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## **5.12 TRAFFIC AND TRANSPORTATION**

### **5.12.1 Introduction**

This Application for Certification (AFC) for the Rio Mesa Solar Electric Generating Facility (Rio Mesa SEGF or Project) has been prepared in accordance with the California Energy Commission's (CEC) Power Plant Site Certification Regulations (CEC-140-2008-001-REV1, current as of July 2008). In addition, this AFC includes elements necessary for the United States (U.S.) Bureau of Land Management (BLM) to permit the Project through the National Environmental Policy Act (NEPA). The "Applicant" for purposes of this AFC comprises Rio Mesa Solar I, LLC, Rio Mesa Solar II, LLC, and Rio Mesa Solar III, LLC, owners of the three separate solar plants and certain shared facilities being proposed. These three Delaware limited liability companies will hold equal one-third shares in the ownership of shared facilities and will separately own their respective plants. They are wholly owned by Rio Mesa Solar Holdings, LLC (a Delaware limited liability company) which is in turn wholly owned by BrightSource Energy, Inc. (BrightSource) a Delaware corporation and the ultimate parent company. The Applicant will use BrightSource's solar thermal technology for the Rio Mesa SEGF.

The project site is situated on the Palo Verde Mesa in Riverside County, California, 13 miles southwest of the City of Blythe, and is located partially on private land and partially on public land administered by BLM. The project will include three solar concentrating thermal power plants and a shared common area to include shared systems. The first plant, a 250-megawatt (MW) (nominal) facility known as Rio Mesa I, will be constructed at the south end of the project and owned by Rio Mesa Solar I, LLC. The second plant, another 250 MW (nominal) facility known as Rio Mesa II, will be located in the central portion of the project site and owned by Rio Mesa Solar II, LLC. Rio Mesa III, a third 250 MW (nominal) facility, will be constructed in the northern portion of the project site and owned by Rio Mesa Solar III, LLC. These three plants will be connected via a common overhead 220 kilovolt (kV) generator tie-line (gen-tie line) to the Southern California Edison (SCE) Colorado River Substation (CRS) approximately 9.7 miles to the north.

Each plant will utilize a solar power boiler (referred to as a solar receiver steam generator or SRSG), located on top of a dedicated concrete tower, and solar field based on proprietary heliostat mirror technology developed by BrightSource. The reflecting area of an individual heliostat (which includes two mirrors) is about 19 square meters (205 square feet [sq. ft.]). The heliostat (mirror) fields will focus solar energy onto the SRSG which converts the solar energy to superheated steam. In each plant, a Rankine cycle non-reheat steam turbine receiving this superheated will be directly connected to a rotating generator that generates and pushes the electricity onto the transmission system steam. Each plant will generate electricity using solar energy as its primary fuel source. However, auxiliary boilers will be used to operate in parallel with the solar field during partial load conditions and occasionally in the afternoon when power is needed after the solar energy has diminished to a level that no longer will support solar generation of electricity. These auxiliary boilers will also assist with daily start-up of the power generation equipment and night time preservation.

This subsection describes the applicable laws, ordinances, regulations, and standards (LORS) related to traffic and transportation, and the environmental setting. It provides an analysis of the Project impacts that could occur as a result of Project construction and operation. This subsection also presents protection and

mitigation measures that will avoid, minimize, or compensate for adverse impacts, when required. A list of agency contacts and permits that will be required is included at the end of the subsection.

Information sources include new roadway segment and intersection traffic counts collected within the transportation and traffic study area; data collected from the California Department of Transportation (Caltrans) traffic count database; field observations; and communications with local, regional, and federal agencies. URS staff performed a traffic study area reconnaissance and review in August and September 2011 to document study intersection and roadway characteristics, identify physical constraints, and assess general traffic conditions. The existing traffic counts are provided in Appendix 5.12A.

**5.12.2 Laws, Ordinances, Regulations, and Standards**

Table 5.12-1 summarizes applicable traffic and transportation LORS for the project.

**Table 5.12-1  
Laws, Ordinances, Regulations, and Standards (LORS)**

LORS	Summary	AFC Section Explaining Conformance
<b>Federal</b>		
National Environmental Policy Act (NEPA) of 1969	NEPA establishes a public, interdisciplinary framework for federal decision-making and ensures that Federal agencies take environmental factors into account when considering federal actions.	Section 5.12.2.1
Title 49, Code of Federal Regulations (CFR), §§ 171-177	Governs the transportation of hazardous materials, including the marking of transportation vehicles.	Section 5.12.2.1
Title 14, CFR, § 77.13(2)(i)	Requires Applicant to notify Federal Aviation Administration (FAA) of any construction greater than height limits defined by the FAA.	Section 5.12.2.1
<b>State</b>		
Warren-Alquist State Energy Resources Conservation and Development Act, California Public Resources Code, §§ 25000, et seq.	Gives the California Energy Commission (CEC) licensing authority in lieu of state, regional, and local permits and requirements.	Section 5.12.2.2
California Environmental Quality Act (CEQA) California Public Resources Code, Division 13, §§ 21000-21177, as amended 2010.	Requires all agencies of State government that regulate activities of private individuals, corporations, and public agencies, which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage.	Section 5.12.2.2
California Vehicle Code, § 353	Defines the hazardous materials.	Section 5.12.2.2

**Table 5.12-1  
Laws, Ordinances, Regulations, and Standards (LORS)**

LORS	Summary	AFC Section Explaining Conformance
California Vehicle Code, §§ 2500-2505	Addresses the Commissioner of Highway Patrol's authority to issue licenses for the transportation of hazardous materials.	Section 5.12.2.2
California Vehicle Code, §§ 13369, 15275, 15278	Addresses the licensing of drivers and the classification of license required for the operation of particular types of vehicles. In addition, these sections require the possession of certificates of permitting the operation of vehicles transporting hazardous materials.	Section 5.12.2.2
California Vehicle Code, §§ 31303-31309	Requires transporters of hazardous materials to use the shortest route possible.	Section 5.12.2.2
California Vehicle Code, §§ 32000-32053	Regulates the licensing of carriers of hazardous materials and noticing requirements.	Section 5.12.2.2
California Vehicle Code, §§ 32100-32109	Transporters of inhalation hazardous materials or explosive materials must obtain a hazardous materials transportation license.	Section 5.12.2.2
California Vehicle Code, §§ 34000-34100	Establish special requirements for the flammable and combustible liquids over public roads and highways.	Section 5.12.2.2
California Vehicle Code, § 34500	Regulate the safe operation of vehicles, including those that are used for the transportation of hazardous materials.	Section 5.12.2.2
California Vehicle Code, § 35550	Imposes weight guidelines and restrictions upon vehicles traveling upon freeways and highways.	Section 5.12.2.2
California Vehicle Code, § 35780	Requires approval for a permit to transport oversized or excessive load over state highways.	Section 5.12.2.2
California Streets and Highways Code, § 117	Permits for the location in the right-of-way (ROW) of any structures or fixtures necessary to telegraph, telephone, or electric power lines or of any ditches, pipes, drains, sewers, or underground structures.	Section 5.12.2.2
California Streets and Highways Code, §§ 660, 670, 672, 1450, 1460, 1470, 1480 et seq.	Defines highways and encroachment. Regulate ROW encroachment and the granting of permits with conditions for encroachment in state and county roads.	Section 5.12.2.2
California Health and Safety Code, §§ 25160 et seq.	Addresses the safe transport of the hazardous materials.	Section 5.12.2.2
California Department of Transportation Traffic Manual, § 5-1.1	Requires traffic control plans to ensure continuity of traffic during roadway construction.	Section 5.12.2.2
California Manual of Uniform Traffic Control Devices, Part 6	Requires traffic control plans to ensure continuity of traffic anytime the normal function of a roadway is suspended.	Section 5.12.2.2

**Table 5.12-1  
Laws, Ordinances, Regulations, and Standards (LORS)**

LORS	Summary	AFC Section Explaining Conformance
<b>Local</b>		
County of Riverside General Plan, Circulation Element	Requires no less than level of service (LOS) C, D or E (depending on location) operating conditions for County intersections and roadways.	Section 5.12.2.3
County of Riverside, Ordinance No. 500.1	Amends Ordinance No. 500, reducing the permissible weight of vehicles on unimproved County highways.	Section 5.12.2.3
County of Riverside, Ordinance No. 524.1	Amends Ordinance No. 524, regulating oversize and overweight vehicles and loads.	Section 5.12.2.3
County of Riverside, Ordinance No. 846	Reduces the permissible vehicle weight in the community of Mesa Verde/CSA 122.	Section 5.12.2.3
City of Blythe General Plan, Circulation Element	Requires LOS C or D (depending on location) or better operating conditions for City intersections and roadways.	Section 5.12.2.3
City of Blythe, Municipal Code 12.1220	Restricts heavy vehicle weights to not exceed seven hundred pounds upon any inch of width of tire.	Section 5.12.2.3

- |   |  |
|---|--|
| AFC = Application for Certification         | LORS = Laws, ordinances, regulations and standards |
| CEQA = California Environmental Quality Act | LOS = level of service                             |
| CFR = Code of Federal Regulations           | NEPA = National Environmental Policy Act           |
| FAA = Federal Aviation Administration       | ROW = right-of-way                                 |

**5.12.2.1 Federal**

**National Environmental Policy Act of 1969**

NEPA establishes a public, interdisciplinary framework for Federal agencies reviewing projects under their jurisdiction to consider environmental impacts. NEPA's basic policy is to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment.

The BLM, as lead Federal agency for the Project, is responsible for preparation of an Environmental Impact Statement (EIS) in compliance with NEPA to evaluate the environmental impacts of the portions of the Rio Mesa SEGF on federal lands. The Rio Mesa Solar III plant and the Project gen-tie line are located on lands administered and managed by the BLM. NEPA compliance is required for these portions of the Project through preparation of a Draft and Final EIS. BLM is also responsible for Native American consultation, including government to government consultation.

***Title 49, Code of Federal Regulations, §§ 171-177.***

Governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles. The administering agencies for this are the California Highway Patrol (CHP) and the DOT, Pipeline and Hazardous Materials Safety Administration. The project will conform to this law by requiring that shippers of hazardous materials use the required markings on their transportation vehicles.

***Title 14, CFR, § 77.13(2) (i).***

Requires an applicant to notify the Federal Aviation Administration (FAA) of construction of structures with a height greater than 200 feet from grade or greater than an imaginary surface extending outward and upward at a slope of 100 to 1 from the nearest point of the nearest runway of an airport with at least one runway more than 3,200 feet in length. The administering agency for this regulation is the FAA. The proposed facility has structures that will exceed 200 feet in height. Therefore, notification to the FAA is required.

**5.12.2.2 State*****Warren-Alquist Act***

The California Public Resources Code (PRC) establishes the CEC as the decision-making authority over land use decisions and environmental determinations during the AFC process. This is in accordance with the Warren-Alquist Act, codified in §§ 25000 et seq. of the PRC. The CEC has exclusive jurisdiction over thermal power plant siting (50 MW or greater), including CEQA implementation. The Project will demonstrate conformity with state, regional, and local laws, including land use laws.

Under the Warren-Alquist Act, the CEC's licensing process is legally equivalent to CEQA and is guided by CEQA regulations.

***California Environmental Quality Act***

The CEC will be the lead agency enforcing CEQA for the Project. Under California law, the CEC is responsible for reviewing the AFCs filed for projects, and also has the role of lead agency for the environmental review of these projects under CEQA (PRC, §§ 25500 et seq; PRC, §§21000 et seq.). The CEC conducts this review in accordance with the administrative adjudication provisions of the Administrative Procedure Act (5 United States Code, §§ 500 et. seq.) and its own regulations governing site certification proceedings (CCR, Title 20, §§ 1701 et seq.). These provisions require the staff to conduct an independent analysis of AFCs and prepare an independent assessment of a project's potential environmental impacts, feasible mitigation measures, and alternatives as part of this process.

The CEC considers the Staff Assessment(s), along with the environmental analysis provided by the Applicant, as well as input from interested local, regional, State, and Federal agencies, intervenors, and interested Native American tribes, in developing its final decision on whether to issue a license for a project. The CEC has a certified regulatory program under CEQA that exempts the agency from having to draft an Environmental Impact Report (EIR) and, instead, requires a Final Staff Assessment (FSA),

evidentiary hearings, and a decision based on the hearing record, which includes the staff's and other parties' assessments.

***California Vehicle Code, § 353.***

Defines hazardous materials as any substance, material, or device posing an unreasonable risk to health, safety, or property during transportation, as defined by regulations adopted pursuant to § 2402.7. The administering agency for this statute is the CHP. The project will comply with these codes by continuing to classify all hazardous materials in accordance with their clarification.

***California Vehicle Code, §§ 2500-2505.***

Authorizes the Commissioner of Highway Patrol to issue licenses for the transportation of hazardous materials including explosives. The administering agency for these statutes is the CHP. The project will comply with these codes by requiring that contractors and employees be properly licensed and endorsed when operating vehicles used to transport hazardous materials.

***California Vehicle Code, §§ 13369, 15275, 15278.***

Addresses the licensing of drivers and the classification of license required for the operation of particular types of vehicles. Requires a commercial driver's license to operate commercial vehicles. Requires an endorsement issued by the Department of Motor Vehicles (DMV) to drive any commercial vehicle identified in § 15278. The administering agency for these statutes is the DMV. The project will comply with these codes by requiring that contractors and employees be properly licensed and endorsed when operating such vehicles.

***California Vehicle Code, §§ 31303-31309.***

Requires that the transportation of hazardous materials be on the state or interstate highway that offers the shortest possible overall transit time. The administering agency for these statutes is the CHP. The project will comply with this law by requiring that shippers of hazardous materials use the shortest route possible to and from the project site.

***California Vehicle Code, §§ 31600-31620.***

Regulates the transportation of explosive materials. The administering agency for the above statutes is the CHP. It must be noted that the project will not use explosive materials specifically defined in § 12000 of the Health and Safety Code. However, the project will comply with this law by requiring that shippers of other potentially explosive materials have the required licenses from the CHP.

***California Vehicle Code, §§ 32000-32053.***

Authorizes the CHP to inspect and license motor carriers transporting hazardous materials of the type requiring placards. The administering agency for this regulation is the CHP. The project will comply with this law by requiring that motor carriers of hazardous materials be properly licensed by the CHP.

***California Vehicle Code, §§ 32100-32109.***

Requires that shippers of inhalation hazards in bulk packaging comply with rigorous equipment standards, inspection requirements, and route restrictions. The administering agency for this regulation is the CHP. If applicable, the project will comply with this law by requiring shippers of these types of material to comply with all route restrictions, equipment standards, and inspection requirements.

***California Vehicle Code, §§ 34000-34100.***

Establishes special requirements for vehicles having a cargo tank and for hazardous waste transport vehicles and containers, as defined in § 25167.4 of the Health and Safety Code. The commissioner shall provide for the establishment, operation, and enforcement of random on- and off-highway inspections of cargo tanks and hazardous waste transport vehicles and containers and ensure that they are designed, constructed, and maintained in accordance with the regulations adopted by the commissioner pursuant to this code and Chapter 6.5 (commencing with § 25100) of Division 20 of the Health and Safety Code. The administering agency for this regulation is the CHP. The project will comply with this law by requiring that shippers of hazardous materials maintain their hazardous material transport vehicles in a manner that ensures the vehicles will pass CHP inspections.

***California Vehicle Code, §3500.***

Regulates the safe operation of vehicles, including those vehicles that are used for the transportation of hazardous materials. The administering agency for this regulation is the CHP. The project will comply with this law by requiring shippers of hazardous materials to have the necessary permits, inspections, and licenses issued by the CHP for the safe operation of the hazardous materials transport vehicles.

***California Vehicle Code, § 35550.***

Imposes weight guidelines and restrictions on vehicles traveling on freeways and highways. The section holds that “a single axle load shall not exceed 20,000 pounds. The load on any one wheel or wheels supporting one end of an axle is limited to 10,500 pounds. The front steering axle load is limited to 12,500 pounds.” Furthermore, California Vehicle Code § 35551 defines the maximum overall gross weight as 80,000 pounds and adds that “the gross weight of each set of tandem axles shall not exceed 34,000 pounds.” The administering agency for this statute is Caltrans. The project will comply with this code by requiring compliance with weight restrictions and by requiring heavy haulers to obtain permits, if required, prior to delivery of any heavy haul load.

***California Vehicle Code, § 35780.***

Requires a Single-Trip Transportation Permit to transport oversized or excessive loads over state highways. The permit can be acquired through the Caltrans. The project will comply with this code by requiring that heavy haulers obtain a Single-Trip Transportation Permit for oversized loads for each vehicle, prior to delivery of any oversized load.

***California Streets and Highways Code, § 117.***

Unless otherwise specifically provided in the instrument conveying title, the acquisition by the department of any right-of-way over any real property for state highway purposes, includes the right of the department to issue, under Chapter 3 (commencing with § 660), permits for the location in the right-of-way of any structures or fixtures necessary to telegraph, telephone, or electric power lines or of any ditches, pipes, drains, sewers, or underground structures. The administering agency for this statute is Caltrans. If applicable, the project will comply with this code by acquiring the necessary permits and approval from Caltrans with regard to use of public rights-of-way.

***The California Streets and Highways Code, §§ 660, 670, 672, 1450, 1460, 1470, 1480 et seq.***

Defines highways and encroachment, requires encroachment permits for projects involving excavation in state highways and county/city streets. This law is generally enforced at the local level. The administering agencies for this regulation are Caltrans and County of Riverside Public Works Department. The project will apply for encroachment permits for any excavation in state and county roadways prior to construction.

***California Health and Safety Code, §§ 25160 et seq.***

Addresses the safe transport of hazardous wastes, requires a manifest for hazardous waste shipments, requires a person who transports hazardous waste in a vehicle to have a valid registration issued by the Department of Toxic Substances Control (DTSC) in his or her possession while transporting the hazardous waste. The administering agency for this regulation is the DTSC. The project will comply with this law by requiring that shippers of hazardous wastes are properly licensed by the DTSC and hazardous waste transport vehicles are in compliance with DTSC requirements.

***California Manual on Uniform Traffic Control Devices, Part 6.***

Requires a temporary traffic control plan be provided for “continuity of function (movement of traffic, pedestrians, bicyclists, transit operations), and access to property/utilities” during any time the normal function of a roadway is suspended. The administering agencies for this regulation are Caltrans and County of Riverside Public Works Department. If applicable, the Applicant will file a Traffic Control Plan prior to the start of construction.

***5.12.2.3 Local******County of Riverside, General Plan, Circulation Element.***

Requires LOS C, D or E (depending on location) or better operating conditions for County intersections and roadways. The primary administering agency for this policy is the County of Riverside Transportation and Land Management Agency (TLMA) Public Works Department.

***County of Riverside, Ordinance 500.1.***

An ordinance of the County of Riverside amending Ordinance No. 500, reducing the permissible weight of vehicles on unimproved County highways. The primary administering agency for this policy is the County of Riverside TLMA Public Works Department.

***County of Riverside, Ordinance 524.1.***

An ordinance of the County of Riverside amending Ordinance No. 524, regulating oversize and overweight vehicles and loads. The primary administering agency for this policy is the County of Riverside TLMA Public Works Department.

***County of Riverside, Ordinance 846.***

An ordinance of the County of Riverside reducing the permissible vehicle weight in the community of Mesa Verde/CSA 122. Pursuant to California Vehicle Code § 35712, any commercial vehicle exceeding a manufacturer's gross vehicle weight rating of 14,000 pounds is prohibited from using the local streets within the community of Mesa Verde and County Service Area (CSA) 122 as identified in the restricted list. It must be noted that with the exception of Mesa Drive, from Bellwood Drive to its southerly terminus, none of the project routes are included in the restricted roadways. In addition, certain exemptions apply to commercial vehicles owned by a public utility or a contractor while necessarily in use in the construction, installation, or repair of any public utility are exempt from the vehicle weight restriction. The primary administering agency for this policy is the County of Riverside TLMA Public Works Department.

***City of Blythe, General Plan, Circulation Element.***

Requires LOS C, D, (depending on location) or better operating conditions for City intersections and roadways. The primary administering agency for the above policy is the City of Blythe Public Works Department.

The Applicant will mitigate potential traffic impacts in compliance with LOS D or better requirement under existing, project construction and operations scenarios.

***City of Blythe, Municipal Code 12.1220.***

No motor or other vehicle, or other object or contrivance for moving loads, shall be operated or moved upon or over any paved street within the city, the weight of which, resting upon the surface of said street, exceeds seven hundred pounds upon any inch of width of tire, when said vehicle is equipped with pneumatic tires, nor more than six hundred fifty pounds upon any inch of width of tire, when said vehicle is equipped with solid rubber tires or rubber tires other than pneumatic. No motor or vehicle, object or contrivance for moving loads shall be operated or moved upon or over any paved street within the city, the weight of which, resting upon the surface of said street, exceeds six hundred pounds upon any inch of width of tire, roller, wheel or other objects, supported on the surface thereof, when such tires or the rolling surface of such rollers, wheels or other objects are made in whole or in part of metal; provided, however, that traction engines or tractors, the propulsive power of which is exerted not through wheels resting upon

the ground, but by means of a flexible band or chain known as a moveable track, shall not be subject to the foregoing limitations upon permissible weights per inch per width of tire; if the portions of moveable tracks in contact with the surface of the street present plain surfaces; provided, further, that the aggregate of any load including the weight of loads and vehicles drawn by any one motive power shall in no case exceed thirty-six thousand pounds in weight; and provided, further, that in no case shall the load carried by any motor vehicle or trailer equipped with solid rubber tires exceed a fifty percent overload, as shown by the manufacturer's rating of such truck or trailer; provided, however, that in no case shall any motor or other vehicle be operated on or over any paved street within the city, nor any object be moved over or upon any paved street within the city, on wheels, rollers or otherwise, regardless of the width of tires, in excess of a total weight, including vehicle and load of twenty-two thousand pounds, when said motor or other vehicle or contrivance is equipped with four wheels running on the paving, or in excess of a total weight, including vehicle and load of thirty thousand pounds when said motor or other vehicle or contrivance is equipped with six wheels running on the paving and with three axles, not less than ninety-six inches apart.

### **5.12.3 Affected Environment**

#### **5.12.3.1 Existing Transportation Facilities**

##### ***Regional Roadway Facilities***

As point of reference and in context to the regional roadway system, the project is generally located on the southwest quadrant of I-10 and State Route 78 in unincorporated Riverside County. Figure 5.12-1, Regional Transportation Setting, shows the project site in context to the regional roadway circulation system. Figure 5.12-2, Transportation Setting of the Local Project Area and Affected Roads, illustrate characteristics of the study roadways serving the project site.

##### ***Interstate 10 (I-10)***

I-10 is a four-lane, east-west interstate freeway located approximately 12 miles north of the project and is under the operational jurisdiction of Caltrans. I-10 originates in Santa Monica and runs through Los Angeles, San Bernardino County, Riverside County, and beyond through transcontinental U.S. to the east. In the vicinity of the project, access to I-10 is provided via freeway ramp connections at South Neighbors Boulevard / State Route 78. The posted speed limit is 70 miles per hour (mph), and trucks comprise 39 percent of traffic on I-10. Caltrans load restrictions are outlined in Section 5.12.2 of this report.

##### ***State Route 78***

State Route 78 is a north-south state highway that provides regional access and is located east of the project. State Route 78 is a two-lane highway with a posted speed limit of 55 mph. except through Ripley, where the speed limit is 45 mph. State Route 78 has two 12 foot lanes and paved shoulders. In the vicinity of the project, State Route 78 is accessed via 30th Avenue/Bradshaw Trail and 34th Avenue. State Route 78 is also referred to by local street names as South Neighbors Boulevard, 28th Avenue and Rannells Boulevard. The east and west State Route 78 ramps at I-10 are stop sign controlled. The land uses adjacent to State Route 78 are predominantly agricultural, although State Route 78 goes through the

communities of Ripley, California northeast of the Project and Palo Verde, California southeast of the Project. Caltrans load restrictions are outlined in Section 5.12.2 of this report.

### ***Local Roadway Facilities***

The local roadway characteristics and alternative access routes to the Project are described below. Figure 5.12-3 shows the roadway circulation network and study intersection lane configurations in the project vicinity.

#### ***34th Avenue (Preferred access route)***

The preferred access route to the Project site is via 34th Avenue, which is accessible from State Route 78, 1.5 miles north of the community of Palo Verde at the Riverside/Imperial County line. From State Route 78, this access route runs west between agricultural lands on a 60 foot wide County right-of-way (ROW) before reaching the Project site. West of State Route 78, 34th Avenue is a dirt road. It runs east-west from State Route 78 and connects to the site. County load restrictions are outlined in Section 5.12.2 of this report.

#### ***30th Avenue-Bradshaw Trail***

30th Avenue is a two-lane, east-west paved road for 1 mile west of Rannells Avenue (State Route 78). The paved portion is 24 feet wide with dirt shoulders. Beyond the paved segment it becomes a graded dirt road that varies in width from 15 to 30 feet as it leads into the project site. County load restrictions are outlined in Section 5.12.2 of this report.

Bradshaw Trail bisects the Project site. The current routing of Bradshaw Trail through the agricultural lands and the project site was formerly known as the Butterfield Trail, and may not represent an actual routing of the historic trail.

Bradshaw Trail runs through the northern portion of the Project site and is a 65-mile dirt road that is periodically graded by the Riverside County Transportation Department and managed by the BLM. Bradshaw Trail provides access to the northern portion of the site. The portion that runs through the Project site is primarily used as an off highway vehicle (OHV) access route.

#### ***Lovekin Boulevard***

In addition and in combination with State Route 78, Lovekin Boulevard provides a secondary regional access route to the Project site from I-10. This route is envisioned to be used in tandem with State Route 78, thereby splitting the traffic demand at the two interchanges along I-10. This route runs south along Lovekin Boulevard from I-10 for approximately 7.5 miles, and then continues west along 28th Avenue for 6 miles. The route then turns south and extends for 2 miles south to 32nd Avenue, and then west for 1 mile to State Route 78 for 1.3 miles to the Project access at 34th Avenue. All of these roads are existing roads; Lovekin Boulevard is a paved road with a 55 mph speed limit. All other roads are also paved with the exception of the Project access segment of 34th Avenue. Lovekin Boulevard is a designated Class II Bike Lane between 10th Avenue and 14th Avenue and a Class I Bike Path between 14th Avenue towards 18th Avenue. County and City load restrictions are outlined in Section 5.12.2 of this report.

***22nd Avenue***

Another alternate access route to the Project site for construction workers would be to exit I-10 at State Route 78 and continue south for approximately 4.25 miles to 22nd Avenue. The route extends west on 22nd Avenue for 4 miles to the edge of the mesa, where the road transitions from a paved road to an improved dirt road. At this point, the route turns southwest and follows 22nd Avenue (which becomes Gravel Pit Road) for approximately 2.4 miles to the transmission line access road to the northern boundary of the Project. Dust suppression mitigation measures will be incorporated for this alternative route to the Project area. County load restrictions are outlined in Section 5.12.2 of this report.

***Mesa Drive***

In addition to the routes described above, Mesa Drive had been considered as a potential alternate access route to the Project site, however this route needs improvements to become a viable route. This route runs south along Mesa Drive from I-10 for approximately 2.5 miles, and then continues east for 0.7 miles to Ludy Boulevard. The route then turns south and extends for 2.3 miles south to Gravel Pit Road, and then south for 2.4 miles to the transmission powerline access road for 0.4 miles to the northern boundary of the Project. All of these roads are existing roads; Mesa Drive is a paved road for approximately 0.4 miles; the remainder of Mesa Drive is an unpaved road. Ludy Boulevard, Gravel Pit Road, and the transmission power line access road are all dirt roads and would require dust mitigation for Project use. Ludy Boulevard, and the transmission power line access road would need to be improved prior to Project use. County load restrictions are outlined in Section 5.12.2 of this report.

**5.12.3.2 Existing Traffic Conditions*****Level of Service Concept***

Level of service (LOS) is an indicator of operating conditions on a roadway or at an intersection and is defined in categories ranging from A to FLOS. “A” represents the best traffic flow conditions with very low delay and “F” represents poor conditions. LOS A indicates free-flowing traffic, and LOS F indicates substantial congestion with long delays at intersections.

Table 5.12-2 describes the LOS performance designations for both signalized and unsignalized intersections. Table 5.12-3 describes the Link/Volume capacity LOS for Riverside County roadways.

***Existing Roadway Levels of Service***

An existing LOS analysis was conducted to assess the existing operational performance of study roadway segments within the traffic study area. Table 5.12-4 provides the number and type of lanes, average daily traffic (ADT) volume, truck percentile, and corresponding LOS of the project study roadway segments. As shown in Table 5.12-4, all traffic study area freeway and state highway segments are forecast to operate at acceptable LOS C.

**Existing Intersection LOS**

Table 5.12-5 presents intersection LOS and average vehicle delay under existing conditions. The LOS calculation worksheets are provided in Appendix 5.12B. Figure 5.12-4 shows the existing study intersection lane geometrics and traffic control. Figure 5.12-5 shows the existing AM and PM peak-hour turning movement volumes at each study area intersection.

As shown in Table 5.12-5, all traffic study intersections currently operate at acceptable LOS A.

**Table 5.12-2  
Level of Service (LOS) Descriptions**

LOS	Description of Operation	Signalized Intersection Delay (seconds)	Stop-Controlled Intersection Delay (seconds)
LOS A	Describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	<10.0	<10.0
LOS B	Describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	10.1 – 20.0	10.1 – 15.0
LOS C	Describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	20.1 – 35.0	15.1 – 25.0
LOS D	Describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.	35.1 – 55.0	25.1 – 35.0
LOS E	Considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.	55.1 – 80.0	35.1- 50.0
LOS F	Describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.	>80.0	>50.0

LOS = Level of service

**Table 5.12-3  
Link/Volume Capacity LOS for Riverside County Roadways**

Roadway Classification	Number of Lanes	C	D	E
Collector	2	10,400	11,700	13,000
Secondary	4	20,700	23,300	25,900
Major	4	27,300	30,700	34,100
Mountain	2	12,900	14,500	16,100
Mountain	3	16,700	18,800	20,900
Mountain	4	29,800	33,500	37,200
Urban	4	28,700	32,300	35,900
Urban	6	43,100	48,500	53,900
Urban	8	57,400	64,600	71,800
Expressway	4	32,700	36,800	40,900
Expressway	6	49,000	55,200	61,300
Expressway	8	65,400	73,500	81,700
Freeway	4	61,200	68,900	76,500
Freeway	6	94,000	105,800	117,500
Freeway	8	128,400	144,500	160,500
Freeway	10	160,500	180,500	200,600
Ramp	1	16,000	18,000	20,000

Source: Riverside County, 2003. General Plan Circulation Element.  
LOS = Level of service

**Table 5.12-4  
Freeway/Roadway Segment LOS Existing Conditions**

Roadway	Segment	Number and Type of Lanes	Existing ADT	Roadway Capacity	Percent Truck	LOS
Interstate 10	West of State Route 78	4-Lane Freeway	22,500	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	23,800	68,900	39%	C
Neighbours Boulevard	North of I-10	2 Lane Undivided	1,520	11,700	16%	C

**Table 5.12-4  
Freeway/Roadway Segment LOS Existing Conditions**

Roadway	Segment	Number and Type of Lanes	Existing ADT	Roadway Capacity	Percent Truck	LOS
State Route 78	South of I-10	2-Lane Undivided	2,100	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	1,600	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	1,300	16,200	25%	C
State Route 78	South of 34th Avenue	2 Lane Undivided	1,100	16,200	25%	C
Lovekin Blvd	North of I-10	4 Lane Divided	8,715	32,300	n/a	C
Lovekin Blvd	South of I-10	2 Lane Undivided	6,751	16,200	n/a	C
28th Avenue	West of Lovekin Blvd	2 lane Undivided	713	11,700	n/a	C

ADT = average daily traffic  
LOS = level of service

**Table 5.12-5  
Peak Hour Intersection LOS Existing Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
1. State Route 78 (Neighbours Boulevard)/I-10 WB Ramps	9.1	A	9.1	A
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	9.0	A	9.3	A
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	9.3	A	9.3	A
4. State Route 78 (Neighbours Boulevard)/28th Avenue	6.9	A	7.0	A
5. State Route 78 (Rannells Boulevard)/28th Avenue	7.0	A	7.0	A
6. State Route 78/30th Avenue	0.0	A	0.0	A
7. State Route 78/34th Avenue	0.0	A	0.0	A
8. Lovekin Boulevard/I-10 WB Ramps	10.5	B	9.9	A
9. Lovekin Boulevard/I-10 EB Ramps	8.4	A	10.5	B
10. Lovekin Boulevard/14th Avenue	8.0	A	8.0	A
11. Lovekin Boulevard/16th Avenue	7.4	A	7.3	A

LOS = level of service

***Other Transportation Elements*****Parking**

Parking areas are planned on-site at the common area (construction and operations) and within the plant power block areas (construction only). Where there is adequate shoulder width, on-street parking on local streets is generally allowed within the traffic study area. While the Project intends to minimize this practice during construction, it may be necessary for some personnel to park along existing roads in the early project stages when the Project site is being fenced and special status species (e.g. desert tortoise) are being relocated. Once these activities are sufficiently complete within the common area, work force parking areas will be constructed, and on-street parking will be discontinued. With the exception to roadway emergencies, parking or stopping is restricted along freeway and state highway segments.

**Public Transportation**

The main public transportation provider within the traffic study area is the Palo Verde Valley Transit Agency (PVVTA). The PVVTA does not currently serve the immediate vicinity of the project site.

**Bicycle and Pedestrian Circulation**

There are no designated bicycle routes near the vicinity of the project site, and due to the distance from major activity centers, there is minimal pedestrian activity observed within the traffic study area. Within the City of Blythe, Lovekin Boulevard is a designated Class II Bike Lane between 10th Avenue and 14th Avenue and a Class I Bike Path between 14th Avenue towards 18th Avenue.

**Airports**

Blythe Municipal Airport is a public airport located six miles (9.7 km) west of Blythe, serving Riverside County, California. The airport has two runways and is mostly used for general aviation. Runway 8/26 is 6,543 feet long and Runway 17/35 is 5800 feet long. Blythe Municipal Airport is located approximately 7 miles north of the Project site's northern border. The airport does not have regularly scheduled commercial flights.

**Rail Lines**

In 1914, the California Southern Railroad was incorporated to build 42.2 miles from a point known as Blythe Junction (now known as Rice) to reach Blythe and would go between the Big Maria Mountains and the Little Maria Mountains by a 1.3 percent grade climb southward. Later in 1916, the railroad finished its construction to Blythe. In 1920, the railroad extended the branch to Ripley. On March 12, 2009, citing declining revenues and worn-out track structure, the Arizona and California Railroad (ARZC) petitioned the Surface Transportation Board to abandon all but the first four miles of the Ripley branch line. No trains have run over this line since late 2007 and the cost to repair the branch line was deemed too costly. The Surface Transportation Board ruled on June 30, 2009 to grant ARZC's petition. As of January 14, 2010, the Surface Transportation Board terminated the offer of financial assistance from the railroad. San Pedro Trails, Inc., a trail company, is negotiating with ARZC for converting the right-of-way into a rail trail, yet subjecting the rail line for possible reactivation for rail service. The rail

line has been scrapped in late May, 2011. During the field review, the gate crossing of State Route 78 was in place, but the tracks on either side of the gate have been removed.

### **Safety**

The result of the existing roadway conditions and intersection operations field review conducted on July 29, 2011 and September 12, 2011 showed that the general terrain within the project study area was observed to be generally flat with overall good roadway visibility throughout. There were no observed vertical or horizontal sight distance issues including blind curves and other roadway geometric limitations that could potentially pose as hazards to roadway users and pedestrians. State Route 78 is maintained by Caltrans and is adequately signed throughout the route. Near the vicinity of the site, State Route 78 operates unimpeded and free-flowing, while the local cross-streets are controlled by stop signs. Due to the low volume of traffic and sufficient line of sight along the cross streets, no major safety hazards were observed.

### **Goods Movement**

According to the *Riverside County General Plan* Circulation Element, “Goods movement in the region is anticipated to grow more than 30 percent, from 431 million tons to more than 564 million tons in the next 20 years, as a result of both population growth and the growth in international trade.”

*Freight Rail Service:* The Union Pacific (UP) and the Burlington Northern Santa Fe (BNSF) Railroads provide freight service in Riverside County, connecting the County with major markets within California and other destinations north and east. The UP line traverses the traffic study area north of I-10.

*Passenger Rail Service:* The nearest Amtrak station located in Riverside County is the Palm Springs station. This station provides connecting Amtrak service to points west, including Los Angeles, and to points east, including Tucson, Arizona, and El Paso, Texas. Amtrak does provide bus connections to and from other Riverside County areas to the San Bernardino Amtrak station on a daily basis.

*Truck Access:* Truck traffic associated with construction and operation of the project will access the project from I-10 by heading south on State Route 78, then west on 34th Avenue or Bradshaw Trail to the site.

### ***Caltrans Vehicle Requirements***

Following are requirements for legal, unpermitted vehicles to operate in California from Caltrans’ Division of Traffic Operations,

*Vehicle Width.* The maximum allowable vehicle width is 102 inches (some exceptions apply).

*Vehicle Height.* The maximum allowable vehicle height is 14 feet.

*Vehicle Length (California Legal).* The maximum allowable lengths for vehicles that can travel throughout California are as follows (some exceptions apply).

- Single vehicle length is 40 feet.
- Combination length is 65 feet.
- Trailer length is not specified.
- Kingpin-to-rear-axle (KPRA) length is 40 feet maximum.
- Doubles – 75 feet for a combination of vehicles consisting of a truck tractor and two trailers, provided neither trailer length exceeds 28 feet 6 inches.
- Doubles – 65 feet for a combination of vehicles consisting of a truck tractor and two trailers, if one trailer length exceeds 28 feet 6 inches.

*Vehicle Length Surface Transportation Assistance Act (STAA).* The maximum allowable lengths for vehicles that are limited to the National Network and Terminal Access routes are as follows:

- Combination length is unlimited.
- Maximum trailer length is 53 feet.
- KPRA is unlimited if the trailer is no more than 48 feet.
- KPRA is 40 feet maximum if the trailer is more than 48 feet.
- Doubles – Unlimited length for a combination of vehicles consisting of a truck tractor and two trailers, but *neither* trailer length can exceed 28 feet 6 inches.

*Vehicle Weight.* The maximum allowable weights are as follows:

- Gross combination weight is 80,000 pounds.
- Single-axle weight is 20,000 pounds.
- Maximum weight on a tandem axle with a four-foot spread is 34,000 pounds.

*Exceptions.* For specific exceptions and variances, refer to the CHP 889, “Vehicle Code Size and Weight Law Summary” or call the Commercial Vehicle Section of the CHP.

#### **5.12.4 Environmental Analysis**

This section discusses potential traffic and transportation-related impacts from the construction and operation of the project. A Year 2015 traffic analysis was conducted for project construction traffic impact analysis, and Year 2016 traffic analysis was conducted for project operations traffic impact analysis.

The following improvements are planned and proposed by the Applicant in conjunction with the construction and operation of the project:

- The eastbound approach at the intersection of State Route 78 and 34th Avenue will be improved to include a stop sign as part of the project as it is the primary entrance to the project site.

- The west leg of 34th Avenue will be improved to the project site. The roadway will be paved as a two lane undivided roadway.

The project site can be accessed from 34th Avenue and 30th Avenue/Bradshaw Trail. The preferred access to the site will be along 34th Avenue as 34th Avenue will be improved as described above. Truck traffic will be restricted to the preferred access at 34th Avenue.

### **5.12.4.1 Thresholds of Significance**

Significance criteria were developed based on Appendix G of the CEQA Guidelines, which identifies potentially significant project impacts. A significant traffic-related project impact would occur if the project significantly changed the operating conditions on the surrounding roadway network. A freeway/roadway segment and intersection LOS analysis was conducted to assess operational performance of the traffic study area freeways/roadways and intersections during construction and operation of the project. For LOS, the applicable significance threshold was based on the Riverside County Transportation Commission (RCTC) 2010 Congestion Management Program (CMP) and County of Riverside requirements.

### **CMP Level of Service Standards**

The following discussion of LOS standards was excerpted from RCTC 2010 CMP:

#### **CMP System of Streets and Highways**

- Establishment of Minimum LOS

With the intent of the legislation in mind, the RCTC Technical Advisory Committee (TAC) CMP Subcommittee approved a “two-tiered” approach to establish the minimum LOS standard. Tier 1 involves the “locally established minimum traffic LOS – or – ceiling,” while Tier 2 involves the CMP minimum LOS standard – or – floor.”

Most local agencies in Riverside County and Caltrans have adopted LOS standards of C or D (representing the “ceiling” in Tier 2) for roadway segments in an effort to maintain a desired LOS for the local circulation system. To address the CMP legislative requirements and establish minimum LOS along the regional system of roadways and highways within the County (representing the “floor” in Tier 2), RCTC approved a minimum traffic LOS standard of E.

In accordance to CMP statutes, certain facilities (roadway segments and intersections) had been identified (see Table 4-1 and Exhibit 4-1 2010 Riverside County CMP Document) to be exempt from CMP requirements as having been documented at LOS F since 1991. No study roadways and intersections fall under this exemption.

Within the traffic study area, both State Route 78 and I-10 have been identified as key elements of the CMP system.

A CMP significant traffic impact occurs:

- When pre-project (Base) LOS A, B, C, and D becomes LOS E or F with project
- When pre-project (Base) LOS E becomes LOS F with project

***State Highway Level of Service Standard***

According to the Caltrans Guide for the Preparation of Traffic Impact Studies, “Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway Facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the target LOS. If an existing state highway facility is operating at less than the appropriate target LOS, the existing LOS should be maintained.

Based on the above requirements, the following conditions apply in the determination of significant State Highway impacts:

- Desired minimum LOS is LOS D
- When pre-project (Base) LOS A, B, C, and D becomes LOS E or F with project
- When pre-project (Base) LOS E becomes LOS F with project

***Local Level of Service Standard***

According to the Riverside County General Plan Circulation Element, to achieve the true intent of community center design, LOS designations are typically lower (LOS E) to minimize the impacts of accommodating uncongested roadways and to maximize pedestrian use. Higher level of service designations (LOS A, B, C) require wider road widths, and as a result, would create circulation systems that are more accommodating to automobiles than pedestrians.

The County strives to maintain the following countywide target LOS:

- LOS C along all County-maintained roads and conventional state highways. As an exception, LOS D may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Expressways, conventional state highways, or freeway ramp intersections.
- LOS E may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

The City of Blythe, strives to maintain LOS B (not applicable for the study locations) on residential streets and LOS C, D (depending on location) or better operating conditions for City intersections and roadways.

Based on the above requirements, the following conditions apply in the determination of significant local impacts:

- Desired LOS is LOS C, D, or E (with specific conditions)

- When pre-project (Base) LOS A, B, C, and D becomes LOS E or F with project
- When pre-project (Base) LOS E becomes LOS F with project

Significance issues for the other transportation elements include:

- a. **Additional Vehicular Traffic:** Would the additional traffic generated by the project adversely affect operating conditions (i.e., LOS) on local and regional roadways?
- b. **Public Transit:** Would the additional traffic generated by the project impede public transit operations in the vicinity of the project?
- c. **Bicycle and Pedestrian Circulation:** Would the additional traffic generated by the project obstruct bicycle and pedestrian access to and from the project site or along adjacent bicycle and pedestrian routes?
- d. **Parking Facilities:** Would the additional traffic generated by the project consume parking in proximity to the project site?
- e. **Goods Movement:** Would the additional traffic generated by the project hinder goods movement along local and regional roadways?
- f. **Safety:** Would the traffic generated by the project impose any safety concerns, such as a significant increase in crashes?
- g. **Air, Rail, and Waterborne Traffic:** Would the traffic generated by the project interfere with air, rail, or waterborne traffic, or access to these transportation modes?

#### **5.12.4.2 Construction Impacts**

##### **Construction Activities and Traffic Forecast**

Mobilization of the project from site preparation to commercial operation is expected to ensue immediately upon receipt of certification. Onsite construction would commence on the Fourth Quarter of 2013 and be completed by the Second Quarter of 2016 (June/2016), a total of 36 months. Phase 1 is planned for operation by (December 2015). The construction schedule has been estimated on a single-shift, 10-hour day and 40-hour week. However, longer work days or work weeks will be necessary to make up schedule deficiencies or to complete critical construction activities such as large concrete pours. During the certain phases of the project, some activities could continue 24 hours per day, 7 days per week. Construction operations are expected to take place between 5:00 AM and 7:00 PM with adjustments as necessary to account for the high heat months of the summer.

The onsite workforce will consist of laborers, craftsmen, supervisory personnel, environmental monitors, support personnel, and construction management personnel. The onsite workforce is expected to reach its peak of 2,500 workers during the 21st month of construction. Construction access to the project will be provided via State Route 78 at 34th Avenue and 30th Avenue. Truck deliveries will normally be on weekdays between 7:00 AM and 5:00 PM.

All construction activities shall comply with County requirements, including securing the necessary permits. Offsite construction activities e.g. access road improvements, linear work, drainage crossing upgrades, will be coordinated with adjoining jurisdictions and provisions for detour and alternate worker access routes may be required to alleviate traffic.

During construction, all traffic signs, equipment, and control measures shall conform to the provisions specified in the *California Manual of Uniform Traffic Control Device*. Specific requirements will be identified during permit application process.

Unsignalized intersections were analyzed using the 2000 HCM (Section 10) unsignalized intersection analysis methodology. The Traffix 7.6 R1 software supports this methodology and was used to produce LOS results. The LOS for a two-way stop controlled (TWSC) intersection is determined by the computed or measured control delay and is defined for each minor movement.

### ***Trip Generation***

#### **Construction Workers**

The traffic analysis assumed that the 1,378 peak vehicle trips (with two passenger occupancy vehicle assumption) generated by construction personnel for the project during the peak construction month would not arrive at the same time during the morning peak period (7:00 AM – 9:00 AM) nor depart at the same time during the evening peak period (4:00 PM – 6:00 PM). The construction schedule operates with start times between 5:00 AM to 7:00 AM and departure between 4:00 PM to 6:00 PM.

As previously described, the construction schedule has been estimated on a single-shift, 10-hour day and 40-hour week, however some construction shifts will be on 8-hour shifts and would be departing between 2:00 PM to 4:00 PM which is outside of the evening peak period (4:00 PM to 6:00 PM). The analysis conservatively assumed that more than half (55 percent) of the worker vehicles will arrive during the morning peak period (7:00 AM – 9:00 AM) and leave the site during the evening peak period (4:00 PM to 6:00 PM). The aforementioned trip assumptions represent a worst-case analysis scenario that conservatively exceeds anticipated construction conditions.

#### **Construction Truck and Equipment Deliveries**

Although the truck deliveries will likely arrive and depart throughout the day, the analysis conservatively assumed that more than half (55 percent) travel during the AM and PM peak hour. These construction trucks will be using the preferred site access at 34th Avenue.

The above assumptions allow for a worst-case assessment of the potential project-related traffic impacts. The estimated project construction trips projected to be generated by the project during the AM and PM peak hour traffic analysis scenarios are presented in Table 5.12-6.

The project trip generation data in Table 5.12-6 show the resultant trips that would be generated by construction personnel and delivery trucks. The estimation of the project trip generation was based on the following key assumptions:

- Project typical construction hours = 5 AM to 7 PM
- Passenger car equivalent (PCE) per delivery truck = 3 PCE
- Total peak workforce = 2,500 workers (direct hire craft, subcontractors, and non-manuals)

**Table 5.12-6  
Project Construction Trip Generation**

Vehicle Type	Peak Daily Round Trips	AM Peak Trips			PM Peak Trips		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Construction Worker Vehicles <sup>1</sup>	2756	758	0	758	0	758	758
Delivery Vehicles (including heavy trucks) <sup>2</sup>	318	44	22	66	0	22	22

Source: Bechtel Power Corporation, Forecast Traffic Impact - Rio Mesa\_090711.xls

<sup>1</sup> Peak workforce was conservatively analyzed at 1378 worker vehicle trips during peak month of construction. 55% of these worker vehicle trips were assumed to commute during the morning (7-9 AM) and evening (4-6 PM) peak hours.

<sup>2</sup> Delivery vehicles were adjusted into Passenger Car Equivalent (1 Heavy Vehicle = 3 PCE) vehicle in the traffic impact analysis. Analysis assumed 50 percent of 29 (actual trucks) delivery vehicles arrive and 25 percent leave during the 7 to 9 AM peak hour; 25 percent leave during the 4 to 6 PM peak hour. Numbers shown on the table are passenger car equivalent adjusted.

***Trip Distribution and Assignment***

During project construction, the majority of the construction workforce is anticipated to be sourced locally and from the surrounding communities near the project. Some non-local specialty trades supporting proprietary plant equipment/components and construction processes are also expected, but only on a short-term basis. The distribution pattern assumed for the peak construction workforce is as follows:

- 60 percent from the west via I-10
- 30 percent from the east via I-10
- 5 percent from the Blythe and Ripley (local)
- 5 percent from the south via State Route 78

To access the proposed construction worker parking and laydown area at the project site, the recommended route for 50 percent of incoming workers and material deliveries will be via State Route 78 via 34th Avenue westbound towards the project site and via Lovekin Boulevard to 30th Avenue for the remaining 50 percent of incoming workers. Alternative routes include:

- via State Route 78 then west on 30th Avenue (Bradshaw Trail)
- via State Route 78 then west on 22nd Avenue, (workers only and no delivery trucks)

**Roadway Level of Service During Project Construction (2015)**

Table 5.12-7 presents the ADT roadway segment LOS under Year 2015 No Project conditions.

**Table 5.12-7  
Freeway/Roadway Segment LOS - Year 2015 No Project Conditions**

Roadway	Segment	Number and Type of Lanes	2015 No Project ADT	Roadway Capacity	Percent Truck	LOS
Interstate 10	West of State Route 78	4-Lane Freeway	24,300	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	25,704	68,900	39%	C
Neighbours Boulevard	North of I-10	2-Lane Undivided	1,642	11,700	16%	C
State Route 78	South of I-10	2-Lane Undivided	1,728	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	2,268	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	1,404	16,200	25%	C
State Route 78	South of 34th Avenue	2-Lane Undivided	1,188	16,200	25%	C
Lovekin Blvd	North of I-10	4-Lane Divided	9,418	32,300	n/a	C
Lovekin Blvd	South of I-10	2-Lane Undivided	7,301	16,200	n/a	C
28th Avenue	West of Lovekin Blvd	2-lane Undivided	778	11,700	n/a	C

ADT = average daily traffic  
LOS = level of service

Similar to existing conditions and as shown in Table 5.12-7, all study freeway and state highway segments are forecast to operate at acceptable LOS C under Year 2015 No Project conditions.

Table 5.12-8 presents the ADT freeway/roadway segment LOS under Year 2015 Project Construction conditions.

**Table 5.12-8  
Freeway/Roadway Segment LOS - Year 2015 Project Construction Conditions**

Roadway	Segment	Number and Type of Lanes	2015 + Project ADT	Roadway Capacity	Percent Truck	LOS
Interstate 10	West of State Route 78	4-Lane Freeway	26,041	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	26,417	68,900	39%	C
Neighbours Boulevard	North of I-10	2-Lane Undivided	1,642	11,700	16%	C

**Table 5.12-8  
Freeway/Roadway Segment LOS - Year 2015 Project Construction Conditions**

Roadway	Segment	Number and Type of Lanes	2015 + Project ADT	Roadway Capacity	Percent Truck	LOS
State Route 78	South of I-10	2-Lane Undivided	3,895	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	3,355	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	3,031	16,200	25%	C
State Route 78	South of 34th Avenue	2-Lane Undivided	1,326	16,200	25%	C
Lovekin Blvd	North of I-10	4-Lane Divided	9,418	32,300	n/a	C
Lovekin Blvd	South of I-10	2-Lane Undivided	7,301	16,200	n/a	C
28th Avenue	West of Lovekin Blvd	2-lane Undivided	778	11,700	n/a	C

ADT = average daily traffic

LOS = level of service

As shown in Table 5.12-8, none of the project study roadway segments will be significantly impacted by project construction added trips. All freeway and highway roadway segments are forecast to continue to operate at LOS C.

***Intersection Level of Service During Project Construction (2015)***

Table 5.12-9 presents peak hour intersection LOS and average vehicle delay results under Year 2015 No Project conditions. The LOS Calculation worksheets are provided in Appendix 5.12B. Figure 5.12-6 shows Year 2015 No Project AM and PM peak-hour turning movement volumes for the traffic study intersections.

**Table 5.12-9  
Peak Hour Intersection LOS - Year 2015 No Project Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
1. State Route 78 (Neighbours Boulevard)/I-10 WB Ramps	9.0	A	9.1	A
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	8.9	A	9.2	A
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	9.3	A	9.4	A
4. State Route 78 (Neighbours Boulevard)/28th Avenue	7.0	A	7.1	A
5. State Route 78 (Rannells Boulevard)/28th Avenue	7.0	A	7.0	A
6. State Route 78/30th Avenue	0.0	A	0.0	A
7. State Route 78/34th Avenue	0.0	A	0.0	A

**Table 5.12-9  
Peak Hour Intersection LOS - Year 2015 No Project Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
8. Lovekin Boulevard/I-10 WB Ramps	10.6	B	10.0	B
9. Lovekin Boulevard/I-10 EB Ramps	8.3	A	10.5	B
10. Lovekin Boulevard/14th Avenue	8.1	A	8.1	A
11. Lovekin Boulevard/16th Avenue	7.4	A	7.3	A

LOS = level of service

As shown in Table 5.12-9, all study intersections are forecasted to operate at LOS C or better under Year 2015 No Project conditions.

Table 5.12-10 presents peak hour intersection LOS and average vehicle delay results under Year 2015 project construction conditions. The LOS Calculation worksheets are provided in Appendix 5.12B. Figure 5.12-7 shows Year 2015 Project Construction conditions AM and PM peak-hour turning movement volumes for the traffic study intersections.

**Table 5.12-10  
Peak Hour Intersection LOS  
Year 2015 Project Construction Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
1. State Route 78 (Neighbours Boulevard)/I-10 WB Ramps	10.1	B	13.3	B
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	11.2	B	11.0	B
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	13.1	B	12.6	B
4. State Route 78 (Neighbours Boulevard)/28th Avenue	12.5	B	29.9	D
5. State Route 78 (Rannells Boulevard)/28th Avenue	34.7	D	14.4	B
6. State Route 78/30th Avenue	0.0	A	21.9	C
7. State Route 78/34th Avenue	10.9	B	12.0	B
8. Lovekin Boulevard/I-10 WB Ramps	14.4	B	6.6	A
9. Lovekin Boulevard/I-10 EB Ramps	17.4	B	9.0	A
10. Lovekin Boulevard/14th Avenue	11.9	B	12.3	B
11. Lovekin Boulevard/16th Avenue	8.8	A	11.1	B

LOS = level of service

As shown in Table 5.12-10, all study area intersections are forecast to operate at acceptable LOS D or better. The analysis results presented above was conducted using the peak month of construction traffic therefore the results shown above is representative to the peak construction months only and does not represent the full construction period where certain months have lower traffic. The study intersections are expected to return to their pre-project operating conditions and LOS upon completion of construction.

**5.12.4.3 Operations Impacts**

The project is projected to begin operations in 2016. At this time, plant operations will require approximately 150 full-time personnel. Based on the minimal operational added trips, the proposed plant operations will not substantially change the LOS of the roads and intersections in the study area. Therefore, no significant traffic impacts during project operations will occur.

**Freeway/Roadway Level of Service During Project Operations (2016)**

Table 5.12-11 presents the ADT freeway/roadway segment LOS under Year 2016 No Project conditions.

**Table 5.12-11  
Freeway/Roadway Segment LOS  
Year 2016 No Project Conditions**

Roadway	Segment	Number and Type of Lanes	2016 No Project ADT	Roadway Capacity	Percent Truck	LOS
Interstate 10	West of State Route 78	4-Lane Freeway	24,750	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	26,180	68,900	39%	C
Neighbours Boulevard	North of I-10	2-Lane Undivided	1,672	11,700	16%	C
State Route 78	South of I-10	2-Lane Undivided	2,310	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	1,760	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	1,430	16,200	25%	C
State Route 78	South of 34th Avenue	2-Lane Undivided	1,210	16,200	25%	C
Lovekin Blvd	North of I-10	4-Lane Divided	9,592	32,300	n/a	C
Lovekin Blvd	South of I-10	2-Lane Undivided	7,436	16,200	n/a	C
28th Avenue	West of Lovekin Blvd	2-lane Undivided	792	11,700	n/a	C

ADT = average daily traffic  
LOS = level of service

As shown in Table 5.12-11, all study freeway, state highway and roadway segments are forecast to continue to operate at acceptable LOS C. The above LOS remains the same as Existing and 2015 No Project Construction conditions.

Table 5.12-12 presents the ADT freeway/roadway segment LOS under Year 2016 Project Operations conditions.

**Table 5.12-12  
Freeway/Roadway Segment LOS  
Year 2016 Project Operations Conditions**

Roadway	Segment	Number and Type of Lanes	2016 + Project ADT	Roadway Capacity	Percent Truck	LOS
Interstate 10	West of State Route 78	4-Lane Freeway	24,870	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	26,360	68,900	39%	C
Neighbours Boulevard	North of I-10	2-Lane Undivided	1,672	11,700	16%	C
State Route 78	South of I-10	2-Lane Undivided	2,610	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	2,060	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	1,730	16,200	25%	C
State Route 78	South of 34th Avenue	2-Lane Undivided	1,210	16,200	25%	C
Lovekin Blvd	North of I-10	4-Lane Divided	9,592	32,300	n/a	C
Lovekin Blvd	South of I-10	2-Lane Undivided	7,436	16,200	n/a	C
28th Avenue	West of Lovekin Blvd	2-lane Undivided	792	11,700	n/a	C

ADT = average daily traffic  
LOS = level of service

As shown in Table 5.12-12, the LOS at the study area freeway/roadway segments under Year 2016 Project Operations will remain unchanged from Year 2016 No Project conditions, due to the minimal added trips associated with Year 2016 Project Operations. There will be negligible to minimal freeway added trips as the small operational workforce, are anticipated to commute through local roadways.

Based on these findings, no significant traffic impacts will occur at traffic study area freeway/roadway segments during project operations.

***Intersection Level of Service During Project Operations (2016)***

Table 5.12-13 presents the peak-hour intersection LOS and average vehicle delay under Year 2016 No Project conditions. The LOS calculation worksheets are provided in Appendix 5.12B. Figure 5.12-8 shows Year 2016 No Project conditions AM and PM peak-hour turning movement volumes for the traffic study intersections.

**Table 5.12-13  
Peak Hour Intersection LOS - Year 2016 No Project Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
1. State Route 78 (Neighbours Boulevard)/I-10 WB Ramps	9.0	A	9.1	A
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	9.0	A	9.2	A
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	9.3	A	9.4	A
4. State Route 78 (Neighbours Boulevard)/28th Avenue	6.9	A	7.1	A
5. State Route 78 (Rannells Boulevard)/28th Avenue	7.0	A	7.0	A
6. State Route 78/30th Avenue	0.0	A	0.0	A
7. State Route 78/34th Avenue	0.0	A	0.0	A
8. Lovekin Boulevard/I-10 WB Ramps	10.6	B	10.1	B
9. Lovekin Boulevard/I-10 EB Ramps	8.4	A	10.5	B
10. Lovekin Boulevard/14th Avenue	8.1	A	8.1	A
11. Lovekin Boulevard/16th Avenue	7.4	A	7.3	A

ADT = average daily traffic

LOS = level of service

Table 5.12-14 presents the peak-hour intersection LOS and average vehicle delay results under Year 2016 Project Operations conditions. The LOS calculation worksheets are provided in Appendix 5.12B. Figure 5.12-9 shows Year 2016 Project Operations AM and PM peak-hour turning movement volumes for the traffic study intersections.

**Table 5.12-14  
Peak Hour Intersection LOS - Year 2016 Project Operations Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
1. State Route 78 (Neighbours Boulevard)/I-10 WB Ramps	9.5	A	9.9	A
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	9.4	A	9.7	A
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	10.4	B	10.4	B
4. State Route 78 (Neighbours Boulevard)/28th Avenue	7.2	A	8.0	A
5. State Route 78 (Rannells Boulevard)/28th Avenue	8.0	A	7.2	A
6. State Route 78/30th Avenue	0.0	A	0.0	A
7. State Route 78/34th Avenue	0.0	A	9.7	A

**Table 5.12-14**  
**Peak Hour Intersection LOS - Year 2016 Project Operations Conditions**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	Average Delay (sec)	LOS	Average Delay (sec)	LOS
8. Lovekin Boulevard/I-10 WB Ramps	10.6	B	10.1	B
9. Lovekin Boulevard/I-10 EB Ramps	8.4	A	10.5	B
10. Lovekin Boulevard/14th Avenue	8.1	A	8.1	A
11. Lovekin Boulevard/16th Avenue	7.4	A	7.3	A

Notes:

ADT = average daily traffic

LOS = level of service

As shown in Table 5.12-14, the traffic study intersections LOS under Year 2016 Project Operations conditions will remain at acceptable levels from Year 2016 No Project conditions. All intersections will continue operate at acceptable LOS B or better. Due to the minimal added trips associated with Year 2016 Project Operations, there will be a minimal increase in intersection delay. The incremental delay changes will not cause a change in LOS at any of the study intersections with the exception to the intersection of State Route 78 and 22nd Avenue which change from LOS A to LOS B during the PM peak hour.

Based on these findings, no significant traffic impacts will occur at the traffic study area intersections during project operations.

#### **5.12.4.4 Hazardous Materials Transport**

Construction of the project would generate hazardous wastes consisting primarily of diesel fuel, oil, and lubricants, and compressed gases. The construction contractor will be responsible for verifying that the use, storage, and handling of these materials are in compliance with applicable federal, state, and local LORS, including licensing, personnel training, accumulation limits, reporting requirements, and recordkeeping. A HMBP that outlines hazardous materials handling, storage, spill response, and reporting procedures will be prepared prior to initiation of construction activities. Project operations will require regular transportation of hazardous materials to the Rio Mesa SEGF site. Transportation of hazardous materials will comply with all Caltrans, EPA, DTSC, CHP, and California State Fire Marshal regulations. Consistent with the project construction truck delivery trip patterns, incoming operational hazardous material truck deliveries originating from I-10 will head south on State Route 78, then head west via the preferred site access at 34th Avenue to the project site. Please refer to Figure 5.12-2 for details on project access routes. All loaded hazardous materials trucks and empty delivery trucks leaving the site will head north on State Route 78 toward the I-10 interchange. Additional details regarding hazardous materials can be found in Section 5.05.

**5.12.4.5 Waste Management**

Existing non-hazardous solid waste disposal facilities in the area near the project site are listed in Section 5.14. These landfills accept non-hazardous wastes and inert solid wastes, including C&D wastes. These landfills do not accept liquid wastes. Industrial process solid waste is accepted on a case-by-case basis.

Several soil treatment and soil recycling facilities in California accept hydrocarbon-impacted soil that is classified by the generator as a non-hazardous waste pursuant to the RCRA and the CCR Title 22. The individual facilities establish the acceptable levels for treatment or recycling.

Hazardous waste generated at the project site will be transported off site for recycling or disposal by a permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility or Class I landfill. Two active Class I landfills are in California: Clean Harbors' Buttonwillow Landfill in Kern County and Chemical Waste Management's Kettleman Hills Landfill in Kings County. While the Clean Harbors Westmoreland Landfill is not currently active, the facility is in reserve and could be reopened if needed. Hazardous waste generated during construction and operational phases at the project site is not expected to significantly impact already available landfill capacity.

**5.12.5 Cumulative Effects**

Reasonably foreseeable future projects are not expected to increase vehicle trips on segments of any facilities used by the Project, with the exception of I-10. Reasonably foreseeable future projects will add vehicle trips to I-10 temporarily during their construction periods and during long-term operations.

With the temporary increase in vehicle trips during construction of the Project, I-10 will remain at LOS C. However, increased vehicle trips associated with the potential overlap of construction schedules for the Blythe Solar Power Project (BSPP), the Palen Solar Power Project (PSPP), the Genesis Solar Energy Project (GSEP), and the Desert Sunlight Solar Farm (DSSF) could increase or compound the incremental effects of the Project on east- and west-bound segments of I-10, thus causing LOS to potentially decrease to LOS E or LOS F on a temporary basis during Project construction. However, the incremental effects of construction vehicle trips will not be cumulatively considerable because the Project will stagger worker shifts during construction so that some workers depart the site between 2:00 PM and 4:00 PM, which is outside the evening peak period of 4:00 PM to 6:00 PM. In addition, the other reasonably foreseeable future projects are anticipated to implement measures to reduce their traffic impacts. As a result, the temporary incremental traffic impacts of Project construction will be less than cumulatively considerable. Temporary cumulative traffic impacts will be less than significant. Temporary but adverse cumulative impacts to on- and off-ramps along I-10 are not anticipated to occur because ramps utilized by Project construction vehicle trips are not anticipated to be utilized by construction vehicle trips generated by other reasonably foreseeable future projects.

Operations will require approximately 150 full-time employees. As a result, operational vehicle trips added to freeways, highways, and roadways including I-10 will be minimal. Operations under the Project will not adversely affect LOS for any freeway, highway, roadway, or intersection. Direct traffic impacts during Project operations will be less than significant. Similar to the Project, operational vehicle trips will be minimal for each of the reasonably foreseeable projects, although some trips will occur along east- and west-bound segments of I-10. When considered together with the operational vehicle trips of the

reasonably foreseeable projects, the incremental traffic effects of Project operations will not adversely affect LOS for east- or west-bound I-10. As a result, operational incremental traffic impacts of the Project will not be cumulatively considerable. Long-term cumulative traffic impacts will be less than significant. Moreover, adverse cumulative impacts to on- and off-ramps along I-10 are not anticipated to occur during operations because ramps utilized by Project operational vehicle trips are not anticipated to be utilized by operational vehicle trips generated by other reasonably foreseeable future projects.

### **5.12.6 Mitigation Measures**

During project construction, no study roadway segments or intersections will be significantly impacted by the project. Some study intersections will experience short-term increases in traffic during the peak construction period. The study roadways and intersections will return to pre-project operating conditions upon completion of project construction.

During project operations, no study roadway segments or intersections will be significantly impacted by the project. The eastbound approach at the intersection of State Route 78 and 34th Avenue will be improved to include a stop sign as part of the project, as it is the primary entrance to the project site.

The following proposed mitigation measures are offered pro-actively to address Project-related traffic contribution to the roadway network.

#### **5.12.6.1 TRAFFIC-1, Stop Sign.**

The project proponent will provide a stop sign at the eastbound approach at the intersection of State Route 78 and 34th Avenue. The project owner will also pave 34th Avenue between the project site and State Route 78, and will maintain the existing intersection geometry of a shared left-through-right lane at the eastbound approach.

#### **5.12.6.2 TRAFFIC-2, Traffic Control Measures.**

The project proponent will develop and implement a standard traffic and monitoring control plan consistent with the size and scope of the project construction activity designed to minimize impact to traffic flow.

Proposed measures where applicable, include but are not limited to the following:

- Use proper signs and traffic control measures in accordance with Caltrans and Riverside County requirements. All traffic signs, equipment, and control measures shall conform to the provisions specified in the Caltrans Manual of Uniform Traffic Control Device. Specific jurisdictional requirements will be identified during the plan review and approval process.
- Schedule traffic lane or road closures during off-peak hours whenever possible (e.g., during construction at canal crossings, culverts or any project activity that may encroach in the traveled way).
- Employ cut and cover techniques during the excavation/trenching operations for utilities to minimize roadway delays.

- Limit vehicular traffic to designated access roads, construction laydown and worker parking areas, and the project construction site.
- Provide orientation and briefing to employees and contractors on the desired construction route.
- Encourage worker carpooling to minimize drive-alone worker trips.

**5.12.7 Involved Agencies and Agency Contacts**

The project lies in proximity to roadways under the operational jurisdiction of Caltrans, in an unincorporated area of Riverside County. The relevant agencies and appropriate contacts are shown in Table 5.12-15 below.

**Table 5.12-15  
Agency Contacts**

Issue	Agency/Address	Contact/Title	Telephone
Navigable Airspace	Federal Aviation Administration Western-Pacific Region P.O. Box 92007 Los Angeles, CA 90009	Karen McDonald	(310) 725-6557
Caltrans Traffic Operations	California Department of Transportation, District 8 464 West 4th Street San Bernardino CA 92401	Zyed Raza, Deputy District Director	(909) 383-5979 (909) 383-4138 fax
Caltrans Transportation Improvements	California Department of Transportation, District 8 464 West 4th Street San Bernardino CA 92401	Shelli Lombardo, Public Information Officer	909-383-6290 909-383-1009 (fax)
Caltrans Transportation Permits	Southern Region Transportation Permits California Department of Transportation District 8 464 West 4th St., MS 618 San Bernardino, CA 92401	Moe Bhuyian, MS, PE Regional Manager	(909) 553-8402
State Highways/Hazardous Materials Transport	California Highway Patrol 430 South Broadway Blythe, CA 92225	Officer Drew Tulin, Public Information Officer	(760) 922-6141

**Table 5.12-15  
Agency Contacts**

Issue	Agency/Address	Contact/Title	Telephone
Regional Congestion Management Program Compliance	Riverside County Transportation Commission (RCTC) 4080 Lemon Street, 3rd Floor Mailing Address: P. O. Box 12008 Riverside, CA 92502-2208	Shirley Gooding	(951) 787-7141
Application for Certification	California Energy Commission 1516 Ninth Street Sacramento, CA 95814	Pierre Martinez	(916) 651-3765
Right-of-Way Grant	Bureau of Land Management 22835 Calle San Juan de Los Lagos Moreno Valley, CA 92553-9046	Cedric Perry	(951) 697-5200
Riverside County Circulation Plan, Traffic Analysis Guideline, Future Growth Projections, County Transportation Improvements	County of Riverside Transportation Department County Administrative Center 4080 Lemon Street, 8th Floor P.O. Box 1090 Riverside, CA 92502	Lawrence Tai, County Traffic Engineer; Herman Basmaciyian, Traffic Engineer; Farah Khorashadi, Group Manager; Kevin Tsang, Engineer	(951) 955-6828
Hazardous Materials Transport	Federal Motor Carrier Safety Administration 980 – 9th Street, Suite 450 Sacramento, CA 95814	Glenn Beck, Operations Supervisor	(916) 498-5050

Caltrans = California Department of Transportation  
CDCA Plan = California Desert Conservation Area Plan

**5.12.8 Permits Required and Permit Schedule**

The relevant permits required for traffic related construction or operational work activities are identified in Table 5.12-16.

**Table 5.12-16  
Permits**

Responsible Agency	Permit/Approval	Schedule
Riverside County	Encroachment permits will be required to conduct construction activities such as trenching and pipe laying across or parallel (within right of way) to County and other local jurisdictional roadways.	Permits will be processed and approved prior to construction
California Department of Transportation	Encroachment permits will be required for any project related construction activity within Caltrans District 8 right-of-way.	Permits will be processed and approved prior to construction
California Department of Transportation	Oversize, overweight extra-legal loads will require permits from Caltrans District 8, County of Riverside and affected local jurisdictions.	Prior to construction
Riverside County		Prior to construction

**5.12.9 References**

Caltrans, 1999. California Department of Transportation Route Concept Report State Route 78, available at [http://www.dot.ca.gov/hq/tpp/corridor-mobility/D8\\_docs/TCRs/State Route 78.pdf](http://www.dot.ca.gov/hq/tpp/corridor-mobility/D8_docs/TCRs/State%20Route%2078.pdf)

Caltrans, 2009. 2009 Traffic Volumes on the California State Highway System, available at <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata>.

County of Riverside, 2003. *General Plan Circulation Element*.

National Research Council, Transportation Research Board, 2000. *Highway Capacity Manual 2000*.

Riverside County Transportation Commission, 2010. *Congestion Management Program for Riverside County*.

Riverside County Transportation Department, 2008. *Traffic Impact Analysis Preparation Guide*.

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate \_\_\_\_\_  
 Technical Area: Traffic and Transportation  
 Project Manager: \_\_\_\_\_

**DATA ADEQUACY WORKSHEET**

Revision No. \_\_\_\_\_ Date \_\_\_\_\_  
 Technical Staff: \_\_\_\_\_  
 Technical Senior: \_\_\_\_\_

Project: \_\_\_\_\_  
 Docket: \_\_\_\_\_

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.12.3.2, Pages 5.12-12 to 5.12-18; Section 5.12.4, Pages 5.12-18 to 5.12-21; Section 5.12.6, Pages 5.12-31 to 5.12-32		
Appendix B (g) (5) (A)	A regional transportation setting, on topographic maps (scale of 1:250,000), identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.	Figure 5.12-1 Page 5.12-9		
Appendix B (g) (5) (B)	If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.	Figure 5.12-2 Page 5.12-2		

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate \_\_\_\_\_  
 Technical Area: **Traffic and Transportation**  
 Project Manager: \_\_\_\_\_

**DATA ADEQUACY WORKSHEET**

Revision No. \_\_\_\_\_ Date \_\_\_\_\_  
 Technical Staff: \_\_\_\_\_  
 Technical Senior: \_\_\_\_\_

Project: \_\_\_\_\_  
 Docket: \_\_\_\_\_

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (C)	An identification, on topographic maps at a scale of 1:24,000, and a description of existing and planned roads, rail lines, (including light rail), bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:	Figure 5.12-2 Page 5.12-2		
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	Section 5.12.3.1 Pages 5.12-10 to 5.12-12; Section 5.12.3.2 Pages 5.12-12 to 5.12-18  Table 5.12-3 Table 5.12-4		
Appendix B (g) (5) (C) (ii)	Current daily average and peak traffic counts;	Table 5.12-5		
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	Section 5.12.3.2 Pages 5.12-12 to 5.12-18 Table 5.12-4 Table 5.12-5  Section 5.12.4.2 Pages 5.12-21 to 5.12-27 Table 5.12-7 Table 5.12-8 Table 5.12-9 Table 5.12-10  Section 5.12.4.3 Pages 5.12-27 to 5.12-30 Table 5.12-11 Table 5.12-12 Table 5.12-13 Table 5.12-14		

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate \_\_\_\_\_  
 Technical Area: **Traffic and Transportation**  
 Project Manager: \_\_\_\_\_

**DATA ADEQUACY WORKSHEET**

Revision No. \_\_\_\_\_ Date \_\_\_\_\_  
 Technical Staff: \_\_\_\_\_  
 Technical Senior: \_\_\_\_\_

Project: \_\_\_\_\_  
 Docket: \_\_\_\_\_

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	Section 5.12.2 Pages 5.12-2 to 5.12-10 Table 5.12-1 Section 5.12.3.2 Page 5.12-12 to 15.12-18		
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	Table 5.12-4		
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	Section 5.12.3.2 Pages 5.12-12 to 5.12-18		
Appendix B (g) (5) (D)	An assessment of the construction and operation impacts of the proposed project on the transportation facilities identified in subsection (g)(5)(C). Also include anticipated project-specific traffic, estimated changes to daily average and peak traffic counts, levels of service, and traffic/truck mix, and the impact of construction of any facilities identified in subsection (g)(5)(C).	Section 5.12.4.2 Pages 5.12-21 to 5.12-27  Table 5.12-7 Table 5.12-8 Table 5.12-9 Table 5.12-10  Section 5.12.4.3 Pages 5.12-27 to 5.12-30 Table 5.12-11 Table 5.12-12 Table 5.12-13 Table 5.12-14		
Appendix B (g) (5) (E)	A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.	Section 5.12.4.4 Page 5.12-30 Section 5.12.4.5 Page 5.12-31		

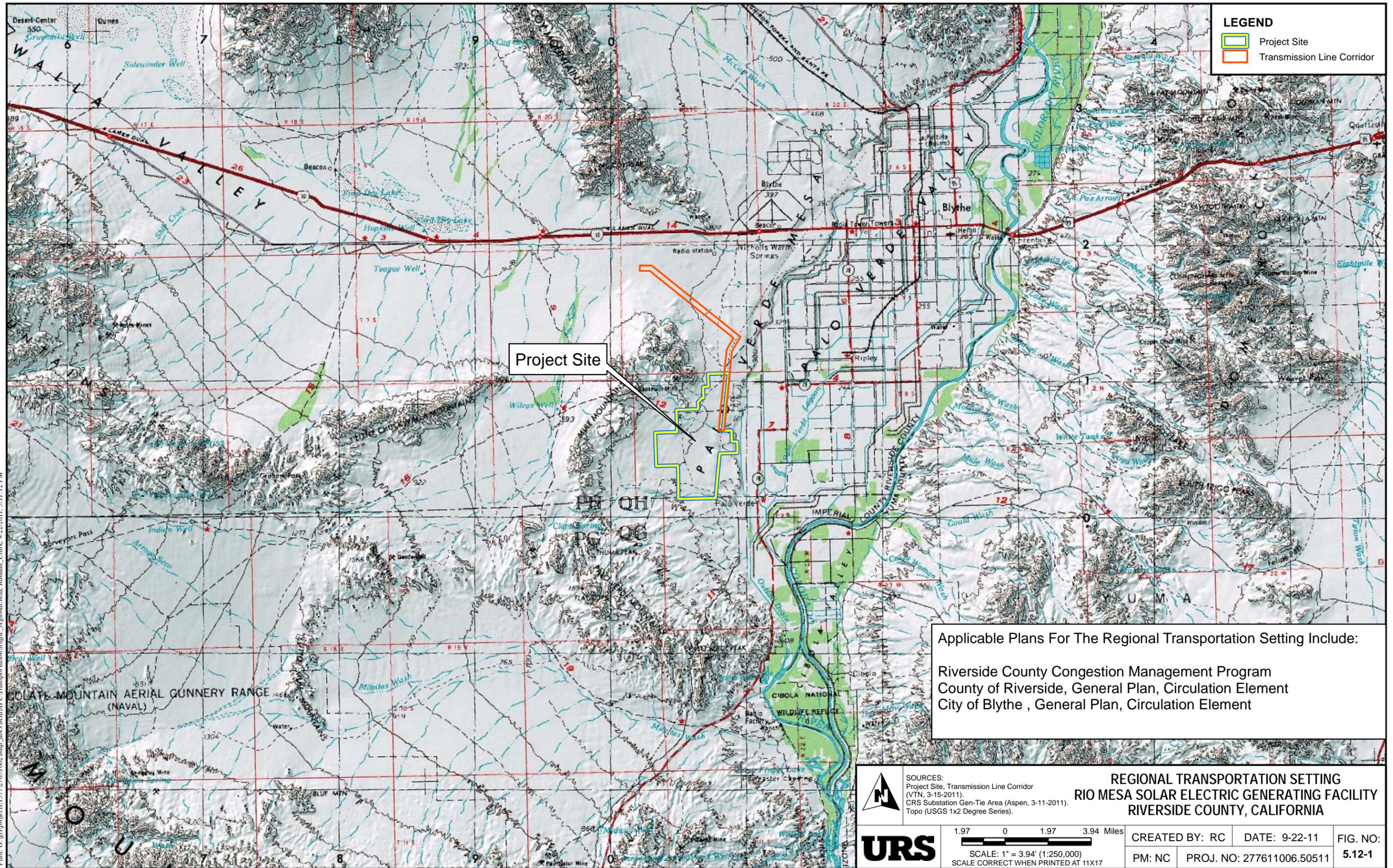
Adequacy Issue: Adequate \_\_\_\_\_ Inadequate \_\_\_\_\_  
 Technical Area: **Traffic and Transportation**  
 Project Manager: \_\_\_\_\_

**DATA ADEQUACY WORKSHEET**

Revision No. \_\_\_\_\_ Date \_\_\_\_\_  
 Technical Staff: \_\_\_\_\_  
 Technical Senior: \_\_\_\_\_

Project: \_\_\_\_\_  
 Docket: \_\_\_\_\_

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.12-1		
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.12-15		
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.12-15		
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 5.12-16		



**LEGEND**

- Project Site
- Transmission Line Corridor

Project Site

Applicable Plans For The Regional Transportation Setting Include:

- Riverside County Congestion Management Program
- County of Riverside, General Plan, Circulation Element
- City of Blythe, General Plan, Circulation Element



SOURCES:  
 Project Site, Transmission Line Corridor  
 (VTN, 3-15-2011).  
 CRS Substation Gen-Tie Area (Aspen, 3-11-2011).  
 Topo (USGS 1x2 Degree Series).

**REGIONAL TRANSPORTATION SETTING  
 RIO MESA SOLAR ELECTRIC GENERATING FACILITY  
 RIVERSIDE COUNTY, CALIFORNIA**

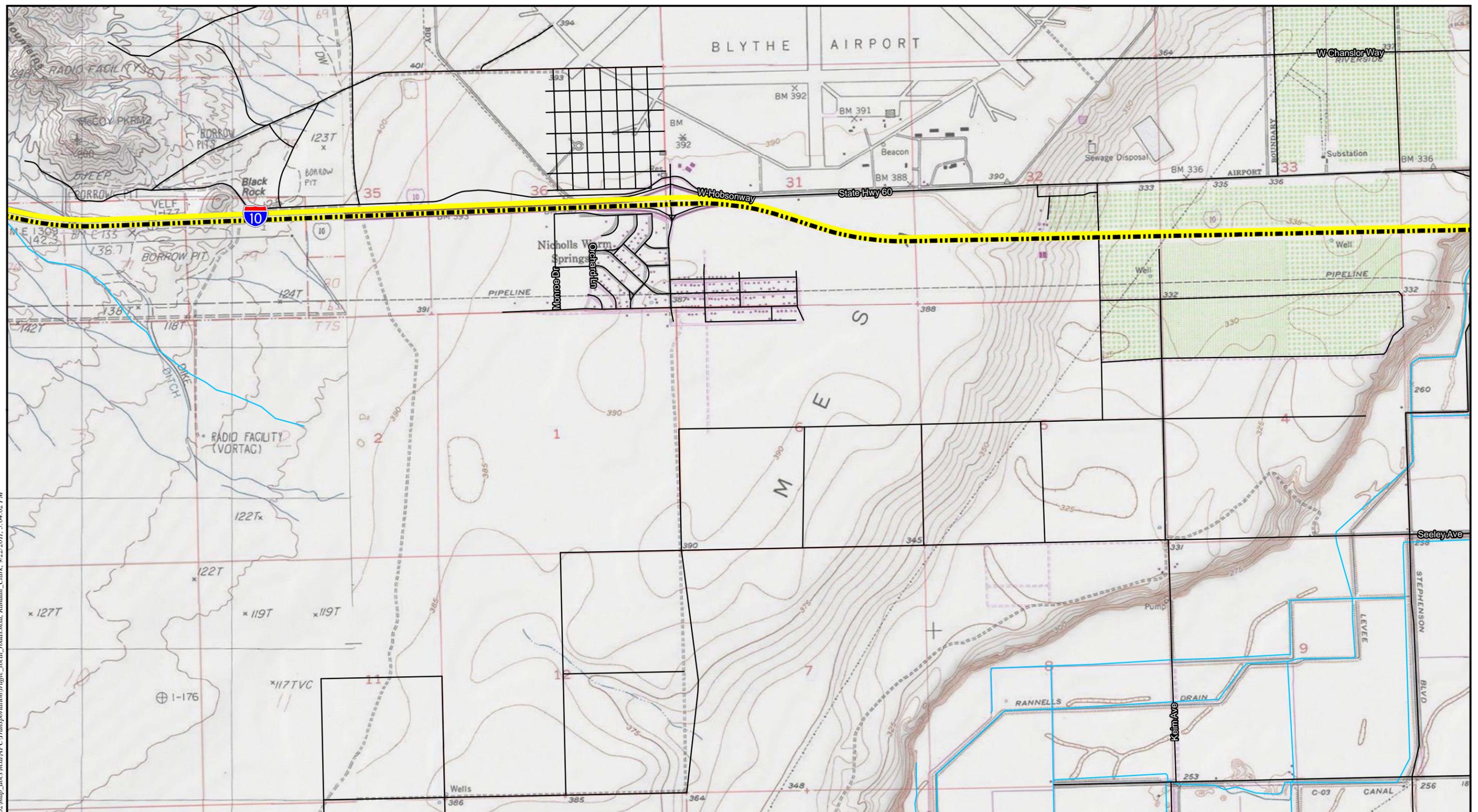


1.97 0 1.97 3.94 Miles  
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 SCALE CORRECT WHEN PRINTED AT 11X17

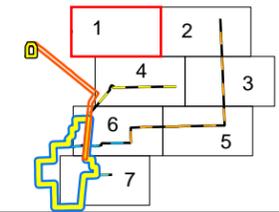
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PM: NC	PROJ. NO: 277611006.50511	5.12-1

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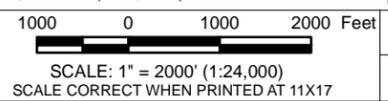
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- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>■■■■ Local Access Route</li> <li><b>Project Access Routes</b></li> <li>■ 34th Avenue (Preferred)</li> <li>■ 22nd Avenue via State Route 78 (Alternate)</li> <li>■ Bradshaw Trail via 30th Avenue (Alternate)</li> <li>■ Access via Lovekin Boulevard to 28th</li> </ul> | <ul style="list-style-type: none"> <li>■ Interstate 10</li> <li>■ State Route 78</li> <li><b>Bike Route</b></li> <li>■ Class I Bike Path</li> <li>■ Class II Bike Lane</li> </ul> | <ul style="list-style-type: none"> <li>— River</li> <li>— Railroad</li> <li>■ Project Site</li> <li>■ Transmission Line Corridor</li> <li>■ Private Land Owned by MWD (approx. 6,741 ac.)</li> </ul> |
|--|---|--|



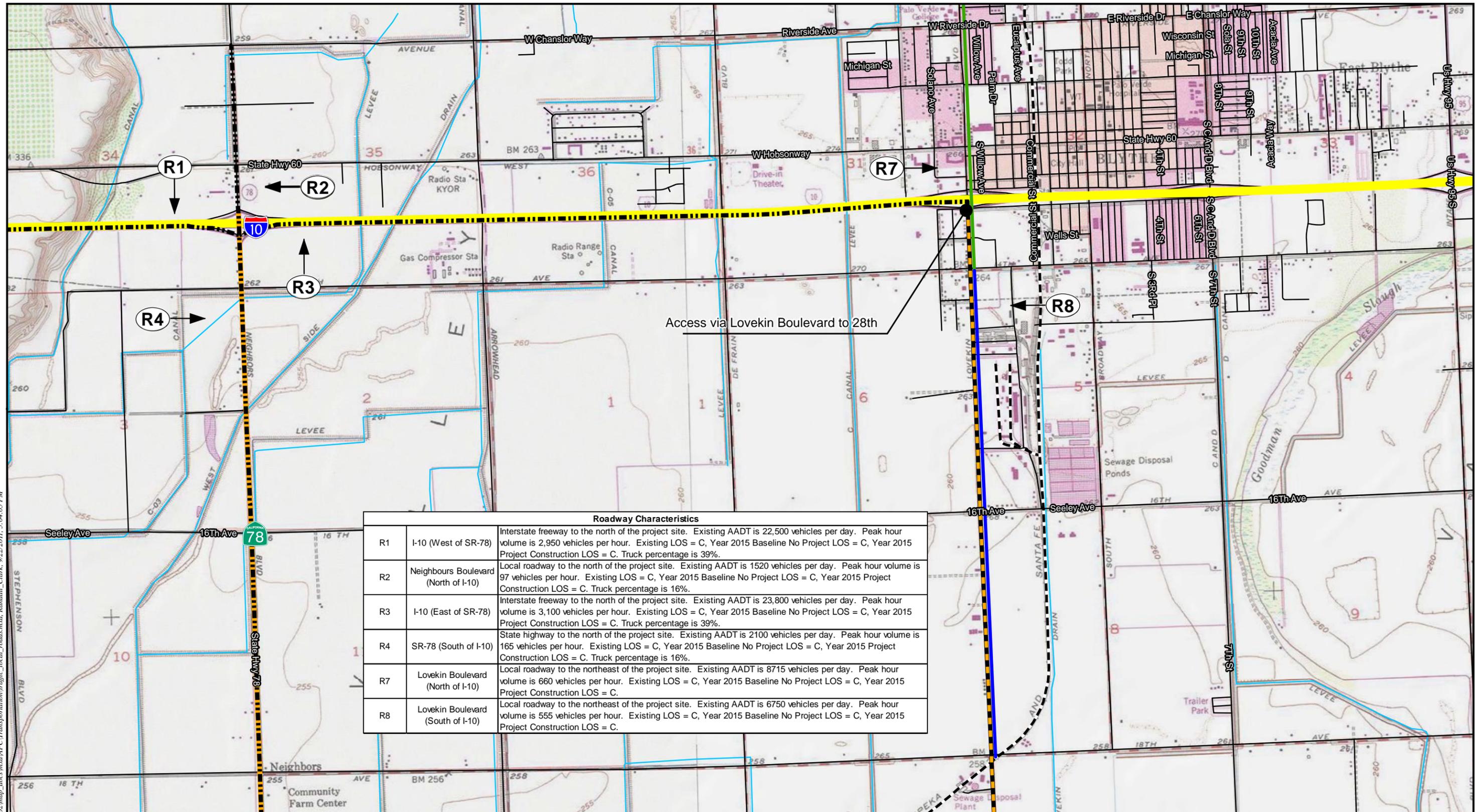
SOURCES:  
 Project Site, Transmission Line Corridor (VTN, 3-15-2011).  
 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).



**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

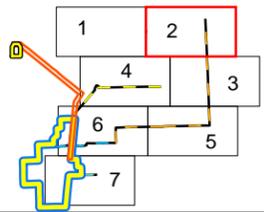
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Roadway Characteristics		
R1	I-10 (West of SR-78)	Interstate freeway to the north of the project site. Existing AADT is 22,500 vehicles per day. Peak hour volume is 2,950 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C. Truck percentage is 39%.
R2	Neighbours Boulevard (North of I-10)	Local roadway to the north of the project site. Existing AADT is 1520 vehicles per day. Peak hour volume is 97 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C. Truck percentage is 16%.
R3	I-10 (East of SR-78)	Interstate freeway to the north of the project site. Existing AADT is 23,800 vehicles per day. Peak hour volume is 3,100 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C. Truck percentage is 39%.
R4	SR-78 (South of I-10)	State highway to the north of the project site. Existing AADT is 2100 vehicles per day. Peak hour volume is 165 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C. Truck percentage is 16%.
R7	Lovekin Boulevard (North of I-10)	Local roadway to the northeast of the project site. Existing AADT is 8715 vehicles per day. Peak hour volume is 660 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C.
R8	Lovekin Boulevard (South of I-10)	Local roadway to the northeast of the project site. Existing AADT is 6750 vehicles per day. Peak hour volume is 555 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C.

- Local Access Route
- Project Access Routes**
- 34th Avenue (Preferred)
- 22nd Avenue via State Route 78 (Alternate)
- Bradshaw Trail via 30th Avenue (Alternate)
- Access via Lovekin Boulevard to 28th
- Interstate 10
- State Route 78
- Bike Route**
- Class I Bike Path
- Class II Bike Lane
- River
- Railroad
- Project Site
- Transmission Line Corridor
- Private Land Owned by MWD (approx. 6,741 ac.)



**URS**

SOURCES:  
 Project Site, Transmission Line Corridor (VTN, 3-15-2011).  
 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).

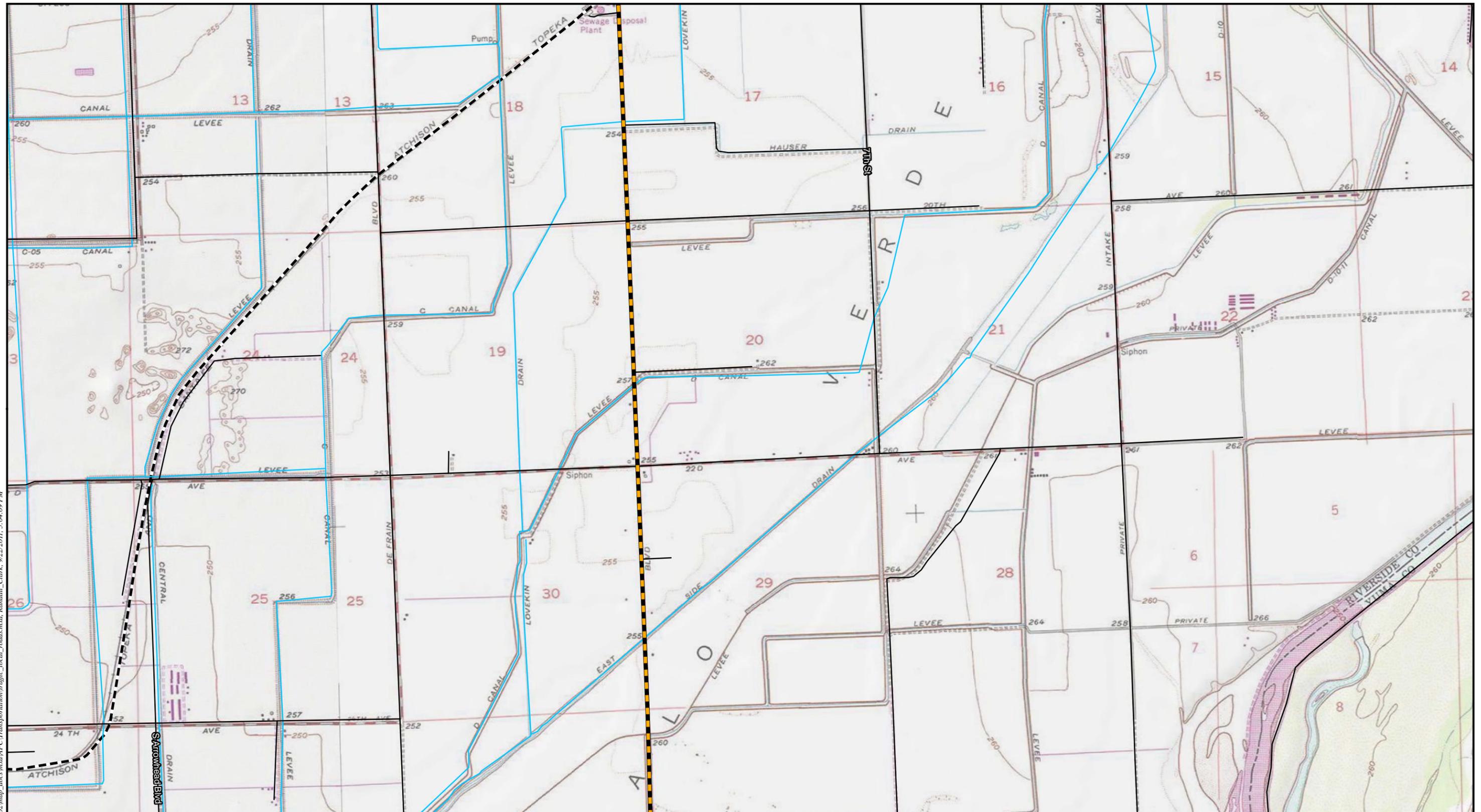
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 SCALE CORRECT WHEN PRINTED AT 11X17

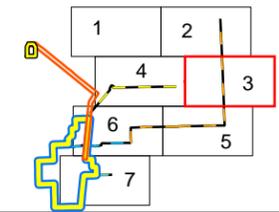
**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

CREATED BY: RC	DATE: 9-22-11	FIG. NO: 5.12-2.2
PM: NC	PROJ. NO: 27651006.50511	

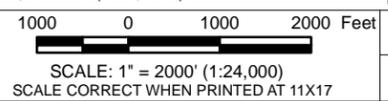
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- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>■■■■ Local Access Route</li> <li><b>Project Access Routes</b></li> <li>▬ 34th Avenue (Preferred)</li> <li>▬ 22nd Avenue via State Route 78 (Alternate)</li> <li>▬ Bradshaw Trail via 30th Avenue (Alternate)</li> <li>▬ Access via Lovekin Boulevard to 28th</li> </ul> | <ul style="list-style-type: none"> <li>▬ Interstate 10</li> <li>▬ State Route 78</li> <li><b>Bike Route</b></li> <li>▬ Class I Bike Path</li> <li>▬ Class II Bike Lane</li> </ul> | <ul style="list-style-type: none"> <li>▬ River</li> <li>▬ Railroad</li> <li>▬ Project Site</li> <li>▬ Transmission Line Corridor</li> <li>▬ Private Land Owned by MWD (approx. 6,741 ac.)</li> </ul> |
|--|---|--|



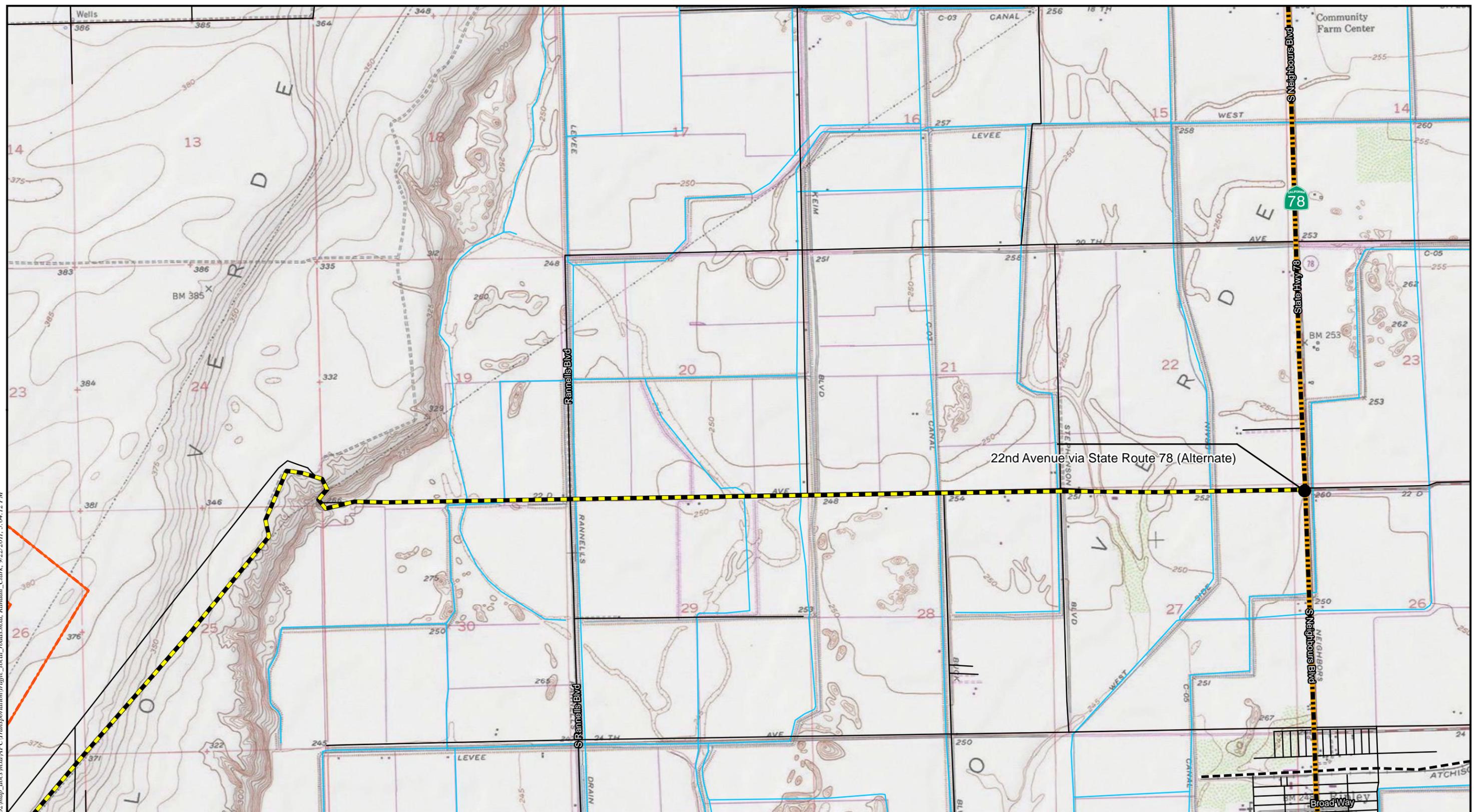
**SOURCES:**  
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 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).



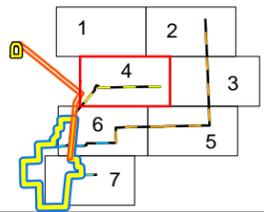
**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

CREATED BY: RC	DATE: 9-22-11	FIG. NO: 5.12-2.3
PM: NC	PROJ. NO: 27651006.50511	

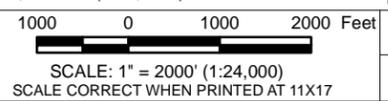
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- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>■■■■ Local Access Route</li> <li><b>Project Access Routes</b></li> <li>■ 34th Avenue (Preferred)</li> <li>■ 22nd Avenue via State Route 78 (Alternate)</li> <li>■ Bradshaw Trail via 30th Avenue (Alternate)</li> <li>■ Access via Lovekin Boulevard to 28th</li> </ul> | <ul style="list-style-type: none"> <li>■ Interstate 10</li> <li>■ State Route 78</li> <li><b>Bike Route</b></li> <li>■ Class I Bike Path</li> <li>■ Class II Bike Lane</li> </ul> | <ul style="list-style-type: none"> <li>— River</li> <li>— Railroad</li> <li>■ Project Site</li> <li>■ Transmission Line Corridor</li> <li>■ Private Land Owned by MWD (approx. 6,741 ac.)</li> </ul> |
|--|---|--|



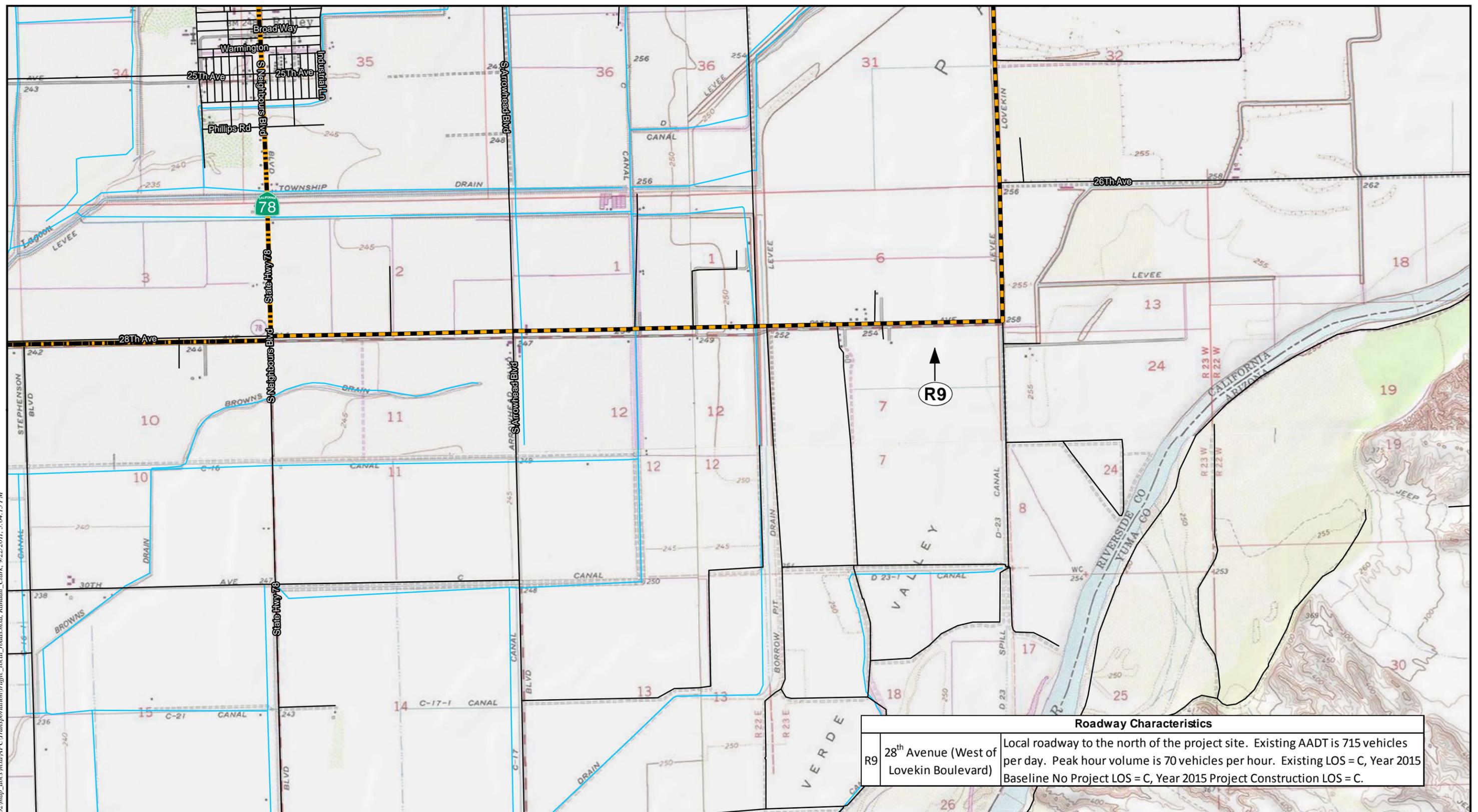
SOURCES:  
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 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).



**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

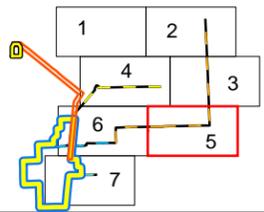
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Roadway Characteristics		
R9	28 <sup>th</sup> Avenue (West of Lovekin Boulevard)	Local roadway to the north of the project site. Existing AADT is 715 vehicles per day. Peak hour volume is 70 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C.

- Local Access Route
- Interstate 10
- State Route 78
- River
- Railroad
- Project Site
- Transmission Line Corridor
- Private Land Owned by MWD (approx. 6,741 ac.)
- 34th Avenue (Preferred)
- Bike Route
- Class I Bike Path
- Class II Bike Lane
- 22nd Avenue via State Route 78 (Alternate)
- Bradshaw Trail via 30th Avenue (Alternate)
- Access via Lovekin Boulevard to 28th



SOURCES:  
 Project Site, Transmission Line Corridor (VTN, 3-15-2011).  
 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).

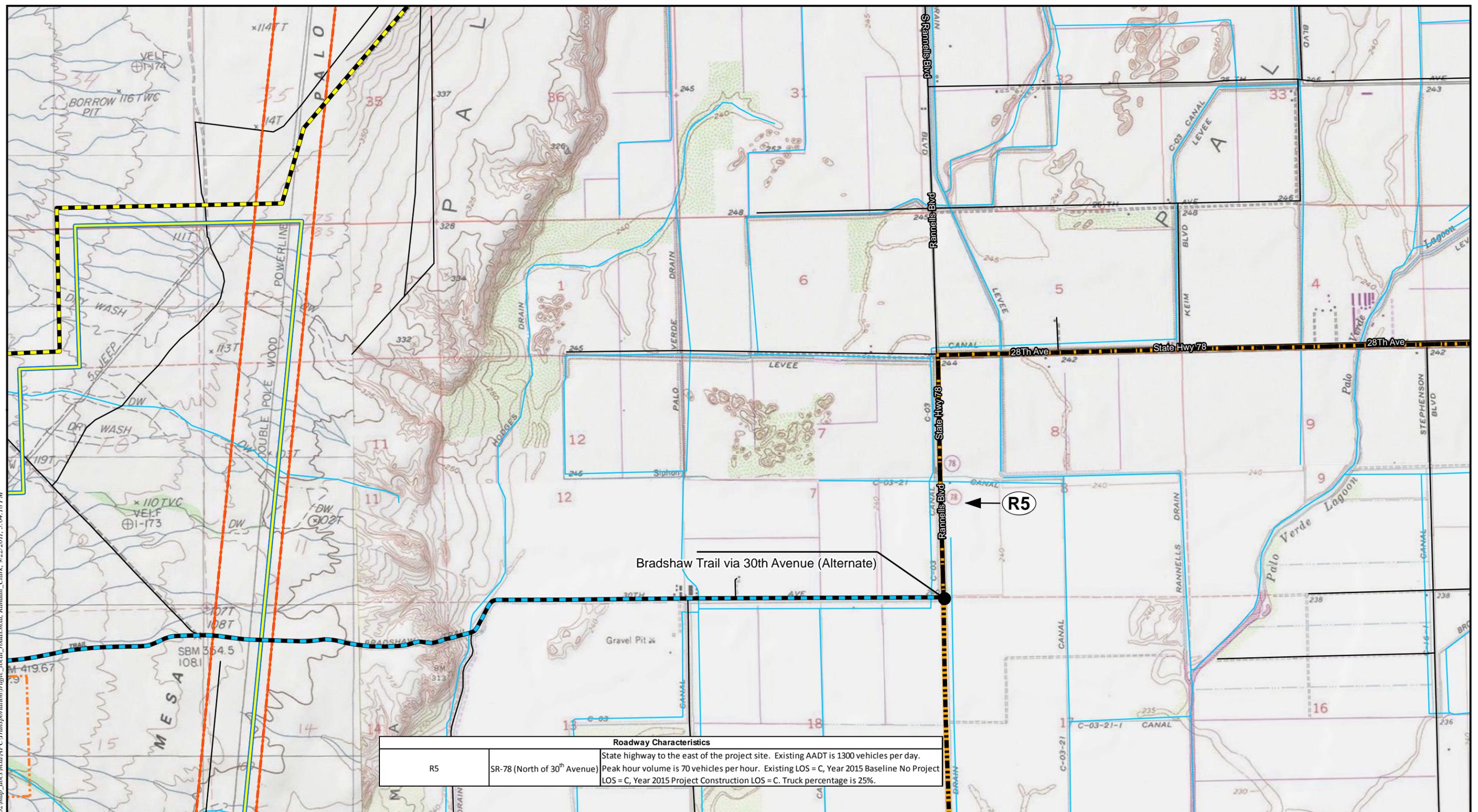


1000 0 1000 2000 Feet  
 SCALE: 1" = 2000' (1:24,000)  
 SCALE CORRECT WHEN PRINTED AT 11X17

**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

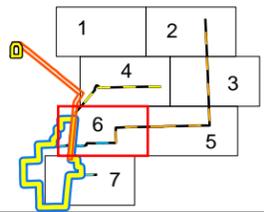
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Roadway Characteristics		
R5	SR-78 (North of 30 <sup>th</sup> Avenue)	State highway to the east of the project site. Existing AADT is 1300 vehicles per day. Peak hour volume is 70 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C. Truck percentage is 25%.

- Local Access Route
  - Interstate 10
  - State Route 78
  - Railroad
  - Project Site
  - Transmission Line Corridor
  - Private Land Owned by MWD (approx. 6,741 ac.)
- 
- 34th Avenue (Preferred)
  - Bike Route
  - Class I Bike Path
  - Class II Bike Lane



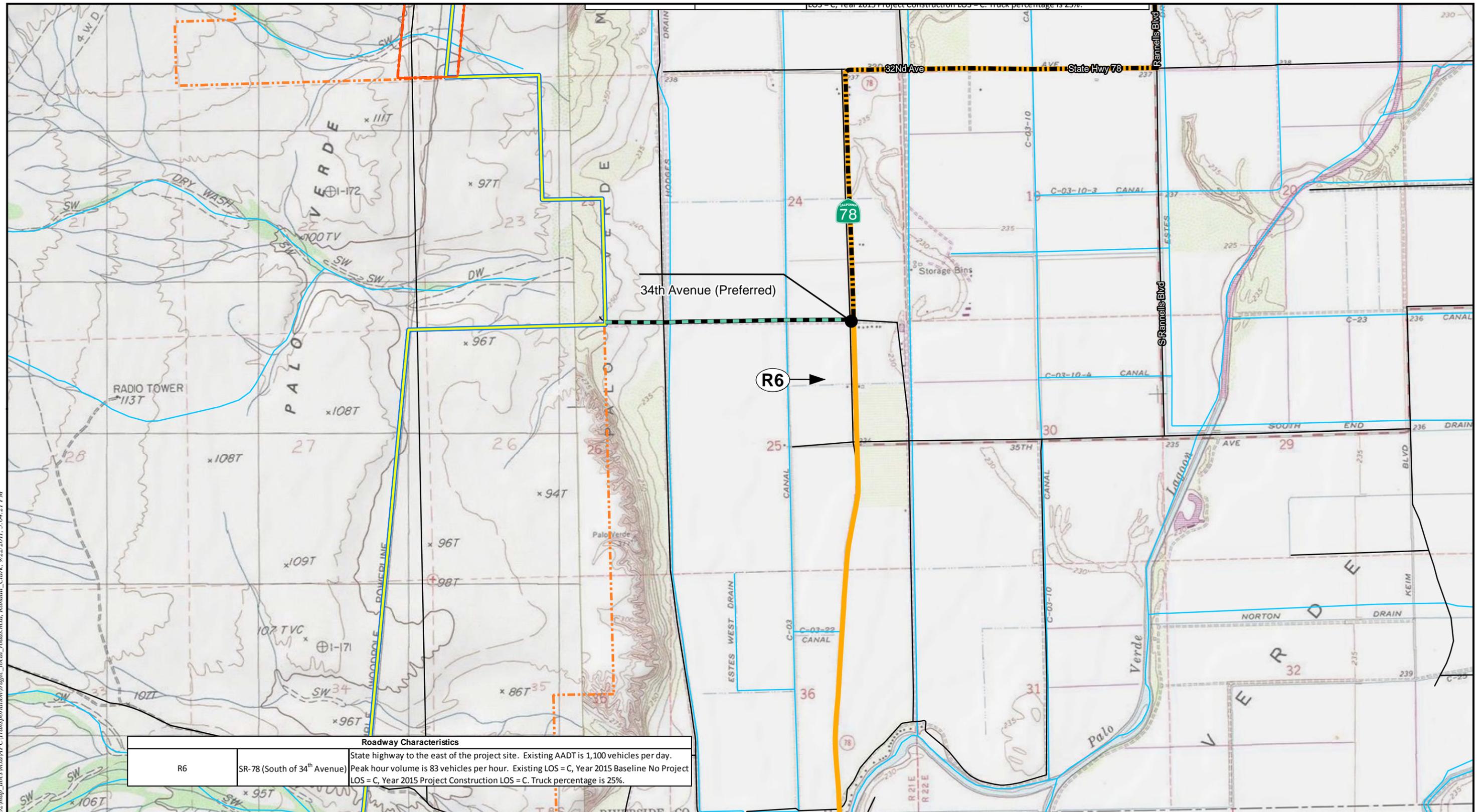
SOURCES:  
 Project Site, Transmission Line Corridor (VTN, 3-15-2011).  
 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).

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 SCALE: 1" = 2000' (1:24,000)  
 SCALE CORRECT WHEN PRINTED AT 11X17

**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

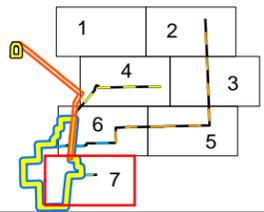
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Roadway Characteristics		
R6	SR-78 (South of 34 <sup>th</sup> Avenue)	State highway to the east of the project site. Existing AADT is 1,100 vehicles per day. Peak hour volume is 83 vehicles per hour. Existing LOS = C, Year 2015 Baseline No Project LOS = C, Year 2015 Project Construction LOS = C. Truck percentage is 25%.

- Local Access Route
- Project Access Routes
- 34th Avenue (Preferred)
- 22nd Avenue via State Route 78 (Alternate)
- Bradshaw Trail via 30th Avenue (Alternate)
- Access via Lovekin Boulevard to 28th
- Interstate 10
- State Route 78
- Bike Route
- Class I Bike Path
- Class II Bike Lane
- River
- Railroad
- Project Site
- Transmission Line Corridor
- Private Land Owned by MWD (approx. 6,741 ac.)



SOURCES:  
 Project Site, Transmission Line Corridor (VTN, 3-15-2011).  
 Topo (USGS 7.5 Minute Series).  
 Streets, Rivers, Railroads (ESRI, 2011).

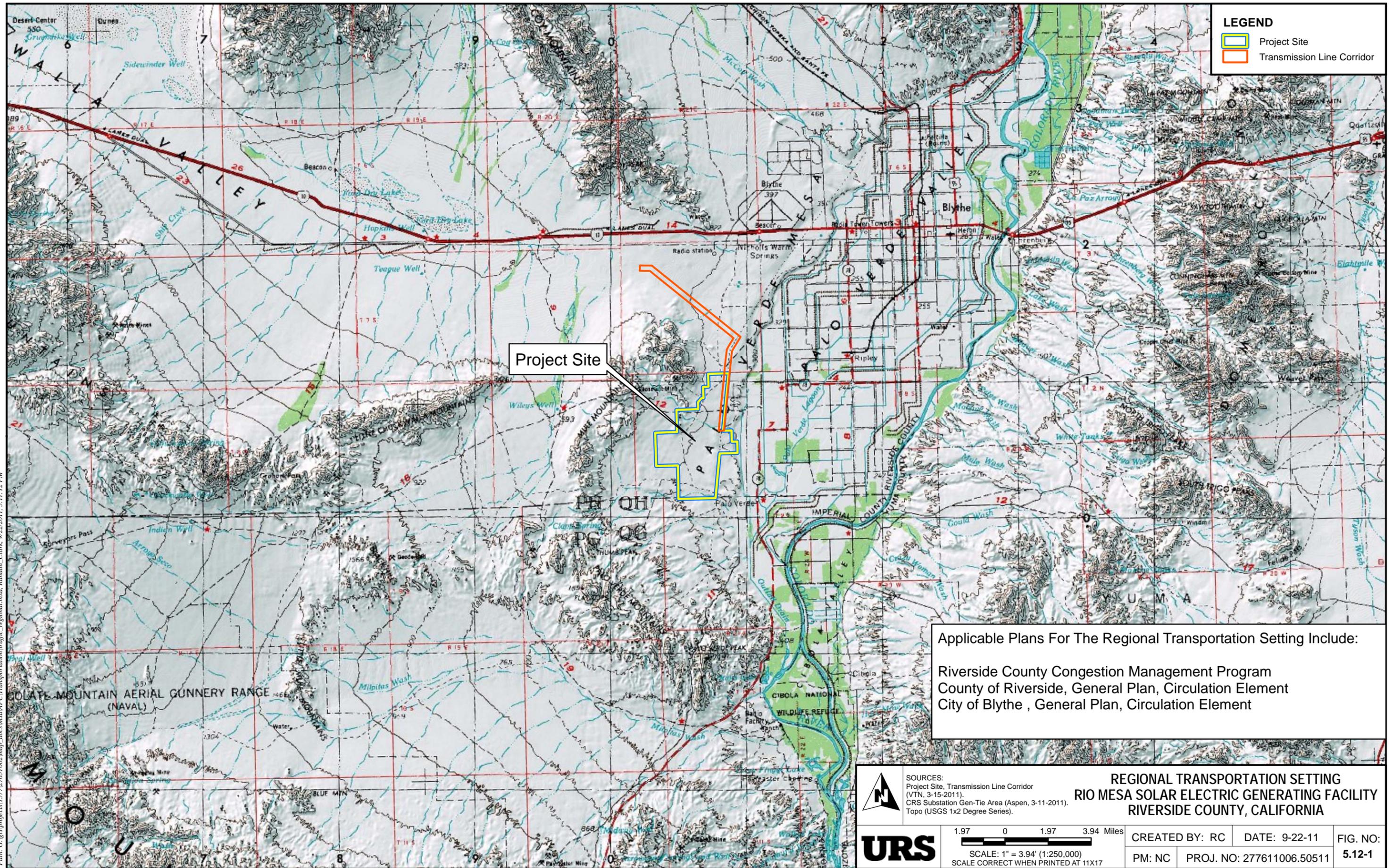
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**TRANSPORTATION SETTING OF THE LOCAL PROJECT AREA AND AFFECTED ROADS- RIO MESA SOLAR ELECTRIC GENERATING FACILITY RIVERSIDE COUNTY, CALIFORNIA**

CREATED BY: RC    DATE: 9-22-11    FIG. NO: 5.12-2.7

PM: NC    PROJ. NO: 27651006.50511



**LEGEND**

- Project Site
- Transmission Line Corridor

Project Site

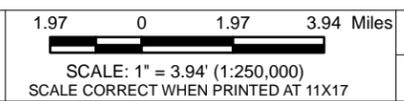
Applicable Plans For The Regional Transportation Setting Include:

- Riverside County Congestion Management Program
- County of Riverside, General Plan, Circulation Element
- City of Blythe, General Plan, Circulation Element



SOURCES:  
 Project Site, Transmission Line Corridor  
 (VTN, 3-15-2011).  
 CRS Substation Gen-Tie Area (Aspen, 3-11-2011).  
 Topo (USGS 1x2 Degree Series).

**REGIONAL TRANSPORTATION SETTING  
 RIO MESA SOLAR ELECTRIC GENERATING FACILITY  
 RIVERSIDE COUNTY, CALIFORNIA**



CREATED BY: RC	DATE: 9-22-11	FIG. NO:
PM: NC	PROJ. NO: 277611006.50511	5.12-1

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1  
2

8  
9

14TH AVE 10

16TH AVE 11

S. NEIGHBOURS BLVD.

3 22ND AVE

RANNELLS BLVD.

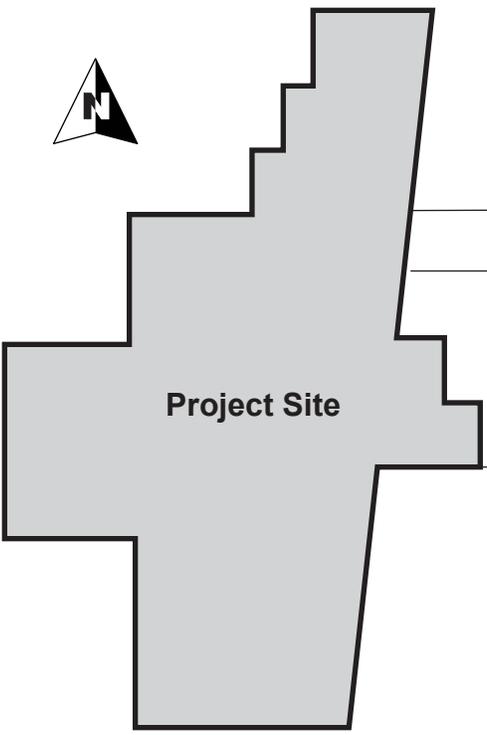
28TH AVE 4

BRADSHAW TRAIL 5  
6

32ND AVE

7 34TH AVE

BEN HULSE HWY



Project Site

**STUDY AREA**



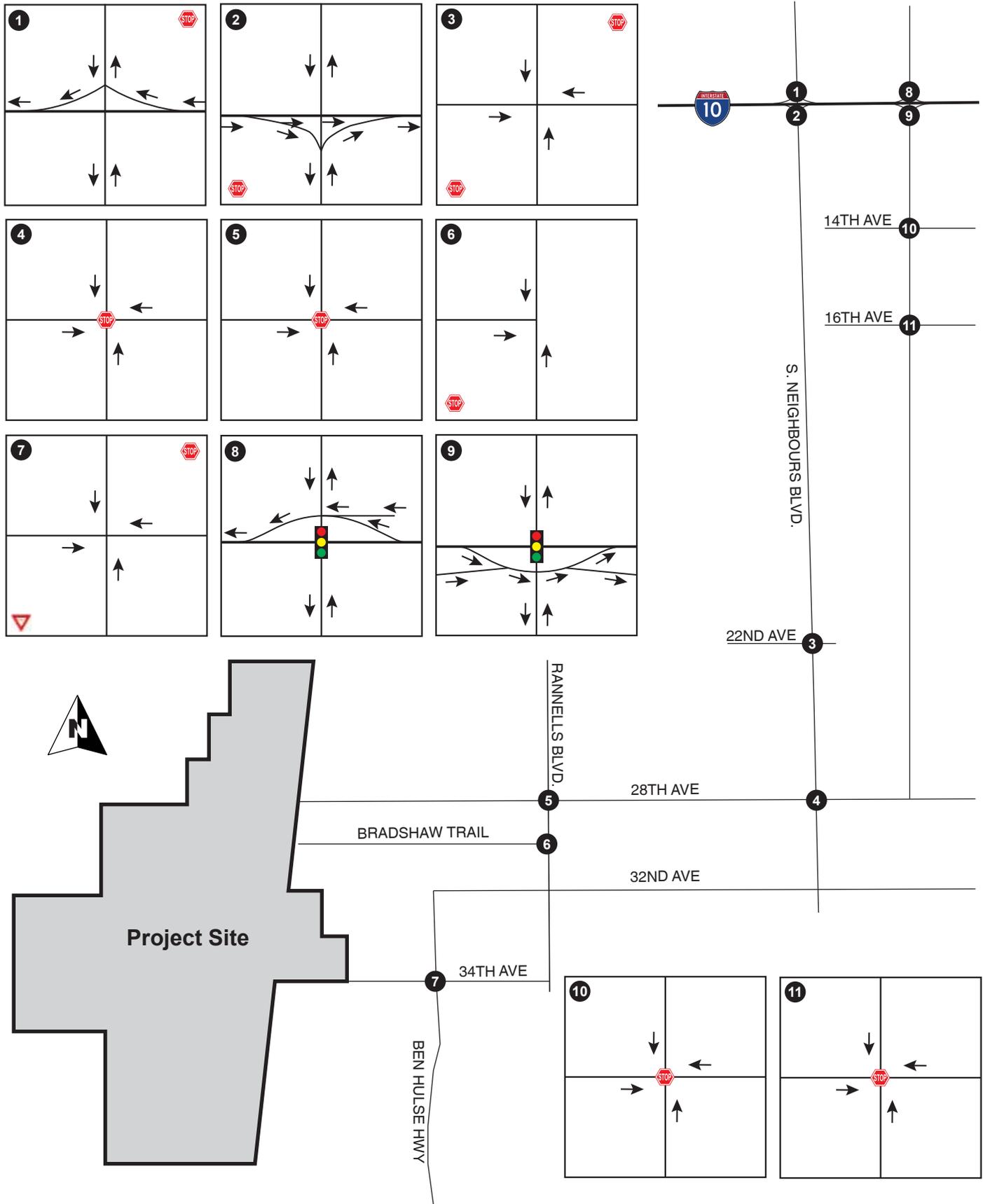
CREATED BY: WL

DATE: 08-11

FIG. NO:  
5.12-3

PM: AL

PROJ. NO: 27651006.50511



**EXISTING GEOMETRICS AND INTERSECTION CONTROLS**



3000 0 3000 6000  
Approximate Scale in Feet

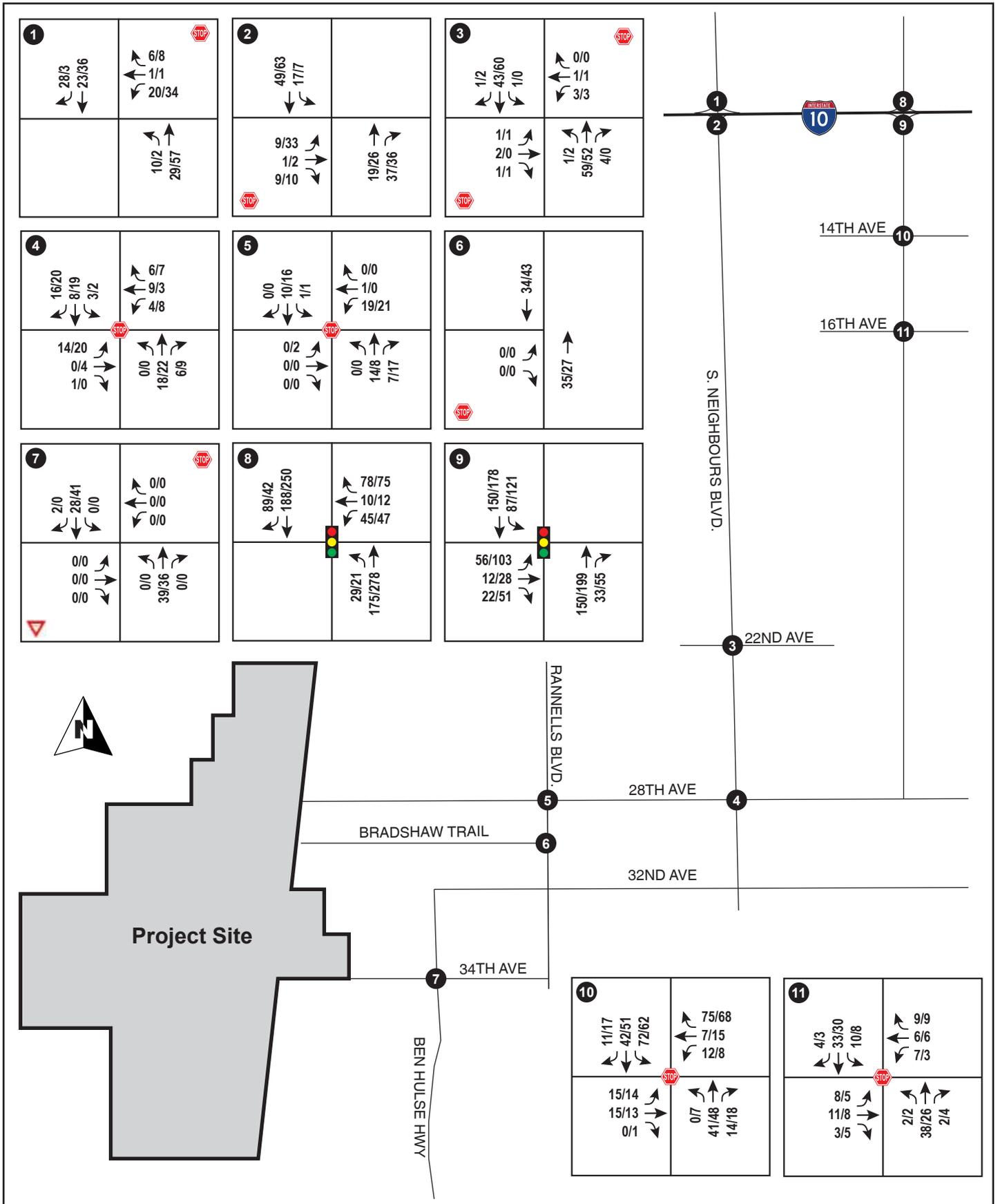
CREATED BY: WL

DATE: 08-11

PM: AL

PROJ. NO: 27651006.50511

FIG. NO:  
5.12-4



**EXISTING TRAFFIC VOLUMES**



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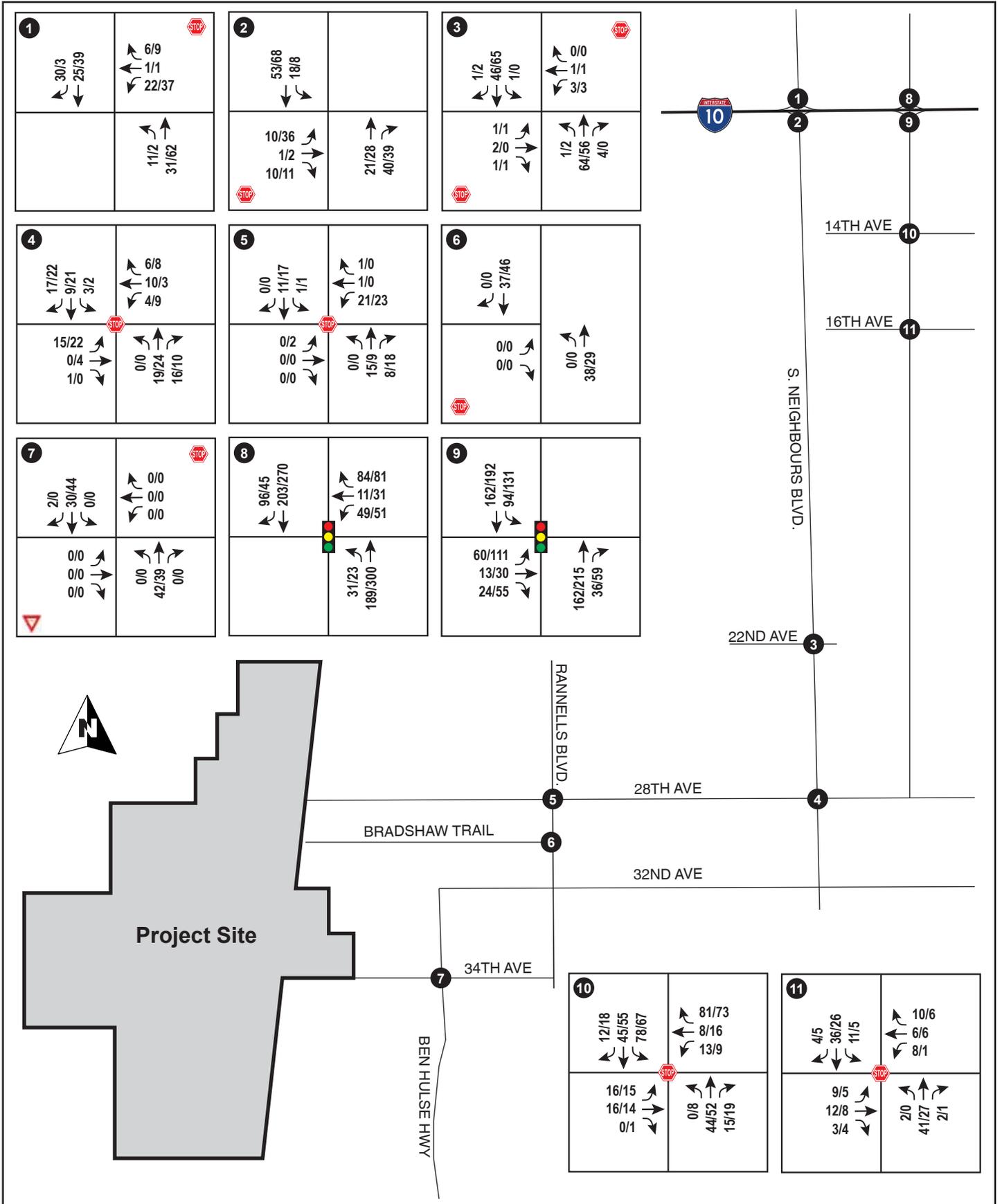
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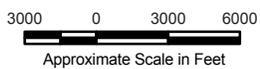
PROJ. NO: 27651006.50511

FIG. NO:

5.12-5



**YEAR 2015 BASELINE TRAFFIC VOLUMES**



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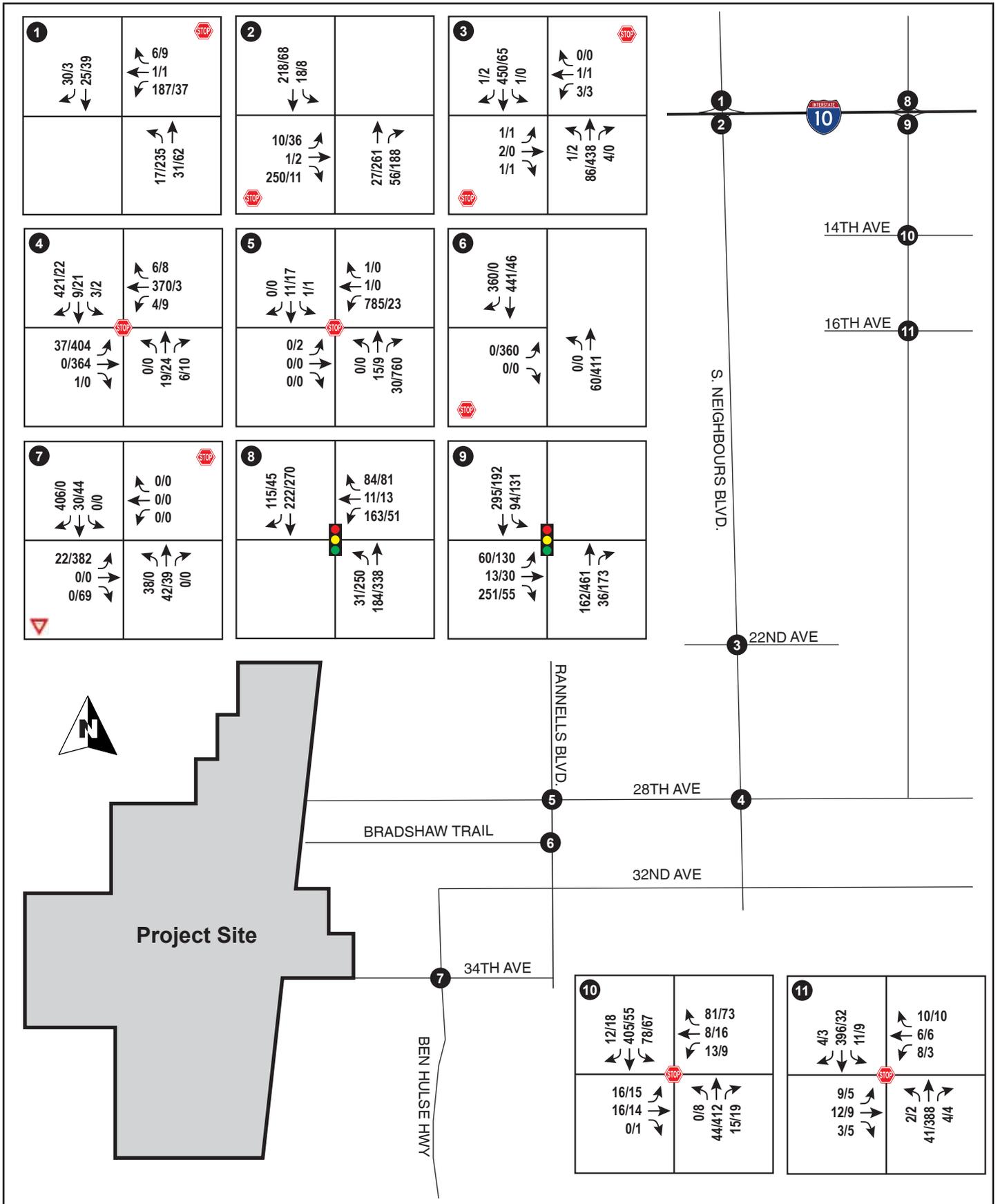
DATE: 08-11

PM: AL

PROJ. NO: 27651006.50511

FIG. NO:

5.12-6



**YEAR 2015 BASELINE PLUS PROJECT CONSTRUCTION TRAFFIC VOLUMES**



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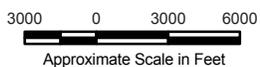
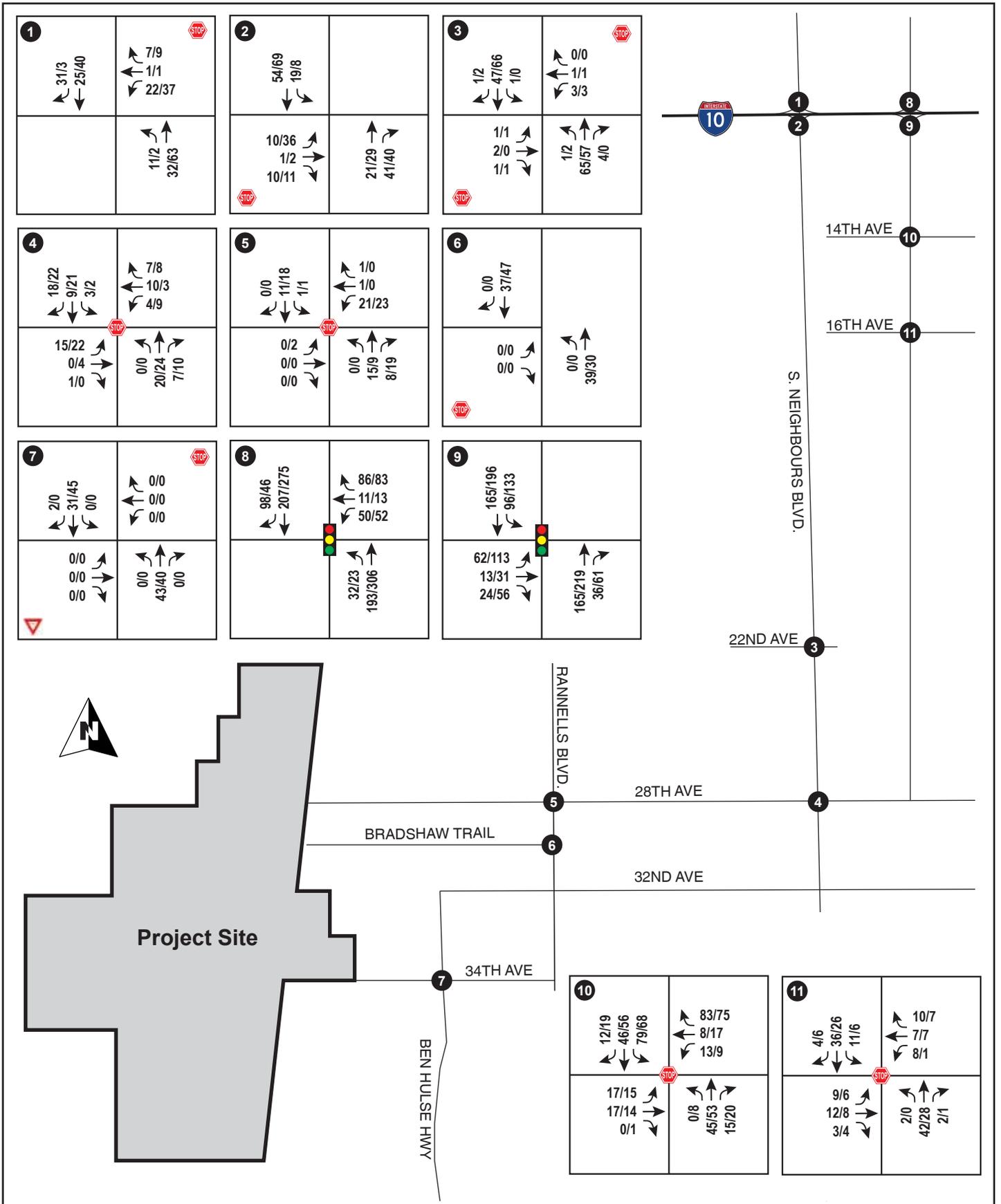
DATE: 08-11

PM: AL

PROJ. NO: 27651006.50511

FIG. NO:

5.12-7



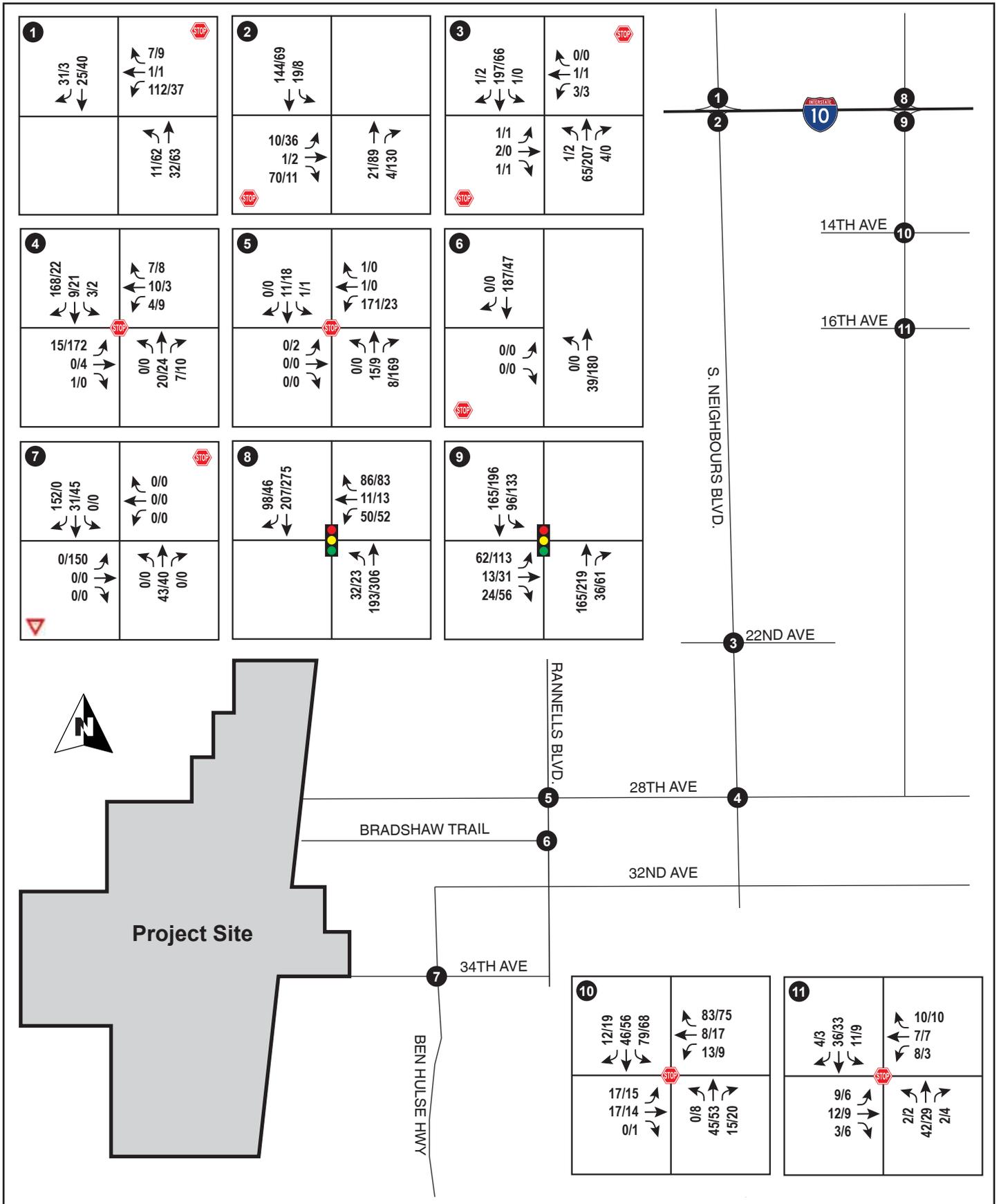
CREATED BY: WL

DATE: 08-11

PM: AL

PROJ. NO: 27651006.50511

FIG. NO: 5.12-8



**YEAR 2016 BASELINE PLUS PROJECT OPERATION TRAFFIC VOLUMES**



CREATED BY: WL

DATE: 08-11

PM: AL

PROJ. NO: 27651006.50511

FIG. NO:

5.12-9