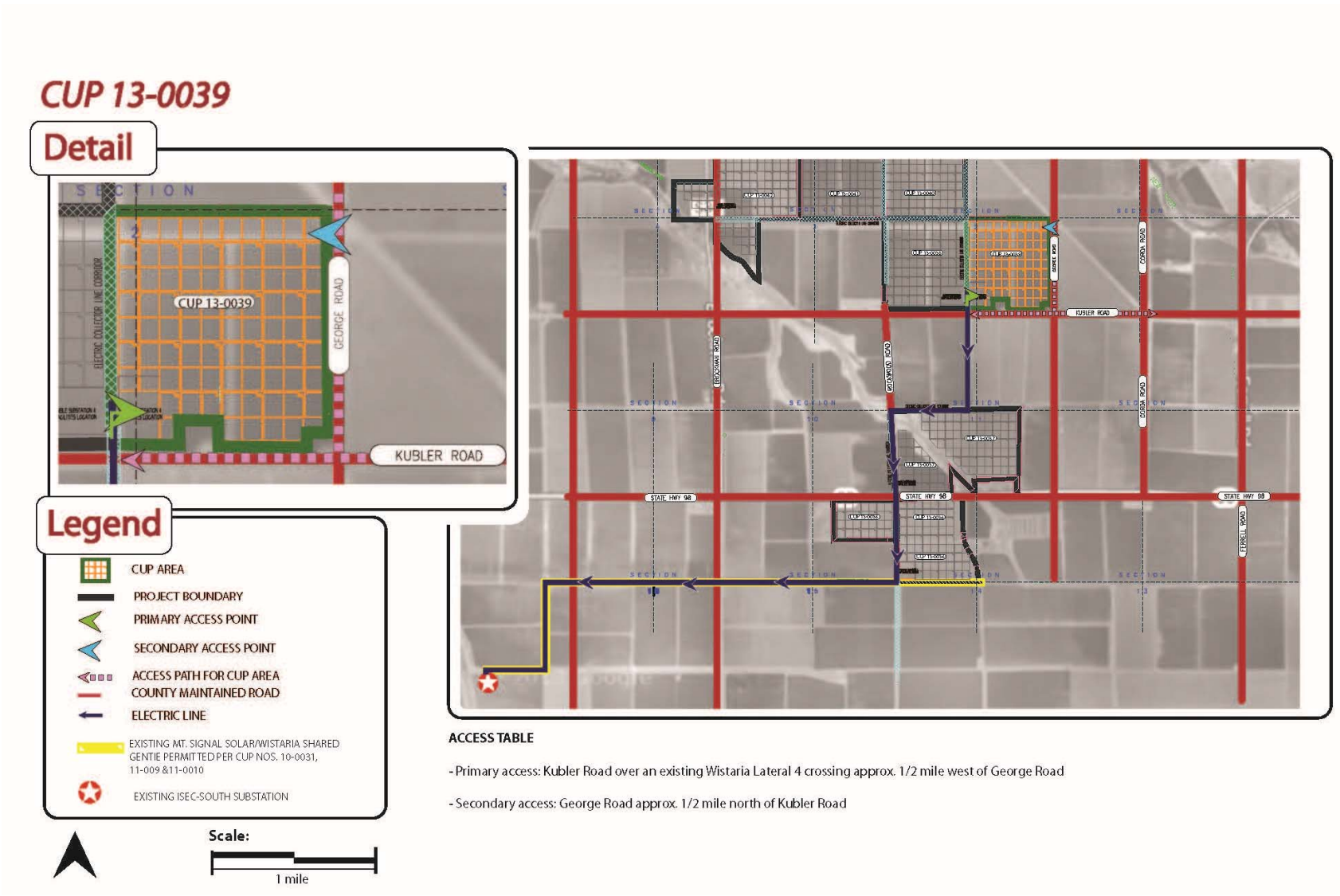
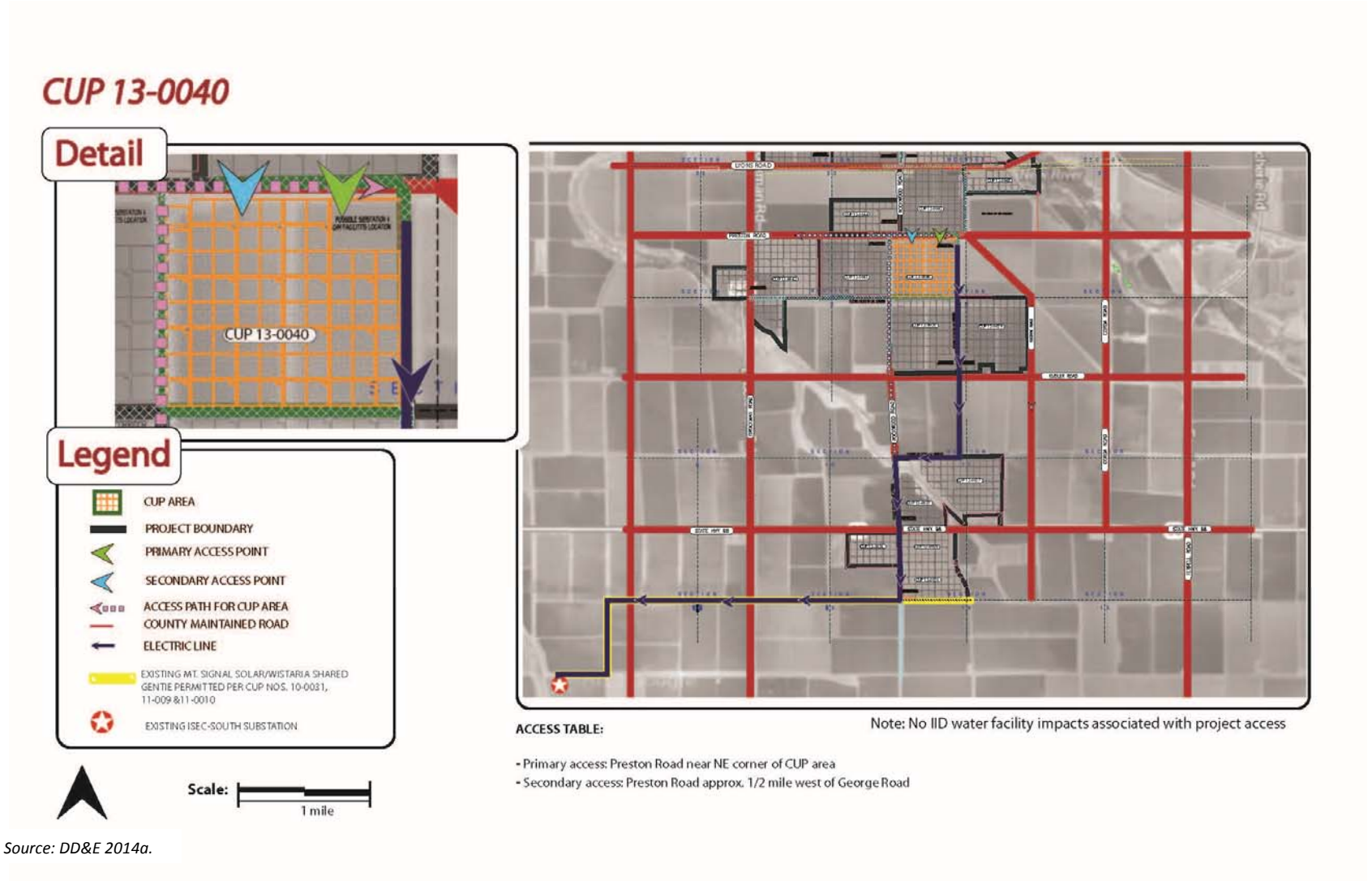


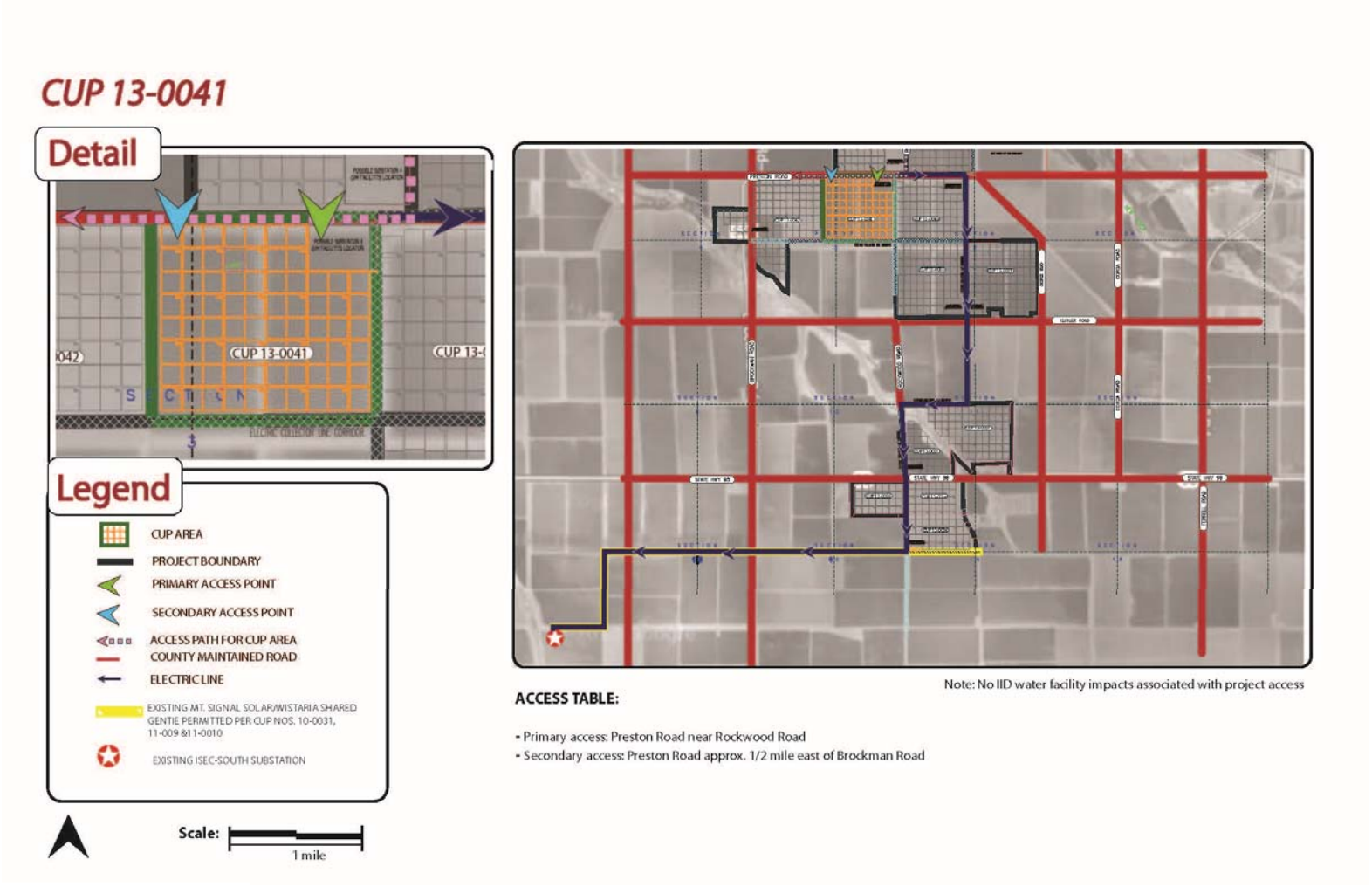
Source: DD&E 2014a.

FIGURE 2.0-9
CUP 13-0039 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



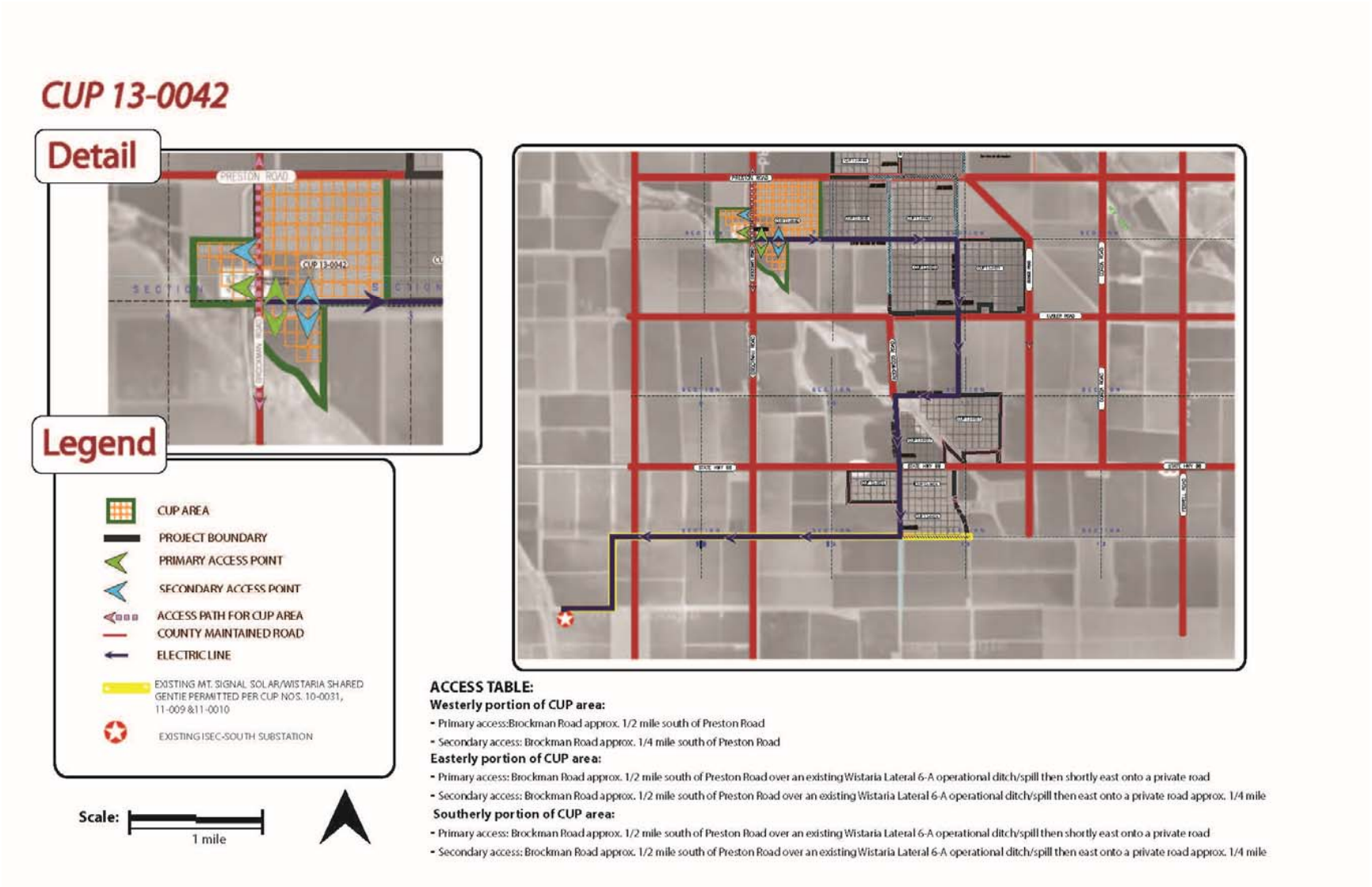
Source: DD&E 2014a.

FIGURE 2.0-10
CUP 13-0040 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



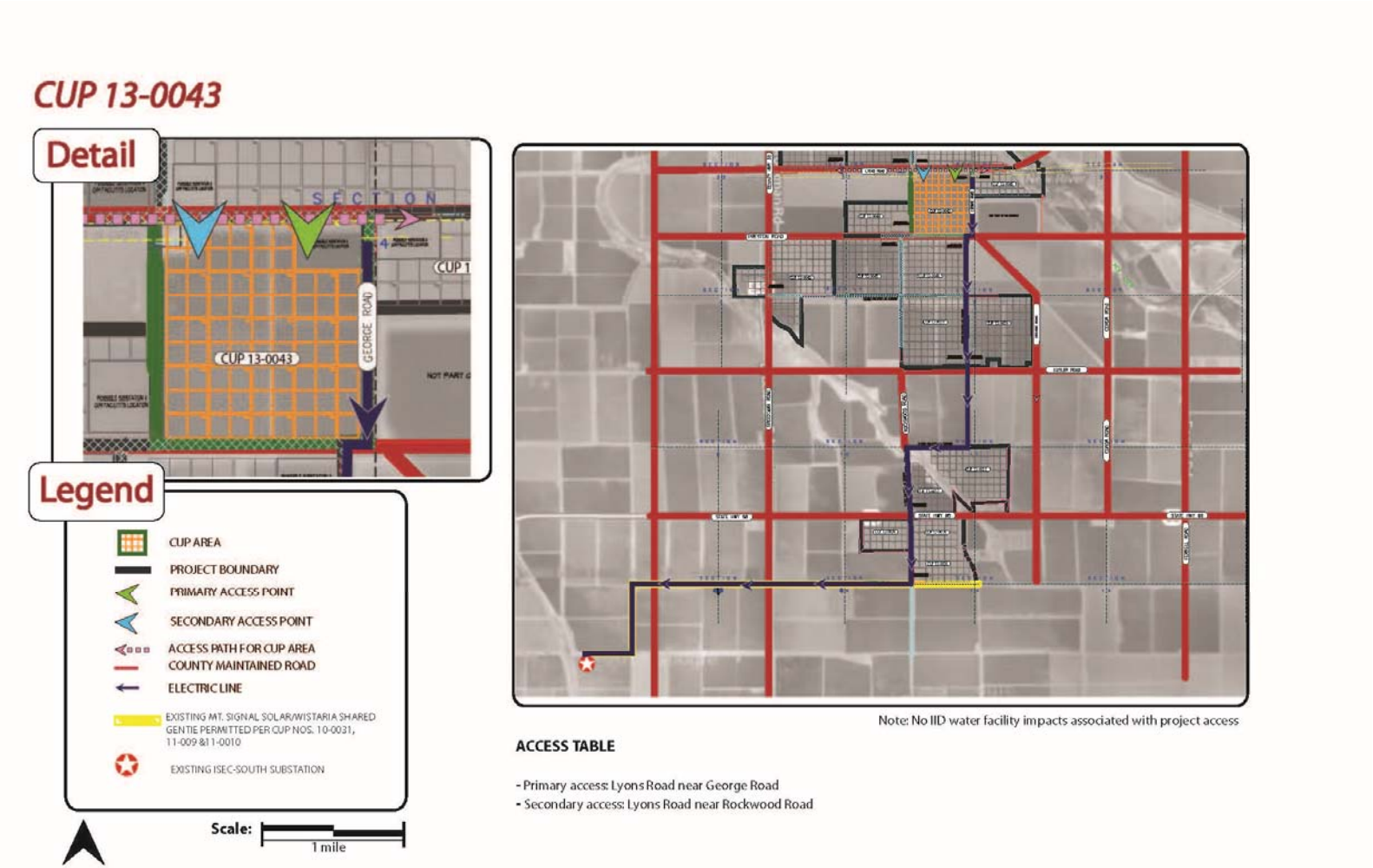
Source: DD&E 2014a.

FIGURE 2.0-11
CUP 13-0041 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



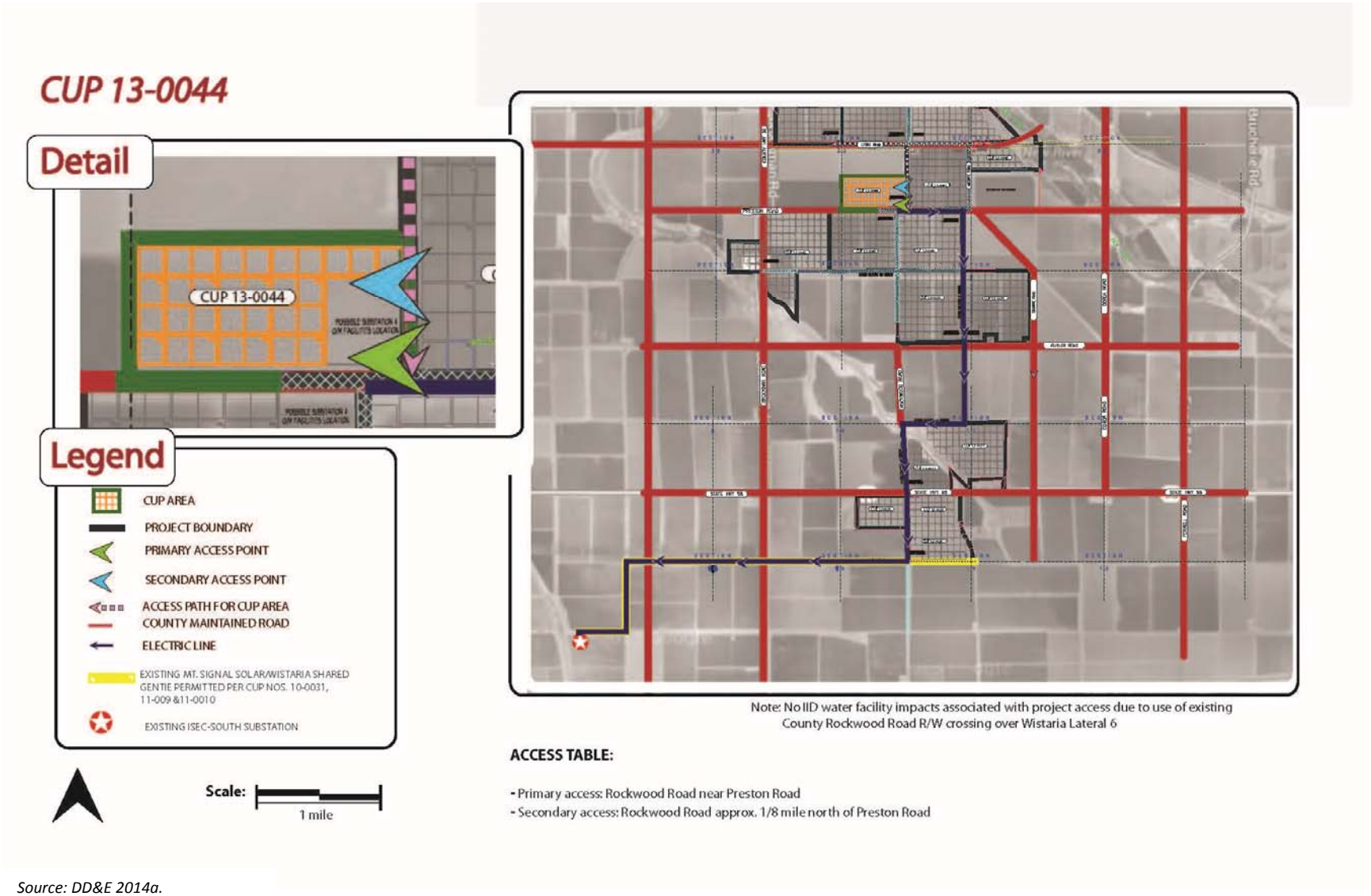
Source: DD&E 2014a.

FIGURE 2.0-12
CUP 13-0042 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



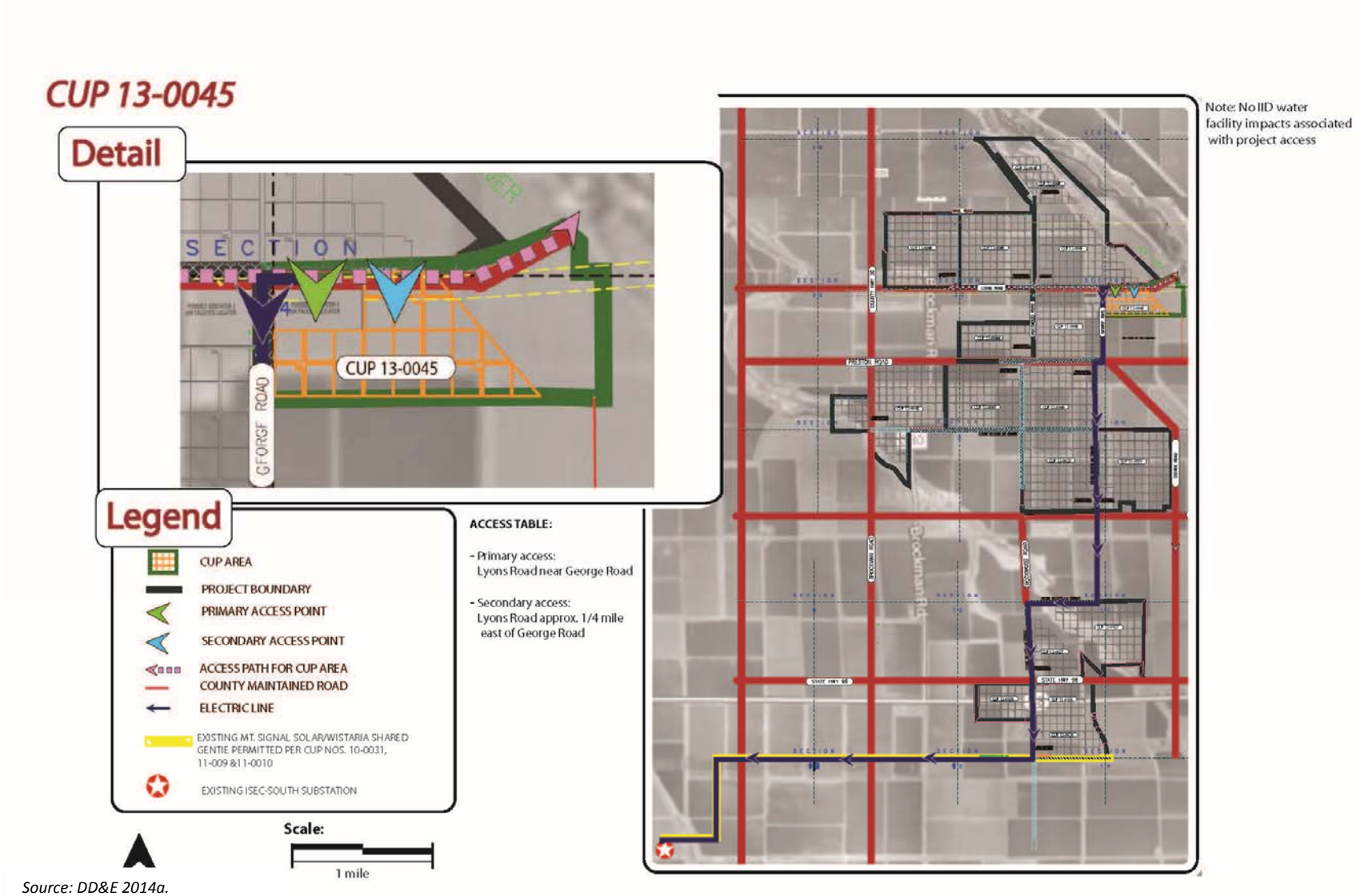
Source: DD&E 2014a.

FIGURE 2.0-13
CUP 13-0043 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



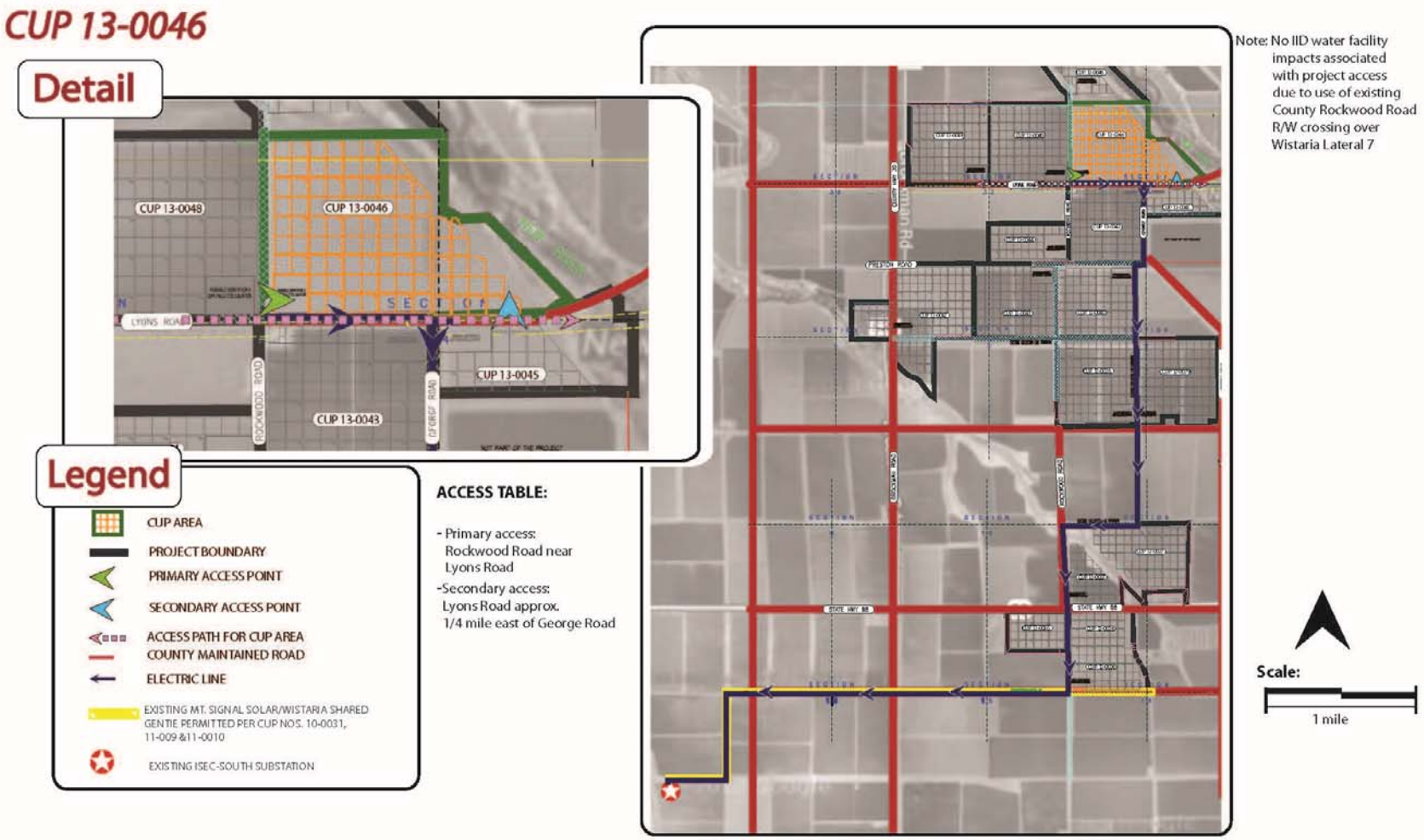
Source: DD&E 2014a.

FIGURE 2.0-14
CUP 13-0044 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



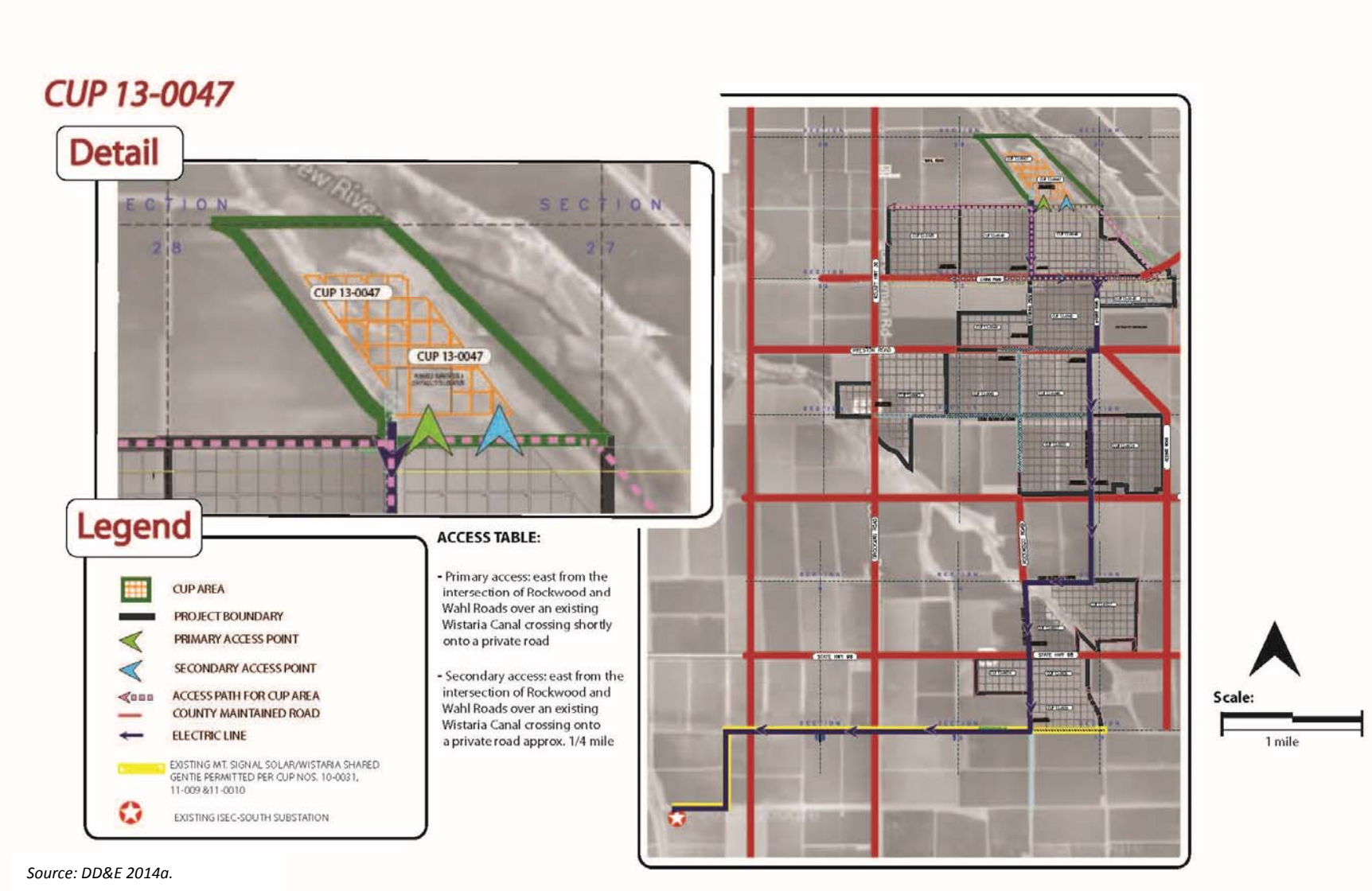
Source: DD&E 2014a.

FIGURE 2.0-15
CUP 13-0045 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



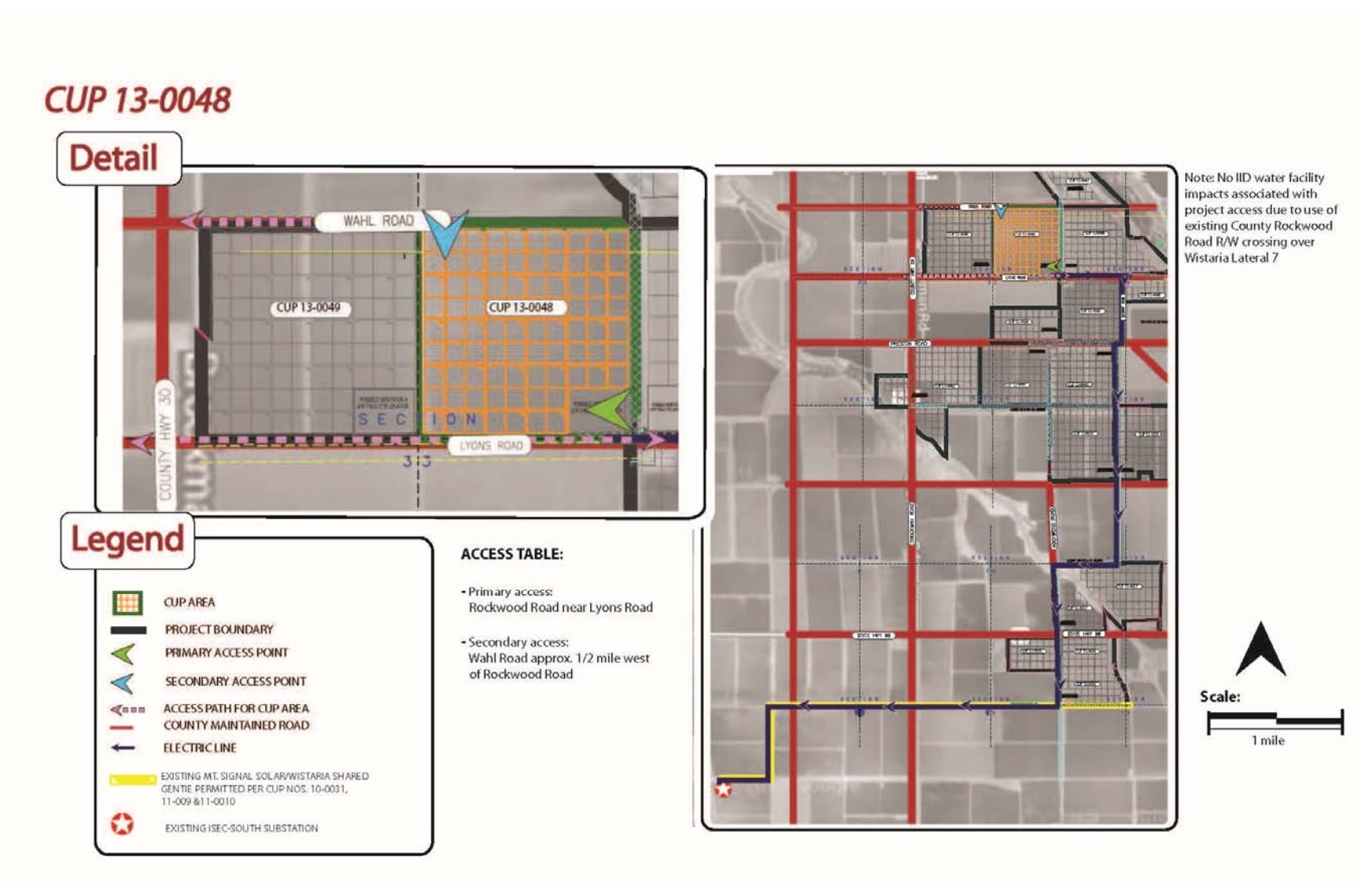
Source: DD&E 2014a.

FIGURE 2.0-16
CUP 13-0046 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



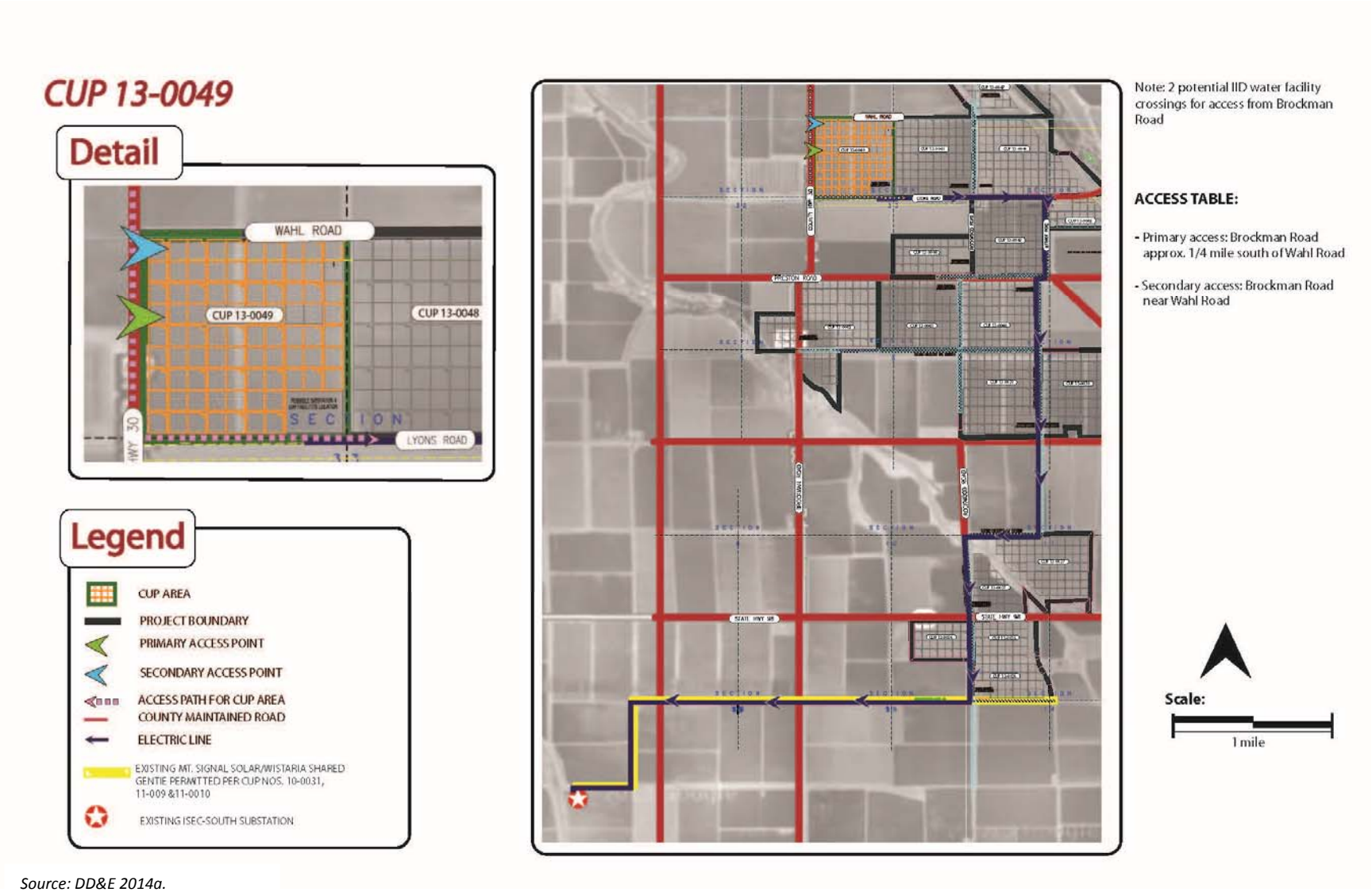
Source: DD&E 2014a.

FIGURE 2.0-17
CUP 13-0047 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



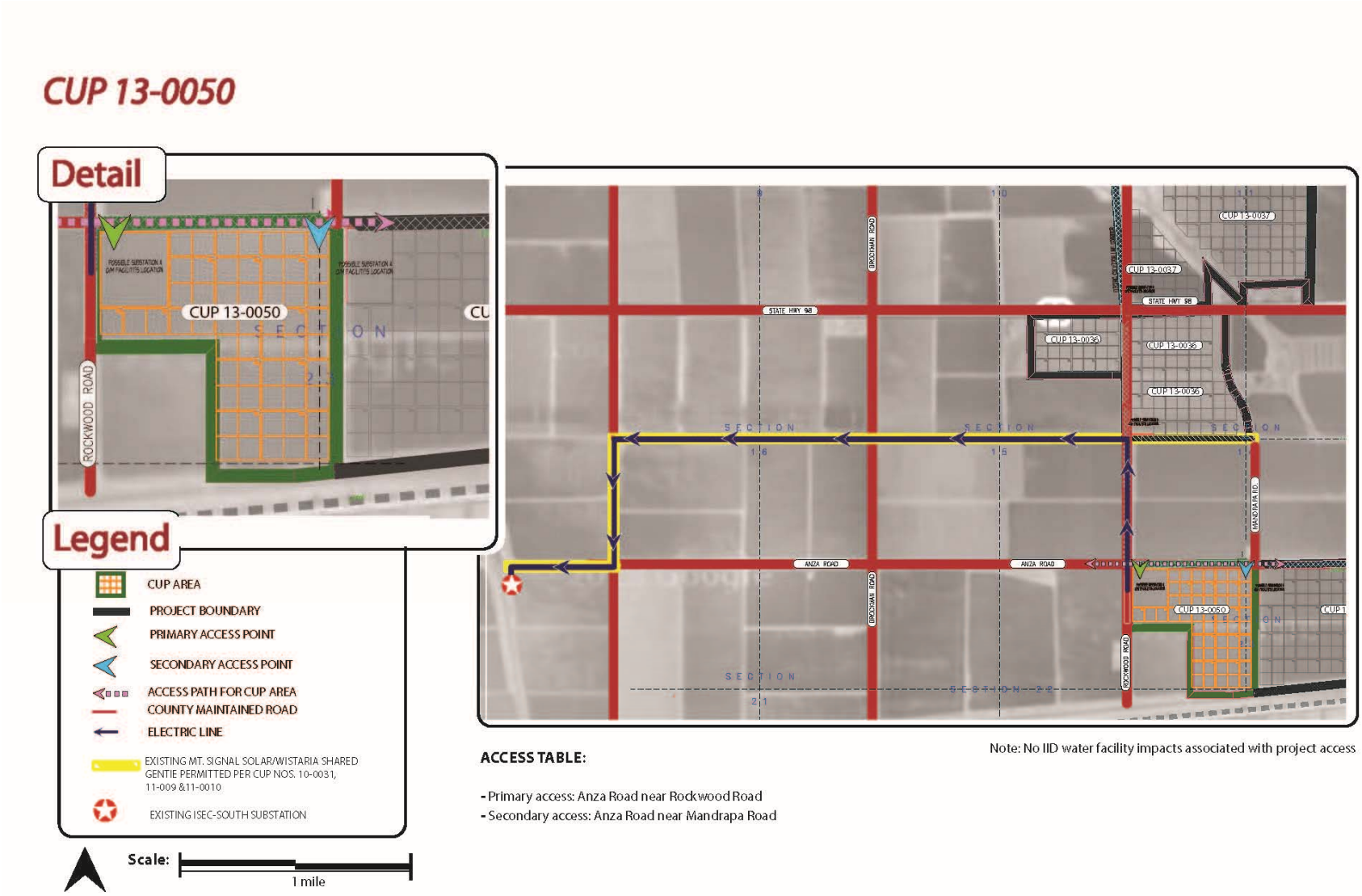
Source: DD&E 2014a.

FIGURE 2.0-18
CUP 13-0048 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



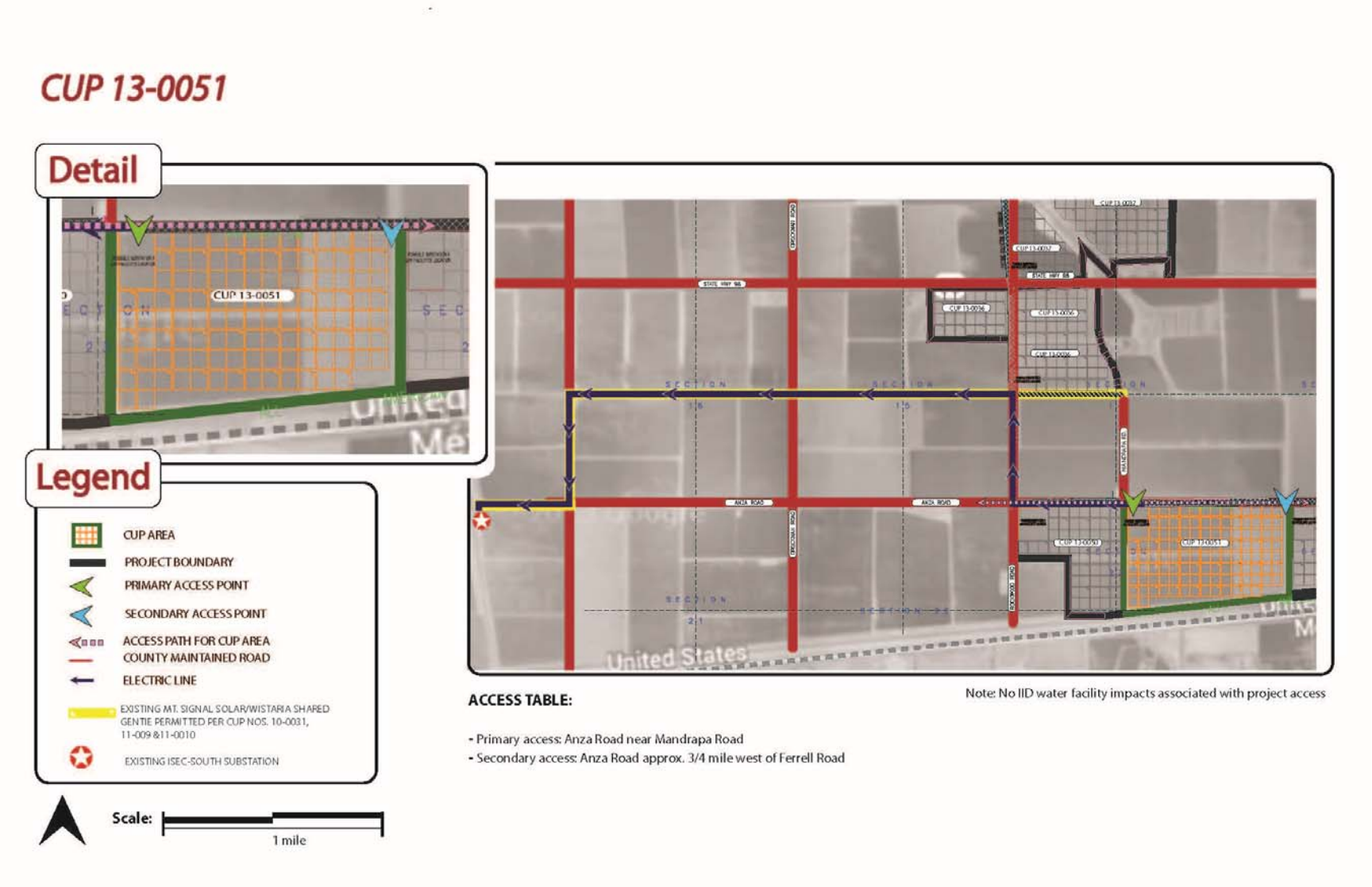
Source: DD&E 2014a.

FIGURE 2.0-19
CUP 13-0049 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



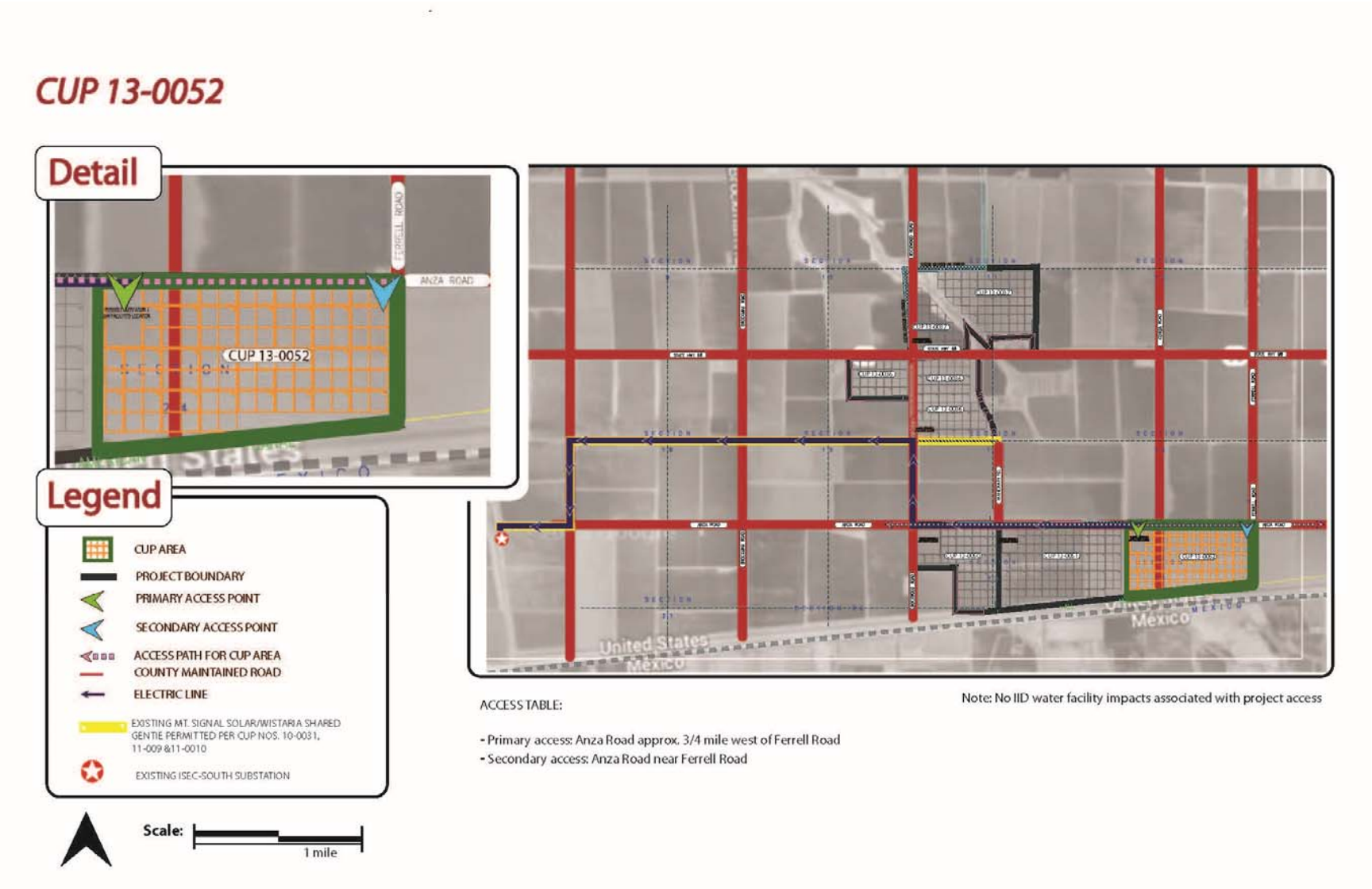
Source: DD&E 2014a.

FIGURE 2.0-20
CUP 13-0050 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



Source: DD&E 2014a.

FIGURE 2.0-21
CUP 13-0051 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM



Source: DD&E 2014a.

FIGURE 2.0-22
CUP 13-0052 – ACCESS POINT AND ELECTRICAL FLOW DIAGRAM

D. SOLAR ENERGY CENTER FACILITIES

Each of the components of the solar energy center is described in detail below. The components would be installed as part of construction, in use during operation, and removed and decommissioned at the end of each CUP or 30 years, whichever is later. The following components would be developed on each parcel whether built as 17 individual CUPs phased in over ten years or as the entire 2,793-acre Project over an 18 month period.

Photovoltaic Solar Modules

The Project will use conventional PV modules (either crystalline or thin-film) or concentrated photovoltaic (CPV) modules (**Figure 2.0-23**). The solar energy system operates only when the sun is shining during daylight hours. While the system operates at peak output when the sunlight is most intense, it can also produce power in low light conditions.

CPV modules use Fresnel lenses and/or mirrors to concentrate sunlight and focus it onto small, highly efficient solar cells (like III-V triple-junction solar cells) that convert the sunlight directly into electrical energy. Typical CPV modules are non-reflective.

The CPV technology is improving rapidly and new types of CPV are frequently being introduced. Low concentration CPV (e.g. SunPower's C7 technology) combines a horizontal single-axis tracker with rows of parabolic mirrors, reflecting light onto high-efficiency silicon solar cells.

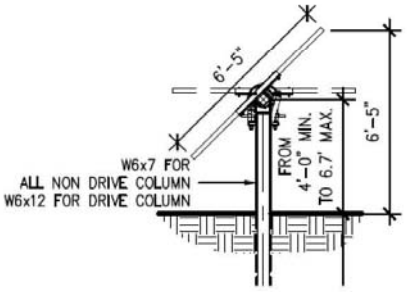
Fixed-Tilt and Tracker Structures

Depending on the selected manufacturer for the PV or CPV modules, the modules will be mounted on fixed-tilt, single- or dual-axis tracking structures. The modules will be grouped in nominal 1 to 2 mega-watt alternating current (MW-AC) arrays. Fixed tilt arrays will be oriented in east-west rows and will face in a generally southern orientation with a tilt angle between 10 and 35 degrees to maximize the amount of incidental solar radiation absorbed over the year. Single-axis trackers typically rotate ±45 degrees (0 degrees is horizontal) along a nominally north-south axis to track the sun's movement throughout the day. The maximum (i.e. worst-case) height of a single-axis tracker is 14 feet when the panels are rotated towards the horizon in the early morning hours or late evening hours as the sun rises and sets. Structural support elements will be constructed of corrosion-resistant steel, aluminum, or equivalent members that are attached to circular piers or I-beam posts that will be driven into the prepared base grade of the site.

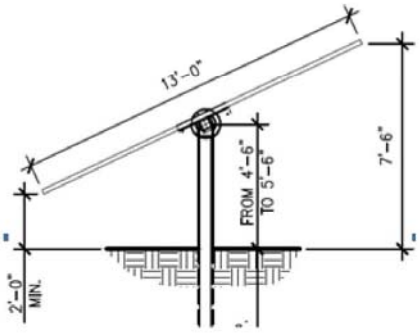
CPV trackers vary among technology providers. Currently, the leading CPV manufacturer's trackers range between 30 and 50 feet in height and 50 to 75 feet in width. While the maximum height would be 50 feet during the early morning and late evening hours, the panels rotate on a dual axis and is at a much lower effective height (typically 26 feet as shown in **Figure 2.0-23**) throughout most of the day as it rotates to track the sun. Inside each leading CPV manufacturer's modules are cells connected in a series providing a nominal power output of watts (W) per module and typically kilowatts (kW) per supermodule. Many CPV modules collectively form a supermodule. Supermodules are mounted atop a two-axis elevation-overazimuth tracker that follows the sun's daily trajectory across the sky to provide the highest possible level of energy production – particularly in the high-energy demand afternoon hours.

The mast or post that holds up the panels will either be secured to a foundation below grade or vibratory driven into the ground. If vibration installation is used, the mast would serve as the foundation and the supporting structure.

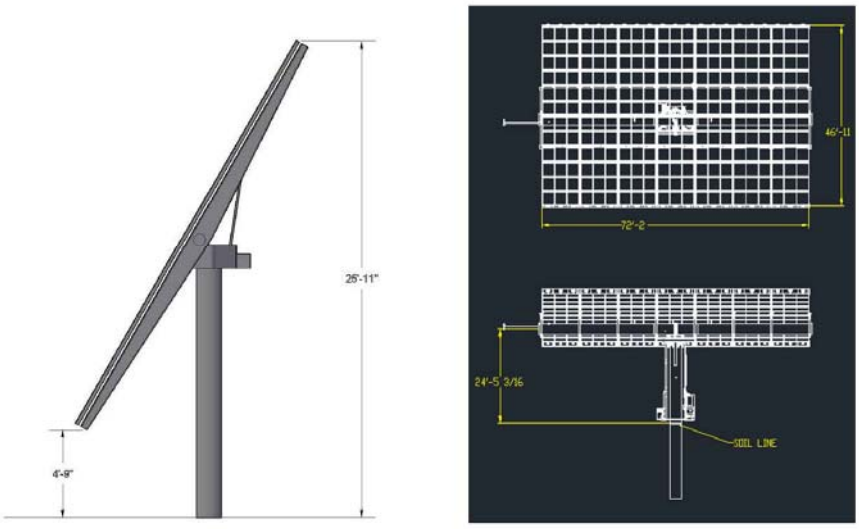
Collectively, all of the trackers are wired to a centralized inverter for reliable feed-in to the power grid.



PHOTOVOLTAIC TRACKING DETAIL



PHOTOVOLTAIC FIXED TILT DETAIL



CONCENTRATING PHOTOVOLTAIC TRACKING DETAIL (Typical leading CPV trackers)

Source: WRS 2013.

FIGURE 2.0-23
PROPOSED PV AND CPV TRACKER DETAIL

Inverters and Pad-mounted Transformers

A PCS would be located within each array. A PCS consists of inverters that take the direct current (DC) DC power output from the solar array and convert it to alternating current (AC) power. The adjacent pad-mounted transformer steps the voltage up to a medium voltage level. The medium voltage outputs from each of the pad-mounted transformers are collected together in combining switchgear located at discrete locations on the CUPs. The medium voltage output from the combining switchgear will be connected to the Project substation(s) where it will be stepped up to 230-kV for export to the grid.

Substation and Switchyard

An on-site substation will step-up the voltage from the collection level voltage to 230-kV. Breakers, buswork, protective relaying, Supervisory Control and Data Acquisition (SCADA), and associated substation equipment will be constructed on the CUPs. The communication system may include an above- or below-ground fiber optic cable network or microwave tower. The Project will be interconnected to the regional transmission system from the on-site substation/switchyard via the Gen-Tie interconnection. As previously noted, each of the 17 CUPs (13-0036 thru 13-0052) are anticipated to utilize the Gen-Tie line extending from the CUPs to the ISECS switchyard as well as the main Project switchyard located in CUP 13-0036. Alternatively, each CUP may independently construct its own 230-kV (maximum) step-up transformer and switchyard.

During normal operation, each substation will "back feed" power to maintain "house" power. This would include O&M buildings, security systems, SCADA, communication systems, plant control systems, etc. Therefore, much of the electrical equipment will be in some stage of electrical operation 24 hours-a-day.

Transmission Interconnection Facilities: Collector Lines and Gen-Tie Line

Regardless of whether the Project is built as 17 individual CUPs, a combination of several CUPs, or as a single project in its entirety (i.e. the Full Build-out Scenario), the use of collector lines to convey electricity from the array fields to the Project substation would remain similar. Skid mounted enclosed switchgear would be used within panel fields of each CUP to collect the energy generated by the solar arrays. Medium voltage collection lines would be used to transmit the electricity from the panel array fields to the Project substation(s). Substations/switchgear may be connected to one another through lines up to 230-kV that ultimately connect to the Mount Signal Solar Farm Gen-Tie. These lines will remain within the collector line corridor, which is located primarily within the CUPs. The Electric Collector Line Corridor goes outside of the CUPs when it crosses APN 052-180-048, which is part of the Iris Solar Project, and when it crosses APN 052-210-015, which is part of the Calexico Solar Farm Projects. Approximately 18 poles would be located within off-site easements (i.e., outside of CUP areas) at full build-out. Of these 18 pole structures outside of the CUP areas, nine would be within an off-site easement that is currently in agricultural use but being permitted for solar energy generation along the Electric Collector Line Corridor between CUP 13-0037 and CUP 13-0038. The other nine poles would be within an off-site easement along the Electric Collector Line Corridor between CUP 13-0036 and CUP 13-0050. These 18 poles would result in temporary disturbance of approximately 4.14 acres and permanent disturbance of approximately 0.04 acres. These off-site easement areas are/were active agriculture fields that were either permitted, or are in the process of being permitted, for solar energy generation.

The Project would construct a 230-kV Gen-Tie or a lower voltage collector line that would extend approximately one-half mile along Rockwood Road to the Mount Signal Solar Farm Gen-Tie which would utilize 9 of the 18 poles mentioned above. This segment would require an encroachment permit from the California Department of Transportation (Caltrans) to cross SR-98. From this point, the Project would build out the facilities necessary to utilize the dual circuit capabilities of the Gen-Tie line previously constructed as part of the Mount Signal Solar Farm. The construction would include adding arms, insulators, and other apparatus to update the 19 existing Mount Signal Solar Farm Gen-Tie structures, installing approximately

eight new structures as necessary, and stringing new conductor to complete the second circuit. From this point, the Project would hang its conductors on poles built by the Mount Signal Solar Farm Project for approximately two miles to the northeastern edge of the ISECS site. The Gen-Tie would then extend approximately one-half mile south parallel to Pulliam Road, then turn to the west and extend approximately one-half mile to connect to the ISECS switchyard. The Project will construct a new breaker bay within the existing ISECS switchyard to facilitate the interconnection. Construction of the new tangent structures, dead-end structures, and breaker bay with contingency would result in 10 acres of temporary impact and one acre of permanent impact. The future breaker bay to be constructed within ISECS is currently within a fenced facility with crushed rock as the ground cover as shown in the photo below. The new breaker bay would be duplicated so that the facilities shown in the background of the photo would be replicated and placed within the foreground of the photo. WRS has entered into an agreement to share the Mount Signal Solar Farm Gen-Tie with the owner of the Mount Signal Solar Farm Project. Additionally, WRS has entered into an agreement to share the use of the ISECS switchyard (depicted in the photo below) with the owner of the ISECS Project.

Photo of ISECS Switchyard

Operations and Maintenance (O&M) Building Complex

The O&M Building Complex may contain administrative offices, parts storage, a maintenance shop, plant security systems, a site control center, and plant monitoring equipment. The O&M building complex would have a maximum building size of approximately 40,000 square feet and the height would be approximately 35 feet. O&M building(s) will also provide sanitary facilities for employees and visitors. A specific design for the building(s) has not yet been selected as the technology utilized in utility scale solar energy production continues to improve rapidly. The final layout will be based on the technology selected. The building(s) may have exterior lighting on motion sensors and will have fire and security alarms. The building(s) will be located on a graded area with adjacent worker parking. The parking lot(s) will meet the requirements of the Imperial County Land Use Ordinance Division 3 Chapter 1 90302.02 Development of Standard (e). All driveways leading to the O&M building(s) will be surfaced with a minimum of three (3) inches of asphaltic concrete paving or higher quality material. **Figure 2.0-24** depicts a conceptual O&M complex layout.

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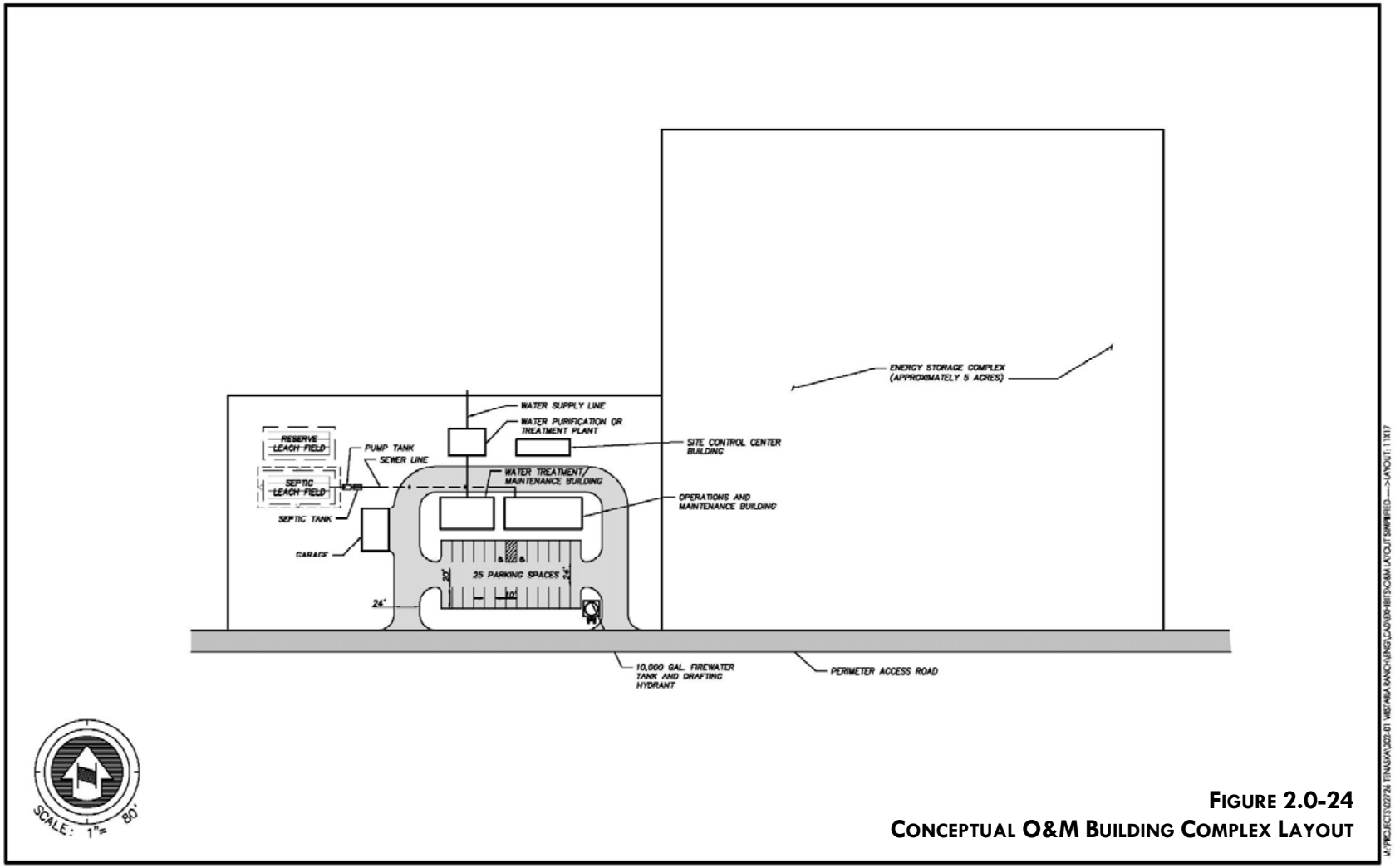


FIGURE 2.0-24
CONCEPTUAL O&M BUILDING COMPLEX LAYOUT

Source: Fuscoe 2012.

Energy Storage

Utilities have been encouraging the use of energy storage in conjunction with the generation of solar energy. Energy storage allows the generating facility to smooth its generation profile which reduces the need for the utility to call upon other resources to support the intermittency of renewable resources. The Project may incorporate an energy storage component and each CUP may have its own energy storage component. The storage component for the entire Project (all 17 CUPs) is likely to be 50 MW with up to 6 hours of capacity; the size for any specific CUP is likely to be approximately 6 MW with up to 6 hours of capacity.

The field of energy storage is rapidly advancing, and a wide variety of technology is available to choose from. To date, a single technology or provider has not been selected for this component of the Project. The analysis contained in this EIR reflects the worst-case scenario for impacts from these technologies in order to mitigate any impacts from these technologies. Thus the analysis covers the full-range of technologies for when the final decision is made on which technology to construct.

The storage component will utilize technologies that operate based upon the principles of potential energy (e.g. pumped storage), chemical energy (e.g. batteries), mechanical/kinetic energy (e.g. flywheel), or any combination thereof. The storage component may be centralized and located adjacent to the substation or switchgear. Alternatively, the energy storage component may be distributed throughout the facility adjacent to individual power conversion centers. The storage component would be housed in a warehouse type building or in smaller modular structures such as cargo shipping containers.

Battery Energy Storage

Batteries commonly used for grid scale energy storage are broadly categorized into two types of batteries: flow batteries and non-flow batteries. **"**Non-flow battery" is a general term used to categorize the group of batteries commercially available in which the anode, cathode and electrolyte are all housed in the same hermetically sealed enclosure. "Flow battery" is a general term used to categorize the group of batteries in which the anode and cathode are housed separate of the electrolyte. A typical flow battery consists of a module (a grouping of battery cells that contain anode and cathode pairs), electrolyte storage tanks, and pumps.

Non-Battery Energy Storage

Non-battery energy storage is a broad term used to encompass energy storage technologies that do not use chemical energy, but instead use some form of mechanical energy, potential energy, or any combination of the two. Examples of non-battery energy storage systems under consideration include flywheel and compressed air energy storage.

Flywheel Energy System

A flywheel energy system is comprised of a motor-generator and a spinning mass (flywheel). When charging, electricity is used to power the motor-generator, which is used to increase the kinetic energy of the flywheel by increasing its rate of rotation. When discharging, the operation is simply reversed and the flywheel's kinetic energy is converted first to mechanical energy and then to electrical energy at the motor-generator.

Compressed Air Energy Storage System

Compressed air energy storage system is mainly comprised of compressor(s) and pressure vessel(s). During charge, electricity is used to drive the compressor's motor-generator which compresses ambient air. The compressed air is then stored in a pressure vessel until the system is called upon to discharge.

During discharge, the process is reversed and compressed air is used to drive the compressor's motor-generator creating electricity. The compressor(s) would be housed in a pre-engineered sound attenuated enclosure while the pressure vessel would most likely be comprised of a series of steel pipes connected by a common header either installed above grade or several feet below grade.

Construction

Construction of the energy storage systems discussed above would include similar construction activities as those of the solar energy center. These activities would include: general site work, below grade and above grade electrical, foundations, setting equipment, and erection of pre-engineered buildings (if an indoor installation). The construction and equipment schedule is included within the schedule for the overall Solar Energy Center.

Operation and Maintenance

The energy storage system would mostly be autonomous and would not require a full-time staff. The system would be capable of being dispatched and controlled directly by the grid operator or the solar plant operator. Scheduled and unscheduled maintenance would be performed as required by specially trained technicians.

Location and Footprint

As discussed previously, the energy storage system may be distributed throughout the Project adjacent to solar PCS buildings, or be centrally located adjacent to the Project's substation. Under the more likely scenario where the energy storage system is located adjacent to the Project's substation, a footprint of approximately 5 to 10 acres is anticipated. Two potential locations are proposed: one is adjacent to the PCS structures throughout the CUPs and the other is within the O&M building complex footprint depicted on **Figures 2.0-6 thru 2.0-22**. As shown in **Figure 2.0-23**, the O&M building complex could be adjacent to the energy storage field.

End of Life Decommissioning

Decommissioning of the energy storage system will vary by the technology used. For the non-battery energy storage systems equipment can be recycled, repurposed or sold for scrap. For battery energy storage systems, batteries will either be: recycled through programs offered by the manufacturer; recycled or repurposed for use in other industries; or disposed of as hazardous materials.

E. CONSTRUCTION PROCESS FOR THE SOLAR ENERGY CENTER

Construction Duration

Project construction is estimated to begin at some point in 2015. Construction of the Full Build-out Scenario is expected to take approximately 18 months. Under the Phased CUP Scenario, each CUP could take approximately 7 to 8 months. **Tables 2.0-3a** and **2.0-3b** provide a general schedule for construction. The equipment, materials, and labor involved in building the Project remain similar whether it is constructed as 17 individual CUPs, a combination of multiple CUPs over a period of ten years, or built-out in its entirety over an 18 month period. However, the 18 month build-out of the entire Project would result in greater intensity of labor and equipment.

TABLE 2.0-3A
EXAMPLE CONSTRUCTION SCHEDULE FOR FULL BUILD-OUT SCENARIO

Task Name	Duration	Start
Mobilization	1.5 months	6/30/15
PV Arrays	364 days	8/11/15
Site Preparation	9 months	8/11/15
Post Installation	9 months	9/8/15
Below Grade Electrical	11 months	11/3/15
Above Grade Electrical	11 months	12/1/15
Module Installation	11 months	12/29/15
Commissioning	12 months	2/1/16
Energy Storage System	7 months	7/11/15
Sub Station	7 months	7/11/15
Gen-tie Line	7 months	7/8/15
O&M Building	3.5 months	1/12/16
Commercial Operation Date	1 day	1/25/16

Source: WRS 2014.

TABLE 2.0-3B
EXAMPLE CONSTRUCTION SCHEDULE FOR AN INDIVIDUAL CUP

Task Name	Duration	Start
Mobilization	1 month	6/30/15
PV Arrays	110 days	7/30/15
Site Preparation	1.5 months	9/1/15
Post Installation	4 months	8/24/2015
Below Grade Electrical	3 months	9/7/15
Above Grade Electrical	3 months	9/21/15
Module Installation	3 months	10/5/2015
Commissioning	1 months	12/14/15
Energy Storage System	7 months	7/11/15
Sub Station	7 months	7/11/15
Gen-Tie Line	7 months	7/8/15
O&M Building	3.5 months	9/14/15
Commercial Operation Date	1 day	1/25/16

Source: WRS 2014.

Construction Equipment

Table 2.0-4 provides a list of equipment the Applicant anticipates using to complete construction of the Project.

TABLE 2.0-4
PROPOSED CONSTRUCTION EQUIPMENT

Equipment Description	Full Build-Out Quantity	Single CUP Quantity	Horse Power	Fuel Type	Duration (months)	Operation Hours/Day
Mobilization					**1.5**	
Off-Highway Trucks	5	2-3	350	Diesel		2
Site Preparation					**9**	
Graders	8	1	200	Diesel		8
Off-Highway Tractors	6	1	250	Diesel		8
Off-Highway Trucks	8	2	300	Diesel		8
Off-Highway Trucks	5	1	300	Diesel		4
Plate Compactors	6	1	100	Diesel		3
Rough Terrain Forklifts	2	1	75	Diesel		2
Scrapers	4	1	300	Diesel		4
Tractors/Loaders/Backhoes	4	1	150	Diesel		8
Miscellaneous					**All**	
Air Compressors	2	2	75	Diesel		2
Generator Sets	5	2-3	5	Gas		8
Off-Highway Trucks	1	1	180	Gas		1
Off-Highway Trucks	1	1	350	Diesel		2
Plate Compactors	7	2	15	Gas		1
Substation/Storage					**8**	
Cranes	2	2	200	Diesel		5
Tractors/Loaders/Backhoes	2	2	150	Diesel		7
Post Installation					**9**	
Bore/Drill Rigs	12	2	45	Diesel		8
Rough Terrain Forklifts	8	2	75	Diesel		7
Gen-Tie					**9**	
Aerial Lifts	2	2	110	Diesel		2
Cranes	1	1	500	Diesel		2
Cranes	1	1	220	Diesel		2
Off-Highway Trucks	2	2	210	Diesel		2
Below Grade Electrical					**11**	
Excavators	4	2	45	Diesel		7
Tractors/Loaders/Backhoes	4	1	150	Diesel		7
Trenchers	2	1	100	Diesel		4
Above Grade Electrical					**11**	
Rough Terrain Forklifts	3	1	75	Diesel		2
Module Installation					**11**	
Rough Terrain Forklifts	15	2	75	Diesel		2
O&M Building					**3.5**	
Cranes	2	2	200	Diesel		5
Tractors/Loaders/Backhoes	2	2	150	Diesel		7

Source: WRS 2014.

Site Access

Multiple County maintained roads provide access throughout the Project area and to each CUP (refer to **Figures 2.0-6 thru 2.0-22**). Access to the Project will primarily be via the following paved roads: County Highway S30, Anza Road, Kubler Road, Lyons Road, and SR-98. Additionally, the Project may use County maintained unpaved roads when access from existing paved roads or roads internal to the Project boundary is unavailable. These unpaved roads would include Wahl Road, Mandrapa Road, Ferrell Road, George Road, Preston Road, and Rockwood Road. The Project will comply with Imperial County Air Pollution Control District Rule 805 which was implemented to reduce the amount of fine Particulate Matter (PM_{10}) entrained in the ambient air as a result of emissions generated from new or existing public or private paved or unpaved road, road construction project, or road modification project by requiring actions to prevent, reduce, or mitigate PM_{10} emissions. Access to components of the solar field will be controlled through security gates at several entrances. Multiple gate restricted access points will be used during construction.

Demolition

The individual CUPs consist of agricultural and/or developed land void of structures with the primary exception of IID and landowner irrigation facilities. The landowner irrigation ditches that are located within the boundary of each CUP that would conflict with the site's configuration will be demolished and reused on-site as recycled base or trucked offsite to be recycled or disposed at a landfill.

Staging Areas

Temporary construction lay down, construction trailers, and parking areas will be provided within the boundaries of the Project site. The lay down areas will be relocated periodically within the solar field acreage. In each case, no long-term staging area will be set up near a residential structure.

Temporary Facilities

During construction, temporary facilities will be developed onsite to facilitate the construction process. These facilities may include construction trailers, a temporary septic system or holding tank, parking areas, material receiving / storage areas, water storage ponds, construction power service, recycling / waste handling areas, and others. These facilities will be located at the construction areas designated on the final site plans.

Grading

At full build-out, most, but not all the CUP area will be disturbed by construction, but in no event would the total solar field site parcels and off-site areas disturbed exceed 2,793 acres. To the extent feasible, site preparation will be planned and designed to minimize the amount of earth movement. Compaction of the soil to support building and traffic loads as well as the PV module supports may be required and is dependent on final engineering design.

Dust Control

The Project site will be scarified and compacted followed by water application during construction for dust control. The compaction and wetting of the soil create a crust on the soil which limits fugitive dust. The Applicant will submit a construction dust control plan to ICAPCD prior to grading activities. An estimated total of 1,200 acre-feet (AF) of water will be used for Project dust control and other activities during the construction phase of the Project which includes water required for the Gen-Tie and collector line construction **Table 2.0-5** shows the amount of water required per CUP which includes the water required for the collector line or Gen-Tie component of each CUP. As shown, the amount of water use would range between 71 AF (CUP 13-0050) on the low end and 139 (CUP 13-0051) on the high end. Total construction water usage for full build-out of the Project is 1,601 AF.

TABLE 2.0-5
WATER USE FOR DUST CONTROL AND OTHER CONSTRUCTION ACTIVITIES BY CUP

CUP	Acreage	Water (AF)	CUP	Acreage	Water (AF)
CUP 13-0036	190.61	109	CUP 13-0045	76.64	44
CUP 13-0037	223.66	128	CUP 13-0046	202.24	116
CUP 13-0038	162.93	93	CUP 13-0047	131.89	76
CUP 13-0039	161.2	92	CUP 13-0048	160	92
CUP13-0040	148.53	85	CUP 13-0049	159.9	92
CUP 13-0041	153.61	88	CUP 13-0050	123.54	71
CUP 13-0042	231.32	132	CUP 13-0051	241.98	139
CUP 13-0043	152.11	87	CUP 13-0052	194.05	111
CUP 13-0044	79.82	46	Total all CUPs		1,601

Source: WRS 2014.

Construction Traffic

Daily trip generation during Project construction, whether phased or full build-out would include delivery of equipment and supplies and construction workforce commute trips. The number of workers expected on site would vary over the construction period and will likely average up to 250 workers per day for the full Project build-out of approximately 250 MW, with a possible peak of up to 350 daily workers. Worker and construction truck traffic combined is anticipated to be 664 average daily trips (ADT). If the Project is built as individual CUPs, there would be approximately 75 workers per day would be needed to build a 20 MW facility. If multiple CUPs are built at one time, the number of workers required per megawatt is reduced as there are economies of scale and efficiencies obtained from continuous construction. Deliveries of equipment and supplies to the site would also vary but have the potential to range from 5 to 40 daily trips, averaging approximately 10 daily trips during the construction period for multiple CUPs. If the Project was built out over time by individual CUPs, then the traffic from equipment and supplies would be greatly reduced. A typical 20 MW CUP is estimated to average 5 daily trips for equipment and supplies.

Construction Parking

Parking for Project-related vehicles will be provided on site during construction. The parking lot may be relocated as new CUPs are constructed.

Storm Water

On-site drainage will be designed to protect the Project's facilities and any adjacent IID/County facilities from large storm events. On-site drainage patterns will be maintained to the greatest extent possible. It may be necessary to remove, relocate and/or fill in portions of the existing drainage ditches or delivery canals to accommodate the final panel layout. Final engineering drainage plans will be reviewed and approved by the County prior to a grading permit being issued. Construction of the Project would be covered under the General Permit for Discharges of Stormwater with Construction Activity. A detailed Stormwater Pollution Prevention Plan (SWPPP) will be prepared for each CUP (13-0036 thru 13-0052) that will identify the locations and implementation procedures for the best management practices (BMP) required by the General Permit. The SWPPP will be developed by a Qualified SWPPP Developer (QSD) and will be implemented by a Qualified SWPPP Practitioner (QSP).

Noise

Increased noise levels would be generated on area roadways during construction. Traffic noise would increase on County Highway S30, Lyons Road, Rockwood Road, and SR-98, as well as other roads in the

area. Typical construction work hours are expected to be from 6:00 a.m. to 5:00 p.m. Monday through Saturday. However, use of noise-generating and vibration-generating construction equipment will not begin before 7:00am during weekdays or 9:00 a.m. on Saturday per the County General Plan Noise Element.

Hazardous Materials

The Applicant will provide appropriate training and supervision of on-site personnel regarding management of materials and wastes, and responding to hazardous releases or spills or other site emergencies throughout construction of all CUPs of the project. This training will include the procedures to follow during any on-site emergency, including appropriate reporting of spills, releases, or other emergencies to Imperial County, and local emergency service providers. Either directly or through its contractors, WSR will hire several personnel to oversee all aspects of a Hazardous Materials Management Plan (HMMP). WRS will follow Best Management Practices (BMPs) and any hazardous materials used during construction will be appropriately handled, stored, and disposed of in accordance with all applicable local, state, and federal laws and regulations.

Water

During construction of the Project, water will be required for a variety of activities, including dust suppression, earth compaction, the creation of engineered fill, and concrete preparation. Construction-phase water demand will be greatest during site grading. An estimated total of 1,200 AF of water will be used for the on-site and off-site Project dust control and other construction activities.

The Applicant will apply for a temporary construction water use permit from IID for construction water. The water will be delivered via the existing IID canal system. The Applicant will either set temporary water pumps within each CUP or truck in water for dust suppression. IID has been supplying solar energy facilities with water and WRS anticipates receiving water from IID.

At some point during construction, the point-of-entry water treatment system will be installed to provide water of potable quality which would be connected to all plumbing fixtures in the O&M building(s). This system may be temporarily connected to the construction trailers as well. The point-of-entry system would not be used for human consumption, bottled water will be trucked to the site for drinking water.

Sanitation

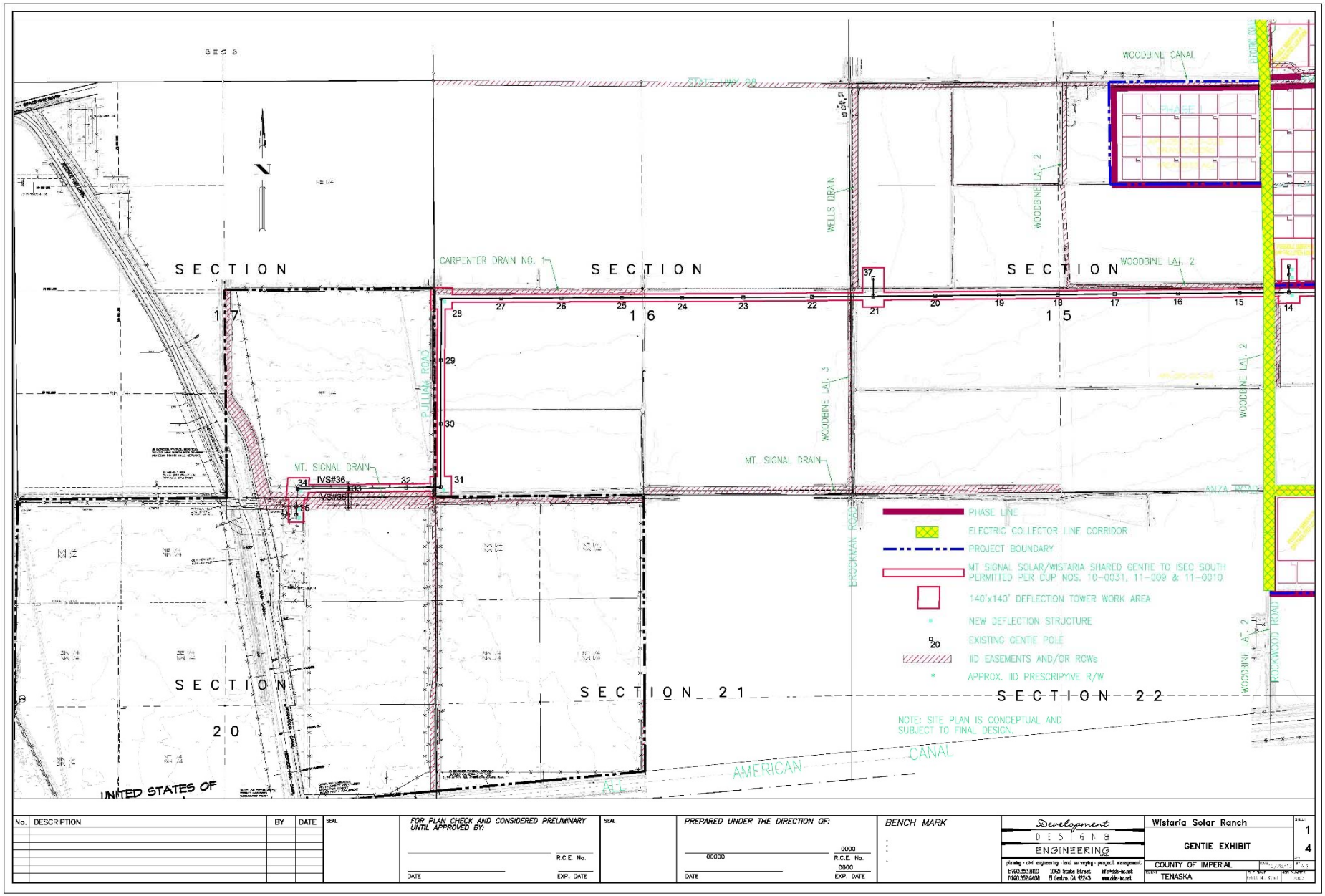
The construction trailer compound will develop a septic system for wastewater or utilize a temporary storage tank and then transport the sewage to the nearest wastewater treatment facility. Port-a-potties will be used throughout the Project site.

Electrical Service

Temporary electric service may be obtained from IID for the main construction logistics areas. Diesel generator power may be utilized for temporary portable construction trailer(s), construction and/or for commissioning.

IID and Caltrans Facility Crossings

The Project will need to collect electricity from the various CUPs through the collector line corridor. **Figure 2.0-25a thru 2.0-25d** depicts the alignment of the proposed corridor. Electricity conveyed through the Electric Collector Line Corridor will eventually be transmitted through the Mount Signal

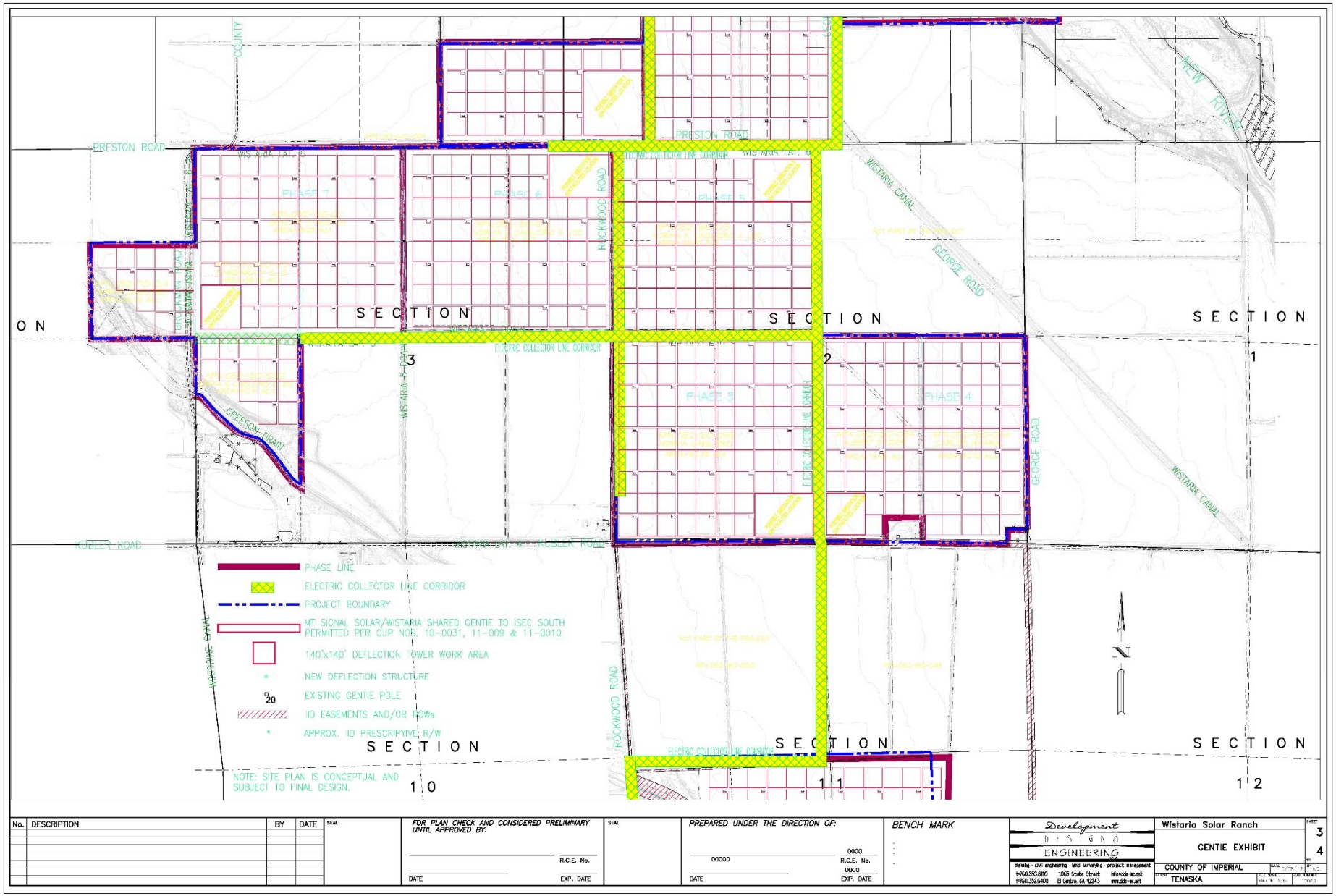


Source: DD&E 2013.

FIGURE 2.0-25A
GEN-TIE ALIGNMENT (1 OF 4)

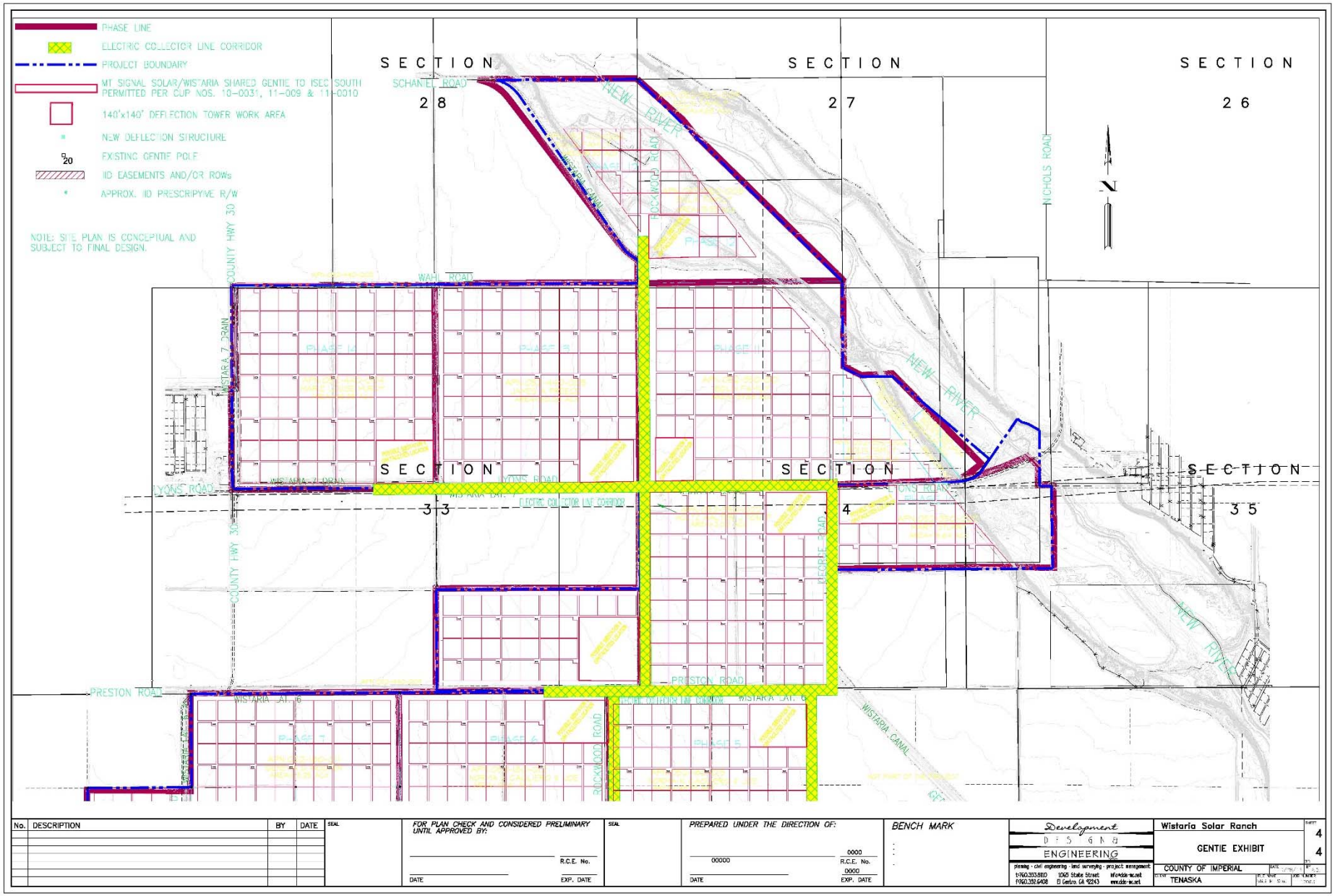
Source: DD&E 2013.

FIGURE 2.0-25B
GEN-TIE ALIGNMENT (2 OF 4)



Source: DD&E 2013.

FIGURE 2.0-25C
GEN-TIE ALIGNMENT (3 OF 4)



Source: DD&E 2013.

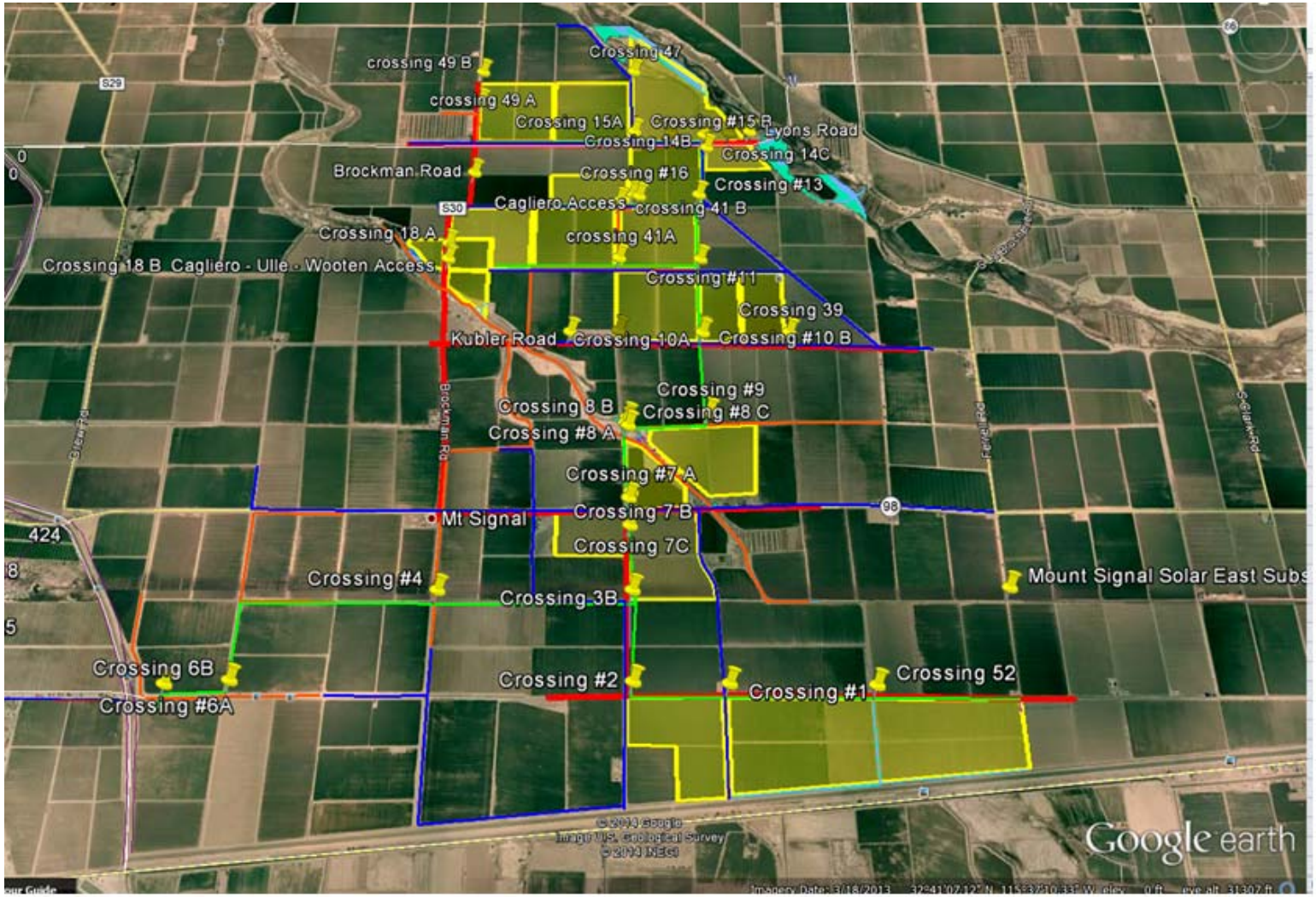
FIGURE 2.0-25D
GEN-TIE ALIGNMENT (4 OF 4)

Solar Farm Gen-Tie. The Electric Collector Line Corridor and Gen-Tie will include electric line crossings of IID facilities and a crossing of Caltrans facilities at SR-98. **Table 2.0-6** identifies the crossing type and location. **Figure 2.0-26** depicts the locations of the crossing on an aerial photo of the Project area.

TABLE 2.0-6
POTENTIAL IID AND CALTRANS FACILITY CROSSINGS

Crossing ID	Cross Street 1	Cross Street 2	CUP	IID Water	IID Energy	County Road	Caltrans	SDGE	Type of Crossing	Type	Type
1	Anza	Mandrapa	51/52	Yes	Yes	Mandrapa	No	No	Electric line crossing Mandrapa Rd, IID Energy facilities and Woodbine Canal	Electric	
2	Anza	Rockwood	50	No	Yes	Anza	No	No	Electric line crossing Anza Road and IID Energy facilities	Electric	
3B	Rockwood	Greeson Dr 2	Gentie	Yes	No	Yes	No	No	Existing and new gen-tie crossing Woodbine Lateral 2. No vehicular access at this point.	Electric	
4	Wells Drain	Brockman Rd	Gentie	Yes	Yes	Brockman	No	No	Existing and new gen-tie crossing IID electric and Brockman Rd	Electric	
6B	Pulliam	Anza Rd	Gentie	Yes	Yes	Pulliam	No	No	Existing and new gen-tie crossing Pulliam and IID electric line.	Electric	
6A	Mt Signal Drain	Anza Rd	Gentie	Yes	Yes	Anza	No	No	Existing and new gen-tie crossing Mt Signal Drain and IID electric line.	Electric	
7A	SR 98	Rockwood	37	Yes	Yes	SR 98	Yes	No	Electric and Vehicular crossing at existing 40' culvert over Woodbine Canal and IID electric lines	Electric	Vehicular
7B	SR 98	Rockwood	37	Yes	Yes	SR 98	Yes	No	Existing vehicular crossing over underground portion of Greeson Drain 2		Vehicular
7C	Rockwood		36	Yes	No	Rockwood	No	No	Electric line crossing Greeson Drain 2 and Rockwood Rd	Electric	
8A	Rockwood	Greeson Drain 2	37	Yes	No	No	No	No	Existing vehicular over Greeson Drain 2		Vehicular
8B	Rockwood	Greeson Drain 2	37	Yes	No	No	No	No	Existing vehicular over Greeson Drain 2		Vehicular
8C	Rockwood	Greeson Drain	37	Yes	No	No	No	No	Electric over Greeson Drain and Vehicular at existing County bridge over Greeson Drain	Electric	Vehicular
9	Wistaria Drain	Unnamed Road	38	Yes	No	No	No	No	Electric and vehicular at new culvert over Wistaria Drain	Electric	Vehicular
10B	Kubler	East of Rockwood	38/39	Yes	Yes	Kubler	No	No	Electric and existing vehicular crossing of Wistaria Lateral 4	Electric	Vehicular
10A	Kubler	East of Rockwood	38/39	No	No	Kubler	No	No	Electric crossing of Kubler Road and IID electric line	Electric	
11	Private Rd W/ of George	Unnamed Road	40	Yes	Yes	No	No	No	Electric crossing IID Electric and Existing vehicular crossing Wstaria Lateral 5 and Drain 5	Electric	Vehicular
12	Private Rd W/ of Rockwood	Unnamed Road	7	Yes	No	No	No	No	Existing vehicular crossing of Wistaria Lateral 5		Vehicular
13	Preston	W/ of George	43	Yes	No	Preston	No	No	Existing Vehicular and Electric Crossing Wistaria Lateral 6	Electric	Vehicular
14A	Lyons	George	46	Yes	No	Lyons	No	No	Electric and existing vehicular crossing over Wistaria Lateral 7 and Lyons Road		
14B	Lyons	George	46	No	No	Lyons	No	Yes	Electric crossing under SDG&E's Southwest Powerlink		
14C	Lyons	George	45	No	No	George	No	No	Electric crossing George Road		
15A	Lyons	Rockwood	46	Yes	No	Rockwood	No	No	Existing 40' wide vehicular -Rockwood Road crossing Wistaria Lateral 7		Vehicular
15B	Lyons	Rockwood	46	Yes	No	Rockwood	No	No	Electric and existing 40' wide vehicular entrance into 13-0046 crossing Wistaria Canal	Electric	Vehicular
16	Rockwood	Preston	44	No	No	Rockwood	No	No	Existing vehicular over Wistaria Lateral 6 within Rockwood Rd ROW and Electric over Rockwood	Electric	Vehicular
17	Rockwood	Kubler	38	Yes	Yes	Rockwood	No	No	Existing vehicular crossing in Rockwood Road ROW over Wistaria Lateral 4		Vehicular
18A	Brockman Road		42	No	Yes	Brockman	Yes	No	Electric Corridor crossing Brockman Road (S30) and an IID electric line	Electric	
18B	Brockman Road	Wistaria Lateral 6A	42	No	Yes	Brockman	Yes	No	Vehicular crossing of Wistaria Lateral 6-A		Vehicular
41B	Rockwood	Preston	41	Yes	No	Rockwood	No	No	Electric Corridor crosses Rockwood Road and Wistaria 5 Drain	Electric	
41A	Rockwood	Unnamed Road	41	Yes	No	Rockwood	No	No	Existing vehicular crossing in County ROW over Wistaria Drain and Lateral 5		Vehicular
47	Rockwood	Wahl	47	Yes	No	Rockwood	No	No	Existing Vehicular Crossing at Rockwood/Wahl and Wistaria Canal.		Vehicular
52	Anza	Greeson Drain	52	Yes	Yes	Anza	No	No	Electric line crossing Greeson Drain and IID Energy Facilities	Electric	
39	Kubler	George	39	Yes	No	George	No	No	Existing vehicular crossing at George Road over Wistaria Lateral 4		Vehicular
49A	Brockman Road	Wistaria Drain 7	49	Yes	No	No	No	No	Existing vehicular crossing at end of Wistaria Drain 7 adjacent to private drain easement		Vehicular
49B	Brockman Road	Private and IID Easement	49	Yes	No	Wahl	No	No	Existing vehicular crossing at Wahl and Brockmen adjacent to private drain easement and IID easement		Vehicular

Source: WRS 2014.



IID Canal

IID Drain

County Maintained Road (Paved)

Gen-Tie & Collection

Source: WRS 2013b.

FIGURE 2.0-26
POTENTIAL IID AND CALTRANS CROSSING LOCATIONS

The proposed Project crossings will not interfere with the purpose of the existing IID or Caltrans facilities. For instance, where a drain flows, the Project crossing will still allow the drain to flow. There will not likely be a need to make improvements to these crossings. Nevertheless, to provide a conservative analysis, the Applicant is identifying improvements to expand the crossings to 50-feet wide with culverts. The analysis of environmental impacts herein includes potential impacts associated with these potential improvements.

Off-Site Construction Activities

The Project Gen-Tie structures will be built within the CUPs and installed within the existing Mount Signal Solar Farm Gen-Tie corridor in order to connect the Project's solar generation fields to the ISECS switchyard. This is as described further under sub-section 2.1.5 "Gen-Tie Line Characteristics." In addition, as discussed under "IID and Caltrans Facilities Crossings," above, although improvements to existing crossings are unlikely to be necessary, the EIR is providing a conservative analysis in the event minor improvements are required. Wherever improvements are made, the Project will be required to comply with the ICAPCD dust control standards which may include watering of unpaved roads and other disturbed areas within the Project vicinity, or applying and maintaining gravel, re-crushed/recycled asphalt or other material of low Silt (<5%) content to a depth of three or more inches.

F. Operations and Maintenance of the Solar Energy Center

Paved Areas

Access roads and parking areas associated with O&M building(s) will be paved in accordance with County requirements.

Maintenance Activities

Panel Washing

Solar modules may be washed on a periodic basis if it is determined to be beneficial to the Project. The CPV panels are anticipated to be washed monthly while PV panels would be washed up to four times per year. Approximately 10 AF of the 60 AF of water required for operations and maintenance will be used for CPV panel wash water. PV panels washing would require less water.

Dust Control

The Applicant will submit an operations dust control plan to the ICAPCD prior to obtaining the final certificate of occupancy for the facility. Water will be available on each CUP during operations to wet the soil where necessary to prevent visible dust from exceeding 20% opacity. The panels themselves act as ground cover and deflect the wind above the solar panels. Additionally, dust generating activities will be minimized during high wind events.

Weed and Vegetation Management

Invasive weeds and vegetation will be monitored and removed during operation of the facility.

Landscape

Landscaping and an entry monument will be maintained at the entrance to the O&M building(s). In keeping with the agricultural nature of the area and the agricultural zoning, the Project will maintain the current rural industrial character along the perimeter. However, at the entrance to the O&M building(s), the Project will create landscaping for one hundred feet on either side of the main access gate that leads to the O&M building(where feasible). There will also be landscaping around the primary O&M building.

Miscellaneous

Other maintenance activities that would be conducted within the Project area include periodic testing of equipment, inspection and repair of Project components, and maintenance of on-site roads and drainage systems.

Traffic

Operation of the Project would be expected to generate approximately 4 to 10 trips per day from maintenance and security personnel. Operation of multiple CUPs could result in a need for a few more on-site employees. The CUPs may be supported by one staff who manages the entire Project. A likely number of employees would be 15 fulltime personnel. Based on this information, the operations and maintenance trip generation is estimated at 30 ADT.

Water

WRS anticipates a requirement of up to approximately 60 acre-feet per year (AF/Y) during operation of the solar energy center. Each CUP (13-0036 thru 13-0052) would utilize approximately 3.5 AF/Y. The 60 AF includes water required for dust control, panel washing, fire protection, potable domestic purposes, and human consumption. WRS plans to secure water rights from the IID under the IID's Interim Water Supply Policy for Non-Agricultural Projects. Water for fire protection will be stored in an on-site 10,000-gallon tank. The Project may also utilize an additional 10,000 gallon storage tank or tanks to store treated water for sanitary uses. An on-site water treatment facility may be constructed to provide the appropriate panel wash water or potable water requirements. The Imperial County Building Code requires potable water to be connected to all plumbing fixtures. However, IID does not allow its water to be consumed by humans. While potable water will be connected to plumbing fixtures. Bottled water will be provided for drinking water. Truck trips associated with bottled water delivery are within the estimated operational traffic assumed for the Project.

Wastewater

The Project will collect wastewater from sanitary facilities such as sinks and toilets in the O&M building(s). This waste stream will be sent to an Onsite Wastewater Treatment System (OWTS) to be installed in compliance with the California Water Quality Control Board's May 2013 adopted Water Quality Control Policy for Siting, Design, Operation and Maintenance for Onsite Wastewater Treatment Systems and standards established by the Imperial County Public Health Department, Section of Environmental Health & Consumer Protection Services. The Project's preliminary geotechnical review indicates that the near surface soils are clay and have very low to low infiltration rates. Therefore, final engineering may need to direct waste streams to an underground tank for storage until it is pumped out, on a periodic or as-needed basis, and transported for disposal at a licensed waste treatment facility. During periodic major maintenance events, portable restroom facilities may be provided to accommodate additional maintenance workers. Truck trips associated with major maintenance are within the estimated operational traffic assumed for the Project.

Storm Water

The Project will require on-site storm water attenuation for peak flows of runoff. Storm water detention will be satisfied in one of three ways: 1) construction of shallow detention basins located outside of the solar arrays; 2) shallow ponded areas under the arrays; or 3) a combination of both. Ultimate locations and limits of detention basins will be determined at the time of final engineering but shall be designed and constructed to meet all applicable local, state and federal regulations and statutes. Local containment would be provided around the high-voltage transformers within the Project substation to prevent any of the mineral oil contained within the transformers from being transported off-site in the event of a leak.

Noise

If CPV tracking technology is used, the primary noise sources during operation of the Project are anticipated to be generated by tracking motors and blowers (that are used to remove condensation from solar panels) distributed throughout the facility. Additional noise may be generated by equipment within the substation including switches, protection and control equipment, transformers, and incoming high voltage lines. The noise generated by the Gen-Tie lines and switches has previously been analyzed to be 25 dBA at 50 feet (AECOM 2011)(Note: A-weighted sound pressure level, or dBA, compensates for the variability in perceived noise levels by weighing some sound frequencies are more than others.) Transformers within the substation have been analyzed to generate noise levels of approximately 41 dBA Leq at 50 feet, while the inverters have been analyzed to generate an average noise level of 58 dBA Leq at 50 feet (AECOM 2011) (Note: Leq represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval).

Each energy storage facility would generate noise of approximately 61 dBA Leq at a distance of 50 feet. The potential combined operational noise levels of an inverter, a transformer, and an energy storage facility would be approximately 62.8 dBA Leq at a distance of 50 feet. Substation switches do not generate audible noise. Circuit breakers (70 dBA at a distance of 65 feet) are not a common noise source because this equipment operates only for short periods of time during an emergency event in order to protect the switches and transformers within the substation.

Air Quality

Because the proposed Project will have very few emissions and burn almost no fossil fuels[1], it will avoid emissions of relatively high levels of criteria pollutants originated from fossil-based electricity production. **Table 2.0-7a** shows the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions displaced by the approximately 250 MW Project annually.

TABLE 2.0-7A
CRITERIA POLLUTANT EMISSION REDUCTIONS CREATED BY THE FULL BUILD-OUT SCENARIO

Air Pollutant	Emission Factor (lb/MWh)	Annual Emissions Displaced by Project (lb)
CO	0.465	305,500
NO_X	0.227	149,000
PM_{10}	0.040	26,250
ROGs	0.032	21,000
SO_X	0.0022	14,450

Source: Wolff, G. 2005. As modified by WRS to meet a 250 MW project based on a 30% capacity factor.

Table 2.0-7b shows the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions displaced by the approximately 250 MW Project annually.

[1] Table 4.4-10 in Section 4.4 Air Quality of this EIR, identifies low levels of criteria pollutants generated by the Project's operational traffic, panel washing, and testing and maintaining emergency 250-hp generators.

TABLE 2.0-7B
CRITERIA POLLUTANT EMISSION REDUCTIONS CREATED BY EACH APPROXIMATELY 20 MW CUP

Air Pollutant	Emission Factor (lb/MWh)	Annual Emissions Displaced by Project (lb)
CO	0.465	24,440
NO_X	0.227	11,920
PM_{10}	0.040	2,100
ROGs	0.032	1,680
SO_X	0.0022	1,156

Source: Wolff, G. 2005. As modified by WRS to meet a 250 MW project based on a 30% capacity factor.

Hazardous Material Handling and Storage

The Project does not expect to use or store any appreciable quantities of hazardous chemicals within the Project site during normal operations. Some diesel fuel, motor oil, and gas for generators and vehicles would be stored and used on site. Mineral oil for transformers would also be used. Appropriate spill containment and clean-up kits would be maintained on each CUP. Small amounts of universal waste (paper and other common wastes and recycled batteries are expected to be stored on site. In California, all batteries to be discarded are hazardous waste per waste battery (CalRecycle 2014) and this would include utility scale batteries used for energy storage. It is likely that utility scale batteries will be disposed of/recycled approximately three times during the life of each CUP or 30 years, whichever is later.

A HMMP will be developed and maintained onsite in accordance with all applicable local, state and federal regulations and laws. O&M employees shall maintain Hazardous Materials Spill Kits on-site, and all O&M staff shall be trained in how to use the kits in the event of a spill.

Electrical Service

During normal operation, each substation is anticipated to "back feed" power to maintain "house" power. This would include O&M building(s), security systems, SCADA, communication systems, plant control systems, etc. Therefore, much of the electrical equipment will be in some stage of electrical operation 24 hours per day. Propane or diesel emergency back-up generators may be utilized to move the solar panels in the event of an IID/SDG&E power failure.

Security

To insure the safety of the public and solar energy center, the property lines of all solar field site parcels and IID easements will be surrounded with an up to 7-foot chain link fence with 3-strand barb wire placed at the top, extending to a total of up to 8 feet. The fence will be monitored periodically to detect any intrusion. Security lighting will be installed and warning signs will be posted at each CUP. Access to each CUP will be controlled, and gates will be installed at the access roads. Permanent access will be located adjacent to the O&M building(s) as shown on the site plan for each CUP.

Lighting

The lighting system will provide operation and maintenance personnel with illumination in both normal and emergency conditions. Lighting will be designed to provide the minimum illumination needed to achieve safety and security objectives and will be shielded and oriented to focus illumination on the desired areas, minimizing light spillover. Lighting will be placed at the access gates, inverters, and all buildings that would allow entry by a person for operation or maintenance.

Fire

The PV modules and ancillary equipment are constructed of fire-resistant material. Additionally, routine weed abatement and landscape maintenance will occur. As such, the Project represents a negligible increase in fire potential. However, a Fire Prevention and Response Plan (FPRP) will be prepared in accordance with Imperial County Fire Department (ICFD) requirements for access. Access to nearby properties will not be hindered or restricted by the Project.

Communications Systems

The Project will utilize telephone and internet services that will be provided via overhead or underground lines, microwave tower or via cellular service obtained from a local provider.

Waste

Small amounts of trash are likely to be generated by O&M staff. A contract will be initiated with a local waste provider for pick-up and disposal. It is anticipated that the waste would be removed on a weekly basis.

2.1.5 GEN-TIE LINE CHARACTERISTICS

A. EXISTING USES AND FEATURES

The existing Mount Signal Solar Farm Gen-Tie line extends through properties that have been permitted for solar energy production. Some of these parcels are under construction and some are actively producing solar energy.

B. General Plan and Zoning Designations

Transmission corridors would align through lands with agricultural zoning (A-2, A-2-R and A-3). These parcels have previously received CUPs for solar energy generation as part of the Mount Signal Solar Farm Project. The CUPs permit the sharing of transmission towers with neighboring solar projects, such as the Wistaria Ranch Solar Energy Center Project.

C. GEN-TIE DESIGN

Transmission Interconnection

In order to minimize impacts to the environment, the proposed Project will co-locate its Gen-Tie with neighboring solar projects. The Project will share 230-kV structures with the Mount Signal Solar Farm Project to connect to the ISECS switchyard. The Project will construct a new breaker bay within the existing switchyard of the ISECS Project to facilitate the interconnection. From the ISECS switchyard, electricity from the Project will flow along the ISECS interconnection path to the IV Substation. The ISECS interconnection path is already constructed. The Project does not include new work along the ISECS interconnection path.

Structures

Mount Signal Solar Farm Project constructed a 230-kV single circuit transmission Gen-Tie line that was designed to be expanded to carry a second circuit. The proposed Project will be using the second circuit and will install arms, insulators, conductor, optical ground wire/shield wire and other apparatus as necessary. The Mount Signal Solar Farm Gen-Tie line was designed with two-pole double dead-end structures and only the structures to support the initial circuit were constructed. As a result, the proposed Project will construct a new structure at each of those locations as well as the new structures necessary to connect to the Mount Signal Solar Farm Gen-Tie line.

In the event that CUPs are constructed individually, subsequent CUPs will be connected to the initial Project switchyard in order to utilize the Mount Signal Solar Farm Gen-Tie. **Figure 2.0-27**, depicts a tangent structure and double pole configuration for the Gen-Tie structures. The image on the left depicts a deflection structure used at points where the line changes direction. The pole/arms labeled IVS1 currently exist.

B. CONSTRUCTION PROCESS FOR GEN-TIE LINE

The temporary suspension structure work areas will be 100 feet by 100 feet (i.e. 10,000 square feet ≈ .23 acre) and the double dead-end structure work areas will be 140 feet by 140 feet (i.e. 19,600 square feet ≈ .45 acre). There will be up to eight double dead-end structures requiring new construction and 19 existing tangent structures that will be upgraded to carry the Project's circuit. [Note: The Project's circuit is the portion of the Gen-Tie that conducts electricity.] **Table 2.0-8** provides a breakdown of the acreage that would be disturbed to construct the Gen-Tie line.

TABLE 2.0-8
GEN-TIE DISTURBANCE ACREAGE DETAILS

Structure/Feature	Proposed Project	
	Temp	Perm
Dead-end Structures	3.6	<1
Tangent Structures	4.4	Within existing disturbance
Grand Total	**8**	
Grand Total Plus Contingency	**10**	**<1**

Source: WRS 2014.

Access

Vehicles and equipment will be required at each structure location and several pull sites along the Gen-Tie corridor. Vehicles will use County roads to enter the Gen-Tie line corridor and access temporary structure work areas and pull sites. The Applicant will work with IID to confirm whether work can be performed under the existing encroachment permit or if a new encroachment permit will be required.

Staging Areas

Temporary staging areas for the construction of the Gen-Tie line will be located within the CUPs thus avoiding the need for off-site disturbance.

Vegetation Clearing

Vegetation will be cleared from the transmission line ROW to accommodate construction. The temporary suspension structure work areas will be 100 feet by 100 feet (i.e. 10,000 square feet ≈ .23 acre) and the double dead-end structure work areas will be 140 feet by 140 feet (i.e. 19,600 square feet ≈ .45 acre). There will be up to eight double dead-end structures requiring new construction and 19 existing tangent structures will be upgraded to carry the Project's circuit.

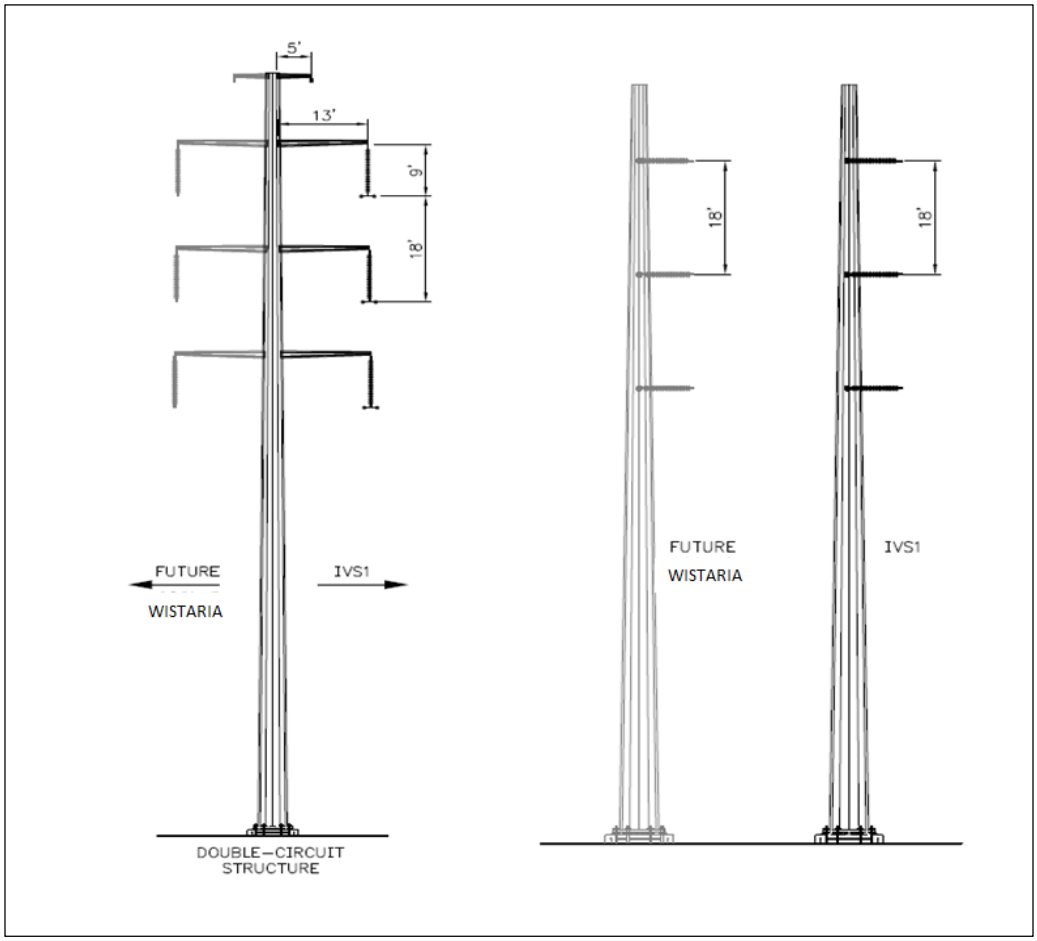
Excavations

Each new monopole structure will be anchored to a new drilled pier foundation. Typical drilled pier foundation installation requires that reinforcing and concrete be placed in excavations created using a drill rig with an auger. Foundation diameters will range from approximately 6 feet to 12 feet and will vary in depth from 25 feet to approximately 50 feet depending on the structure loading. Once the excavation is completed, a crane will set the steel reinforcing cage. A concrete pump truck will be utilized to place

the concrete in the excavation. Use of the crane and pump truck will provide flexibility in location of work vehicles, such as to avoid environmentally sensitive areas. The excavated soil will be spread at the structure site.

Construction Workforce

The Gen-Tie line workforce is a small portion of the overall Project workforce numbers. It is estimated that ten full-time equivalent employees included in the Project workforce numbers would be working on the Gen-Tie line.



Source: WRS 2013a.

FIGURE 2.0-27
TANGENT STRUCTURE AND DOUBLE POLE CONFIGURATION

Water Use

Water use during the construction of the Gen-Tie line will be required for dust suppression and other construction activities. The total volume of water required will depend on the final engineering design and has not been estimated at this time. However, the total water use for the Full Build-out Scenario is expected not to exceed 1,200 AF.

Assembling and Erecting Structures with Temporary and Permanent Pad Sites

Structure erection requires completion of drilled pier foundations and sufficient foundation curing time in order to support the structure without the conductors attached. Structures will be erected using a crane to lift and place the segments of the monopole structures.

Stringing Conductors and Ground Wires

The electrical circuit consists of three phases with a bundled or single conductor making up each phase. An optical ground wire/shield wire will be located at the top of each structure to provide system protection as well as communications and monitoring capabilities. Conductors and the optical ground wire will be strung for the entire length of the Gen-Tie. Workers may also guide the rope through each structure using bucket trucks. The rope would then be used to pull the conductor through each of the structures using truck-mounted cable-pulling and tensioning equipment.

Clean-up and Restoration of Temporarily Disturbed Areas

Upon completion of construction, the temporary erosion control facilities will be removed from the work areas. All the work areas will be graded back to pre-construction conditions.

E. Construction Schedule for the Gen-Tie Line

Gen-tie line construction will occur concurrent with construction of the solar panel fields. Construction of the Gen-Tie line is anticipated take approximately seven months and will disturb up to 10 acres (refer to **Table 2.0-8**). The Gen-Tie will be constructed irrespective of whether Phased CUP Scenario or Full Build-out Scenario is implemented. Subsequent CUPs will connect to the first CUP's switchyard that connects to the Gen-Tie.

F. Operations and Maintenance of the Gen-Tie Line

Noise

The permanent noise sources that would occur within the Project area are limited to the Corona effect of the Gen-Tie line and routine inspection and maintenance of the line and substation. Audible power line noise is generated from Corona discharge, which is usually experienced as a random crackling or hissing sound. The potential for noise from Corona discharge is greatest with high voltage lines during wet weather or near inconsistencies or cuts in the metal surface of the line itself. Corona noise is discussed in Section 4.8, Noise.

Fire

The risk of fire would be managed through following all applicable laws and regulations for fire safety during the Gen-Tie operation and maintenance period. All personnel would be advised of responsibilities under the applicable fire laws and regulations, including taking practical measures to report and suppress fires. In addition, vegetation management practices described below will be implemented. Fire service is discussed in Section 4.13, Public Services and Utilities.

Weed and Vegetation Management

The Gen-Tie line corridor will be inspected for weeds and vegetation on a semi-annual basis. Any weeds and vegetation will be mechanically removed or treated with herbicides that are approved by the ICPDSD or the Agricultural Commissioner's Office.

Waste Management

Waste generated during operations will be recycled where possible and disposed of at a local landfill.

Air Quality

Operation of the Gen-Tie would generate negligible air emissions. The only source of emissions would be from vehicles and power equipment associated with infrequent inspections and maintenance activities.

Hazardous Material Handling and Storage

No hazardous material would be stored within the Gen-Tie line corridor during operations. Any hazardous materials needed during maintenance activities will be used in accordance with all applicable rules and regulations.

G. GEN-TIE LINE RECLAMATION ACTIVITIES

The decommissioning process for the Gen-Tie line is estimated to disturb approximately 10 acres of land. The disturbance area will be the within the same area that was temporarily disturbed during the construction of the Gen-Tie line. The process of decommissioning varies based on the component being removed. Only the Gen-Tie facilities installed by WRS will be removed during decommissioning of the Gen-Tie so as to not impact operations of the Mount Signal Solar Farm Project. For a discussion of decommissioning of the CUPs, refer to sub-section 2.1.7, Decommissioning Plan below.

Removal of the Conductor

Removal of the conductor will involve "de-stringing". Line crews will reset the conductor in wheel blocks and pull the conductor back to a pulling site and rewind the conductor on wire reels for recycling. A pulling rope will follow the conductor back through the wheel blocks to minimize the amount of disturbance. The conductor from the duct banks will be pulled from one of the sites adjacent to the dead end structures and rolled onto wire reels for recycling.

Removal of the Pole Sets

The steel monopoles will be lowered off the foundations using a crane large enough to handle picking up and careful placement of the towers. The insulators and spacing arms will then be removed from the poles. The poles will be segmented into manageable sections for haul out. The work area around each pole has been identified as an approximate 100 feet by 100 feet (i.e. 10,000 square feet ≈ .23 acre) square around each pole (140 feet by 140 feet [i.e. 19,600 square feet ≈ .45 acre] area at deflection point). The primary reclamation disturbance will occur in this area.

The foundations supporting the monopoles will be broken out by a track hoe mounted jack hammer down to a depth of four feet below grade. The remaining foundation below four feet will be left in place and covered with soil material. Rebar will be cut off and the concrete removed for recycling. Any concrete slurry used in the setting of the duct banks at each of the dead end structures will be removed along with duct material to a depth of 4 feet. Holes where materials were removed will be filled and contoured from soils in the immediate primary disturbance area.

Removal of Material

All material removed in association with Gen-Tie reclamation activities will be hauled from the site and recycled.

Removal of Collector Lines

The 17 CUPs (13-0036 thru 13-0052) may be decommissioned individually. This means that some CUPs may still be operating while others are decommissioned. All facilities related to the decommissioned CUP will be removed unless being used by an operating CUP. For instance, the Gen-Tie line will likely be used by an operating CUP while individual CUPs may be decommissioned. Additionally, some collector lines

may be utilized by operating CUPs while CUPs that formerly shared the electric collector line have ceased to operate. The amount of decommissioning ground disturbance would be the same as the construction ground disturbance.

H. PROJECT DESIGN FEATURES AND BEST MANAGEMENT PRACTICES

Table 2.0-9 summarizes some of Applicant proposed measures that will be incorporated into the proposed Project to reduce resource impacts or in some cases simply provide benefits that reduce perceived significant socio-economic impacts to the local community and agricultural industry by contributing to new agricultural economic development opportunities, job creation programs and infrastructure in the Imperial County. The project design features help to maximize the benefits of the Project to the County of Imperial. However, this is not an exclusive list and where the EIR, technical studies, or other portions of the administrative record indicate that something is a feature of the project they are incorporated as if fully stated herein. While applicable case law permits the County to presume the project design features will be implemented without guaranteeing them, these measures are made fully enforceable through the Conditional Use Permit. Some measures are also made enforceable through the Development Agreement and reinforced in the EIR's MMRP.

TABLE 2.0-9
APPLICANT PROPOSED MEASURES/PROJECT DESIGN FEATURES INCLUDED AS PART OF THE PROJECT

AESTHETICS
• The Project will provide landscaping at Project entrances and the operations and maintenance buildings. • Plant Indian Rosewood, Italian Cyprus, or similar landscaping along the property line for CUP 13-0039 where it is adjacent to 2 residences. • Plant oleander vegetation or similar along the boundary of CUP 13-0036 and the adjacent residence to the east.
AIR QUALITY
• Stabilize all disturbed areas with water, tarps, dust suppressants, or soil binders. • Most construction equipment will be equipped with EPA Tier 2 or better engine designation. • Bulk Materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of Bulk Material. In addition, the cargo compartment of all Haul Trucks is to be cleaned and/or washed at delivery site after removal of Bulk Material. • Clean all Track-Out or Carry-Out at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area. • Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface within the construction site.
BIOLOGICAL RESOURCES
General Design Features
• The development footprint of the Project shall be confined to the minimal amount of area necessary for construction and safe, reliable operation. Access routes shall be limited to existing roadways to the maximum extent possible. All construction areas, staging areas, and access routes shall be clearly delineated in the final engineering plans. • Lights on Project components shall be motion sensitive rather than steady burning and shall be downcast and shielded to keep light within the boundary of the Project. The use of high-intensity

TABLE 2.0-9
APPLICANT PROPOSED MEASURES/PROJECT DESIGN FEATURES
INCLUDED AS PART OF THE PROJECT

lighting; steady-burning lights; or bright lights such as sodium vapor, quartz, halogen, or other bright spotlights shall be minimized.

- Final engineering plans for new vehicular crossings and/or upgrades to IID vehicular crossings will be designed to avoid impacts to USACE wetlands, with the exception of CUP area 13-0047, to facilitate Project permits under USACE's Nationwide Permit (NWP) program. One of the regional conditions published by USACE Los Angeles District that pertains to the NWPs most applicable to the proposed project (e.g., NWP 14 for Linear Transportation Projects or NWP 51 for Land-Based Renewable Energy Generation Facilities) indicates that individual permits are required for all discharges of fill material that shall result in the "loss" of wetlands (USACE Special Public Notice 15 March 2012) within the USGS Hydrologic Unit Code [HUC] where the project is located (Salton Sea-181002).

Avian Specific

- To the extent feasible, non-reflective PV or CPV modules shall be used over reflective technologies to minimize collision risk.
- When above-ground lines, transformers, or conductors are necessary, all shall be spaced and designed to fully comply with the APLIC (2006) suggested practices to prevent avian electrocutions.

  When above-ground lines are necessary, power line/wire marking devices including aerial marker spheres, swinging plates, bird diverters, paint, and other bird avoidance devices shall be used to prevent avian collisions as outlined in the APLIC Reducing Avian Collisions with Power Lines: State of the Art document (2012). Bird flight diverters have proven effective for reducing and preventing bird collisions in some cases (CEC 2002).

  - WRS is committed to assessing Project-related impacts to avian and bat species to avoid and reduce potential impacts to the greatest extent feasible. WRS is voluntarily developing a BBCS for this Project. This plan will be developed in coordination with the County of Imperial, USFWS, and CDFW. Avian- and bat-specific measures outlined herein will be finalized during the development process of the BBCS. The primary objectives of the BBCS are to:

    1. Identify feasible conservation measures that could be implemented to reduce negative impacts to avian and bat species.
    2. Develop a wildlife monitoring and reporting program to estimate post-construction fatality rates and impacts on avian and bat species.
    3. Determine whether avoidance, minimization, and mitigation measures implemented for the Project are adequate or whether additional corrective action or adaptive management is warranted. An adaptive management framework will be prepared to inform the potential development of additional actions.

    To meet these objectives, the BBCS will include the following components:

    - A description and assessment of the existing habitat and avian and bat species;
    - An avian and bat risk assessment and specific measures to avoid, minimize, reduce, or eliminate avian and bat injury or mortality during all phases of the project.

TABLE 2.0-9
APPLICANT PROPOSED MEASURES/PROJECT DESIGN FEATURES
INCLUDED AS PART OF THE PROJECT

• A post-construction monitoring plan that will be implemented to assess impacts on avian and bat species resulting from the Project. The post-construction monitoring plan will include a description of standardized carcass searches, scavenger rate (i.e., carcass removal) trials, searcher efficiency trials, and reporting. Statistical methods will be used to estimate Project avian and bat fatalities if sufficient data is collected to support .statistical analysis. • An injured bird response plan that delineates care and curation of any and all injured birds. • A nesting bird management strategy to outline actions to be taken for avian nests detected within the impact footprint during operation of the Project. A conceptual adaptive management and decision-making framework for reviewing, characterizing, and responding to monitoring results. • Monitoring studies following commencement of commercial operation of each CUP area. Monitoring results will be reviewed annually by the Applicant and the County of Imperial, in consultation with CDFW and USFWS, to inform adaptive management responses
NOISE
• All Project components (e.g., inverters, trackers, substation, energy storage units, etc.), construction vehicle, and equipment operation shall be sited at least 50 feet from farmhouses on-site or in the vicinity of the Project. • Construction equipment shall be encouraged to operate 600 feet or more away from sensitive receptors. When construction equipment is planned to occur within the 50- to 600-foot range of occupied sensitive receptors, the Applicant shall implement the following measures: ➢ All diesel equipment shall be operated with closed engine doors and shall be equipped with factory-recommended mufflers or better; and ➢ Equipment staging areas shall be located away from occupied residences (i.e., farmhouses) or schools to the extent feasible. • Whenever feasible, electrical power shall be used to run air compressors and similar power tools. • Temporary long-term construction equipment staging areas shall be located away from occupied residences and schools. • During the construction and decommissioning phases, in the event that activities are anticipated to occur outside the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturday, the activities shall not include the operation of construction equipment. No commercial construction operations are permitted on Sunday or holidays. • Vibratory rollers and other ground compaction equipment shall not be used within 50 feet of residences, in order to avoid the potential for structural damage from vibration. • Any inverters located within 100 feet of an existing occupied residence shall be shielded with a structural barrier capable of reducing the inverter's noise and the ambient increase at the receptor to less than 5 A-weighted decibels (dBA) Community Noise Equivalent Level (CNEL) and less than 10 dBA equivalent continuous noise level (Leq) in order to avoid a substantial permanent increase in ambient noise. • Any energy storage facilities located within 150 feet of an existing occupied residence shall be shielded with a structural barrier capable of reducing the facility's noise and the ambient increase

TABLE 2.0-9
APPLICANT PROPOSED MEASURES/PROJECT DESIGN FEATURES
INCLUDED AS PART OF THE PROJECT

at the receptor to less than 5 dBA Community Noise Equivalent Level (CNEL) and less than 10 dBA equivalent continuous noise level (Leq), in order to avoid a substantial permanent increase in ambient noise. • Wherever all three operational facilities (inverters, transformers, and energy storage facilities) are located together within 180 feet of an existing occupied residence, the facilities shall be shielded with a structural barrier capable of limiting the combined noise generated and ambient increase at the receptor to less than 5 dBA Community Noise Equivalent Level (CNEL) and less than 10 dBA Leq in order to avoid a substantial permanent increase in ambient noise.
HAZARDS AND HAZARDOUS MATERIALS
• Prior to commencement of construction of a CUP, all trash and debris will be removed from the CUP parcels of the Project and properly disposed in the appropriate type of landfill in accordance with all laws and regulations.
HYDROLOGY AND WATER QUALITY
Flood Hazard
• The Project will make best efforts to avoid constructing facilities within a flood hazard zone; however, in the event some facilities are required to be constructed in flood hazard zone, the Project will design its facilities to meet Imperial County Building Standards.
Construction Activities
• Prior to the recordation of the first final map and/or issuance of the first grading permit, the developer shall submit and receive a National Pollutant Discharge Elimination System permit from the Regional Water Quality Control Board in accordance with a Stormwater Pollution and Prevention Plan (SWPPP) approved by the County of Imperial. The SWPPP shall include source control and treatment control BMPs. Possible source control BMPs include, but are not limited to: ➢ trash storage; ➢ integrated pest management; ➢ efficient irrigation and landscape design; and, ➢ property owner educational materials regarding source control management. • Treatment control BMPs will be comprised of detention basins to remove trash and pollutants such as sediment, nutrients, metals, bacteria, oil and grease, and organics.
GEOLOGY AND SOILS
Geologic Hazards
A Geotechnical Investigation Report will be Prepared consistent with California geologic and engineering standards by a licensed geotechnical engineer and those design recommendations will be incorporated into all final engineering and grading plans. This report will identify specific measures for mitigating geotechnical conditions on the project site, and addresses site preparation, foundations and settlements, slabs-on-grade, concrete mixes and corrosivity, seismic design, and pavement design. The County's soil engineer and engineering geologist shall review grading plans prior to finalization, to verify plan compliance with the recommendations of the report. All development on the Project site shall be in accordance with Title 24, California Code of Regulations.

TABLE 2.0-9
APPLICANT PROPOSED MEASURES/PROJECT DESIGN FEATURES
INCLUDED AS PART OF THE PROJECT

AGRICULTURAL RESOURCES
• A Weed and Pest Management Plan will be developed. 1) The Plan must be consistent with the Imperial Agricultural Commissioner's "Pest Management Plan Requirements for Solar Projects" (June 2012), including , but not limited to its notification, site/records access, and record keeping requirements, as well as identifying the contact person for the operator of the site. 2) The Plan must be designed to prevent weed and pest levels on-site from rising to the level of a private nuisance or public nuisance; 3) Identify proven monitoring, preventative, and management strategies for weed and pest control during construction and decommissioning activities at the CSE Facility and portions of the Gen-Tie line that are adjacent agricultural lands that will be deployed, including revegetation of disturbed areas with native plant seeds consistent with fire safety and fuel management and schedules for implementation through a licensed Pest Control Advisor or Pest Control Business 4) The plan shall comply with all applicable rules, regulations and laws for the control of pests and weeds. 5) Identify proven monitoring, preventative, and management strategies for weed and pest control during long-term operation of the CSE Facility and portions of the Gen-Tie line that are adjacent agricultural lands that will be deployed, including: a. Use of specific types of ground cover and maintenance (mowing, replacement, etc.) of such ground cover consistent with fire safety and fuel management b. A schedule for implementation of herbicides and pesticides strategies by a licensed Pest Control Advisor or Pest Control Business effective in reducing pests and weeds in a manner that avoids a public or private nuisance.; and c. A schedule for implementation of a strategy for maintenance of the Project site in a manner that avoids a public or private nuisance.
TRANSPORTATION AND CIRCULATION
• Construction traffic will minimize use of unpaved roads to the extent feasible. • Roads will be photographed prior to construction and Project related impacts to County roads will be repaired.
PUBLIC SERVICES
Fire Prevention
A Fire Prevention and Response Plan (FPRP) will be developed to County standards and implemented during construction, operation, and maintenance of the Project.
Security
• The Project will contract with a security company to protect the facility. • A perimeter fence with 3 strands of barbed wire will be placed along the Project perimeter to keep people out of the facility.

Source: WRS 2014.

2.1.6 DECOMMISSIONING AND RECLAMATION PLAN

Development of a solar facility would preclude agricultural crop production only in the affected CUP areas for up to the 30 year maximum life of the CUP. Due to the Development Agreement's ability to phase in implementation of an individual CUP or groups thereof, CUPs may be decommissioned independently of one another. Decommissioning activities would begin the sooner of: 1) when the solar facilities covered by a specific CUP no longer generate electricity; or 2) the 30 year CUP term expires. The decommissioning activities are contained in the Reclamation Plan. The requirements for decommissioning, reclamation and restoration collectively are referred to as the "Reclamation Plan."

The Reclamation Plan must be completed and presented to the ICPDSD Director for review and approval within 30 calendar days after the submittal of grading or building permits, for each CUP (13-0036 thru 13-0052). A separate Reclamation Cost Estimate is required for each CUP.

Along with such draft plan, financial security (such as bonding) must be submitted to the ICPDSD Director for approval along with the review and approval by the Imperial County Counsel's Office prior to the issuance of any grading and/or building permits. Separate financial security is required for each CUP.

The Reclamation Plan must be prepared by a licensed contractor or engineer to create a decommissioning plan that will be implemented at the end of the CUP's life, and will adhere to the following requirements, including, but not limited to:

- Description of the proposed decommissioning measures for the solar facility and for all appurtenances constructed as part of the facility.
  - Identify structures to be removed and structures to remain on site (if any).
  - List structures to be removed and describe how the structures are to be disassembled and removed.
  - Identify that solar panels will be sent to a licensed recycler of solar panels.
  - Description of the activities necessary to restore each parcel/field to its previous condition. Such restoration includes restoration of the configuration of the parcels for agricultural purposes as well as soil level, nature and quality. Include photographs of pre-Project parcel configuration to document field breakdowns and location of ditches.
  - Perform grading for irrigation and drainage of each field or parcel.
  - Include methods to remove any salt build-up in soils which may require irrigation and drainage over a period of time before any crop is planted.
  - Identify soil amendments potentially needed to grow crops.
  - Include provision of growing of crops for a period of two years to insure the land will grow crops to current standards.
  - Confirm restoration to existing pre-project LESA rating.
- Financial Security: Presentation of the costs associated with the proposed decommissioning measures.
  - Provide breakdown of costs for each parcel and or fields currently in production.

2.2 ALTERNATIVES

This EIR considered three alternatives in addition to the proposed Project:

- **Alternative 1 – Williamson Act Avoidance Alternative.** This alternative would exclude CUPs 13-0051 and 13-0052 which are part of APN 052-210-020 (**Figure 6.0-1**) from the proposed Project. This land is currently under Williamson Act contract and is approximately 436 acres. Grading the Project site has the potential to result in a potentially significant impact to agricultural soils. However, this impact is rendered less than significant with the agricultural restoration plan as a proposed Project design feature. This alternative would result in reducing the initial potentially significant impact to agricultural soils.
- **Alternative 2 - Reduced Size Solar Generation Facility Alternative.** This alternative, which is the environmentally superior alternative, would exclude CUP 13-0047, a 130-acre site, from the proposed Project (**Figure 6.0-2**), which is proximate to the New River and has a potentially significant impact to biological resources that are mitigated to below a level of significance with the implementation of the Project's biological mitigation measures. This alternative would result in reducing the initial potential for significant impacts to biological resources. Whereas the proposed Project would result in the removal of sensitive vegetation communities such as 10.69 acres of Arrow Weed Scrub, 2.06 acres of drains and canals, 1.26 acres of open water, and 45.21 acres of tamarisk scrub, the Reduced Size Solar Generation Facility Alternative would only impact 7.72 acres of Arrow Weed Scrub, 0.15 acres of drains and canals, 1.26 acres of open water, 42.13 acres of tamarisk scrub. In addition, the Reduced Size Solar Generation Facility Alternative would avoid potentially significant impacts to: 27.63 acres of waters of the U.S. and State; 0.008 acres of non-waters of the U.S. and State; and 19.77 acres of riparian area jurisdiction to the California Department of Fish and Wildlife compared to the Proposed Project.
- **Alternative 3 – No Action Alternative**. CEQA Guidelines Section 15126.6(e)(1) requires that a No Project Alternative be analyzed in order to allow the decision-makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed Project. The No Project Alternative would result in the solar field site parcels remaining unchanged as agricultural land supporting agricultural use. The proposed Wistaria Ranch Solar Energy Center would not be developed on these parcels, and no new electric collector lines or upgrades to the Mount Signal Solar Farm Gen-Tie lines would occur.

These are discussed in greater detail in Chapter 6.0, Alternatives.

2.3 INTENDED USES OF THE EIR/AUTHORIZING ACTIONS

The EIR is intended to provide documentation pursuant to CEQA to cover all local, regional, and state permits and approvals which may be needed or are desirable in order to implement the proposed project. Discretionary actions and approvals by the Imperial County Planning Commission and/or Board of Supervisors for the proposed Project or its alternatives may include, but are not limited to:

2.3.1 DISCRETIONARY ACTIONS AND APPROVALS

A. COUNTY OF IMPERIAL

In conformance with Sections 15050 and 15367 of the CEQA Guidelines, the County of Imperial has been designated the "lead agency," defined as, "the public agency which has the principal responsibility for carrying out or approving a project." The County would be responsible for approval and or issuance of the following:

Development Agreement

The Project is processing a Development Agreement with Imperial County to enable and control a phased build-out of the Project that is capable of meeting changing market demands by authorizing initiation of a single CUP or multiple CUPs anytime within the ten year period. Thereafter, the CUPs are valid for 30 years. The requested Development Agreement would provide flexibility to allow the start of construction to commence for up to ten years after the CUPs are approved. This Development Agreement would allow the County to require extraordinary benefits such as collecting a community or agricultural benefit payment.

Certification of the Final EIR

After the required public review for the Draft EIR, Imperial County will respond to written comments, edit the document, and produce a Final EIR to be considered for certification by the Planning Commission and/or Board of Supervisors prior to making a decision on the Project.

Findings

Following certification of the EIR, the Board of Supervisors must approve Findings pursuant to CEQA Guidelines Section 15091.

Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program will be adopted as required by CEQA Guidelines Section 15097 to ensure that mitigation measures identified in the EIR are implemented as appropriate.

Conditional Use Permits

The proposed Project will require approval of 17 CUPs (CUP 13-0036 thru CUP 13-0052) to develop a solar energy center on lands zoned A-2, A-2-R, and A-3, per Title 9, Division 5: Zoning Areas Established, Chapter 8, Sections 90508.02 and 90509.02.

Variance

Seventeen variance applications have been submitted to the County (V13-0002 thru V13-0018) representing one variance request for each CUP of the Project for Gen-Tie line structures that are over 120 feet in height. With approval of variances, the proposed structures could be up to 140 feet in height.

Williamson Act Contract Cancellation

One of the Project parcels, APN 052-210-020, is under Land Conservation Act (Williamson Act) Contract. APN 052-210-020 is split into two CUP applications: CUP 13-0051/Variance 13-0017 and CUP 13-0052/Variance 13-0018.

A Notice of Nonrenewal was recorded by the Department of Conservation on December 4, 2006. The Williamson Act parcel's contract term of encumbrance is due to expire on January 1, 2016. Therefore, this contract will require cancellation.

Private Sewage Disposal Permit(s)

The Project shall obtain a permit from Imperial County Environmental Health to construct and operate an OWTS for the O&M building(s), if proposed for the Project.

Site Plan and Architectural Review

Site Plan and Architectural Review is required for all non-residential projects and will be conducted for the proposed Project.

Construction Traffic Management Plan

The Applicant shall prepare a Construction Traffic Management Plan for review and approval by the Imperial County Department of Public Works.

Miscellaneous Permits

The following permits will be required in association with construction of the proposed Project. These permits will be issued by the ICPDSD and/or Imperial County Department of Public Works.

- Grading Permits
- Encroachment Permits
- Building Permits
- Occupancy Permits

The Project may also require the following additional County authorizations:

- A lot line adjustment for Gen-Tie lines on private property
- Lot-tie Agreement
- Vacation of easements
- Abandonment of Rights-of-Way

B. IMPERIAL IRRIGATION DISTRICT (IID)

Various approvals may be required from IID in conjunction with implementation of the proposed Project. For the purposes of CEQA, wherever an IID facility (drain, irrigation canal, electric line, etc.) intersects the Project, an electric access crossing will occur. The Project would cross IID facilities. These crossings are anticipated to require approximately 53 feet of vertical clearance over existing IID facilities. Due to the nature of the Project and the rapidly changing technology, the exact locations of the crossings are not known at this time; however approximate crossing locations have been provided within the section entitled "IID and Caltrans Facility Crossings," above (refer also to **Table 2.0-6** and **Figure 2.0-26**).

The Project crossings will not interfere with the purpose of IID's facilities. The following IID approvals, although not discretionary approvals, include, but are not limited to:

- Encroachment Permits
- Electrical crossing
- Water Supply Agreements
- Affected System Agreement
- Backfeed Service Agreement
- Electric Service Agreement

C. CALIFORNIA DEPARTMENT OF TRANSPORTATION

Project electric collector lines will cross SR-98. Although not a discretionary approval, these crossings will require an encroachment permit from the California Department of Transportation (Caltrans).

2.3.2 SUBSEQUENT/CONCURRENT ENTITLEMENTS TO IMPLEMENT THE PROPOSED PROJECT

A variety of ministerial actions and permits may be requirement from Imperial County to implement the components of the proposed Project, including, but not limited to:

- Grading Plan for the solar field site parcels
- Construction Traffic Control Plan

- Building Permits
- Encroachment Permits from the Imperial County Public Works Department for access to the lot(s) and for any proposed road crossings
- Occupancy Permit
- OWTS Permit
- Decommissioning Plan
- Minor-modifications to CUP to implement changes responsive to market conditions or changes imposed by other agencies with jurisdiction over the Project.

2.3.3 DISCRETIONARY ACTIONS AND APPROVALS BY OTHER AGENCIES

Responsible Agencies are those agencies that have discretionary approval over one or more actions involved with development of the proposed Project. Trustee Agencies are state agencies that have discretionary approval or jurisdiction by law over natural resources affected by a project. These agencies may include, but are not limited to the following:

- California Public Utility Commission (Authority to Enter into Power Purchase Agreement)
- California Department of Fish and Wildlife (Streambed Alteration Agreement)
- United States Fish and Wildlife Service (Biological Opinion)
- California Regional Water Quality Control Board (Waste Discharge Requirements, NPDES 401 Water Quality Certificate)
- United States Army Corps of Engineers (404 permit)
- Imperial County Air Pollution Control District
    - Authority to Construct Permit for emergency backup generators
- Imperial Irrigation District
    - Affected Services Agreement
    - Backfeed and Station Power Service Agreement

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