



July 22, 2021

Mr. Matt Enghard
Proficiency Rubidoux LLC
11777 San Vicente Boulevard, Suite 780
Los Angeles, CA 90049

SUBJECT: RUBIDOUX WAREHOUSE VEHICLE MILES TRAVELED (VMT) ANALYSIS

Dear Mr. Matt Enghard:

The following VMT Analysis has been prepared for the proposed Rubidoux Warehouse Project (**Project**), which is located west of Avalon Street at 26th Street, in the City of Jurupa Valley, Riverside County, California.

PROJECT OVERVIEW

The Project consists of the development of the Project site with a combined building area of approximately 1,299,358 square feet (sf) consisting of the following uses:

- 1,261,904 square feet of High-Cube Fulfillment Center use (Building 1)
- 37,454 square feet of General Light Industrial use (Building 2)

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**). (1) Based on OPR's Technical Advisory, the Western Riverside Council of Governments (WRCOG) prepared the Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (February 2020) (**WRCOG Guidelines**) to assist its member agencies with implementation tools necessary to adopt analysis methodology, impact thresholds and mitigation approaches for VMT. Included in this work effort, the WRCOG Guidelines provides a template of specific procedures for complying with the new CEQA requirements for VMT analysis.

(2) Based on the WRCOG Guidelines, the City of Jurupa Valley recently adopted new Traffic Impact Analysis Guidelines (November 2020) (**City Guidelines**) (3), which documents the City’s VMT analysis methodology and approved impact thresholds. The VMT analysis presented in this report has been developed based on the newly adopted City Guidelines.

PROJECT SCREENING

Consistent with City Guidelines, projects that meet certain screening thresholds based on their location and project type may be presumed to result in a less than significant transportation impact. Consistent with the screening criteria recommended in OPR’s Technical Advisory, the City of Jurupa Valley utilizes the following project screening thresholds:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening

A land use project need only meet one of the above screening criteria to result in a less than significant impact.

TPA SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing “major transit stop”¹ or an existing stop along a “high-quality transit corridor”²) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The Project is not located near a high-quality transit corridor.

The TPA screening threshold is not met.

¹ Pub. Resources Code, § 21064.3 (“Major transit stop’ means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”).

² Pub. Resources Code, § 21155 (“For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”).

LOW VMT AREA SCREENING

City Guidelines state that “residential and office projects consistent with the City’s General Plan and located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary.”³ The City uses the WRCOG screening tool to determine low areas of VMT. The screening tool uses the sub-regional Riverside Transportation Analysis Model (RivTAM) to measure VMT performance within individual traffic analysis zones (TAZ’s) within the region. The Project’s physical location based on parcel number is input into the Screening Tool to determine project generated VMT as compared to the City’s impact threshold of baseline VMT per employee. The parcel containing the proposed Project was selected and the screening tool was run for the VMT per employee measure of VMT. Based on the Screening Tool results, the Project is not located within a low VMT generating zone. The Project resides within TAZ 3413 and was shown to generate 21.34 VMT per employee whereas the City’s impact threshold as provided by WRCOG screening tool is 16.94 VMT per employee (as of August 2020).

The Low VMT Area screening threshold is not met.

PROJECT TYPE SCREENING

The City Guidelines identify that local serving retail less than 50,000 square feet or other local serving essential services (e.g., local parks, day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, small projects anticipated to generate low traffic volumes and by association low greenhouse gas (GHG) emissions are also assumed to cause a less than significant impact. The City Guidelines indicate that projects generating fewer than 250 daily vehicle trips may be presumed to have a less than significant impact, subject to discretionary approval by the City. The Project would exceed the daily trip threshold of 250 daily vehicle trips.

The Project Type screening threshold is not met.

PROJECT GENERATED VMT

Consistent with City Guidelines, projects not screened through one of the steps described above are required to complete a VMT analysis and forecasting through the RIVTAM model to determine if they have a significant VMT impact. The first step in the analysis is to calculate project generated VMT and compare it to the City’s adopted impact threshold. RIVTAM is a useful tool to calculate VMT as it considers interaction between different land uses based on socio-economic data such as population, employment and other factors. It was also the tool used to establish the City’s impact threshold, so is the appropriate tool to conduct the analysis to ensure an apples-to-apples comparison of project generated VMT to the adopted threshold.

³ Page 16 of the City Guidelines

Project generated VMT has been calculated using the most current version of RIVTAM. Adjustments in socio-economic data (SED) (i.e., employment) have been made to a separate traffic analysis zone (TAZ) to reflect the Project’s proposed land uses (i.e., warehouse use). A separate TAZ is used to isolate project generated VMT from other land uses in the model. Table 1 summarizes the employment estimates for the Project.

TABLE 1: EMPLOYMENT ESTIMATES

Land Use	Quantity (in square feet)	Estimated Employees
Warehouse	1,299,358	1,262

Project employment estimates presented in Table 1 are based on total proposed new building square footage of 1,299,358 square feet using an employment generation rate of 1 employee per 1,030 square feet for Light Industrial uses.⁴ Adjustments to employment for the Project’s TAZ were made to both the base year model (2012) and the cumulative year model (2040). The base year model and cumulative year model were both run inclusive of the Project’s employment.

City Guidelines state that for office and industrial projects, project generated VMT may be calculated using the production-attraction (P/A) trip matrix to allow for the isolation of vehicle trips by trip purpose (i.e., home-based work trips) that allows for the isolation of commute VMT for employment uses (e.g., office, industrial, etc.). Evaluation of VMT based on trip purpose is consistent with recommendations in OPR’s Technical Advisory and offers the most straight forward method for assessing VMT reductions from mitigation measures for single use project.⁵ Based on consultation with City staff, it was determined that project generated VMT would be calculated based on the P/A trip matrix.

Project generated VMT was calculated for both the base year model (2012) and cumulative year model (2040). The VMT value was then normalized by dividing by the Project’s number of employees. Table 2 presents the key inputs for the calculation of project generated VMT per employee.

TABLE 2: PROJECT VMT PER EMPLOYEE

	Base Year (2012)	Cumulative (2040)
Project generated VMT	23,210	24,258
Employment	1,262 employees	1,262 employees
VMT per Employee	18.39	19.22

⁴ Appendix E: Socioeconomic Build-Out Assumptions and Methodology of the County’s General Plan

⁵ Page 5 of OPR’s Technical Advisory

The adopted City Guidelines state that the City of Jurupa Valley has selected a threshold based on the baseline VMT performance in the City. More specifically, the City Guidelines state that a project generated VMT impact would be considered potentially significant if either of the following conditions are met:

1. For office and industrial projects its net VMT per employee exceeds the City’s average VMT per employee.
2. For office and industrial projects its cumulative project-generated VMT per employee exceeds the average VMT per employee for Jurupa Valley in the RTP/SCS horizon year.

Table 3 presents the difference between base and cumulative project generated VMT per employee to the City’s baseline VMT per employee. As shown, the base project generated VMT per employee is 18.39 or 8.56% greater than the City’s current threshold of 16.94 VMT per employee. Whereas the cumulative project generated VMT per employee is 19.22 or 13.66% greater the City’s threshold of 16.91 VMT per employee. Therefore, the Project’s VMT impact is potentially significant based on the comparison of base and cumulative project generated VMT per employee to the City’s base and cumulative conditions.

TABLE 3: PROJECT GENERATED VMT PER EMPLOYEE COMPARISON

	Base (2012)	Cumulative (2040)
City Baseline VMT per Employee	16.94	16.91
Project VMT per Employee	18.39	19.22
Percent Change	+8.56%	+13.66%
Potential Impact?	Yes	Yes

PROJECT’S CUMULATIVE EFFECT ON VMT

The General Plan land use designations and zoning for the Project site are Light Industrial. The proposed Project results in jobs within the total number of jobs projected by the current Southern California Association of Governments (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and is consistent with the underlying employment assumptions upon which the current RTP/SCS was based. As noted in the City Guidelines, "if a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence." As such, the Project’s contribution to cumulative impacts for VMT is considered less than significant.

POTENTIAL VMT REDUCTION MEASURES

Transportation demand management (TDM) strategies have been evaluated for the purpose of reducing VMT impacts determined to be potentially significant. The effectiveness of TDM strategies to reduce VMT has been determined based on the SB 743 Implementation TDM Strategy Assessment (February 26, 2019, Fehr & Peers) (**WRCOG Report**) prepared for WRCOG and the Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010). The WRCOG Report indicates that of the 50 transportation measures presented by CAPCOA, only 41 are applicable at a building and site level. The remaining 9 measures are functions of, or depend on, site location and/or actions by local and regional agencies or funders.

The WRCOG Report goes on to provide a review of the 41 transportation measures identified by CAPCOA and determines that for areas within WRCOG, only 7 of those measures may be effective at an individual project level. Evaluation of potentially applicable TDM strategies in the context of the proposed Project is summarized below.

- Measure 1: Increase Diversity of Land Uses (LUT-3). Having different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-auto modes of transportation. For example, when residential areas are in the same neighborhood as retail and office buildings, a resident does not need to travel outside of the neighborhood to meet his/her trip needs.

Remarks: The Project consists of the development of the Project site with a combined building area of approximately 1,299,358 sf. In order for the above measure to apply, at least three of the following will be located on-site, or off-site within ¼ mile of the Project: Residential Development, Retail Development, Park, Open Space, or Office. There is limited residential development located off-site within ¼ mile south of the Project. As the proposed Project does not include a mix of land uses within the development site, but is instead located within a sphere of influence to residential uses (i.e., ¼ mile radius), this particular TDM measure is not evaluated further as a means of providing a reduction in Project VMT.

- Measure 2: Provide Pedestrian Network Improvements (SDT-1). Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive assuming that desirable destinations are within walking distance of the Project. This mode shift results in people driving less and a reduction in VMT.

Remarks: Limited pedestrian access exists along the Project's frontage. The Project's implementation of this measure through the construction of on-site connections to the existing sidewalks off-site could provide for a nominal reduction in Project VMT. As noted by CAPCOA (Quantifying Greenhouse Gas Mitigation Measures, p. 187), the provision of sidewalks on-site that connect to off-site pedestrian walkways linking to other complementary land uses within a suburban context can result in a VMT reduction between 0 and 2.0%. Given the limited nature of the complementary land uses within walking distance of the Project site, the implementation of this measure is anticipated to be at the lower levels of the reduction range (i.e., less than 1.0%).

- Measure 3: Provide Traffic Calming Measure (SDT-2). Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised

crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.

- **Remarks:** There is limited opportunity for the Project to implement meaningful enhanced traffic calming measures in the area that would encourage a shift in travel mode to walking or biking. This measure is therefore not evaluated further as means of providing a reduction in Project VMT.
- **Measure 4: Implement Car-Sharing Program (TRT-9).** Implementing a car-sharing program would allow individuals to have on-demand access to a shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees.
Remarks: This particular TDM measure would be solely dependent on a future building tenant and may be considered as infeasible due to lack of available service providers in the area. For these reasons the measure is not evaluated further as means of providing a reduction in Project VMT.
- **Measure 5: Increase Transit Service Frequency and Speed (TST-4).** This measure serves to reduce transit-passenger travel time through more reduced headways and increased speed and reliability. This makes transit service more attractive and may result in a mode shift from auto to transit which reduces VMT.
Remarks: The Riverside Transit Agency (RTA), a public transit agency serving various jurisdictions within Riverside County currently provides service in the area. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. It is recommended that the Applicant work in conjunction with the Lead Agency and RTA to coordinate potential bus service to the Project site. Since implementation of this strategy would require agency implementation it is not applicable for individual development projects. This measure is therefore not evaluated further as means of providing a reduction in Project VMT.
- **Measure 6: Encourage Telecommuting and Alternative Work Schedule (TRT-6).** Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered starting times, flexible schedules, or compressed work weeks.
Remarks: The effectiveness of this measure is dependent on the ultimate building tenant(s) which are unknown currently. As such, this measure is therefore not evaluated further as means of providing a reduction in Project VMT.
- **Measure 7: Provide Ride-Sharing Programs (TRT-3).** This strategy focuses on encouraging carpooling and vanpooling but its ultimate implementation is limited as Measure 6 above.
Remarks: The effectiveness of this measure is dependent on the ultimate building tenant(s) which are unknown currently. As such, this measure is therefore not evaluated further as means of providing a reduction in Project VMT.

The effectiveness of the above-noted TDM measures would be dependent in large part on future Project occupancies, which are unknown at this time. Beyond Project tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the Project is characteristically suburban. Of itself, the Project's suburban context acts to limit the range of feasible TDM measures and moderates their potential effectiveness. Relevant discussion in this regard is presented in *WRCOG SB 743 Implementation Pathway*

Document Package (Fehr & Peers [for WRCOG]) March 2019, excerpted in pertinent part below:

The Technical Advisory relies on the Quantifying Greenhouse Gas Mitigation Measures, (CAPCOA) 2010 resource document to help justify the 15 percent reduction in VMT threshold stating, “. . . fifteen percent reduction in VMT are achievable at the project level in a variety of place types . . .”. A more accurate reading of the CAPCOA document is that a fifteen percent is the maximum reduction when combining multiple mitigation strategies for the *suburban center*⁶ place type. For *suburban*⁷ place types 10 percent is the maximum and requires a project to contain a diverse land use mix, workforce housing, and project-specific transit. It is also important to note that the maximum percent reductions were not based on data or research comparing the actual performance of VMT reduction strategies in these place types. Instead, the percentages were derived from a limited comparison of aggregate citywide VMT performance for Sebastopol, San Rafael, and San Mateo where VMT performance ranged from 0 to 17 percent below the statewide VMT/capita average based on data collected prior to 2002. Little evidence exists about the long-term performance of similar TDM strategies in different land use contexts. As such, VMT reductions from TDM strategies cannot be guaranteed in most cases (*WRCOG SB 743 Implementation Pathway Document Package*, pp. 65 – 66).

As noted previously, baseline project generated VMT exceeds the City’s baseline VMT threshold by 8.56% and cumulative project generated VMT exceeds the City’s cumulative VMT threshold by 13.66%. Where feasible, TDM measures described above should be implemented to reduce project generated VMT to the extent possible. However, even with the implementation of TDM measures needed to achieve the maximum 10 percent reduction for a land use project located in a suburban context would not be enough to reduce the Project’s impact to a level of less than significant.

If you have any questions, please contact me directly at aevatt@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.



Aric Evatt, PTP
President



Robert Vu, PE
Transportation Engineer

⁶ **Suburban Center:** A project typically involving a cluster of multi-use development within dispersed, low-density, automobile dependent land use patterns (a suburb). The center may be an historic downtown of a smaller community that has become surrounded by its region’s suburban growth pattern in the latter half of the 20th Century. The suburban center serves the population of the suburb with office, retail and housing which is denser than the surrounding suburb (*Quantifying Greenhouse Gas Mitigation Measures*, p. 60).

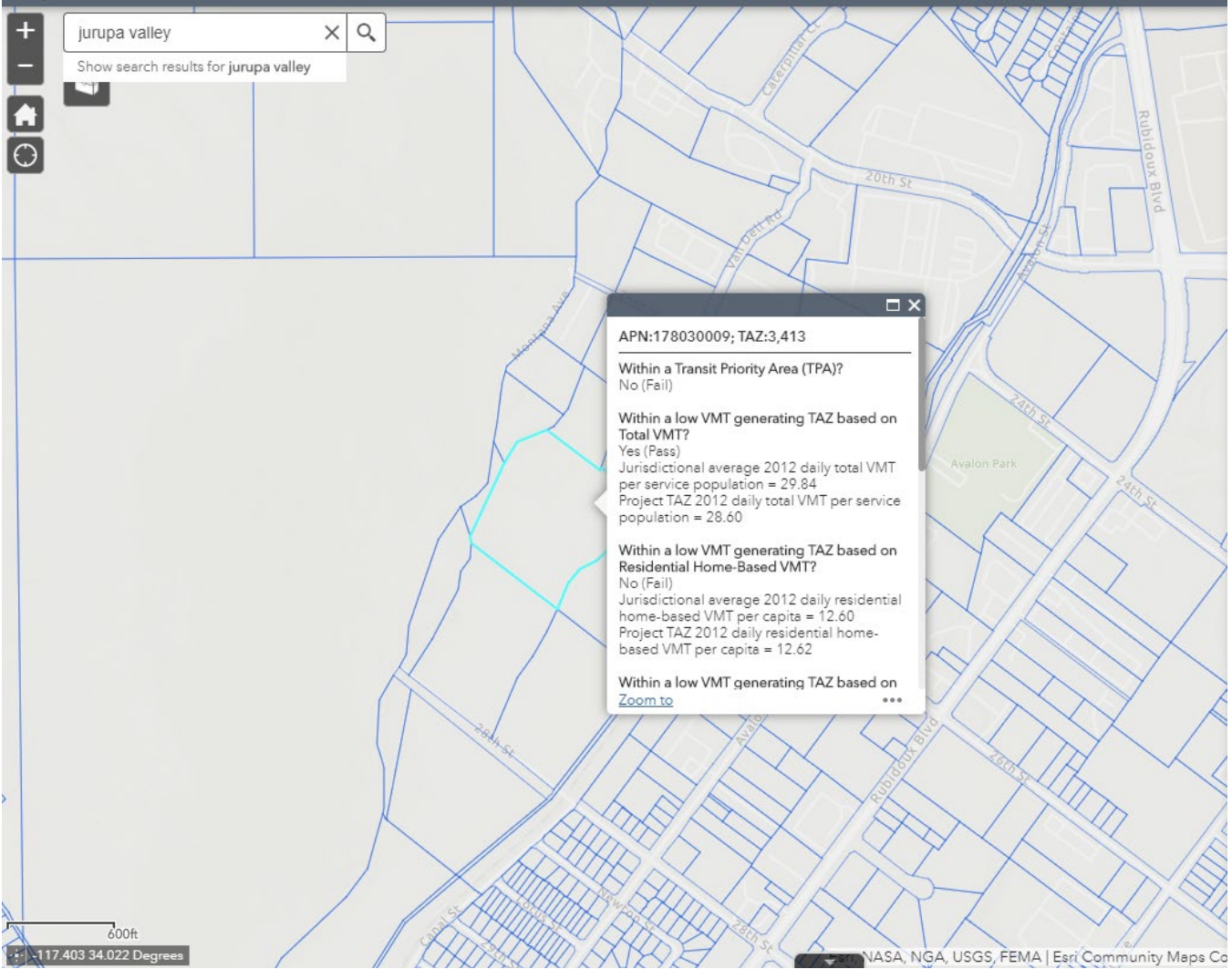
⁷ **Suburban:** A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside.

REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **Western Riverside Council of Governments (WRCOG).** *Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment.* February 13, 2020.
3. **City of Jurupa Valley.** *Traffic Impact Analysis Guidelines Methodology for General Plan Compliance Analysis and CEQA VMT Analysis.* November 2020.

ATTACHMENT A: WRCOG SCREENING TOOL

WRCOG VMT Screening Tool



APN:178030009; TAZ:3,413

Within a Transit Priority Area (TPA)?
No (Fail)

Within a low VMT generating TAZ based on Total VMT?
Yes (Pass)
Jurisdictional average 2012 daily total VMT per service population = 29.84
Project TAZ 2012 daily total VMT per service population = 28.60

Within a low VMT generating TAZ based on Residential Home-Based VMT?
No (Fail)
Jurisdictional average 2012 daily residential home-based VMT per capita = 12.60
Project TAZ 2012 daily residential home-based VMT per capita = 12.62

Within a low VMT generating TAZ based on Home-Based Work VMT?
No (Fail)
Jurisdictional average 2012 daily home-based work VMT per worker = 16.94
Project TAZ 2012 daily home-based work VMT per worker = 21.34

Notes:

- TPA designation is based on October 2018 conditions.
- Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.
- If VMT screening is desired for current baseline conditions, contact WRCOG for 2012 and 2040 VMT data. Interpolated VMT results can be obtained using the complete data set.
- VMT results do not account for full length of trips that occur beyond the SCAG region.