



November 22, 2024

Eva Covarrubias
County of Riverside
4080 Lemon Street, 8th Floor
Riverside, CA 92501

Subject: Rio Del Sol Industrial Project Trip Generation and Vehicle Miles Traveled Analysis
Memorandum (Case Number PPT240010, GPA240009, LSA Project No. 20241880)

Dear Eva:

LSA Associates, Inc. (LSA) has prepared this Trip Generation and Vehicle Miles Traveled (VMT) Analysis memorandum (Memo) for the proposed Rio Del Sol Industrial Project (project) in the unincorporated community of Thousand Palms, Riverside County, California. The project consists of a 24,906 square-foot (sf) industrial building and a 3,130-sf office building. The project site is located on a vacant parcel on Rio Del Sol Road, south of 28th Avenue. The property encompasses three parcels identified by APNs: 648-110-013, 648-110-016, and 648-121-001. Access to the project would be provided through a new full access driveway along Rio Del Sol, leading to two separate access gates: one for the office building and one for the industrial building. The project will require a General Plan Amendment (GPA). Figure 1 (all figures and tables attached) illustrates the regional and project location. Figure 2 illustrates the conceptual site plan for the project.

The objectives of this Memo are as follows:

- To estimate the trip generation for the proposed project and determine whether a detailed Level of Services (LOS) analysis will be required for the project; and
- To determine whether a detailed VMT analysis will be required for the proposed project.

TRIP GENERATION ANALYSIS

The County of Riverside uses the *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (dated December 2020) (TA Guidelines), for traffic analysis purposes. According to the County's TA Guidelines, a detailed LOS study may not be required if the project is estimated to generate less than 100 peak hour trips.

The trip generation for the project was developed using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) for Land Use 110 – "Light Industrial" and Land Use 710 – "General Office Building". For the industrial building, truck percentages for the industrial use were obtained from the *City of Fontana's Truck Trip Generation Study* (August 2003). As such, 21.4 percent of the project traffic will be trucks. The truck mix was considered as 32.7% 2-axle trucks, 17.9% 3-axle trucks, and 49.4% 4-and more axle trucks. The truck trips were then converted to passenger car equivalents (PCEs) as recommended in the TA Guidelines using the following factors: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4- and more axle trucks.

Table A summarizes the project trip generation and shows that the proposed project is anticipated to generate 29 PCE trips in the a.m. peak hour, 28 PCE trips in the p.m. peak hour, and 190 daily PCE trips. Auto trips account for 19 trips in the a.m. peak hour, 18 trips in the p.m. peak hour, and 129 daily trips, while truck PCE trips comprise of 10 PCE trips in both the a.m. and p.m. peak hours and 61 daily PCE trips.

As per the County's TA Guidelines, a LOS analysis may not be required for a project if it generates less than 100 peak hour trips. While the proposed project does require a GPA, it should be noted that the anticipated number of peak hour trips generated by the proposed project is less than the 100 peak hour trip threshold. As such, the proposed project may be screened out from a detailed LOS analysis.

VEHICLE MILES TRAVELED ANALYSIS

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) Guidelines for use. Among the changes to the guidelines was the removal of vehicle delay and level of service as the sole basis of determining CEQA impacts. With the implementation of the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT. The County's TA Guidelines includes significance thresholds, requirements, recommended methodologies, and procedures for VMT analysis for projects within the County.

Project Type Screening

According to the County's TA Guidelines, certain land uses may be presumed to have a less than significant impact absent substantial evidence to the contrary. This criterion may include General Light Industrial buildings with area less than or equal to 179,000 sf, and General Office Building with area less than or equal to 165,000 sf, subject to the discretion of the County.

As shown in previously referenced Table A, the project consists of a 24,906-sf industrial building which is lower than the 179,000-sf threshold for General Light Industrial buildings, and a 3,130 sf office building, which is lower than the 165,00 sf threshold for general office buildings. Since the project qualifies as a Small Project, it meets the criteria to be screened out from a detailed VMT analysis per the TA Guidelines. Therefore, based on the County's TA Guidelines, the project may be screened out from a detailed VMT analysis and is anticipated to have a less than significant VMT impact.

If you have any questions, please do not hesitate to contact me at (951) 781-9310 or Ambarish.Mukherjee@lsa.net.

Sincerely,

LSA



Ambarish Mukherjee, AICP, PE
Principal

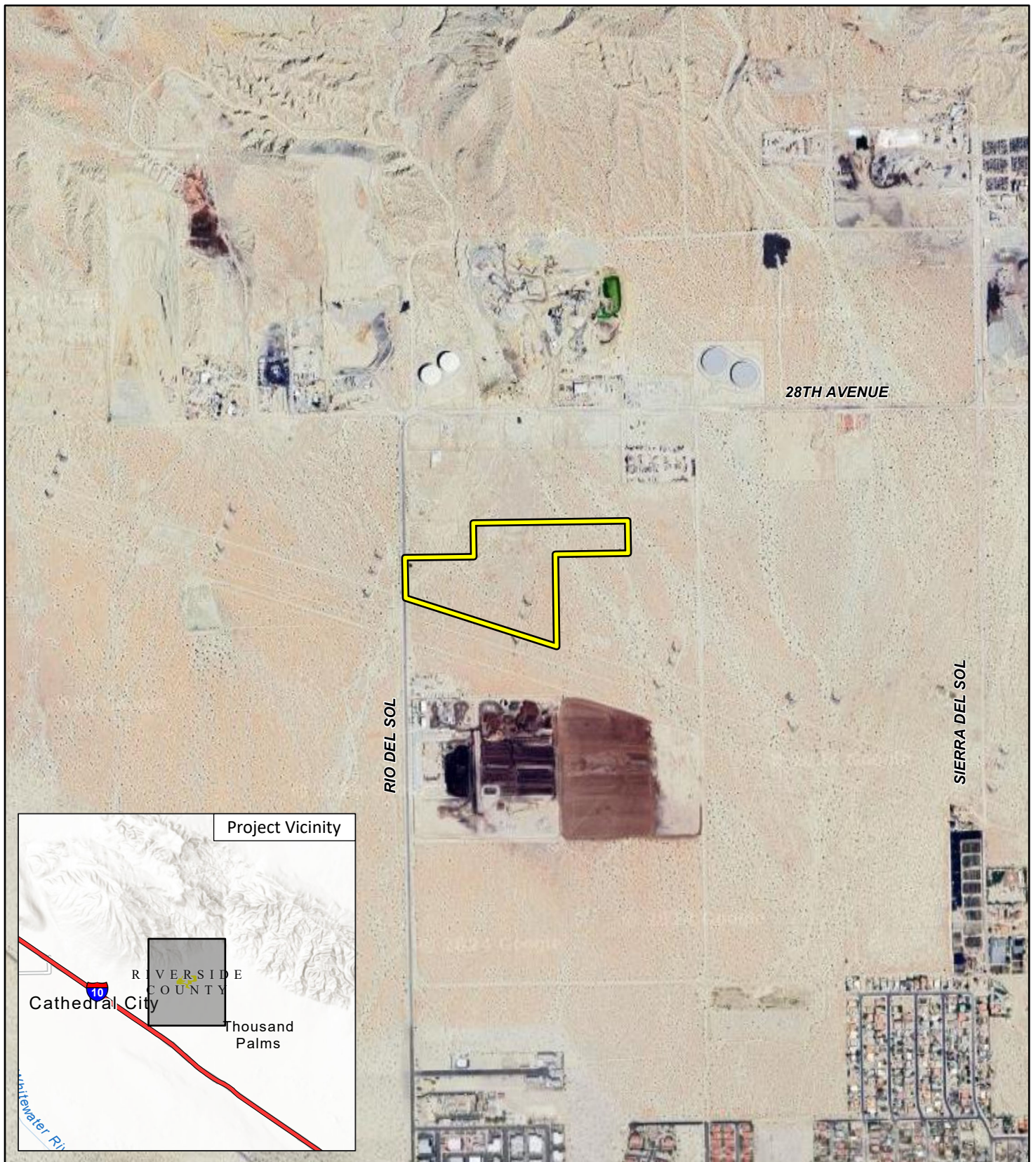
Attachments:

Figure 1: Regional and Project Location

Figure 2: Conceptual Site Plan

Table A: Project Trip Generation

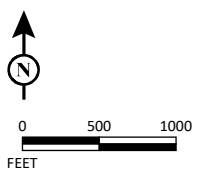
FIGURES



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 Project Location

FIGURE 1



SOURCE: ESRI Streetmap, 2021, Google Maps Satellite, 2024

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Rio Del Sol Industrial Project
Trip Generation and VMT Analysis Memorandum
Regional and Project Location

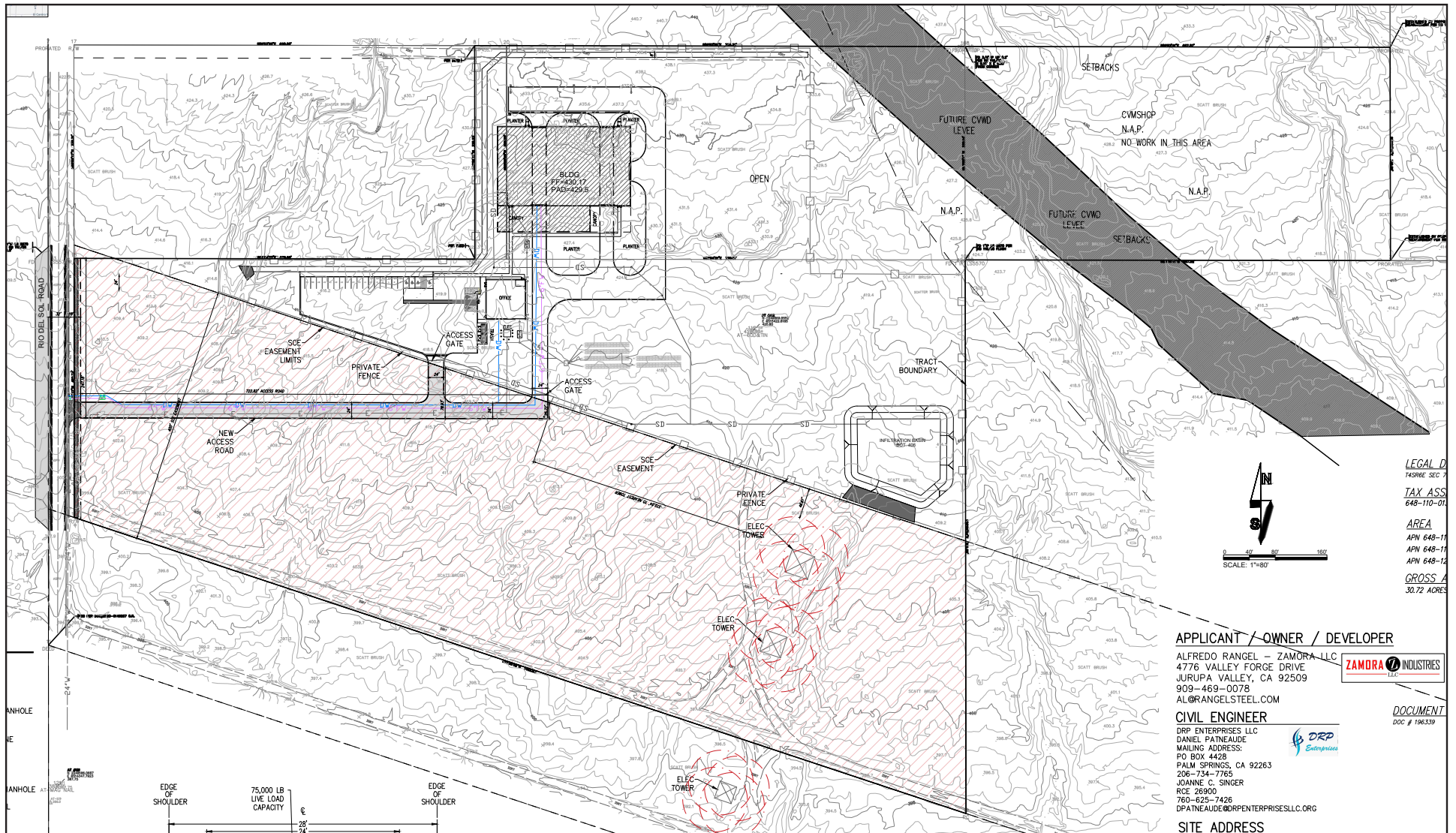
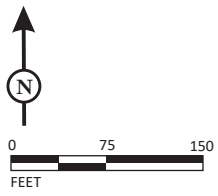


FIGURE 2

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TABLES

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
General Office Building¹	3.130 TSF	1.34	0.18	1.52	0.24	1.2	1.44	10.84
		4	1	5	1	4	5	34
Light Industrial Building^{2, 3}	24.906 TSF							
Trips/Unit (Cars)		0.512	0.070	0.582	0.072	0.439	0.511	3.828
Trips/Unit (2-Axle Trucks)		0.031	0.021	0.052	0.023	0.023	0.045	0.390
Trips/Unit (3-Axle Trucks)		0.017	0.011	0.028	0.012	0.012	0.025	0.190
Trips/Unit (4+ Axle Trucks)		0.047	0.031	0.078	0.034	0.034	0.069	0.463
Trips/Unit (Total)		0.650	0.090	0.740	0.090	0.560	0.650	4.870
Trip Generation (Cars)		13	1	14	2	11	13	95
Trip Generation (2-Axle Trucks)		1	0	1	1	0	1	10
Trip Generation (3-Axle Trucks)		0	1	1	0	1	1	5
Trip Generation (4+ Axle Trucks)		1	1	2	1	1	2	12
Trip Generation (Total)		15	3	18	4	13	17	122
Trip Generation (Cars)		13	1	14	2	11	13	95
PCE Trip Generation (2-Axle Trucks)		2	0	2	2	0	2	15
PCE Trip Generation (3-Axle Trucks)		0	2	2	0	2	2	10
PCE Trip Generation (4+ Axle Trucks)		3	3	6	3	3	6	36
PCE Trip Generation (Total)		18	6	24	7	16	23	156
Net Auto Trip Generation		17	2	19	3	15	18	129
Net Truck PCE Trips		5	5	10	5	5	10	61
Total Net PCE Trip Generation		22	7	29	8	20	28	190

Notes:

TSF = thousand square feet

PCE = passenger car equivalent

¹ Trip rates referenced from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021) for Land Use 710 – "General Office Building". Setting/Location: General Urban/Suburban.

² Trip rates referenced from the ITE Trip Generation Manual, 11th Edition (2021) for Land Use 110 – "Light Industrial". Setting/Location: General Urban/Suburban.

³ The resulting trips were converted to trucks and passenger vehicles based on the vehicle mix from the *City of Fontana's Truck Trip Generation Study* (August 2003). As such, 21.4 percent of the traffic will be trucks. The truck mix was considered as 49.4% 4+-axle, 17.9% 3-axle, and 32.7% 2-axle trucks. All truck trips were converted to passenger car equivalents (PCEs), based on the Riverside County *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled* (December 2020) using a 1.5 PCE factor for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4- and more axle trucks.