

Appendices

Appendix L1a VMT Technical Memorandum

Appendices

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TECHNICAL MEMORANDUM

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Senior Planner
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From: Sean Daly, AICP, PTP
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Date: January 8, 2024

RE: Irwindale Gateway VMT CEQA Transportation Analysis

INTRODUCTION

This memorandum presents vehicle miles traveled analysis for the California Environmental Quality Act (CEQA) transportation assessment of the Irwindale Gateway Project. The Project will be below the City's VMT threshold of significance if VMT reduction elements supportive of non-single occupancy vehicle (SOV) travel are implemented.

The project site is located at 13620 Live Oak Lane in the City of Irwindale. The project site is bordered by Interstate 605 (I-605) to the west, Live Oak Lane to the north and east, and Live Oak Avenue to the south. The Irwindale Gateway Specific Plan is a proposed development of an industrial logistics, distribution center, associated parking, and loading docks. The project site is currently a vacant lot that is used for a variety of industrial and commercial uses, as well as stockpiled materials and debris.

The proposed project proposes two (2) options for the proposed project site plan. The following two options are:

Option 1 – The proposed project would redevelop the project site with three new industrial buildings providing 982,796 square feet of building space – 954,796 square feet of warehouse space and 43,000 square feet of office space. A variety of general warehousing and manufacturing tenants could be accommodated in the three buildings. The proposed project would include a total of 918 standard vehicle parking spaces and 346 trailer parking spaces. In addition, the proposed project would also include approximately 253,736 square feet (5.8 acres) of landscaping.

Option 2 – The proposed project would include two industrial building providing of 704,070 square feet of building space – 668,070 square feet of warehouse space, 36,000 square feet of office space, and a 400-megawatt battery energy storage system (BESS) on approximately 16 acres. The preliminary design for the BESS includes 890 metal enclosures (712 containers and 178 augmentation containers) measuring 8' – 10' high by 29' – 11" long by 5' – 5" wide, housing lithium-ion batteries, 100 power conversion systems and medium voltage transformers, and one substation. Batteries could be double stacked, which would require a higher metal enclosure but take up less space. In addition, the parking for this option would include a total of 617 standard vehicle spaces and 257 trailer spaces, and landscaping would cover 185,782 square feet (4.3

acres).

EXISTING MULTIMODAL INFRASTRUCTURE AND SERVICE CONDITIONS

Multimodal infrastructure and service conditions supporting non-SOV trips are an important component of the VMT assessment. The availability of alternatives to auto travel provides for reduced VMT from a project. Projects that exceed the City's threshold of significance can mitigate its impact through investment in the expansion of non-SOV trip infrastructure and service.

Bicycle and Pedestrian Conditions

San Gabriel River Trail runs north/south to the east Project site between Live Oak Lane and Rivergrade Road. The Trail runs under Live Oak Avenue and crosses at an at-grade signalized intersection at Arrow Highway.

There are discontinuous sidewalks along Arrow Highway and Live Oak Avenue. The sidewalk on the south side of Arrow Highway terminates approximately 170 feet to the east of Live Oak Lane.

There is a sidewalk on the north side of Live Oak Avenue from the San Gabriel River Trail to Live Oak Lane and on the south side of Live Oak Avenue from the San Gabriel River Trail to Graham Road. Access to the San Gabriel River Trail is available from the sidewalks on both the north and south sides of Live Oak Avenue. There is a crosswalk on the east side of the Live Oak Avenue/Graham Road intersections crossing Live Oak Avenue. There is no sidewalk along Live Oak Lane.

The City of Irwindale Active Transportation Plan identifies Live Oak Avenue and Arrow Highway as Major Roads and recommends a Class IV Bikeway along Live Oak Avenue to connect to the San Gabriel River Trail. The Plan also includes the following actions relevant to the implementation of the proposed Project:

- A.7: Encourage the provision of secure bicycle parking at employment centers, commercial centers, recreational amenities, and civic amenities
- D.4.2 Encourage new development to include pedestrian-oriented improvements
- D.4.3 Consider requiring new development to provide sidewalks in Pedestrian Priority Areas

Transit Conditions

Foothill Transit Line 492 (Montclair – Arcadia – El Monte via Arrow Hwy) stops at Live Oak Avenue and Stewart Avenue and passes the southern border of the project site along Live Oak Avenue. The frequency of service is every half hour from 5:30 AM to 11:00 PM.

Foothill Transit Line 272 (Duarte – Baldwin Park – West Covina) has stops at Live Oak Avenue / Stewart Avenue and Rivergrade Road / Arrow Highway and passes the north border of the project site along Arrow Highway. The frequency of service is hourly from 5:30 AM to 9:00 PM.

CITY OF IRWINDALE REQUIREMENTS

The City of Irwindale *Code 17.66.030 – Transportation demand and trip reduction measures* delineates requirements for non-residential development related to non-automobile supportive programs and

infrastructure. Each of the following three sections related to non-residential development by progressive square footage would apply to the Irwindale Gateway project:

1. Nonresidential development of twenty-five thousand square feet or more shall provide the following to the satisfaction of the city:

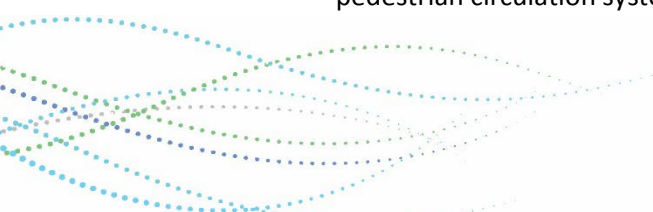
- a. A bulletin board, display case or kiosk displaying transportation information located where the greatest number of employees are likely to see it. Information in the area shall include, but is not limited to, the following:
 - i. Current maps, routes and schedules for public transit routes serving the site;
 - ii. Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operators;
 - iii. Ridesharing promotional material supplied by commuter-oriented organizations;
 - iv. Bicycle route and facility information, including regional/local bicycle maps and bicycle safety information;
 - v. A listing of facilities available at the site for carpoolers, vanpoolers, bicyclists, transit riders and pedestrians.

2. Nonresidential development of fifty thousand square feet or more shall comply with subsection (B)(1) of this section, and shall provide all of the following measures to the satisfaction of the city:

- a. Not less than ten percent of employee parking area(s) shall be located as close as is practical to the employee entrance(s) and shall be reserved for use by potential carpool/vanpool vehicles, without displacing handicapped and customer parking needs. This preferential carpool/vanpool parking area shall be identified on the site plan upon application for a building permit, to the satisfaction of the city. A statement that preferential carpool/vanpool spaces for employees are available and a description of the method for obtaining access to such spaces must be included on the required transportation information board. Spaces will be signed/striped as demand warrants; provided that at all times at least one space for projects fifty thousand square feet to one hundred thousand square feet and two spaces for projects over one hundred thousand square feet will be signed/striped for carpool/vanpool vehicles.
- b. Preferential parking spaces reserved for vanpools must be accessible to vanpool vehicles. When located within a parking structure, a minimum vertical interior clearance of seven feet two inches shall be provided for such spaces and accessways to be used by such vehicles. Adequate turning radii and parking space dimensions shall also be included in vanpool parking areas.
- c. Bicycle racks or other secure bicycle parking shall be provided to accommodate four bicycles per the first fifty thousand square feet of nonresidential development and one bicycle per each additional fifty thousand square feet of nonresidential development. Calculations which result in a fraction of 0.5 or higher shall be rounded up to the nearest whole number.

3. Nonresidential development of one hundred thousand square feet or more shall comply with subsections (B)(1) and (2) of this section, and shall provide all of the following measures to the satisfaction of the city:

- a. A safe and convenient zone in which vanpool and carpool vehicles may delivery or board their passengers;
- b. Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development;



- c. If determined necessary by the city to mitigate the project impact, bus stop improvements must be provided. The city will consult with the local bus service providers in determining appropriate improvements. When locating bus stops and/or planning building entrances, entrances must be designed to provide safe and efficient access to nearby transit stations/stops;
- d. Safe and convenient access from the external circulation system to bicycle parking facilities on-site.

Section 17.66.040 – *Monitoring* (Ord. 465 § 6(part), 1993) how the City will ensure the compliance with the required measures through a monitoring program:

The city shall ensure compliance with the measures required by this chapter during project implementation. The project applicant shall demonstrate compliance with each measure in a written report submitted to the city prior to the issuance of a building permit and show compliance prior to the issuance of certificate of occupancy. As applicable, applicants may be required to provide periodic reports regarding compliance with such measures.

These requirements were included in the analysis of the vehicle miles traveled assessment. IN addition to these requirements, the Project Notice of Preparation includes the following public improvements to street frontages:

1. Construction of 750 feet of a five-foot-wide meandering public sidewalk and minimum 20-foot-wide landscaped parkway on the north side of the portion of Live Oak Avenue that abuts the project site.
2. The dedication of a total of 1,900 feet of Live Oak Lane (300 feet and 1,600 feet along the northern and southern portions of Live Oak Lane, respectively) along the proposed project's frontage to improve the street to the City's standard of 60 feet.
3. Construction of minimum five-foot-wide sidewalks along both sides of Live Oak Lane and ten-foot-wide landscaped setbacks along the portion of Live Oak Lane that abuts the project site.
4. Installation of a new traffic signal at the Live Oak Lane and Live Oak Avenue intersection.
5. Installation of five new public streetlights along the north side of Live Oak Lane abutting the project site and eight new public streetlights along the east side of Live Oak Lane abutting the project site.
6. Construction of a meandering sidewalk and parkway along the south side of Arrow Highway.

These improvements would provide for active transportation connections where they do not exist today along Live Oak Lane, Live Oak Avenue, and Arrow Highway.

VMT CEQA ANALYSIS METHODOLOGY

For purposes of CEQA compliance, a VMT analysis should be conducted for land use projects as deemed necessary by the City Traffic Engineer and would apply to projects that have the potential to increase the baseline VMT per service population (e.g. population plus employment) for the City. Normalizing VMT per employment population (e.g. creating a rate by dividing VMT by employment population) provides a transportation efficiency metric that the analysis is based on. All assumptions and methodologies of the VMT analysis are subject to review and approval by the City Traffic Engineer.

VMT analysis consists of screening analysis that determines if a project needs project-level assessment and assessment for non-screened projects.

The San Gabriel Valley Council of Governments (SGVCOG) worked with member agencies (including the City of Irwindale) to analyze existing traffic conditions in the region to develop a baseline standard that determines significance CEQA thresholds for future land use and transportation projects. SGVCOG then developed a web-based VMT Evaluation Tool based on VMT data from the Southern California Association of Government (SCAG) Travel Demand Model.

The VMT assessment of the Project was conducted using the SGVCOG VMT Evaluation Tool. In addition, the SCAG model was directly used to develop speed and volume data for the air quality and noise analysis and trip distribution for the traffic study.

CEQA VMT Impact Threshold

The Project would result in a significant project generated VMT impact if the following condition is satisfied:

- The baseline project generated VMT per work-based trip per employee exceeds 15% below the City's baseline.

Screening Analysis

The Project does not meet any screening criteria defined by the City of Irwindale:

- The Project is not located in a transit priority area (TPA).
- The Project is not located in a low VMT-generating area
- The Project is not a type of project identified by the City that could be presumed to be less than significant.

Therefore, project-level analysis was conducted.

Project-Level Analysis

SGVCOG web-based VMT Evaluation Tool was used for the project-level analysis for the CEQA VMT assessment. The analysis is a Baseline (Year 2023) plus Project assessment of Project VMT. Given the modest scale of the project in terms of Citywide VMT, the Baseline plus Project VMT is equivalent to Cumulative plus Project VMT—the project VMT is not expected to react to future area conditions. This analysis may overestimate the Project's effect on VMT but is considered conservative analysis.

The following VMT reduction elements were included in the Project-level analysis as project components, consistent with the multimodal infrastructure and services that serve the Project site and the City of Inglewood code.

1. Construction of 750 feet of a five-foot-wide meandering public sidewalk and minimum 20-foot-wide landscaped parkway on the north side of the portion of Live Oak Avenue that abuts the project site.
2. The dedication of a total of 1,900 feet of Live Oak Lane (300 feet and 1,600 feet along the northern and southern portions of Live Oak Lane, respectively) along the proposed project's frontage to improve the street to the City's standard of 60 feet.

3. Construction of minimum five-foot-wide sidewalks along both sides of Live Oak Lane and ten-foot-wide landscaped setbacks along the portion of Live Oak Lane that abuts the project site.
4. Installation of a new traffic signal at the Live Oak Lane and Live Oak Avenue intersection.
5. Installation of five new public streetlights along the north side of Live Oak Lane abutting the project site and eight new public streetlights along the east side of Live Oak Lane abutting the project site. (not quantified as part of the VMT assessment)
6. Construction of a meandering sidewalk and parkway along the south side of Arrow Highway.
7. Provision of carpool/vanpool infrastructure
8. Provision of 23 bicycle parking spaces

The project elements alone are not sufficient to bring the project to less than significant for its impact on the transportation system, therefore the following VMT reduction measures to be included as mitigation measures were assessed:

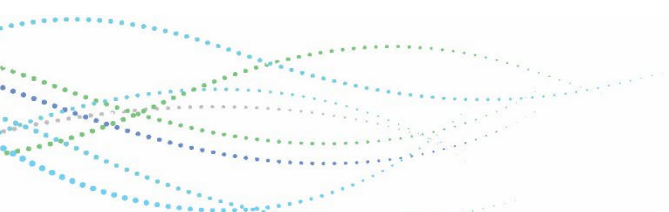
- Installation of a bus stop for Foothill Transit line 492 on Live Oak Avenue at Live Oak Lane which would shorten the distance from the nearest transit stop from approximately 2,750 feet to approximately 150 feet. This mitigation measure would require coordination with Foothill Transit and the City of Irwindale. Bus pads are already present at the project driveway intersection on both sides of the roadway, the project could support the stop with funds for signage and a shelter/seating.
- Modification of the public sidewalk and landscaping along the north side of the portion of Live Oak Avenue that abuts the project site to include accommodation of a Class IV trail consistent with the City of Irwindale Active Transportation Plan to create a portion of the connection to the San Gabriel River Trail

As shown in Table 1, the proposed Project with no VMT reduction elements would have a level of daily VMT per employee (20.8) that would exceed the City’s threshold of 18.5 daily VMT per employee. If the Project were to implement a series of multimodal improvements as project elements and mitigation, the VMT per employee would be below the City’s threshold and less than significant.

Table 1: Project VMT Characteristics

VMT Geography	No VMT Reduction Elements	With VMT Reduction Elements
City Average	21.76	21.76
Threshold	18.5	18.5
Option 1	20.8	18.4
Option 2	20.8	18.4

The SGVCOG VMT Evaluation Tool Report is shown in the following graphics:



SGVCOG VMT Evaluation Tool Report

Project Details

Timestamp of Analysis: January 08, 2024, 11:40:44 AM

Project Name: Irwindale Gateway

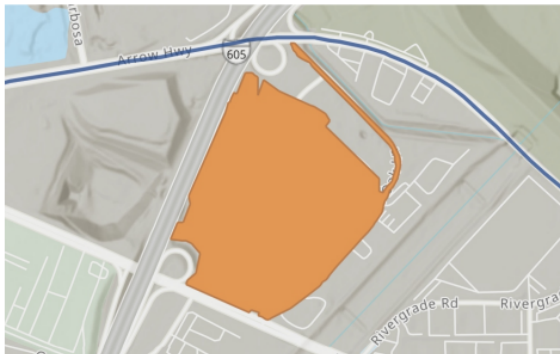
Project Description: Industrial Development

Project Location

jurisdiction:	apn	TAZ
Irwindale	8532-002-044	22263100

Inside a TPA?

No (Fail)



Analysis Details

Data Version: SCAG Regional Travel Demand Model
2016 RTP Base Year 2012

Analysis Methodology: TAZ

Baseline Year: 2023

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF: 43

Local Serving Retail KSF:

Industrial KSF: 954

Residential Affordability (percent of all units):

Extremely Low Income: 0%


Very Low Income: 0%

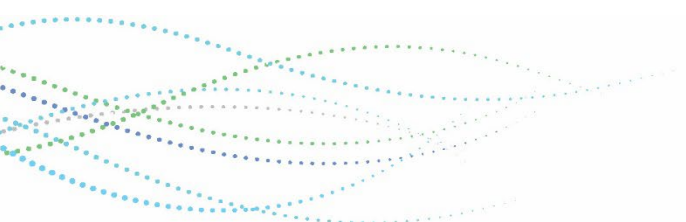
Low Income: 0%

Parking:

Motor Vehicle Parking: 918

Bicycle Parking: 23

SGVCOG VMT Evaluation Tool Report			 Page 2
Office Vehicle Miles Traveled (VMT) Screening Results			
Land Use Type 1:	Office		
VMT Without Project 1:	Home-based Work VMT per Worker		
VMT Baseline Description 1:	City Average		
VMT Baseline Value 1:	21.76		
VMT Threshold Description 1:	-15%		
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A		
	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	20.8	18.4	18.4
Low VMT Screening Analysis	No (Fail)	Yes (Pass)	Yes (Pass)

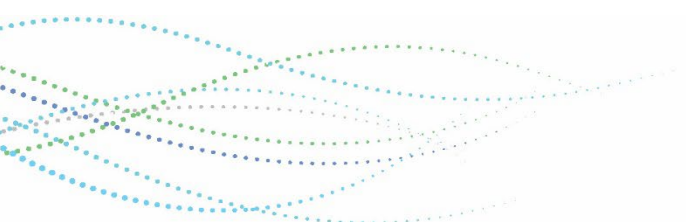


SGVCOG VMT Evaluation Tool Report

Industrial Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 2:	Industrial
VMT Without Project 2:	Home-based Work VMT per Worker
VMT Baseline Description 2:	City Average
VMT Baseline Value 2:	21.76
VMT Threshold Description 2:	-15%
Land Use 2 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	20.8	18.4	18.4
Low VMT Screening Analysis	No (Fail)	Yes (Pass)	Yes (Pass)



SGVCOG VMT Evaluation Tool Report		 Page 4					
Tier 1 Project Characteristics		MI05 Pedestrian Networks					
PC04 Increase Employment Density		<table border="1"> <tr> <td>Pedestrian Improvements Beyond Development Frontage:</td> <td>Yes</td> </tr> </table>		Pedestrian Improvements Beyond Development Frontage:	Yes		
Pedestrian Improvements Beyond Development Frontage:	Yes						
Existing Employment Density:	2202.16	Tier 3 Parking					
With Project Employment Density:	3148.01	PK02 Provide Bike Facilities					
Tier 2 Multimodal Infrastructure		<table border="1"> <tr> <td>Bicycle Parking:</td> <td>23</td> </tr> <tr> <td>Project End-of-trip Bike Facilities:</td> <td>Yes</td> </tr> </table>		Bicycle Parking:	23	Project End-of-trip Bike Facilities:	Yes
Bicycle Parking:	23						
Project End-of-trip Bike Facilities:	Yes						
MI01 Increase Bike Access							
Distance to Nearest Existing Bike Facility:	500 ft						
Distance to Nearest Existing Bike Facility With Project:	150 ft						
MI03 Increase Transit Accessibility							
Distance to Closest Transit Stop:	2750 ft						
Distance to Closest Transit Stop With Project:	150 ft						

Conclusion

The Project will be below the City’s VMT threshold of significance and have a less than significant CEQA impact based on Project VMT if multimodal elements supportive of non-single occupancy vehicle (SOV) travel are implemented. These include two mitigation measures that are not project elements:

- Installation of a bus stop for Foothill Transit line 492 on Live Oak Avenue at Live Oak Lane which would shorten the distance from the nearest transit stop from approximately 2,750 feet to approximately 150 feet. This mitigation measure would require coordination with Foothill Transit and the City of Irwindale. Bus pads are already present at the project driveway intersection on both sides of the roadway, the project could support the stop with funds for signage and a shelter/seating.
- Modification of the public sidewalk and landscaping along the north side of the portion of Live Oak Avenue that abuts the project site to include accommodation of a Class IV trail consistent with the City of Irwindale Active Transportation Plan to create a portion of the connection to the San Gabriel River Trail

