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APPLICANT'S SUPPLEMENTAL RESPONSE TO DATA REQUEST 16 AND 26: ADDITIONAL INFORMATION REGARDING TRAFFIC AND TRANSPORTATION

In this section of Applicant's Supplemental Response to CEC Staff Data Requests 16 and 26, Applicant describes the changes to the Traffic and Transportation section that will result from the changes to the Project Description relating to the removal of Unit 3. Per staff's request, Applicant uses a strike-out/underline format to identify changes to the Traffic and Transportation section of the Application for Certification that will result from the changes to the Project Description.

The Traffic and Transportation sub-sections that have been modified are listed in the table of contents below. If there has been no change to a Traffic and Transportation sub-section relating to Applicant's Supplemental Response to Data Request 16 and 26, the section is labeled "no changes" in the table of contents below.

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5.12 TRAFFIC AND TRANSPORTATION

5.12.1 Introduction (see Section 2.1.1 for updated project description)

5.12.2 Laws, Ordinances, Regulations, and Standards

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. Portions of ~~The Rio Mesa Solar III plant and~~ the Project gen-tie line, upgraded Bradshaw Trail access road, and 33kV construction/emergency backup power supply line are located on public lands administered and managed by the BLM. NEPA compliance is required for thisese portions of the Project through preparation of a Draft and Final EIS. The Applicant anticipates that BLM may consider RMS 1 and 2 as a connected action under NEPA. BLM is also responsible for Native American consultation, including government to government consultation regarding project facilities located on BLM land.

Title 49, Code of Federal Regulations, §§ 171-177. (no changes)

Title 14, CFR, § 77.13(2) (i). (no changes)

5.12.2.2 State (no changes)

5.12.2.3 Local (no changes)

5.12.3 Affected Environment

5.12.3.1 Existing Transportation Facilities

Regional Roadway Facilities (no changes)

Interstate 10 (I-10) (no changes)

State Route 78 (no changes)

Local Roadway Facilities (no changes)

34th Avenue (~~Preferred~~ Secondary access route)

~~The preferred~~A secondary access route to the Project site is via 34th Avenue ~~just south of 30th 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 dirt access route runs west between agricultural lands ~~on~~north and outside of 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 (Preferred access route)

The preferred access route to the project site is via ~~30th Avenue which turns into~~becomes Bradshaw Trail ~~as it approaches the site. 30th Avenue~~The portion of Bradshaw Trail that would be used for the preferred access route is currently 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 is located north of~~bisects~~ the Project site. The current routing of Bradshaw Trail through the agricultural lands and north of 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~~ north of the Project site is primarily used as an off highway vehicle (OHV) access route.

The Applicant has revised the primary access road to Bradshaw Trail subsequent to the removal of RMS-3 and relocation of the Common Area to accomplish the following goals:

- Mitigate construction schedule impacts from the construction of the access road across the major wash in initial phase of the construction. While the road construction would be on-going, Applicant would need to utilize Bradshaw Trail anyway. This also bolsters compliance with the Purchase Power Agreement (PPA) schedule requirements.

- Reduce environmental impacts on the major wash that is south of the Construction logistics area. New 34th avenue road configuration impacts only 10-20 percent of wash flow where original road path impacted about 80 percent of the flow.

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~~1 mile~~s~~ south to the primary access at ~~32nd 30th Avenue~~ Bradshaw Trail~~, 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 (no changes)

Mesa Drive (no changes)

5.12.3.2 Existing Traffic Conditions (no changes)

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 Bradshaw Trail will be improved to include a stop sign as it is the primary access road to the project site.
- ~~30th Avenue~~ Bradshaw Trail will be improved as a paved, two lane undivided roadway from west of State Route 78 to the project site, a distance of 2.96 miles.
- 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 P~~p~~roject as it is the ~~primary~~ secondary entrance to the project site.
- The west leg of 34th Avenue will be improved for 1.02 miles west from State Route 78 to the project site. The roadway will be an unpaved ~~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 ~~30th Avenue~~ Bradshaw Trail ~~34th Avenue as 34th Avenue will be improved~~ as described above. Truck traffic will be restricted to the preferred access at ~~34th Avenue~~30th ~~Avenue~~ Bradshaw Trail.

5.12.4.1 Thresholds of Significance (no changes)

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 pre-construction activities would commence in~~on~~ the ~~Fourth~~ Third Quarter of 2013 (tortoise clearing and fencing), with construction activities commencing in the Fourth Quarter of 2013. Construction is anticipated to~~and~~ be completed by the First Quarter of 2016~~5Second Quarter of 2016 (June/2016)~~, for a total of 35~~36~~ months. ~~Phase~~RMS 1 is planned for commercial operation by Fourth Quarter 2015 (December 2015), and RMS 2 is planned for commercial operation by First Quarter 2016. 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 approximately 2,200~~500~~ workers during ~~the 21st~~ months 22 and 23 of construction. Construction access to the project will be provided via State Route 78 at ~~34th Avenue and 30th Avenue~~ Bradshaw Trail and 34th 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~~ 1,370 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~~ 50 percent~~)~~ of truck travel will occur during the AM and PM peak hour. These construction trucks will be using the preferred site access at ~~34th Avenue~~30th Avenue Bradshaw Trail.

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~~ approximately 2,200 construction workers (direct hire craft, subcontractors, and non-manuals)

Table 5.12-6
Project Construction Trip Generation

Vehicle Type	~~Peak~~ Daily Round Trips during Peak Month	AM Peak Trips			PM Peak Trips		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Construction Worker Vehicles[1]	~~2756~~2,740	~~758~~754	0	~~758~~754	0	~~758~~754	~~758~~754
Delivery Vehicles (including heavy trucks)[2]	~~3184~~8	~~44~~12	~~22~~6	~~66~~18	0	~~22~~6	~~22~~6

Source: Bechtel Power Corporation, Forecast Traffic Impact - Rio Mesa_052412_On Site Batch Plant Rev 2.xls~~Forecast Traffic Impact - Rio Mesa_090711.xls~~

[1] Peak workforce was conservatively analyzed at ~~1378~~ 1,370 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.

[2] Delivery vehicles were adjusted into Passenger Car Equivalent (1 Heavy Vehicle = 3 PCE) vehicle in the traffic impact analysis. Peak month ~~A~~analysis assumed 50 percent of ~~29~~ 8 (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 logistics ~~worker parking and laydown~~ area at the project site, the recommended route during peak months ~~-~~for 50 percent of incoming workers and all material deliveries will be ~~via~~ from State Route 78 via ~~34th~~ 30th ~~Avenue~~ Bradshaw Trail westbound towards the project site. The remaining 50 percent of incoming workers will access the project site ~~and~~ via Lovekin Boulevard to ~~30th~~ 34th Avenue ~~for the remaining 50 percent of incoming workers~~. ~~Alternative routes include:~~

~~via State Route 78 then west on 30th~~ 34th ~~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 (no changes)

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	25,957~~26,041~~	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	26,218~~26,417~~	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	3,618~~3,895~~	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	3,078~~3,355~~	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	2,754~~3,031~~	16,200	25%	C
State Route 78	South of 34th Avenue	2-Lane Undivided	1,325~~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 (rev) 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 (no changes)

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 (rev) 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	9.810.1	B	13.213.3	B
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	10.811.2	B	10.911.0	B
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	12.513.1	B	12.412.6	B
4. State Route 78 (Neighbours Boulevard)/28th Avenue	11.912.5	B	27.029.9	D
5. State Route 78 (Rannells Boulevard)/28th Avenue	27.934.7	D	13.814.4	B
6. State Route 78/30th Avenue	13.00.0	BA	20.821.9	C
7. State Route 78/34th Avenue	8.210.9	AB	11.712.0	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

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

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 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~~Rio Mesa ~~-~~RMS 1 is projected to begin commercial operations in Fourth Quarter 2015, and ~~Rio Mesa~~RMS 2 is projected to begin commercial operations beginning in First Quarter 2016. ~~At this time, p~~Plant operations will require approximately 100 ~~150 -~~full-time personnel, with up to 80 personnel at the site daily during weekdays. 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 (no changes)

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	24,782~~24,870~~	68,900	39%	C
Interstate 10	East of State Route 78	4-Lane Freeway	26,228~~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	2,390~~2,610~~	16,200	16%	C
State Route 78	North of 22nd Avenue	2-Lane Undivided	1,840~~2,060~~	16,200	25%	C
State Route 78	North of 30th Avenue	2-Lane Undivided	1,510~~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 (rev) 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 (no changes)

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 (rev) 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	9.29.5	A	9.59.9	A
2. State Route 78 (Neighbours Boulevard)/I-10 EB Ramps	9.19.4	A	9.59.7	A
3. State Route 78 (Neighbours Boulevard)/22nd Avenue	9.910.4	AB	9.910.4	AB
4. State Route 78 (Neighbours Boulevard)/28th Avenue	7.07.2	A	7.58.0	A
5. State Route 78 (Rannells Boulevard)/28th Avenue	7.68.0	A	7.07.2	A
6. State Route 78/30th Avenue	0.0	A	9.20.0	A
7. State Route 78/34th Avenue	0.0	A	0.09.7	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

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 (no changes)

5.12.4.5 Waste Management (no changes)

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~~ 80 full-time employees at the site. 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 30th Avenue~~ Bradshaw Trail 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.

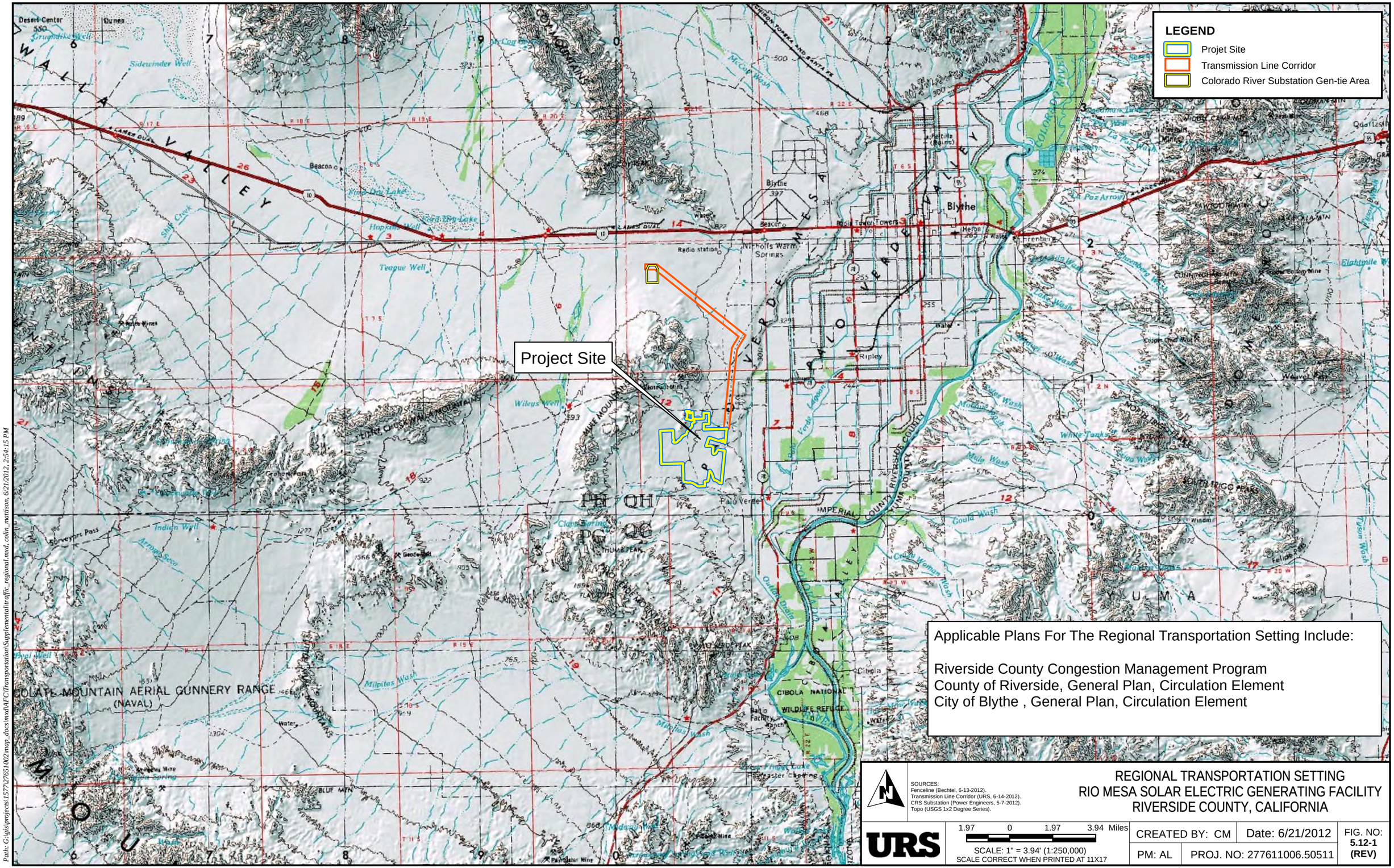
The project proponent will provide a stop sign at the eastbound approach at the intersection of State Route 78 a~~tnd 34th 30th Avenue~~Bradshaw Trail. The project owner ~~will~~ also proposes to pave ~~34th 30th Avenue~~ Bradshaw Trail between the project site and State Route 78, and will maintain the existing intersection geometry of a shared left-through-right lane at the eastbound approach. Paving of Bradshaw Trail on BLM land remains at the discretion of the BLM, and an alternative improvement may be designated through BLM's SF 299 process.

5.12.6.2 TRAFFIC-2, Traffic Control Measures. (no changes)

5.12.7 Involved Agencies and Agency Contacts (no changes)

5.12.8 Permits Required and Permit Schedule (no changes)

5.12.9 References (no changes)



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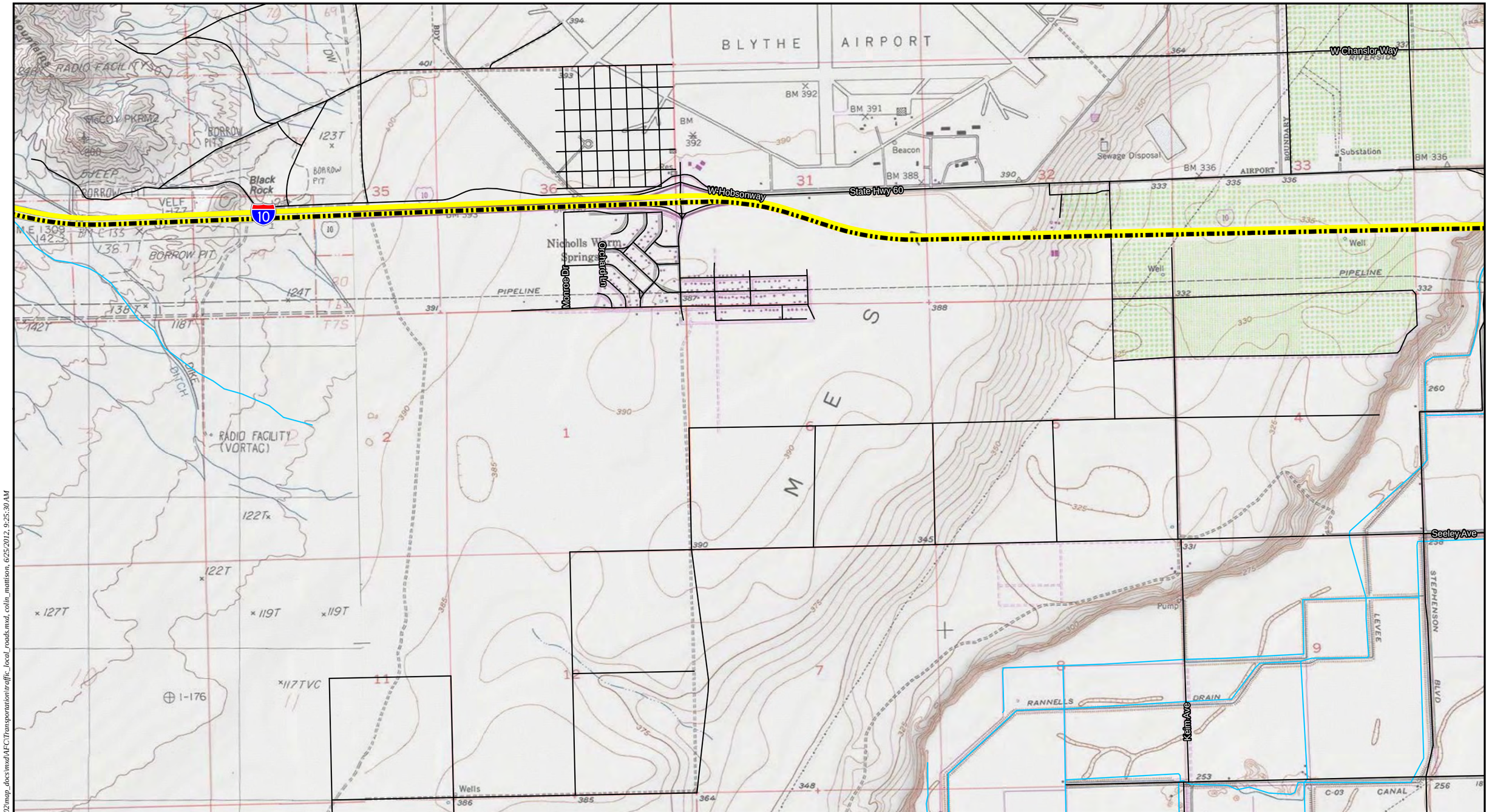


- Local Access Route

Project Access Routes

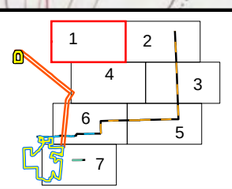
- 34th Avenue (Preferred)
- Bradshaw Trail via 30th Avenue (Alternate)
- Access via Lovekin Boulevard to 28th

- Interstate 10
- State Route 78

Bike Route

- Class I Bike Path
- Class II Bike Lane

- River
- Railroad
- Project Site
- Colorado River Substation Gen-tie Area
- 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).

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

URS

1000 0 1000 2000 Feet

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

CREATED BY: RC	DATE: 6/25/2012	FIG. NO: 5.12-2.1 (REV)
PM: NC	PROJ. NO: 27651006.50511	

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R1
R2
R3
R4
R7
R8
State Hwy 60
W Chanslor Way
Riverside Ave
W Riverside Dr
E Riverside Dr
E Chanslor Way
W Hobsonway
Michigan St
Wisconsin St
Wells St
Access via Lovekin Boulevard to 28th
Seeley Ave
16Th Ave
State Hwy 78
Neighbors
Community Farm Center
Sewage Disposal Ponds
Trailer Park
Goodman Slough
East Blythe
Radio Sta KYOR
Radio Range Sta
Gas Compressor Sta
Drive-in Theater
BM 263
BM 256
BM 258

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)

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

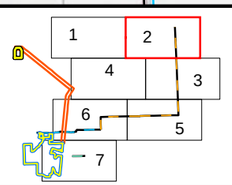
River

Railroad

Project Site

Colorado River Substation Gen-tie Area

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).

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

URS

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

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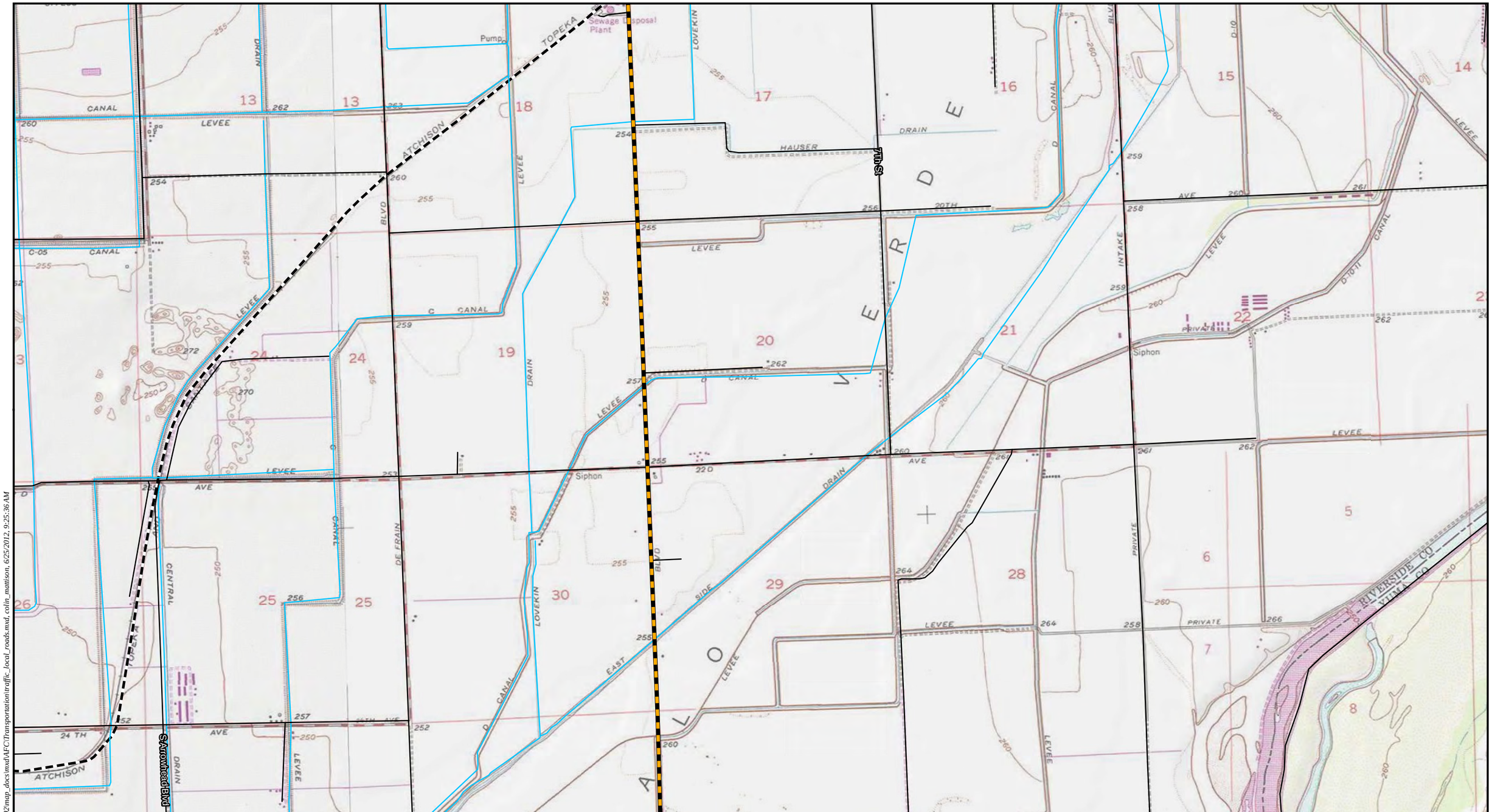


- Local Access Route

Project Access Routes

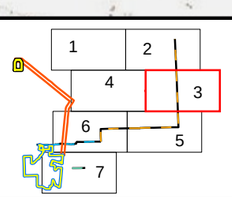
- 34th Avenue (Preferred)
- Bradshaw Trail via 30th Avenue (Alternate)
- Access via Lovekin Boulevard to 28th

- Interstate 10
- State Route 78

Bike Route

- Class I Bike Path
- Class II Bike Lane

- River
- Railroad
- Project Site
- Colorado River Substation Gen-tie Area
- 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).

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

URS

1000 0 1000 2000 Feet

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

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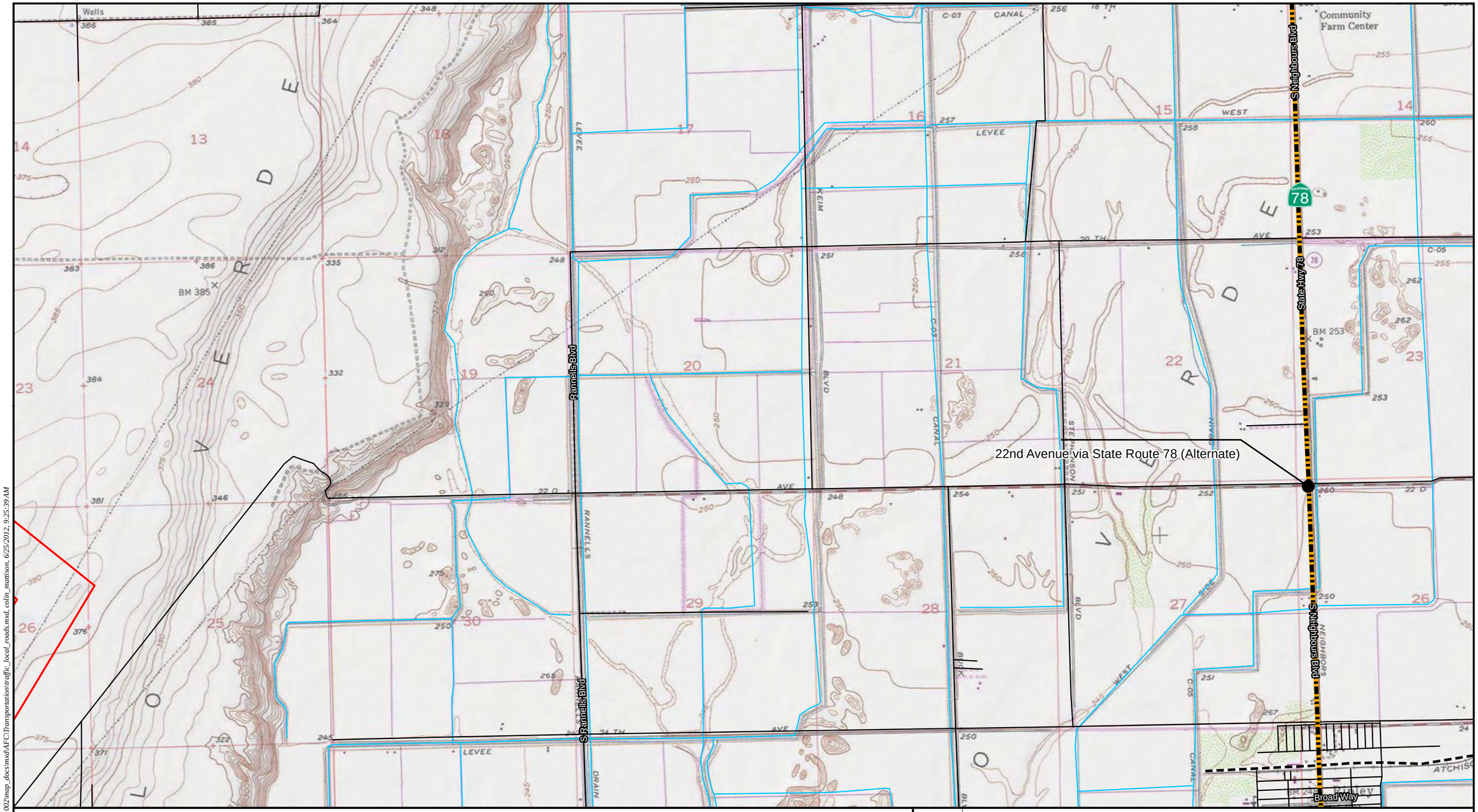


Local Access Route

Project Access Routes

34th Avenue (Preferred)

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

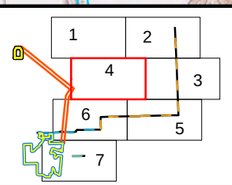
River

Railroad

Project Site

Colorado River Substation Gen-tie Area

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).

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

URS

1000 0 1000 2000 Feet

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

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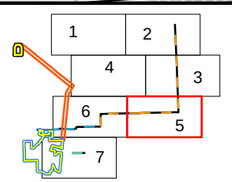
R9

Roadway Characteristics		
R9	28th 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
- **Project Access Routes**
  - 34th Avenue (Preferred)
  - 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
- Colorado River Substation Gen-tie Area
- 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).

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

URS

1000 0 1000 2000 Feet

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

CREATED BY: RC	DATE: 6/25/2012	FIG. NO: 5.12-2.5 (REV)
PM: NC	PROJ. NO: 27651006.50511	

Bradshaw Trail via 30th Avenue (Primary)

R5

Roadway Characteristics		
R5	SR-78 (North of 30th 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

Project Access Routes

34th Avenue (Preferred)

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

Colorado River Substation Gen-tie Area

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).

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

URS

1000 0 1000 2000 Feet

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

CREATED BY: RC | DATE: 6/25/2012 | FIG. NO: 5.12-2.6 (REV)

PM: NC | PROJ. NO: 27651006.50511

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Roadway Characteristics		
R6	SR-78 (South of 34th 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)

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

Colorado River Substation Gen-tie Area

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).

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

URS

1000 0 1000 2000 Feet

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

CREATED BY: RC	DATE: 6/25/2012	FIG. NO: 5.12-2.7 (REV)
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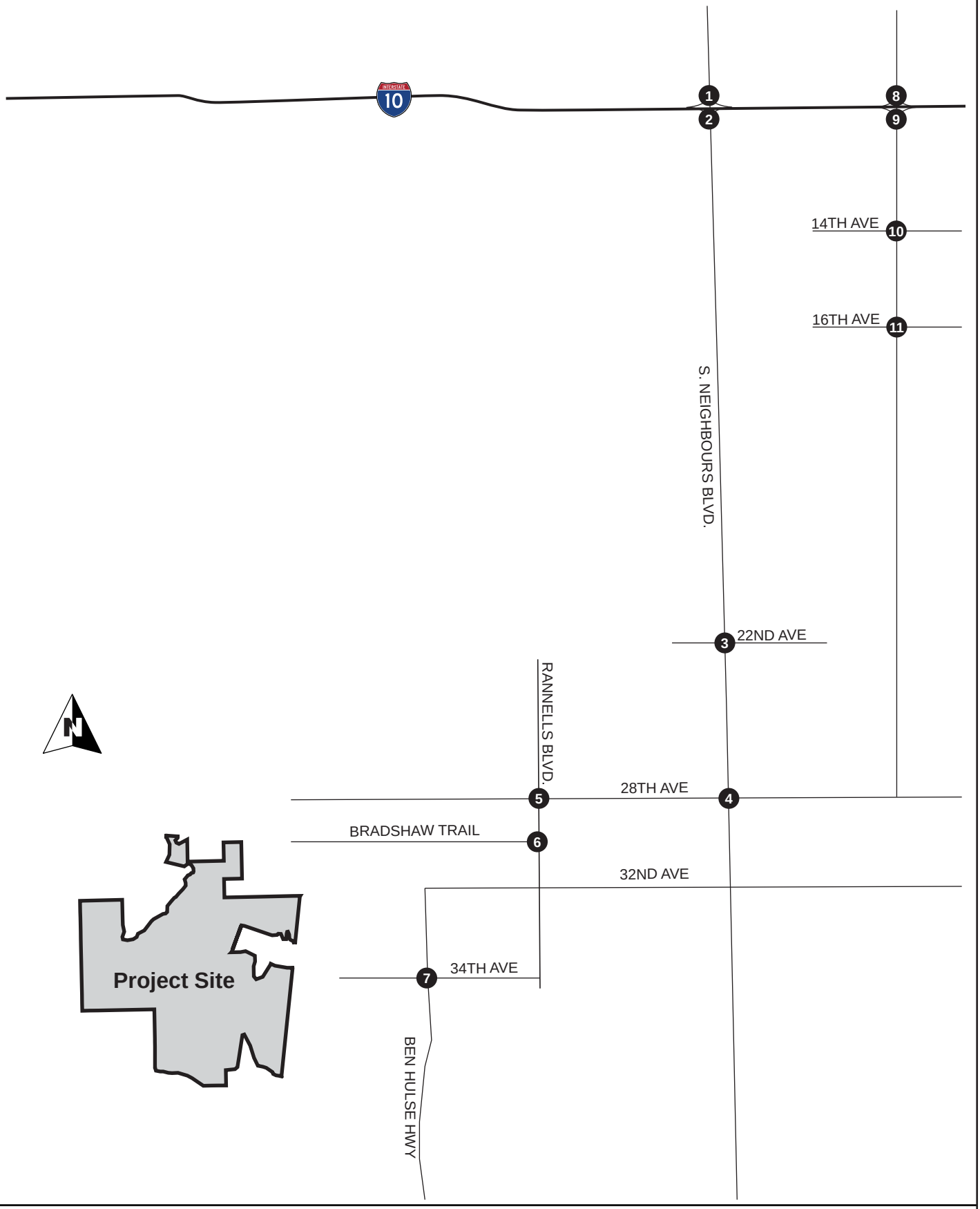

STUDY AREA

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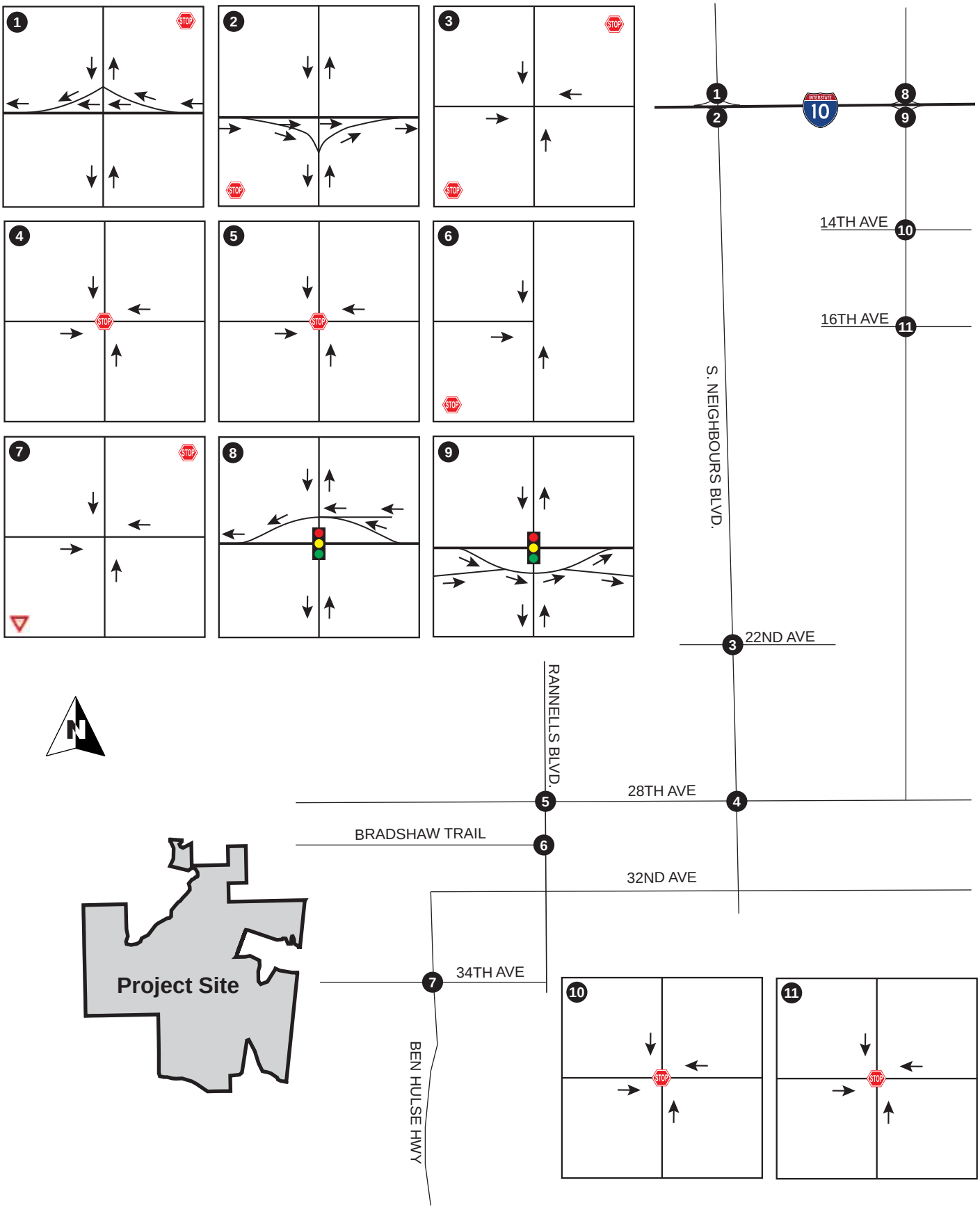

EXISTING GEOMETRICS AND INTERSECTION CONTROLS

URS	3000 0 3000 6000 Approximate Scale in Feet	CREATED BY: WL	DATE: July 2012	FIG. NO: **5.12-4** (REV)
		PM: AL	PROJ. NO: 27652105	

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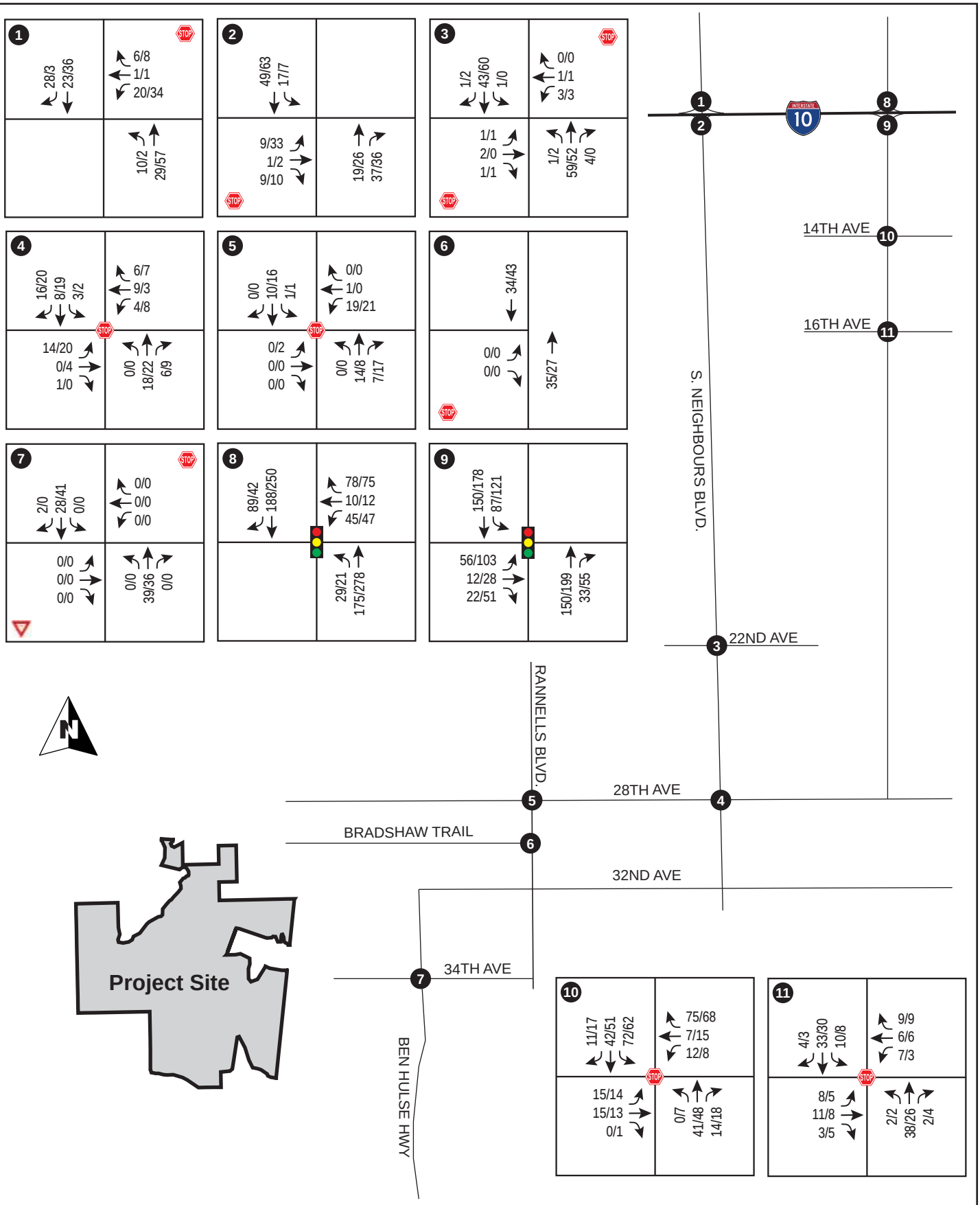

EXISTING TRAFFIC VOLUMES

URS	3000 0 3000 6000 Approximate Scale in Feet	CREATED BY: WL	DATE: July 2012	FIG. NO: **5.12-5** (REV)
		PM: AL	PROJ. NO: 27652105	

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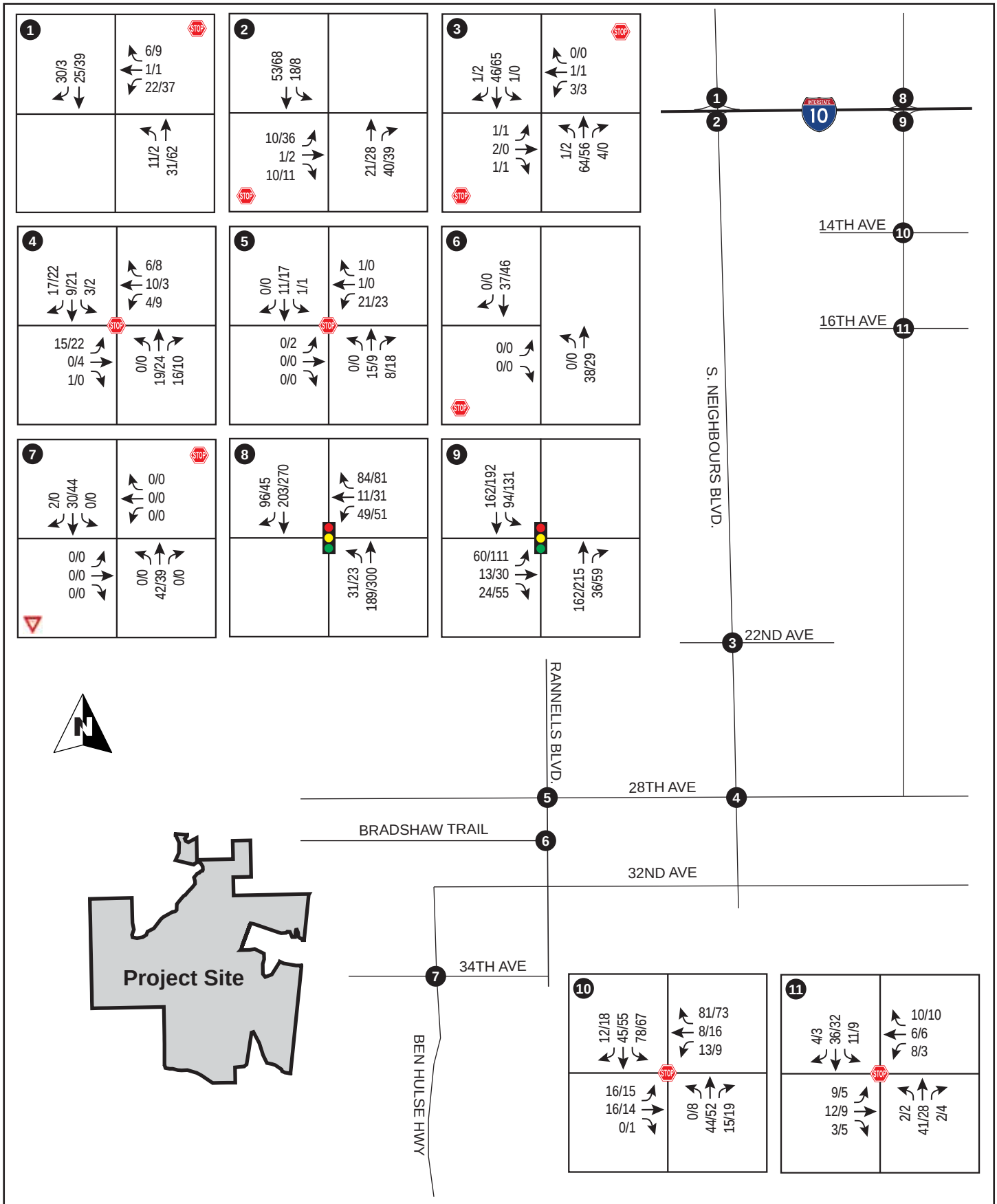

YEAR 2015 BASELINE TRAFFIC VOLUMES

URS	3000 0 3000 6000 Approximate Scale in Feet	CREATED BY: WL	DATE: July 2012	FIG. NO: **5.12-6** (REV)
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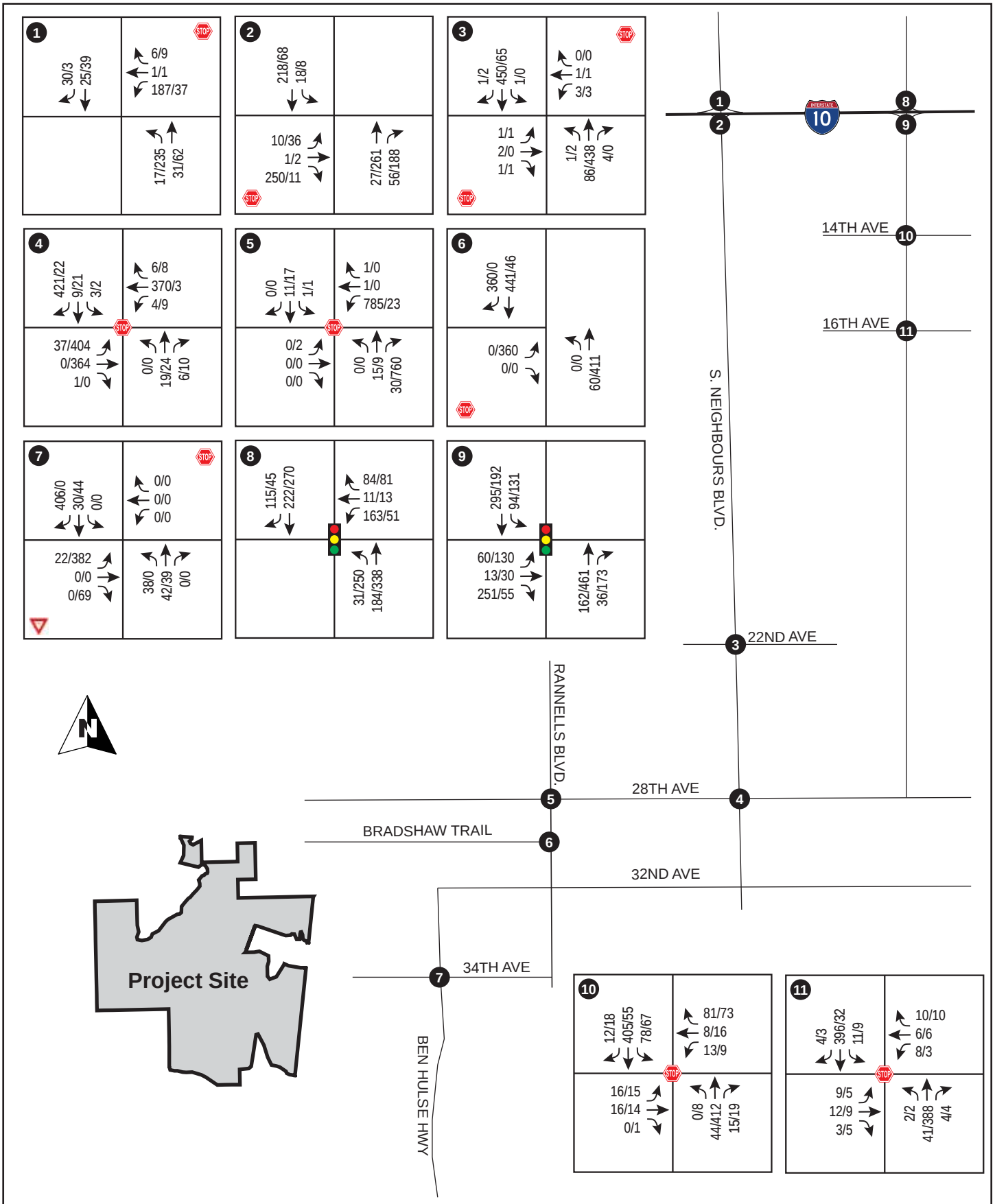

YEAR 2015 BASELINE PLUS PROJECT CONSTRUCTION TRAFFIC VOLUMES

URS	3000 0 3000 6000 Approximate Scale in Feet	CREATED BY: WL	DATE: July 2012	FIG. NO: **5.12-7** (REV)
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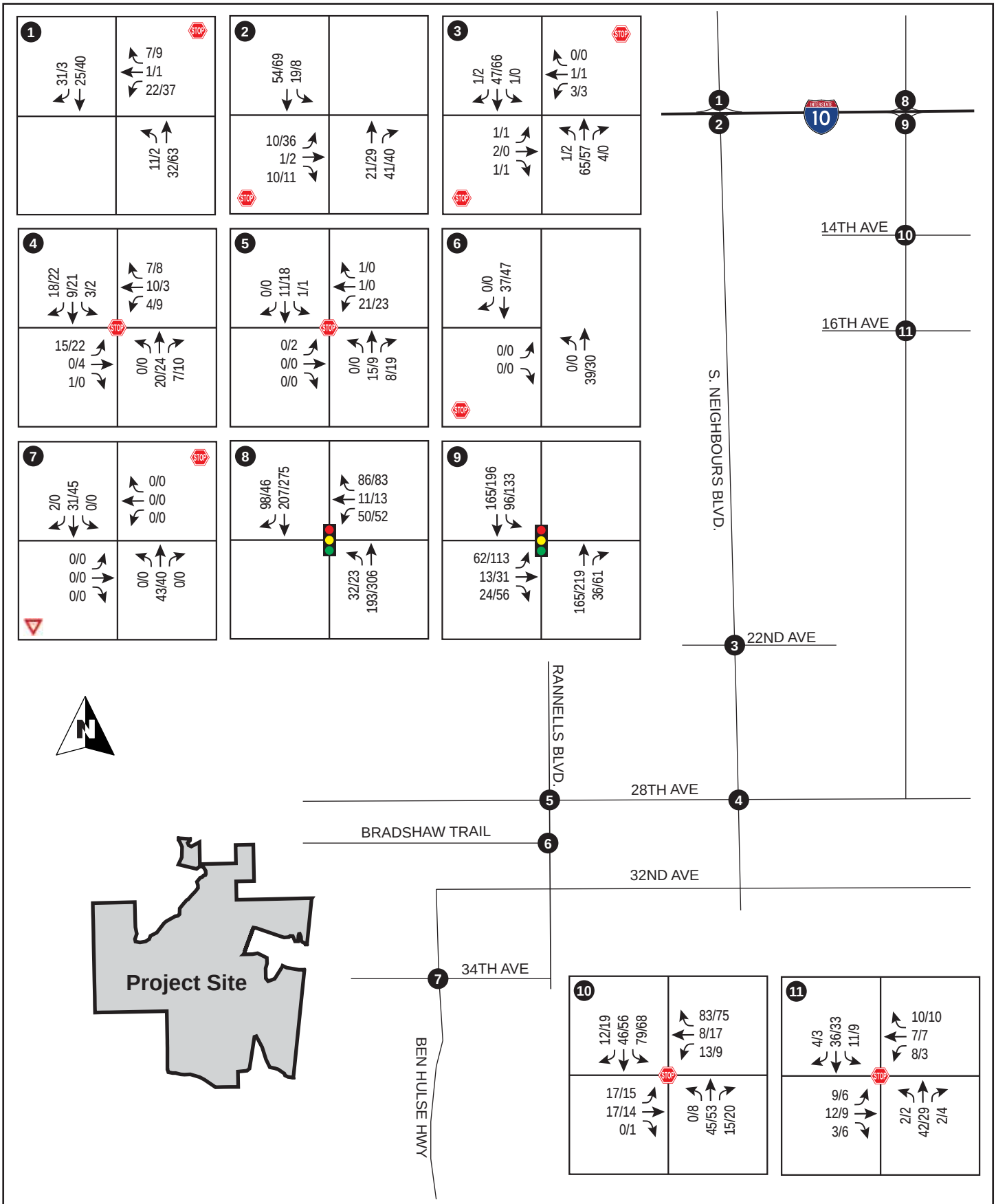

YEAR 2016 BASELINE TRAFFIC VOLUMES

URS	3000 0 3000 6000 Approximate Scale in Feet	CREATED BY: WL	DATE: July 2012	FIG. NO: **5.12-8** (REV)
		PM: AL	PROJ. NO: 27652105	

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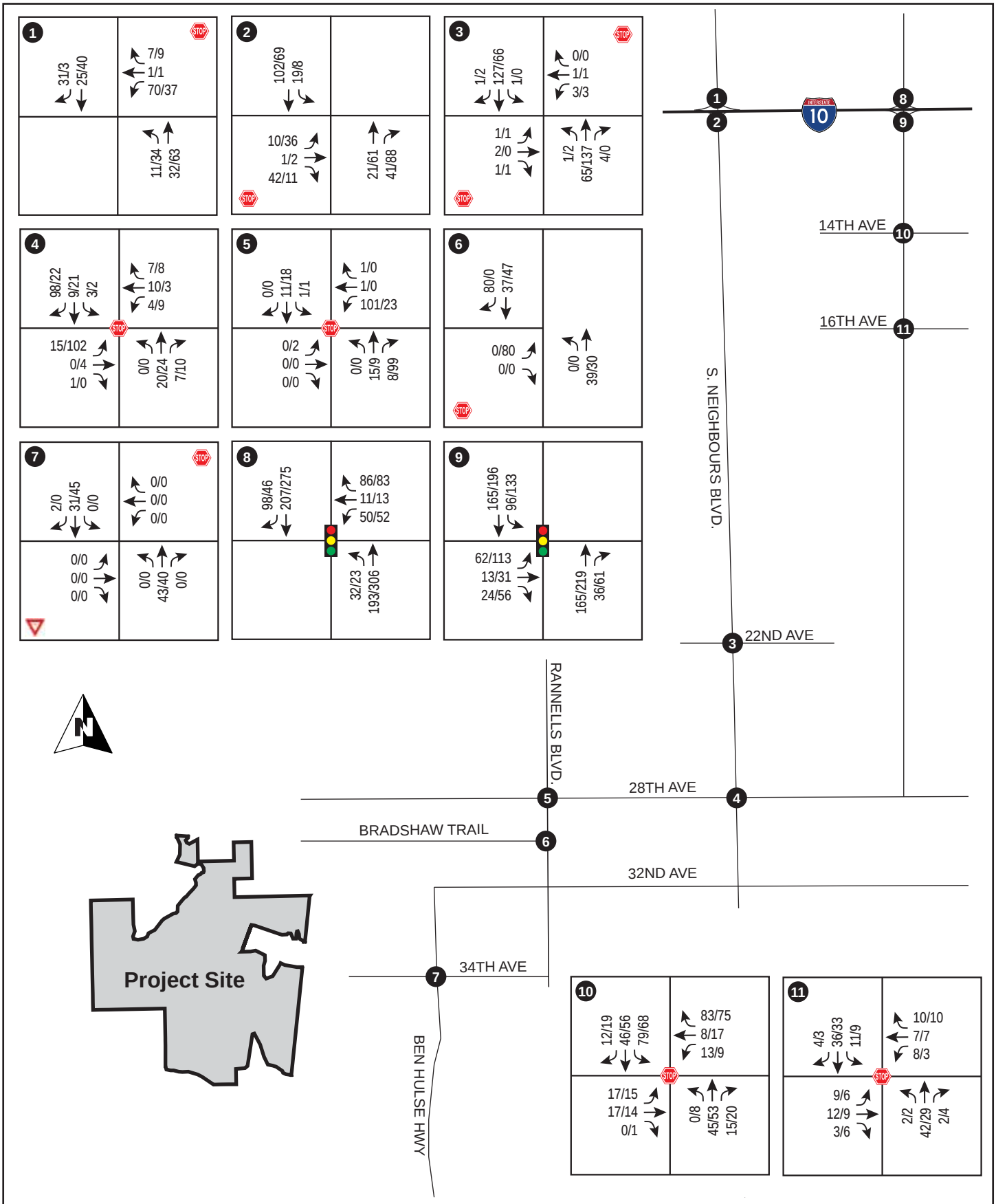

YEAR 2016 BASELINE PLUS PROJECT OPERATION TRAFFIC VOLUMES

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