would assist SDG&E in reducing its reliance on fossil-fired power plants to produce electricity.

GOAL COS-18 – Sustainable Energy

Policies

COS-18.1 Alternate Energy Systems Impacts. *Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.*

The proposed Project site is located in an area compatible with renewable energy development. The Project would be designed to minimize impacts on biological, agricultural, and other environmental resources, while producing emission-free power to the local SDG&E distribution system.

Valley Center Community Plan

2. Land Use

Commercial Goal

Policies and Recommendations

6. Commercial/civic uses shall not interfere either functionally or visually with adjacent land uses or the rural atmosphere of the community.

The Project design would utilize low-profile panels, trackers, and inverters. All Project components would be placed behind a 7-foot high chain link fence (maximum of 8 feet) running along the MUP boundary in order to minimize potential visual impacts on the community, as well as to provide security. Wooden slats or plastic strips would be inserted along the majority of the northern, western, and southern portions of the fence to further screen the development from offsite views. Landscaping is proposed along the northern, western, and southern boundaries adjacent to fence to screen views into the site from adjacent uses and/or roadways. Due to the nature of the proposed land use, the Project would not produce emissions, greenhouse gases, or odors, and only limited traffic, noise, and light during the operational phase. The Project would be compatible with the rural character of the community.

7. Commercial/civic uses shall be periodically reviewed to ensure that the standards for noise, light, traffic, odors and all other conditions of approval are continuing to be met.

Once construction is complete, the Project would not produce emissions, greenhouse gases, or odors, and only limited traffic, noise, and/or sources of light on a periodic basis.

8. Discourage commercial and civic uses outside of the Villages and limit all such uses to those that are clearly demonstrated as needed and which are compatible with the rural lifestyle of the Valley Center Community Plan.

The renewable power provided by the Project would assist SDG&E in meeting its Renewable Portfolio Standard (RPS) goals, as required by the State of California. The Project would also be compatible with the rural nature of Valley Center, with little to no impact on visual or environmental resources.

4. Mobility

Policies and Recommendations

6. Existing trees and vegetation located within the "Right-of-Way" of all public roads, and determined to be of significant visual benefit, shall be transplanted or replaced consistent with the Valley Center Design Guidelines.

The Project site is disturbed and formerly supported limited agricultural uses (orchards); however, presently, fallow and/or highly disturbed fields are present within the MUP area. The planting of additional landscaping is proposed along the majority of the MUP boundary adjacent to Mesa Crest Road, Avenida Annalie, and the northern property boundary in front of the proposed chain-link fence (with plastic or wooden slats) to further screen views into the site from adjacent public/private vantage points; refer to Figure 3D, Conceptual Landscape Plan. Such landscaping would be provided consistent with the Lakeside Design Guidelines.

5. Public Facilities and Services

Water Service Goal

Policies and Recommendations

3. All new development shall provide programs for water conservation in accordance with County policy.

Water would be used for dust suppression and soil binding during construction, in accordance with Table 2 of this Project Description. Water used for Project operation would largely consist of water used for washing of the PV panels, which is expected to occur twice per year, and for landscape irrigation. The expected water demand for Project operation is shown in Table 3 of this document.

PURPOSE AND NEED

The Project is intended to allow for the installation and operation of a PV solar electrical generation facility and represents an opportunity to provide residents of Valley Center and the greater surrounding area with a clean source of electrical power from renewable sources. Power from the Project would replace a portion of the energy currently supplied to the power grid by non-renewable sources located far away from Valley Center, which require transmission lines to delivery power to the Valley Center area. The proposed Project would instead deliver renewable energy to all SDG&E customers in the local area in the cleanest, most efficient manner possible

today, by generating renewable power locally and feeding into the existing local distribution system.

In the broad spectrum of renewable energy projects, the Project fits into the category known as Wholesale Distributed Generation (WDG). WDG is currently the most cost-effective renewable energy market segment because it optimizes the utilization of appropriate and available sites to serve local load, while avoiding costs and delays associated with transmission upgrades that are required for larger, central station projects located far from the load being served. Transmission of power over great distances also leads to significant losses due to resistance and transformation, and such losses broadly degrade the efficiency and usefulness of such large, central station generators, not to mention the potential significant environmental impacts associated with the construction of transmission lines and towers. The Project does not propose new or upgraded transmission lines.

The Granger Solar Project has the following specific objectives:

- Provide low-cost renewable power to SDG&E's distribution system, helping SDG&E to meet its Renewable Portfolio Standard (RPS);
- Minimize the impact to visual and environmental resources; and,
- Construct a facility that is compatible with Valley Center's rural nature.

EXISTING CONDITIONS

Surrounding land uses generally include scattered semi-rural residential uses with both active and fallow agricultural lands intervening. A number of single-family residential uses are located to the south, southwest, southeast, and northwest of the property.

The site is presently undeveloped, and no physical structures are present onsite with exception of one small-scale, abandoned structure (agricultural shed) associated with former use of the site as a (container) nursery.

Onsite habitat within the MUP area includes ornamental, California buckwheat scrub, coast live oak woodland (disturbed), coastal sage scrub, coastal sage scrub (disturbed), disturbed, non-native grassland, agriculture, southern mixed chaparral.

Onsite elevations within the proposed MUP footprint range from approximately 1,365 feet above mean sea level (amsl) in the northwestern portion of the site to approximately 1,422 feet amsl near the southeast corner of the MUP area. Of the 27-acre MUP area, approximately 91 percent of lands (or 25 acres) have a slope of zero to 15 percent; seven percent (1.54 acres) of lands have a slope of 15-25 percent; and, two percent (0.56 acre) have slopes of greater than 25 percent within the MUP footprint. Steep slopes (rise greater than 25% over a 50-foot run, as defined by the County's Resource Protection Ordinance) are present in the eastern portion of the property,

outside of the MUP area. The proposed development would not encroach into any steep slope areas.

The Project site is located in southern California, which is a known seismically-active area. No known existing fault lines or other conditions resulting in potential geologic instability occur onsite or on adjacent lands.

ACCESS / CIRCULATION

Construction Access

All materials for Project construction would be delivered to the site by truck. The majority of truck traffic would occur on designated truck routes and/or major streets (e.g., Mesa Crest Road). Traffic resulting from construction activities would be temporary and may occur along area roadways as workers and materials are transported to and from the Project area. If directed by the County, and prior to the issuance of a grading/building permit, the Project applicant would prepare a Traffic Construction Mitigation Plan to ensure that circulation on the affected roadways is not adversely affected and that public safety is maintained.

Long-Term Access and Onsite Circulation

The provision of road access would include, at minimum, from an approved public access point to the PV facility (Mesa Crest Road), a site perimeter loop road, and the area immediately around transformers, inverters, and other similar structures.

Permanent access to the site would occur from Mesa Crest Road. No offsite roadway improvements are required along Mesa Verde Drive or Mesa Grade Road to ensure that adequate access is provided along these roadways in order to accommodate emergency vehicles. The Project applicant has secured agreements to allow for use of Mesa Verde Road and Mesa Crest Road, as they are currently under private ownership.

Additionally, minor improvements are required to improve the entrance drive into the site at Mesa Crest Road to 24 feet in width. An AC taper would be constructed to provide adequate access to/from the site; refer to Figure 3A, Major Use Permit Plot Plan.

Interior access would be provided by a system of 20-24-foot wide all-weather access drives that would allow for adequate emergency access to all PV panel blocks and inverter stations. Access roads would be at least 20 feet wide and crowned or have a consistent side slope (between 0.5% and 2%, maximum) to provide proper drainage. All access road sections would be designed per recommendations of the site-specific Soils Report (SCST Engineering, July 2015) and per governing County standard design specifications. All fire access roads would be designed with an all-weather surface (decomposed granite or gravel) and capable of supporting a minimum 75,000-pound fire apparatus bearing load. These drives would also be used for purposes of

Project maintenance. A series of smaller 10-foot wide roadways would be provided within the solar PV field to provide access for maintenance vehicles.

With regard for the perimeter road and module row spacing, a minimum of 12 feet would be provided between the security fence and next nearest obstruction (e.g., solar array frame). Additionally, a minimum of seven feet between PV module rows would be provided to allow access for panel cleaning and maintenance. Consistent with County of San Diego requirements, a 30-foot wide fuel management zone (FMZ) (brush clearing) would be provided around the perimeter of the onsite development area to reduce the potential for the spread of wildfire.

In order to control dust during the life of the Project, a non-toxic, biodegradable, permeable soil-binding agent or permeable rock material would be applied to all disturbed or exposed surface areas as follows: a) A permeable soil-binding agent suitable for both traffic and non-traffic areas shall be used. These agents shall be biodegradable, eco-safe, with liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression; or, b) Alternatively, a permeable rock material consisting of either river stone decomposed granite or gravel could be placed in a thin cover over all exposed surface area in-lieu of the binding agent referenced above. The binding agent would be reapplied approximately every two years for maintenance purposes.

LIGHTING

Limited Project lighting would be installed to allow for security. At a minimum, permanent lighting would be provided for the enclosure interiors; outdoor equipment access areas, such as at the inverters and switchgear; and, at the site entrance. Low-level lighting would be installed at the main entry gates to facilitate access.

All lighting would be operated manually or activated via motion sensors and would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships. All lighting would conform to County of San Diego outdoor lighting requirements. All outdoor lighting controls would incorporate dusk-to-dawn photocell controllers, occupancy sensors, and/or switches as appropriate. Lighting levels shall be as recommended in Illuminating Engineering Society (IES) standards. Suitable fixtures would be specified and installed according to the hazardous area classification, if applicable.

GRADING

The PV solar panels would be installed in parallel rows running north/south; refer to Figures 3A and 3B, Major Use Permit Plot Plan. Portions of the proposed MUP development area would require grading and/or would be cleared and grubbed to allow for installation of the panels and associated facilities. The Project as proposed would require an estimated 24,000 cubic yards (c.y.) of balanced cut and fill. Grading would also be required to provide an AC taper along Mesa Crest Road for adequate access into the Project site; refer to Figure 3C, Preliminary Grading Plan.

During Project grading activities, onsite rock blasting may be required to allow for installation of the solar facilities. As indicated in the Soils Report prepared for the site (SCST Engineering, July 2015), granitic rock is present within the MUP area. Therefore, some blasting may be required during Project excavation and/or construction activities to accommodate the structural elements; however, the precise location of granitic rock under the ground surface within the proposed MUP area remains uncertain at this time. As such, the extent to which blasting would be required is unknown; however, it is anticipated that, particularly due to the relatively limited land surface area that would be affected by installation of the solar facilities (i.e. foundations, pile driving), only limited blasting occur. The potential effects of blasting activities with regard to noise impacts have been evaluated in the Noise Assessment prepared for the Project (Ldn Consulting, September 2015).

PROJECT SCHEDULE/PHASING

It is anticipated that overall construction of the Project would take approximately four months to complete, with crews working five days per week, eight hours per day. Weekend and/or holiday work is not anticipated to be required. All Project construction would occur in compliance with County regulations pertaining to permitted daytime construction work hours. Construction of the Project would occur at one time, and phasing is not proposed.

Construction equipment would be delivered to the site just prior to the time at which its use is anticipated and would be put down in a temporary delivery, storage and equipment assembly area onsite. This area would be located in the northern most half of the southeast quadrant of the MUP area; refer to Figure 3E, Construction Laydown Area. Fourteen temporary parking spaces would be provided to the east of the intersection of the interior access roads on the northern boundary of the southeast quadrant. As such, staging areas and vehicle parking would be distanced from any adjacent residential uses in the surrounding area to the extent feasible. Construction would begin at the northern boundary of the northeast quadrant of the MUP area and would proceed southerly towards the east-west interior access road. Construction would proceed in the southwest quadrant and would continue southerly. Next, construction would continue in the southwest quadrant, beginning in the south and continuing to the north. Finally, construction would occur in the southeast quadrant and would continue north into the temporary delivery, storage, and equipment assembly area. As construction encroaches into the storage area, the area would shrink as the materials continue to be used in the construction. At the end of construction, the parking spots would be temporarily located on the interior access roads closest to the center of the MUP area.

To ensure that dust is minimized to the extent feasible during all excavation and grading activities, exposed surfaces would be watered on a periodic basis during daily construction hours. Water for construction would be provided by the VCMWD via the existing water meter connected to an existing water line along Mesa Crest Road. Water trucks would fill their tanks via this water line for purposes of onsite dust suppression.

OPERATION, SECURITY, AND MAINTENANCE

The facilities would be monitored remotely by NLP Granger Solar, LLC or an affiliated company. Once the solar panels are installed, the panels would operate during daylight hours, seven days per week, and 365 days per year. Security would be maintained through installation of a 7-foot high chain-link fence (maximum 8 feet) with slats around the perimeter of the MUP development area.

The entrance would be gated with one double gate of 24 feet in width. The gate would be equipped with a strobe light activation and Knox box key-operated switch.

Four video cameras (one at each corner of the property) would be strategically installed on the security fence for surveillance of the majority of the development area. The video cameras would utilize an internet-based communications system via a phone line or cellular system.

Signage would be installed include system identification, safety, and warning signs. Signage would be located throughout the development area in accordance with applicable Occupational and Safety and Health Administration (OSHA) requirements and as required by the Authority Having Jurisdiction.

One meteorological (MET) station would be installed on onsite and located adjacent to the inverter/equipment pad. The MET station would be a redundant meteorological station with active recording capability, but not reporting connectivity.

It is anticipated that maintenance of the facilities would require occasional visual inspections and minor repairs. Overall, minimal maintenance requirements are anticipated, as the panels would operate on their own with little human involvement required. On intermittent occasions, the presence of several workers may be required if major repairs or replacement of equipment is required; however, due to the nature of the facilities, such actions are anticipated to be infrequent. Occasional equipment replacement or refurbishing may also be conducted. To allow for ongoing maintenance, it is anticipated that the PV solar panels would be washed twice per year with potable water supplied from the VCMWD. As stated above, water for the Project would be provided by the VCMWD.

Water with a binding agent would also be applied once every two years for dust suppression purposes for the onsite roadways. The binding agent would be applied on an as-needed basis using water from a proposed connection to the existing water line within Mesa Crest Road.

UTILITIES

Water

Construction

Water for construction would be provided by the VCMWD via connection to an existing water line along Mesa Crest Road. Initial construction occurring within the first two months would include brushing/clearing, grading, trenching, post installation, and onsite access road construction. The remainder of the four-month construction period would include racking, module, and combiner installation; module wiring; and, final testing/commissioning. A permeable soil-binding agent would be applied during construction to stabilize onsite disturbed soils to reduce fugitive dust. As shown in Table 2, Total Estimated Water Demand for Project Construction, total water demand for the construction phase is estimated to be 877,995 gallons, or 2.69 acre-feet (AF).

**TABLE 2
TOTAL ESTIMATED WATER DEMAND FOR PROJECT CONSTRUCTION**

Activity	Total Estimated Water Demand	Area Affected	Total Estimated Water Used (in Millions of Gallons)
Brushing/Clearing	4,000 gallons/acre	27.1 acres	108,000
Grading	30 gallons/cubic yard	24,000 cubic yards	720,000
Soil Binding (Roads)	3,300 gallons/acre	3.3 acres	10,890
Soil Binding (Land)	1,650 gallons/acre	23.7 acres	39,105
Total Construction Water	---	---	877,995 Million Gallons (2.69 AF)

Note: One acre-foot (AF) = 325,851 gallons.

Operation and Maintenance

An estimated 22,275 gallons of water would be required every year for maintenance activities related to dust suppression purposes. Additionally, an estimated 1,304,800 gallons of water per year would be required for irrigation of the proposed landscaping to be planted for screening purposes. Irrigation of the landscaping would be required for until successful establishment of the plantings occurs. Water for purposes of dust control and landscape irrigation would be provided by the VCMWD.

In addition, it is anticipated that the PV solar panels would be washed twice per year to remove dust particles and other buildup to ensure optimum solar absorption. Panel washing is estimated to require approximately 0.67 gallon of water per PV solar panel on an annual basis (approximately 16,750 gallons each year). Potable water would be used for the panel washing. A commercial vendor would arrive onsite and load water from the (proposed) meter. The vendor

would de-ionize the water (as needed) prior to high-pressure washing the panels for maintenance.

Table 3 summarizes the total estimated water demand for operation and maintenance of the Project per year. As shown in Table 3, the total estimated water demand for operation and maintenance is 1,343,825 gallons, or 4.12 AF, annually.

TABLE 3
TOTAL ESTIMATED WATER DEMAND FOR OPERATION & MAINTENANCE (ANNUAL)

Activity	Total Estimated Water Demand	Size/Unit	Estimated Water Demand (gallons/year)
Soil Binding/Dust Control	825 gallons/acre ¹	27.1 acres	22,275
Panel Washing	0.67 gallons/panel ²	12,500 panels	16,750
Landscaping	20 gallons/s.f. ³	65,240 s.f.	1,304,800
Total Estimated Water Demand (gallons/year and AF/year)	---	---	1,343,825 gal/yr or 4.12 AF/yr

Note: One acre-foot (AF) = 325,851 gallons.

¹1,650 gallons to be applied every two years (1,650/2 = 825 per year)

²Each panel requires 0.67 gallon of water per wash, two times per year

³Water demand for irrigation is estimated to require approximately 20 gallons per square foot based on the land area to be irrigated (65,240 s.f.) and the plant species identified on Figure 3D, Conceptual Landscape Plan.

Storm Water / Drainage

A significant increase in storm water runoff or treatment needs from the areas affected by the Project is not anticipated to occur. Storm water runoff in areas where facilities would be installed would remain generally unchanged following construction. In addition, the solar panels and supporting structures would occupy a minimal building footprint on the affected property and would not require or result in a significant change in existing conditions with regard to storm water runoff or treatment needs. As applicable, storm water runoff and treatment would be adequately handled through the implementation of onsite best management practices (BMPs) and/or other design measures and would not result in or require significant changes to existing offsite storm drain facilities.

Other Utilities

The site would be unmanned and therefore, the Project would not require connection to a public sewer system or construction of a septic system. Electric and propane gas service are currently provided to the Project site. The proposed Project would generate electricity via the PV solar panels; the use of natural gas is not anticipated with Project construction or operation.

PUBLIC SERVICES

Fire Protection Services

The Project site is within the service boundaries of the San Diego County Fire Authority (SDCFA) and would be served by the Valley Center Fire Protection District (VCFPD) from Fire Station No. 1 located at 28234 Lilac Road, just southeast of the Project site. As the Project would have the potential to result in additional demands on the VCFPD and/or other area emergency service providers, the Project would be conditioned to participate in the existing Community Facilities District (CFD). The Project applicant shall comply with all requirements of the CFD, as applicable, and once such specific requirements have been identified. Joining the CFD for fire protection services and payment of the required fees would ensure that fire protection services are adequate to serve the Project and that no significant cumulative effects would occur as the result of Project implementation.

The Project site is located within the County's Wildland Urban Interface area. As such, Project design provides for a 30-foot wide fire management zone (FMZ) along the perimeter of the onsite MUP development area to ensure brush removal and to reduce the potential for wildfire to occur and/or spread; refer to Figure 3A.

Two existing hydrants are located along Mesa Crest Road: one at the northwestern corner and one at the southwestern corner of the subject property. Water for fire protection purposes would be provided by the VCFPD via proposed connection to an existing water line in Mesa Crest Road.

As requested by the County's Department of Planning and Development Services (PDS), the applicant has prepared a Fire Protection Plan (FPP) Letter Report (Michael Baker International, August 2015) to address water supply, access, building ignition and fire resistance, fire protection systems and equipment and vegetation management with regard to fire code requirements. The FPP Letter Report is required to comply with all requirements of Article 86, Section 8601 of the California Fire Code. The FPP Letter Report is available under separate cover and has been approved by the VCFPD. Additionally, modeling of potential wildfire events onsite and on adjacent lands has been prepared by Dudek (July 2015), per request of the VCFPD, and is included in Appendix B of the FPP.

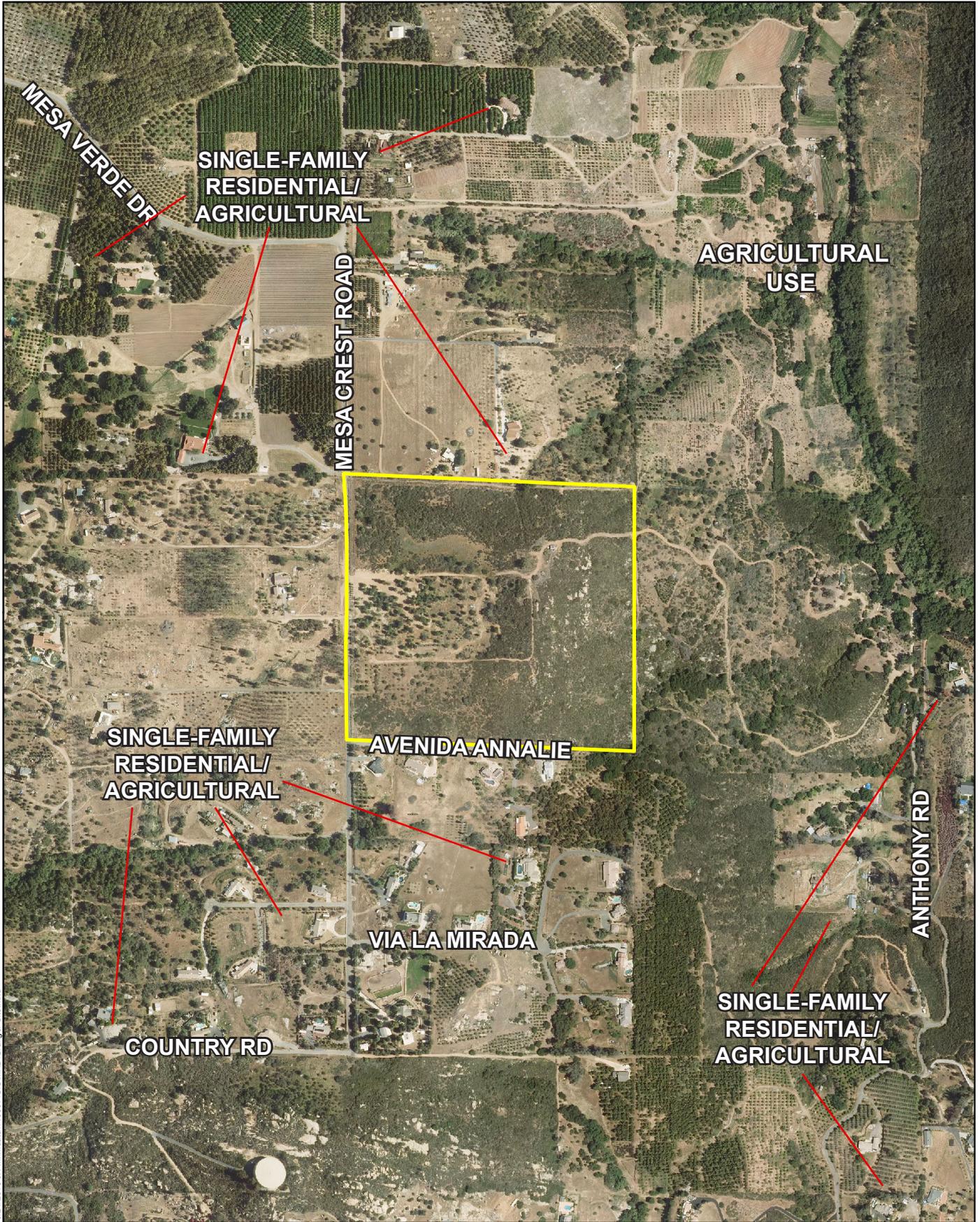
DECOMMISSIONING PLAN

Once built, the Project would operate at a minimum for the 20-year life of its Power Purchase Agreement (PPA). It is likely, because much of the needed electrical infrastructure will have been developed, that the Project would continue to be upgraded and used to generate solar energy beyond the term of the initial PPA. Therefore, it is possible that the site would remain in solar energy production for the foreseeable future.

Prior to issuance of a grading permit, the Project applicant would be required to prepare a Decommissioning Plan to govern future decommissioning of the site at the time when appropriate. If the Project were ever to be decommissioned, the panels, support structures, and electrical equipment would be removed from the site. Future allowed land uses may include agriculture; however, any proposed land use would be selected at the time of decommissioning. Financially, the Project and site owner would assume responsibility for decommissioning. The costs of decommissioning would be relatively low, as no earthwork would be necessary, and the panels, support structures, and electrical equipment would be salvaged and recycled.

THIS PAGE LEFT BLANK INTENTIONALLY.





6/24/2015 JN M:\Mdata\145597\GIS\MXD\Granger Site.mxd



Not to Scale



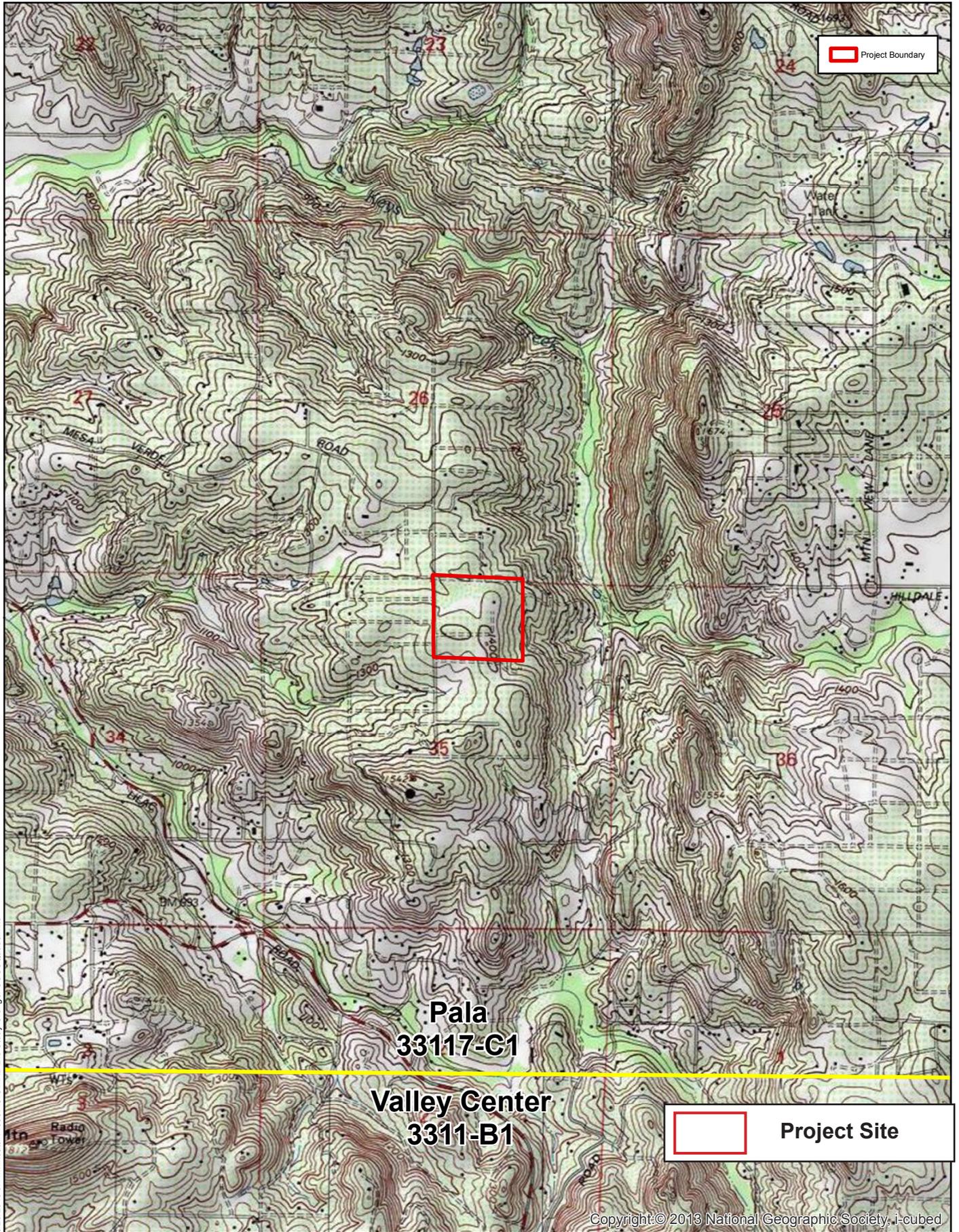
Project Site

Granger Solar

LOCAL VICINITY MAP/SURROUNDING LAND USES

Source:

Figure 2A



5/20/2015 J:\M:\data\145597\GIS\MXD\Bio_Study\Granger_USGSQuads.mxd

Copyright © 2013 National Geographic Society, i-cubed

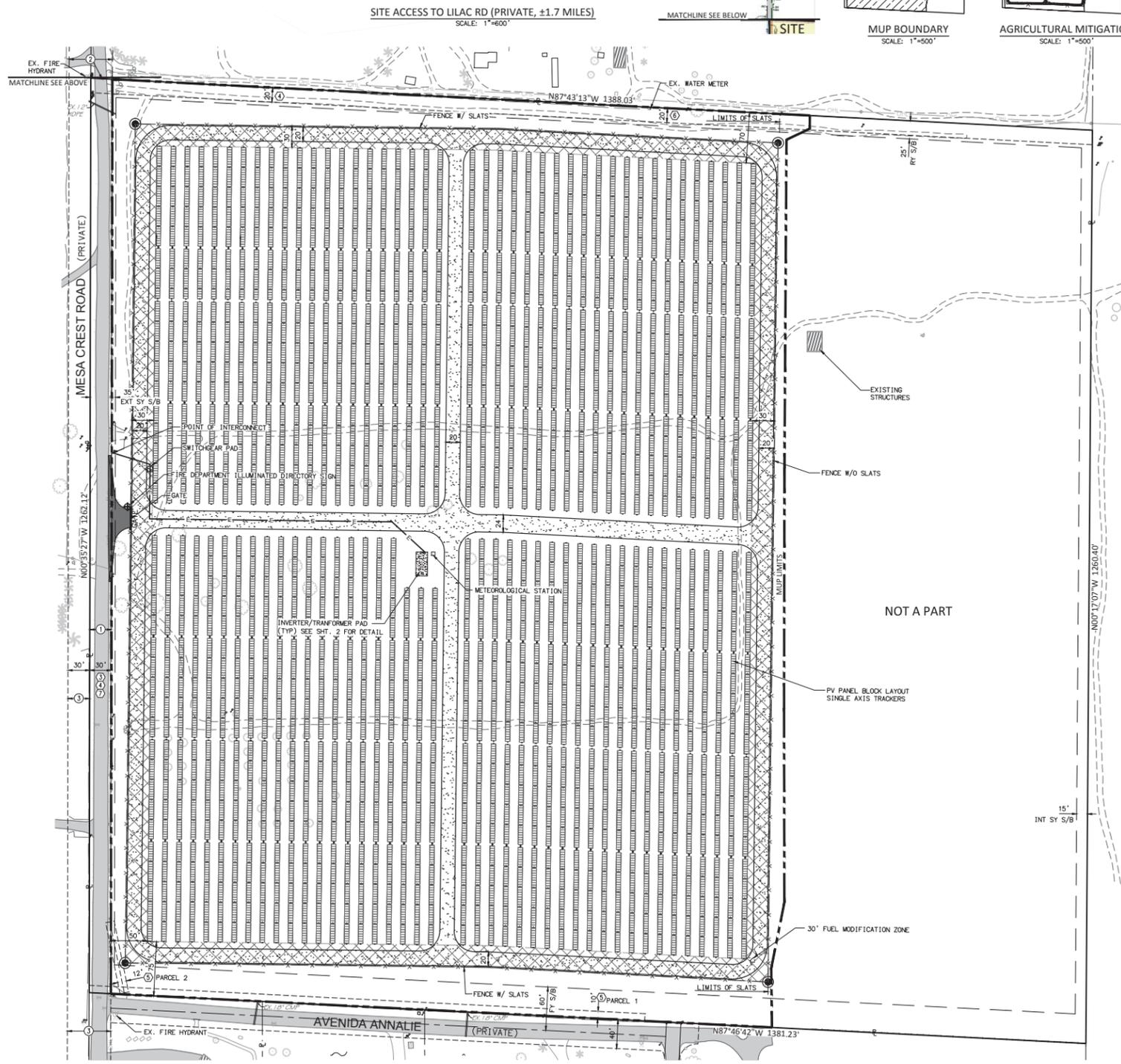
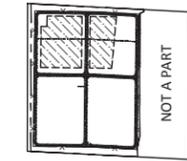
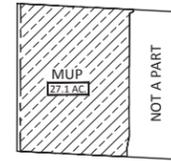
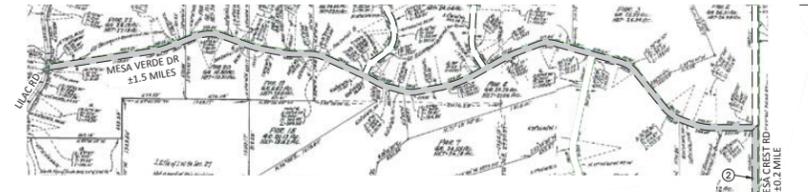
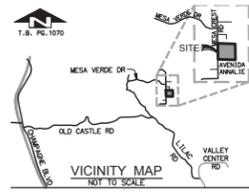
Granger Solar

Michael Baker
INTERNATIONAL



USGS QUAD MAP: PALA QUADRANGLE

Figure 2B



NOTES

- GROSS AREA: 40.1 ACRES
- NET AREA: 39.2 ACRES (MESA CREST ROAD EASEMENT = 0.9 AC)
- MUP BOUNDARY AREA: 27.1 AC
- GENERAL PLAN SEMI-RURAL RESIDENTIAL (SR-2)
- REGIONAL CATEGORY: SEMI-RURAL LANDS
- TOPOGRAPHIC SOURCE: AEROTECH MAPPING INC, FLOWN 3/10/2015
- ASSOCIATED REQUESTS: NONE
- WATER DISTRICT: VALLEY CENTER MUNICIPAL WATER DISTRICT
- FIRE DISTRICT: VALLEY CENTER FIRE PROTECTION DISTRICT
- THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUANT TO SECTION 6952 OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
- THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMITS BEFORE COMMENCING SUCH ACTIVITY.
- ALL SOLAR EQUIPMENT STRUCTURES TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR AND PAINTED EARTH-TONE COLORS.
- LIGHTING FOR MAINTENANCE AND SECURITY PROPOSES ONLY. SHIELDED LIGHTING LOCATED AT ENTRANCE GATES AND INVERTER/TRANSFORMER PADS & SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 2.
- PHASING - PROJECT MAY BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
- ALL DISTURBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
- SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
- SITE ACCESS GATE(S) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
- SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER/TRANSFORMER PADS, SWITCHGEAR, MET STATION, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF PDS WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL. INVERTER/TRANSFORMER LOCATIONS CAN BE RELOCATED/RECONFIGURED WITHOUT REQUIREMENT OF MINOR DEVIATION. THE INVERTER/TRANSFORMER MUST COMPLY WITH THE NOISE ORDINANCE AND MUST BE ELEVATED 1' ABOVE FLOOD ELEVATION. THE 24" FIRE ACCESS ROAD WIDTHS MAY BE REDUCED ADMINISTRATIVELY WITH THE APPROVAL OF THE COUNTY AND FIRE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.
- A SYSTEM IDENTIFICATION SIGN SHALL BE LOCATED AT THE GATE ENTRANCE. SIGN SHALL BE 12'X18". SIGN SHALL LIST NAME OF SITE AND CONTACT INFORMATION AS PROVIDED BY SDGE.
- PRIVATE PROPERTY AND TRESPASSING AND HIGH VOLTAGE SIGNS SHALL BE LOCATED AT THE GATE ENTRANCE AND EVERY 100' MINIMUM ON FENCE. THE SIGN SHALL BE 10'X14". MISCELLANEOUS INTERIOR DIRECTIONAL AND SAFETY SIGNAGE ARE PERMITTED.
- OUTDOOR LIGHTING CIRCUITS SHALL INCORPORATE DUSK-TO-DAWN PHOTOCELL CONTROLLERS, OCCUPANCY SENSORS, AND/OR SWITCHES AS APPROPRIATE.
- A METEOROLOGICAL (MET) STATION SHALL BE LOCATED ADJACENT TO THE INVERTER/EQUIPMENT PAD.

LEGEND

- PROPERTY BOUNDARY
- EXISTING EASEMENT
- RIGHT-OF-WAY
- MUP BOUNDARY (27.1 AC)
- SETBACK LINE
- PROPOSED 7" CHAINLINK FENCE W/ SLATS (8' MAX.)
- PROPOSED ACCESS GATE
- EXISTING AC PAVEMENT
- PROPOSED AC PAVEMENT
- PROPOSED FIRE ACCESS ROAD-ALL WEATHER (WIDTH PER PLAN)
- EXISTING OVERHEAD POWERLINE
- EXISTING POWER POLE
- PROPOSED UNDERGROUND INTERCONNECTION
- PROPOSED PV PANEL
- PROPOSED INVERTER/TRANSFORMER PAD (1)
- 30' FUEL MODIFICATION ZONE UNLESS OTHERWISE NOTED
- VIDEO CAMERA ON 10' POLE (4)
- FRONT YARD SETBACK
- REAR YARD SETBACK
- EXTERNAL SIDE YARD SETBACK
- INTERNAL SIDE YARD SETBACK
- AGRICULTURAL MITIGATION (0.51 AC)

ASSESSOR PARCEL NUMBER

129-162-07

LEGAL DESCRIPTION

ALL THOSE PORTIONS OF THE WEST HALF OF THE NE QUARTER SECTION 35, TOWNSHIP 10 SOUTH, RANGE 2 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), EPOCH: NRS 2007, CSRS 2011), ZONE 6, BASED LOCALLY UPON CONTROL STATIONS P478 & PM08, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) WITH A BEARING OF S 50°43'25" E.

BENCHMARK

STATION NAME: 13525 PER RECORD OF SURVEY 17997, FOUND 2" BRASS DISK STAMPED 51-61-XP30 FLUSH IN BOULDER. ELEVATION = 1679.00 DATUM: NAVD88

SITE ADDRESS:

THE NE CORNER OF MESA CREST RD AND AVENIDA ANNALIE VALLEY CENTER, CA 92082

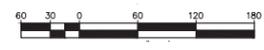
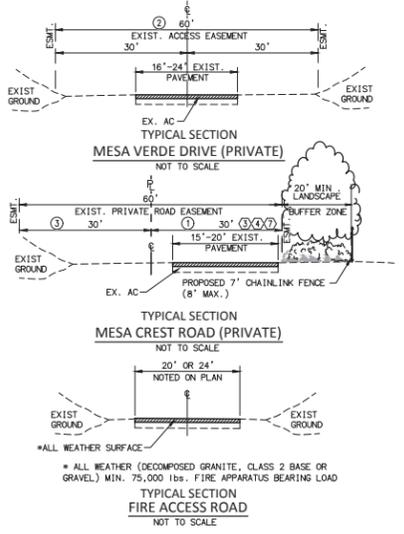
EXISTING EASEMENTS (TO REMAIN)

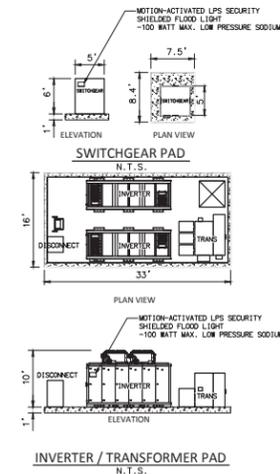
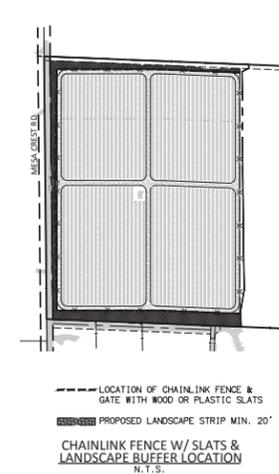
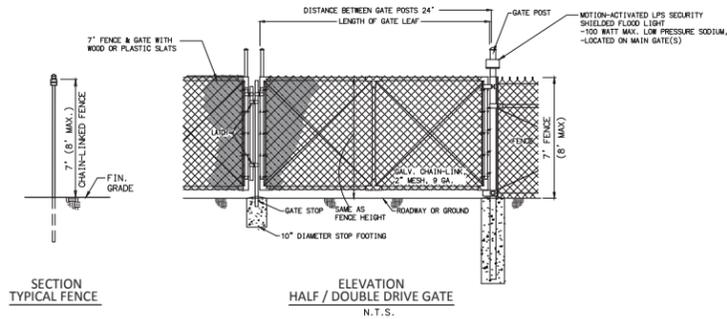
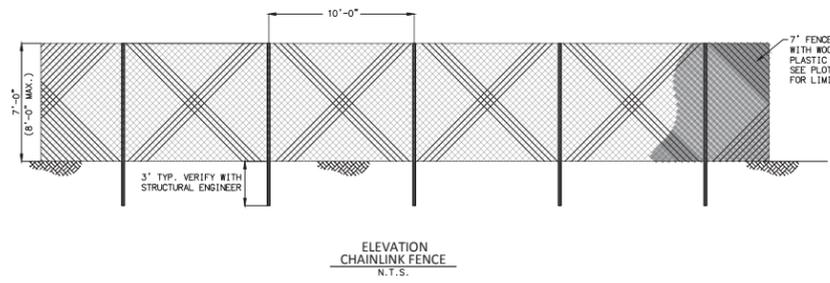
DESCRIPTION	DOC. #
PRIVATE ROAD & PUBLIC UTILITY POLY	BK. 7165, PG. 594, 7/15/58
PUBLIC UTILITIES	INSTR. 9178, 1/18/65
SDGE PUBLIC UTILITIES	INSTR. 82-395792, 12/28/82
SDGE PUBLIC UTILITIES	INSTR. 83-119656, 4/14/83
PRIVATE ROAD AND PUBLIC UTILITY	INSTR. 85-167501, 5/13/85

STEWART TITLE COMPANY PRELIMINARY REPORT ORDER NUMBER 011800-162713, DATED 4/29/2015 PARCEL ①②③

ZONING

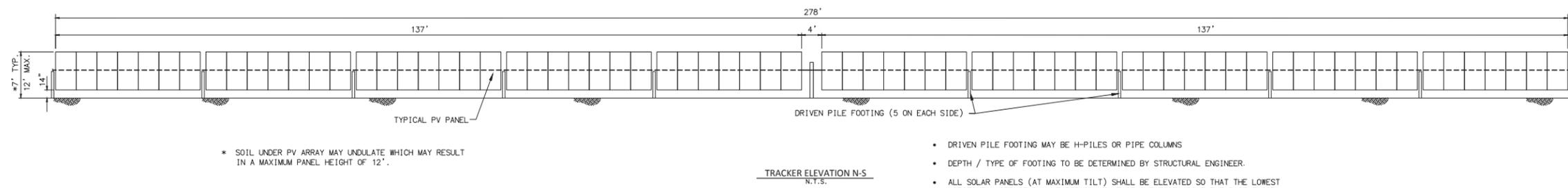
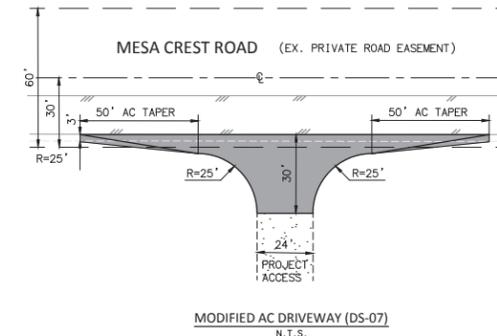
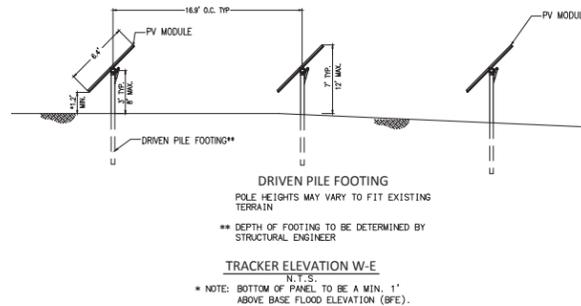
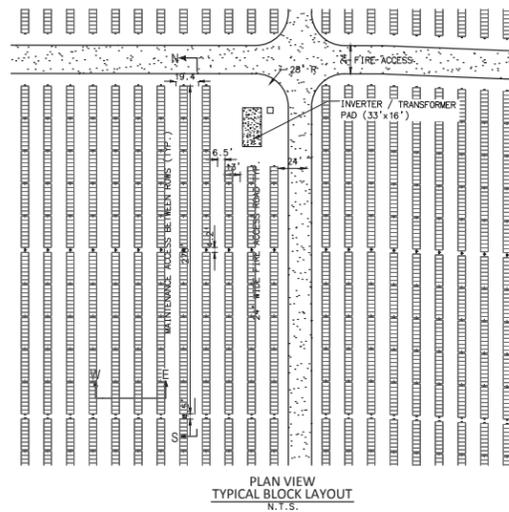
ZONE	A72
USE REGULATIONS	N
ANIMAL REGULATIONS	---
DENSITY	---
LOT SIZE	2 AC
BUILDING TYPE	---
MAXIMUM FLOOR AREA	---
FLOOR AREA RATIO	---
HEIGHT	G
LOT COVERAGE	---
SETBACK	C
OPEN SPACE	---
SPECIAL AREA REGULATIONS	A





* NOTE: INVERTER / TRANSFORMER FINISH SURFACE TO BE A MIN. 1' ABOVE BASE FLOOD ELEVATION (BFE) PER PRELIMINARY DRAINAGE STUDY.

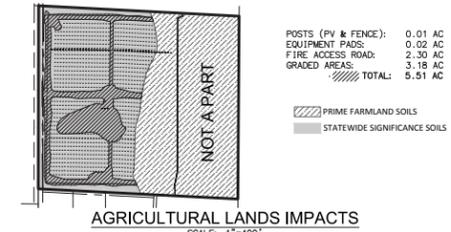
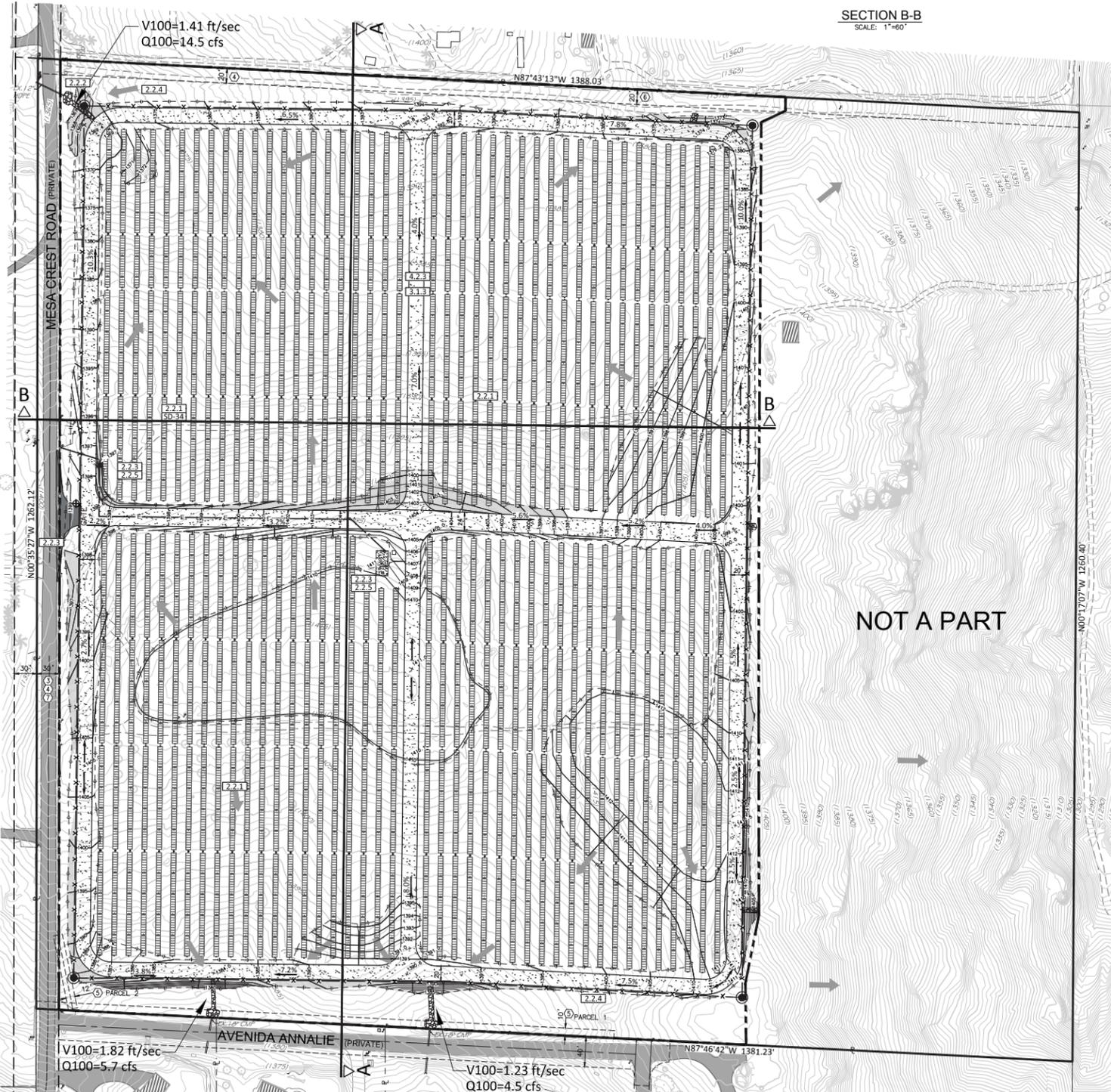
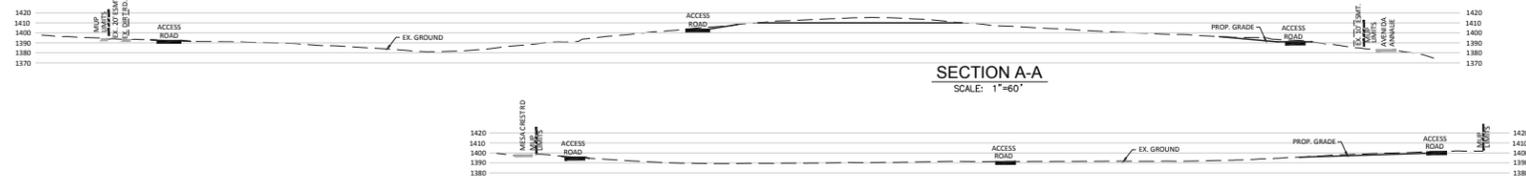
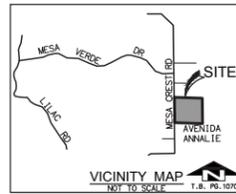
* EQUIPMENT CABINETS (INVERTER/TRANSFORMER) SHALL BE PAINTED WITH EARTH TONE COLORS TO BLEND WITH THE SURROUNDINGS.



• DRIVEN PILE FOOTING MAY BE H-PILES OR PIPE COLUMNS

• DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER.

• ALL SOLAR PANELS (AT MAXIMUM TILT) SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE BASE FLOOD ELEVATION (BFE) PER PRELIMINARY DRAINAGE STUDY.



POSTS (PV & FENCE):	0.01 AC
EQUIPMENT PADS:	0.02 AC
FIRE ACCESS ROAD:	2.30 AC
GRADED AREAS:	3.18 AC
TOTAL:	5.51 AC

NOTES

- GROSS AREA: 40.1 ACRES
- NET AREA: 39.2 ACRES (MESA CREST ROAD EASEMENT=0.9 AC)
- M.P. BOUNDARY AREA: 27.1 ACRES
- TOPOGRAPHIC SOURCE: AEROTECH MAPPING INC, 3/10/2015
- THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMITS BEFORE COMMENCING SUCH ACTIVITY.
- ALL DISTURBED AREAS WILL BE SURFACED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
- PILE DRIVING OPERATIONS IN ORDER TO LIMIT TEMPORARY CONSTRUCTION NOISE, ALL PILE DRIVING OPERATIONS SHALL BE LOCATED A MINIMUM SETBACK OF 215 FEET FROM ANY OCCUPIED RESIDENTIAL PROPERTY LINE. IF PILE DRIVING OPERATIONS ARE TO OCCUR WITHIN 215 FEET, THEN THESE OPERATIONS SHALL BE LIMITED TO OPERATE 25% OF THE HOURLY OR DAILY DURATION.
- EXISTING STORM DRAIN PIPES TO BE RESTORED OR REPLACED IF NECESSARY.

SUMMARY OF LID/SITE DESIGN BMPs

- 2.2.1 CONSERVATION OF NATURAL DRAINAGES AND SIGNIFICANT VEGETATION
- 2.2.2 MINIMIZE DISTURBANCES TO NATURAL DRAINAGES
- 2.2.3 MINIMIZE IMPERVIOUS SURFACES
- 2.2.3.1 DISCONNECT IMPERVIOUS SURFACES
- 2.2.4 MINIMIZE SOIL COMPACTION
- 2.2.5 DRAIN RUNOFF FROM IMPERVIOUS SURFACES TO PERVIOUS AREAS
- 4.2.3 PERMEABLE PAVEMENT DESIGN
- 3.3.3 LID DRIVEWAY/ACCESS ROADS

SUMMARY OF SOURCE CONTROL BMPs

- 5.0.3.1 PROPER DESIGN OF OUTDOOR MATERIAL STORAGE AREAS

LEGEND

- PROPERTY BOUNDARY
- EXISTING EASEMENT
- ULTIMATE RIGHT-OF-WAY
- M.P. BOUNDARY (27.1 AC)
- EXISTING CONTOUR
- PROPOSED GRADING
- PROPOSED DAYLIGHT LINE
- PROPOSED SPOT GRADE
- PROPOSED PAD ELEVATION
- PROPOSED 7' CHAINLINK FENCE W/ SLATS (8' MAX.)
- PROPOSED ACCESS GATE
- DIRECTION OF FLOW / SLOPE
- EXISTING DIRT ROAD
- EXISTING AC PAVEMENT
- PROPOSED AC PAVEMENT
- PROPOSED FIRE ACCESS ROAD-ALL WEATHER (WIDTH PER PLAN)
- EXISTING BUILDING
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- PROPOSED PV PANEL
- PROPOSED INVERTER/TRANSFORMER PAD (1)
- EXISTING CULVERT
- EXISTING TREES
- PROPOSED FILL SLOPE (2:1 MAX.)
- PROPOSED CUT SLOPE (1 1/2:1 MAX.)
- EXISTING WATER METER
- PROPOSED RIP-RAP

ASSESSOR PARCEL NUMBER

129-162-07

LEGAL DESCRIPTION

ALL THOSE PORTIONS OF THE WEST HALF OF THE NE QUARTER SECTION 25, TOWNSHIP 10 SOUTH, RANGE 2 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83, EPOCH: NSRS 2007, CSRS 2011), ZONE 6, BASED LOCALLY UPON CONTROL STATIONS P478 & FMSB, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) WITH A BEARING OF S 50°43'25" E.

BENCHMARK

STATION NAME: 73525 PER RECORD OF SURVEY 17997, FOUND 2" BRASS DISK STAMPED 51-61-XP30 FLUSH IN BOULDER. ELEVATION = 1679.00 DATUM: NAVD88

SITE ADDRESS:

THE NE CORNER OF MESA CREST RD AND AVENIDA ANNALIE VALLEY CENTER, CA 92082

OWNER/APPLICANT:

N.P. GRANGER ASSOCIATES, LLC
17901 VAN KAMMAN AVENUE, SUITE 1050
IRVINE, CA 92614
CONTACT: PATRICK BROWN
PHONE: (619) 733-2649

TOPOGRAPHY AND GRADING

VOLUME OF CUT: 24,000 CY
VOLUME OF FILL: 24,000 CY
EXPORT/IMPORT: 0 CY
NOTE: CUT VOLUME TO BE SPREAD OVER M.P. AREA (+0.5')

MAXIMUM SITE RETAINING WALL HEIGHT: N/A

TOTAL DISTURBED AREA BEFORE PROJECT: 0.8 AC

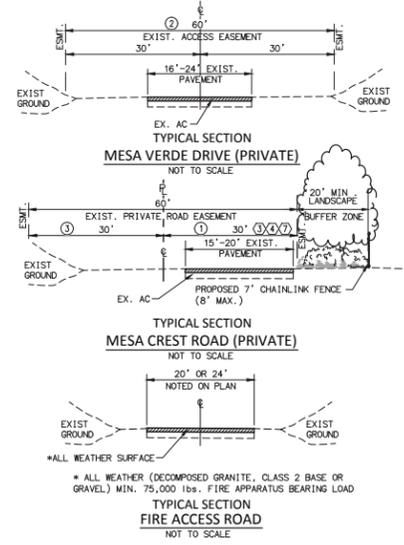
TOTAL DISTURBED AREA AFTER PROJECT: 26.1 AC

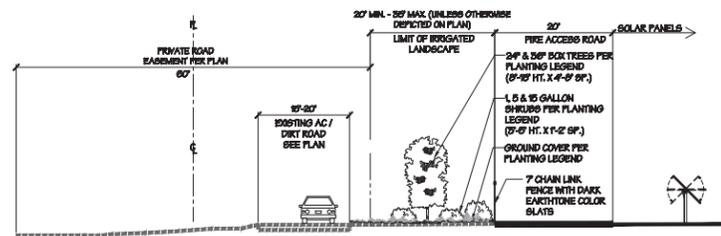
TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.6 AC

TOTAL IMPERVIOUS AREA AFTER PROJECT: 0.7 AC

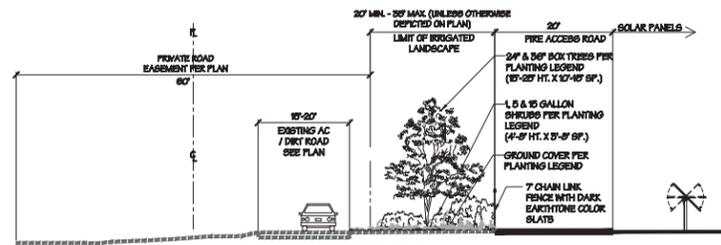
IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	TOTAL AREA	UNIT
INVERTER / TRANSFORMER PAD	0.02	AC
FOOTING FOUNDATION	0.09	AC
TOTAL	0.11	AC

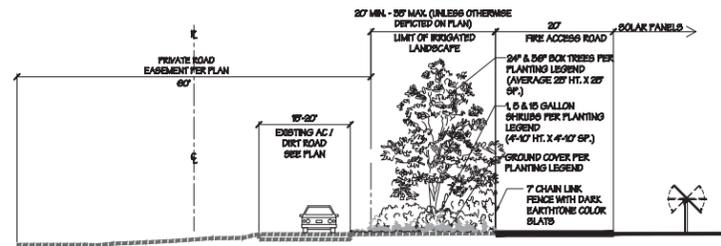




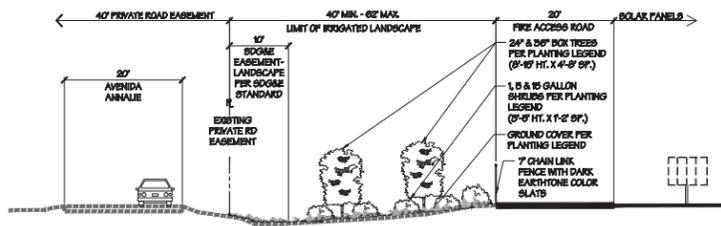
SECTION A-A (AT PLANTING)
NOT TO SCALE



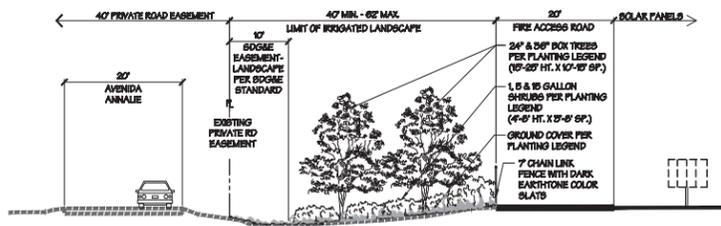
SECTION A-A (AT APPROXIMATELY 5 YEARS FROM PLANTING)
NOT TO SCALE



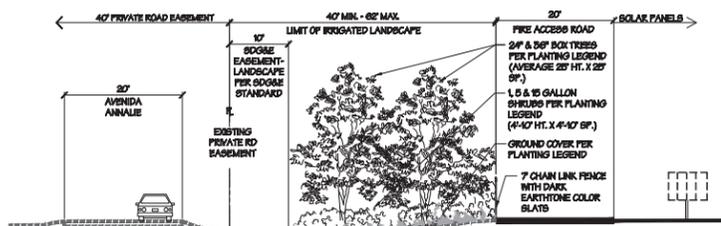
SECTION A-A (AT APPROXIMATELY 10 YEARS FROM PLANTING)
NOT TO SCALE



SECTION B-B (AT PLANTING)
NOT TO SCALE



SECTION B-B (AT APPROXIMATELY 5 YEARS FROM PLANTING)
NOT TO SCALE



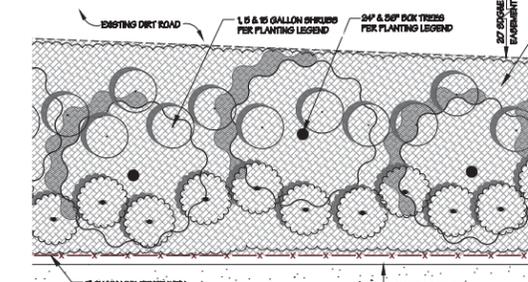
SECTION B-B (AT APPROXIMATELY 10 YEARS FROM PLANTING)
NOT TO SCALE

PLANT LEGEND

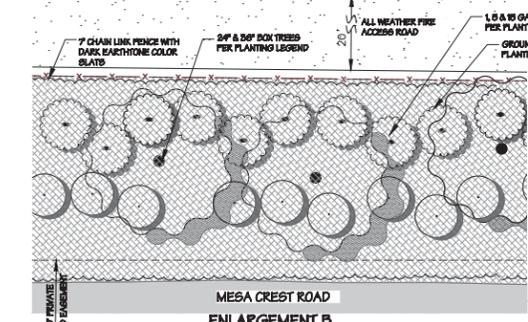
TREES	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	WATER USE
	CERODIUM FLORIDUM / BLUE PALO VERDE	24" BOX	25' AVERAGE	L
	CUPRESSUS FORBESII / TECATE CYPRESS	24" BOX	25' AVERAGE	L
	OLEA EUROPAEA / OLIVE	24" BOX	25' AVERAGE	L
	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE	24" BOX	25' AVERAGE	M
	QUERCUS AGRIFOLIA / COAST LIVE OAK	24" & 36" BOX	25' AVERAGE	L
	QUERCUS CHRYSOLEPIS / CANYON LIVE OAK	24" & 36" BOX	25' AVERAGE	L
	QUERCUS ENGELMANNII / ENGELMANN OAK	24" & 36" BOX	25' AVERAGE	L
	UMBELLULARIA CALIFORNICA / CALIFORNIA BAY LAUREL	24" BOX	25' AVERAGE	M

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	WATER USE
	ATRIPLEX LENTIFORMIS SPP. BREWERII / QUAIL BUSH	1 & 5 GALLON	VARIES 6'-8"	L
	GALVEZIA SPECIOSA / ISLAND BUSH SNAPDRAGON	1 & 5 GALLON	VARIES 4'-10"	L
	HETEROMELES ARBUTIFOLIA / TOYON	5 & 15 GALLON	VARIES 6'-10"	L
	RHUS OVATA / SUGAR BUSH	5 & 15 GALLON	VARIES 6'-10"	L
	RHAMNUS CALIFORNICA / COFFEE BERRY	1 & 5 GALLON	VARIES 6'-10"	L
	RHUS LAURINA / LAUREL SUMAC	1 & 5 GALLON	VARIES 6'-10"	L
	ROMNEYA COULTERI / MATILIA POPPY	1 & 5 GALLON	VARIES 6'-10"	L
	SALVIA CLEVELANDII / CLEVELAND SAGE	1 & 5 GALLON	VARIES 4'-8"	L

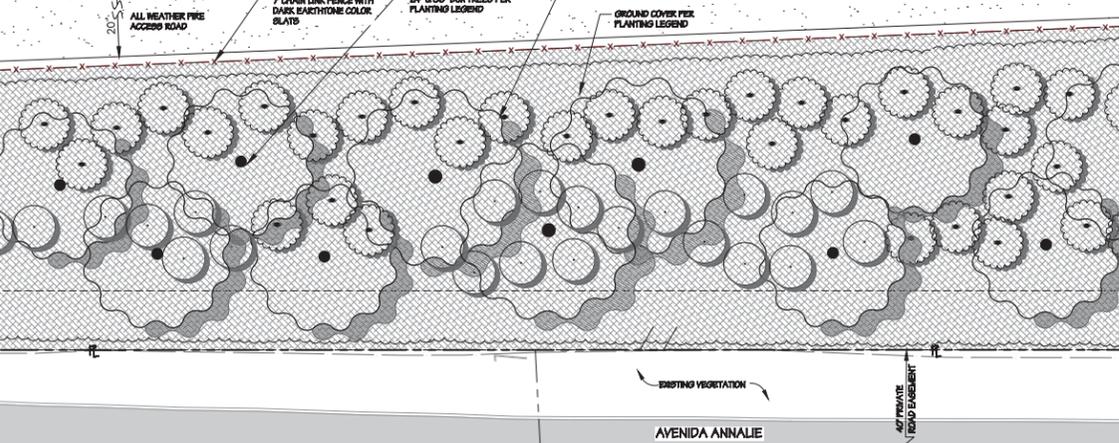
GROUND COVERS	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	WATER USE
	BACCHARIS PILULARIS / COYOTE BRUSH	1 GALLON	6"	L
	CEANOTHUS GRISSEUS HORIZONTALIS / CARMEL CREEPER	1 GALLON	8"	L
	IVA HAYESIANA / POVERTY WEED	1 GALLON	6"	L
	MULENBERGIA RIGENS / DEER GRASS	1 GALLON	6"	M



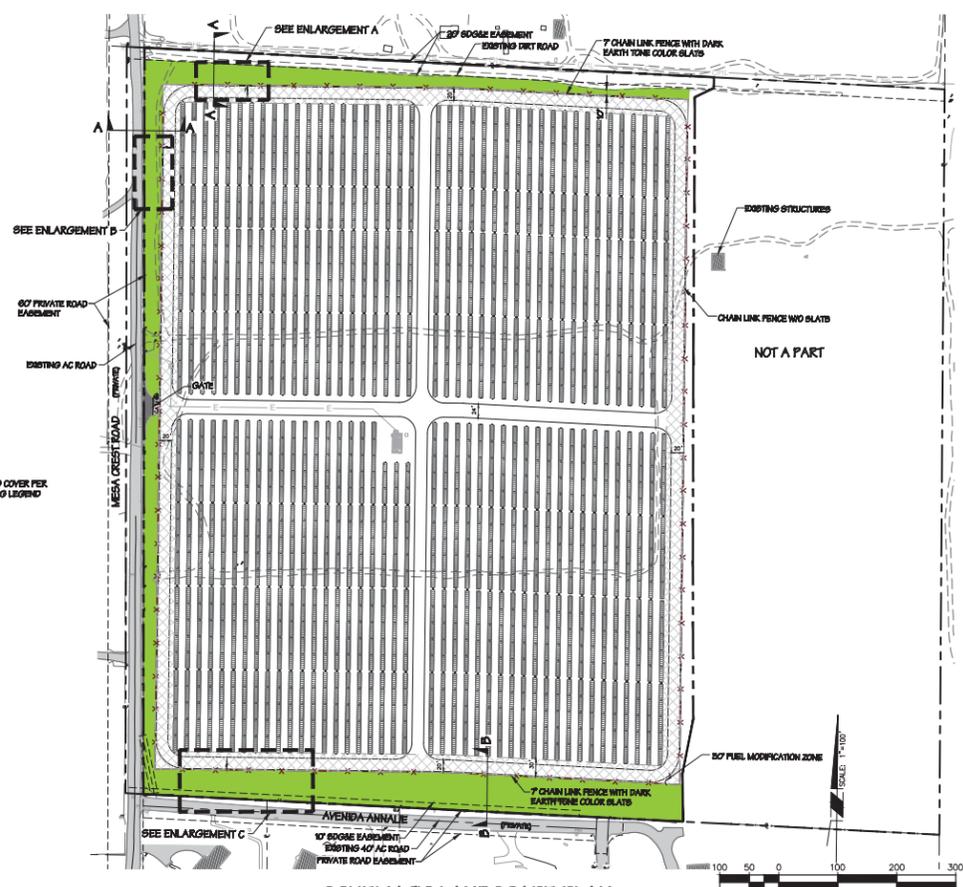
ENLARGEMENT A
NOT TO SCALE



ENLARGEMENT B
NOT TO SCALE



ENLARGEMENT C
NOT TO SCALE



SCHEMATIC LANDSCAPE PLAN
SCALE 1/4\"/>

LANDSCAPE SCREEN / BUFFER

LANDSCAPE SCREENS: PLANT DENSE, NATURAL GROVES OF NATIVE AND DIRT DROUGHT TOLERANT TREES AND INCORPORATE MASSES OF NATIVE AND OR DROUGHT TOLERANT SHRUBS AND GROUND COVERS BETWEEN THE FENCE LINE AND THE EXISTING ROAD AND UTILITY EASEMENTS. PLACE TREES AND THE TALLER SPECIES OF SHRUBS NEAREST TO THE FENCE AS NECESSARY TO SCREEN AND SOFTEN THE FENCE AND NEW SITE IMPROVEMENTS. ADD PROGRESSIVELY LOWER SPECIES OF SHRUBS AND GROUND COVERS BETWEEN LARGE SHRUBS AND PAVEMENT EDGE TO EFFECTIVELY TRANSITION THE PLANT MATERIAL FROM HIGHEST AT THE FENCE TO LOWEST AT THE ROADWAY AND MAINTAIN DRIVER VISIBILITY.

NOTES

1. ALL LANDSCAPE IMPROVEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH COUNTY OF SAN DIEGO LANDSCAPE STANDARDS, VALLEY CENTER DESIGN GUIDELINES AND IN ACCORDANCE WITH AS 1809 - 81% WATER CONSERVATION REQUIREMENTS.
2. NATIVE AND DROUGHT TOLERANT PLANTS THAT MINIMIZE WATER USE AND MAINTENANCE WILL BE UTILIZED. ALL PLANT MATERIALS WILL BE APPROPRIATE FOR THE CLIMATE OF VALLEY CENTER AND FIT IN WITH THE ADJACENT NEIGHBORHOOD.
3. ALL LANDSCAPED AREAS SHALL BE IRRIGATED WITH AUTOMATIC Drip IRRIGATION SYSTEM. IRRIGATION WATER TO BE PROVIDED VIA EXISTING DOMESTIC WATER METER.
4. OWNER SHALL BE RESPONSIBLE FOR MAINTAINING THE VEGETATION DURING THE LIFE OF THE PERMIT. ALL DEAD, DYING, OR DAMAGED PLANTS WILL BE REPLACED IN KIND.
5. PLASTIC SLATS SHALL BE REPLACED IF DAMAGED DURING THE LIFE OF THE PERMIT.
6. THE LANDSCAPE DESIGN WILL INCORPORATE 24\"/>

