

# APPENDIX 9.0

## Trip Generation Assessment (TGA)/ VMT Analysis

**DATE:** August 22, 2024  
**TO:** Adir Cohen, AV 3PL Center LLC  
**FROM:** Charlene So, Urban Crossroads  
**JOB NO:** 15428-12 Cordova TG Memo



### **CORDOVA BUSINESS CENTER (APN 463-491-09-0000) TRIP GENERATION ASSESSMENT**

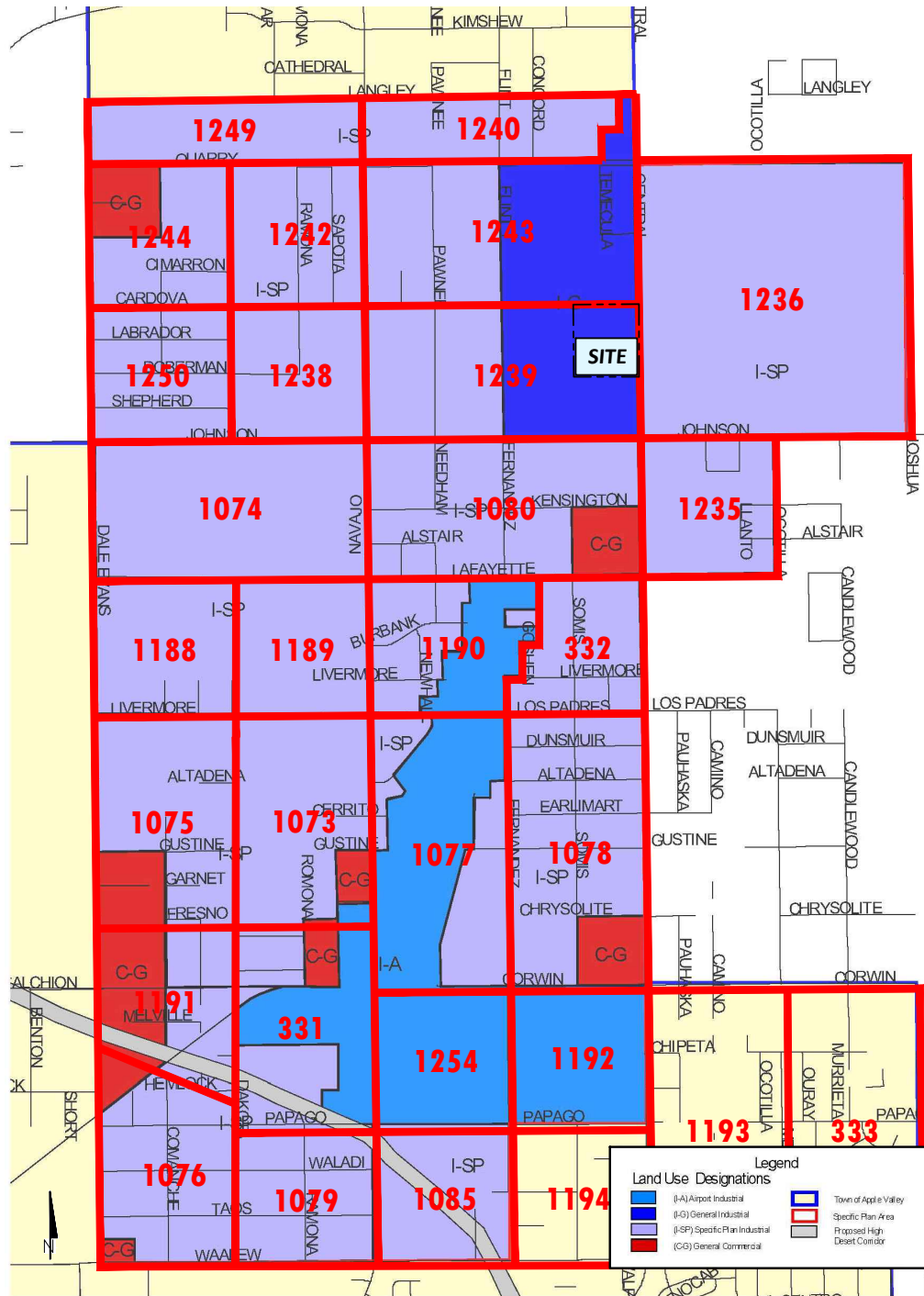
Urban Crossroads, Inc. is pleased to submit the following Trip Generation Assessment for the proposed Cordova Business Center development (**Project**), which is located within the North Apple Valley Industrial Specific Plan (NAVISP) on the southwest corner of Central Avenue and Cordova Road in the Town of Apple Valley. This letter describes the proposed Project trip generation and determines whether any traffic operations analysis is required based on the County's Transportation Impact Study Guidelines (dated July 9, 2019, referred to as County Guidelines) since the Town does not have their own level of service (LOS) based traffic study guidelines.

### **PROPOSED PROJECT**

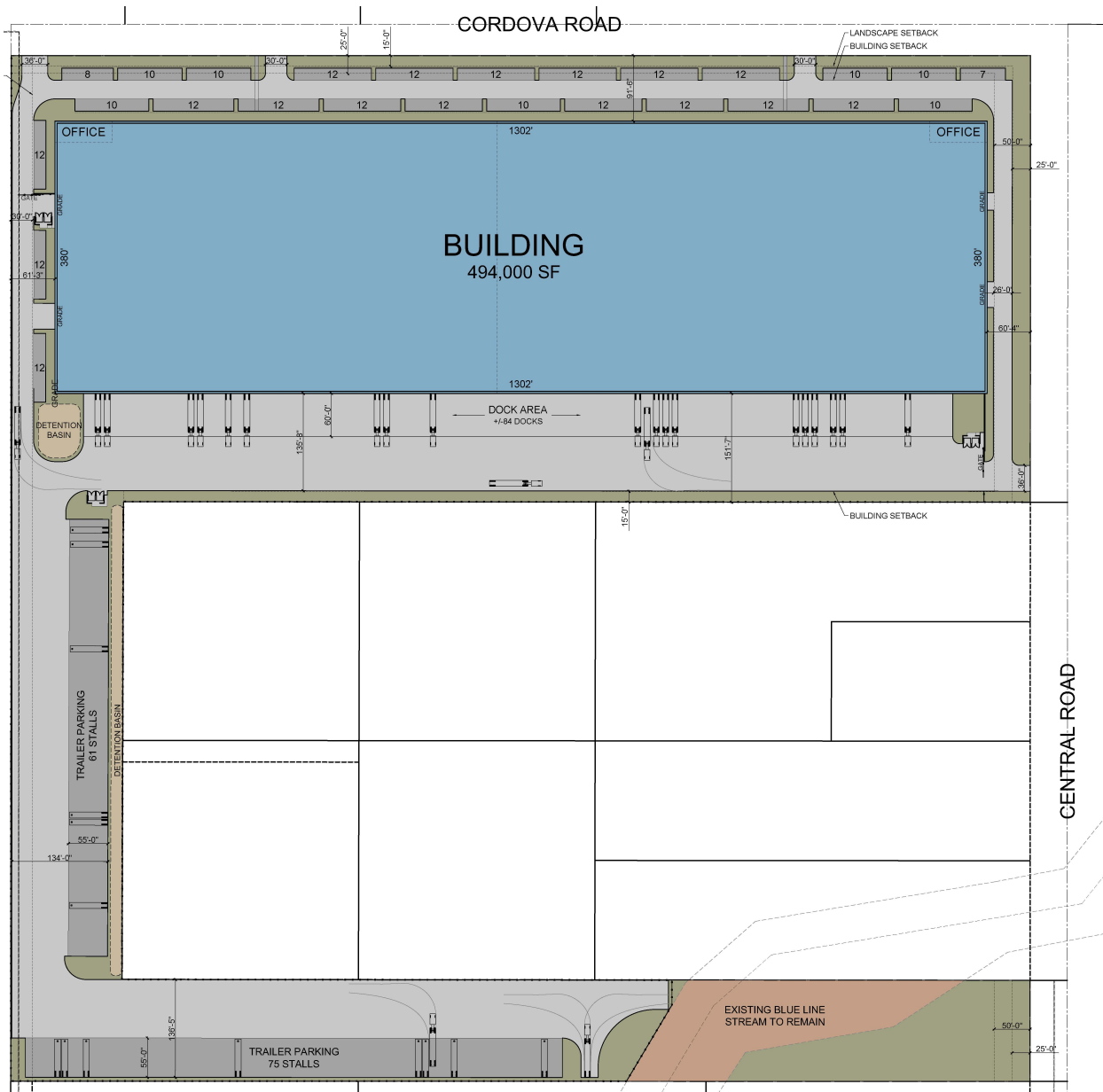
The following trip generation assessment compares the proposed Project to the use evaluated previously in order to determine if the proposed Project falls within the overall envelope of analysis included in the Environmental Impact Report (EIR) (SCH No. 2008091077) for the Apple Valley General Plan and Annexations 2008-001 & 2008-002 (certified August 11, 2009, referred to as **2009 EIR**). The 494,000 square foot building is located within Traffic Analysis Zone (**TAZ**) 1239 of the General Plan Update. Exhibit 1 presents the Specific Plan land uses along with an overlay of the General Plan TAZ zones with the location of the proposed Project identified. It is our understanding that the Project is to consist of a total of 494,000 square feet of warehousing and distribution uses<sup>1</sup> within a single building on 29.79-net acres (see Exhibit 2).

<sup>1</sup> The warehousing and distribution land uses do not include any Fulfillment Centers (e.g., sort facilities such as Amazon) or Parcel Hubs (e.g., FedEx).

**EXHIBIT 1: PROJECT LOCATION MAP**



**EXHIBIT 2: PRELIMINARY SITE PLAN**



## TRIP GENERATION

### GENERAL PLAN TRIP GENERATION

As noted previously, the 494,000 square foot building lies within TAZ 1239 of the General Plan Update as evaluated in the 2009 EIR. As shown in Table 1, the site totaling 29.79-acres is designated General Industrial (I-G). Both allow warehousing and warehousing distribution facilities. The General Plan Update analysis was based on the Apple Valley Traffic Model (AVTM) which utilizes socio-economic data (SED) that is representative of specific land uses within each TAZ. Table 1 summarizes the total acreage for the applicable TAZ and the total daily trips, then the associated site daily trip generation has been calculated based on the site acreage within the TAZ.

**TABLE 1: GENERAL PLAN TRIP GENERATION**

TAZ <sup>2</sup>	GPEIR <sup>1</sup>		Project Site Acreage Units <sup>1</sup>	Project Pro Rata Share	
	Total TAZ Daily Trips	TAZ Acreage Units <sup>1</sup>		Percent Total	Total Site Daily Trips
GPEIR TAZ 1239 (Cordova)	9,076	316.3 Ac	29.8 Ac	9.42%	855

<sup>1</sup> GPEIR = General Plan Environmental Impact Report

<sup>2</sup> TAZ = Traffic Analysis Zone

<sup>3</sup> AC = Acreage

The trip generation summary illustrating daily trip generation estimates for the proposed Project is summarized in Table 1. The trip generation is based on the site acreage as a percentage of the overall TAZ acreage. The proposed Project is anticipated to generate 855 two-way trips per day.

### PROPOSED PROJECT

The proposed Project is to consist of a warehousing/distribution building totaling 494,000 square foot building west of Central Avenue. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11<sup>th</sup> Edition, 2021) was used (see Table 3). For purposes of this trip generation assessment, the following ITE land use code and vehicle mix has been utilized for the proposed warehouse buildings:

- ITE land use code 150 (Warehousing) has been used to derive site specific trip generation estimates for up to 494,000 square feet. A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has been obtained from the latest ITE Trip Generation Manual. The truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (SCAQMD) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

**TABLE 2: ITE TRIP GENERATION RATES**

Land Use <sup>1</sup>	Units <sup>2</sup>	ITE LU Code	Daily Trip Rate
<b>Actual Vehicle Trip Generation Rates</b>			
Warehousing <sup>3</sup>	TSF	150	1.710
Passenger Cars (AM=88.2%, PM=83.3%, Daily=64.9%)			1.110
2-Axle Trucks (AM=1.97%, PM=2.79%, Daily=5.86%)			0.100
3-Axle Trucks (AM=2.44%, PM=3.46%, Daily=7.27%)			0.124
4+-Axle Trucks (AM=7.39%, PM=10.45%, Daily=21.97%)			0.376

<sup>1</sup> Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition

<sup>2</sup> TSF = thousand square feet

<sup>3</sup> Truck Mix: South Coast Air Quality Management District’s (SCAQMD) recommended truck mix, by axle type.  
 Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

The summary of daily trip generation estimates for the proposed Project in actual vehicles is shown in Table 3. The proposed Project is anticipated to generate 846 two-way trip ends per day (in actual vehicles).

**TABLE 3: PROPOSED PROJECT DAILY TRIP GENERATION SUMMARY**

Land Use	Quantity Units <sup>1</sup>	Project Daily Trips
Warehousing	494.000 TSF	
Passenger Cars:		548
2-axle Trucks:		50
3-axle Trucks:		62
4+-axle Trucks:		186
Total Truck Trips:		298
<b>Total Trips<sup>2</sup></b>		<b>846</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

**TRIP GENERATION COMPARISON**

Table 4 shows the trip generation comparison between the land use category currently approved per the City’s General Plan and the proposed Project (warehousing/distribution) to identify the resulting net change in trips. As shown, the Project is anticipated to generate 9 fewer two-way trip ends per day as compared to the currently adopted General Plan land use.

**TABLE 4: GPEIR VS. PROJECT PRO RATA ALLOCATION DAILY TRIP GENERATION COMPARISON**

	Daily Trips
General Plan Update Pro Rata Allocation	
Total Trips	855
Proposed Project	
Total Trips	846
<b>Net Surplus in Project Trip Allocation of Total GPEIR TAZ Trip Generation</b>	<b>-9</b>

**CONSTRUCTION TRIP GENERATION**

The proposed Project would result in trips associated with construction traffic (workers and vendor trips) during the development of the site. As summarized in the Cordova Business Center (APNs 0463-491-09-000) Air Quality, Greenhouse Gas, and Energy Assessment (Urban Crossroads, Inc., 2024, see Tables 14 and 15), proposed Project is anticipated to generate approximately 276 two-way trip ends per day (in actual vehicles) during peak construction activities (e.g., the building construction phase).

**TRIP GENERATION COMPARISON**

Table 5 shows the trip generation comparison between the land use category currently approved per the City’s General Plan and the proposed Project’s peak daily construction trips to identify the resulting net change in trips. As shown, the Project is anticipated to generate 579 fewer two-way trip ends per day as compared to the currently adopted General Plan land use.

**TABLE 5: GPEIR VS. PROJECT CONSTRUCTION PRO RATA ALLOCATION DAILY TRIP GENERATION COMPARISON**

	Daily Trips
General Plan Update Pro Rata Allocation	
Total Trips	855
Project Construction	
Total Trips	276
<b>Net Surplus in Trip Allocation of Total GPEIR TAZ Trip Generation</b>	<b>-579</b>

## **FINDINGS**

Since the development of the proposed Project is anticipated to result in a net reduction in trips (from both the construction phase and anticipated operational trips for the Project) from the approved General Plan land use, no further traffic operations analysis has been recommended based on the findings of this trip generation assessment.

If you have any questions or comments, I can be reached at [cs@urbanxroads.com](mailto:cs@urbanxroads.com).