



## TECHNICAL MEMORANDUM

DATE: March 23, 2024

TO: Lauren Alexander | The Armony Companies

FROM: Erin Vaca | DKS Associates  
Christine Bairan | DKS Associates

SUBJECT: Rovina Lane Residential Project VMT and Traffic Assessment      Project #24378-000

---

### BACKGROUND AND INTRODUCTION

An affordable housing project is proposed for construction at the southeast corner of Rovina Lane and Jacquelyn Lane in Petaluma, CA (APN: 019-2010-012-000). The proposed project consists of 32 multifamily dwelling units and would be 100% deed-restricted affordable. The project includes several shared facilities including a gym, outdoor play area, and bicycle storage and will provide a total of 51 parking spaces on site.

The City of Petaluma will not require a local transportation impact analysis for approval of the project and the project is assumed to be exempt from formal environmental analysis since it consists of 100% affordable housing. Therefore, the objective of this analysis is to confirm that the presumption of less than significant vehicle miles traveled (VMT) impacts is reasonable and to assess pedestrian, bicycle, and transit access to the site.

### VMT ASSESSMENT

The City of Petaluma's adopted VMT thresholds of significance and analysis methodologies are published in [\*Senate Bill 743 Vehicle Miles Traveled Implementation Guidelines \(July 2021\)\*](#). Residential projects are assessed against a citywide average total home-based VMT per resident. Projects generating up to 83.2% of the citywide average may be presumed to have a less than significant impact. The citywide average home-based VMT per resident is 19.3 and the corresponding threshold of significance is 16.1.

The City's VMT policy lists VMT screening criteria, whereby qualifying projects can forgo formal VMT analysis. All potential screening strategies were reviewed and two of were found to be potentially relevant:

- **Projects in Low VMT Areas** - residential and office/employment-focused projects that are in low-VMT areas (based on adopted VMT thresholds of significance) that are similar to nearby developments in terms of density, mix of uses, and transit accessibility; and
- **Affordable Housing in Jobs-Rich Areas** - projects that include 100 percent affordable housing located in infill locations and areas with a high jobs-housing imbalance.

Based on the screening maps published in the City's VMT Policy and annotated with the project location (**Figure 1**), the project is not located in an area with VMT per resident below the citywide threshold of significance. However, the project is higher density than the immediately surrounding development and consists of affordable housing units. With respect to the 100% affordable housing criterion, the project site is an infill location that is within about two miles of the historic downtown area. Whether this qualifies as a jobs-rich area is not clear.

Because the project could not be definitively screened for VMT impacts, the project characteristics were tested using the VMT Reduction Calculator tool published by the Sonoma County Transportation Agency (SCTA). The SCTA tool relies on data from this agency's travel demand model, consistent with the recommendations for VMT analysis methods in the City's VMT policy. Two strategies were quantified using the VMT Reduction Calculator:

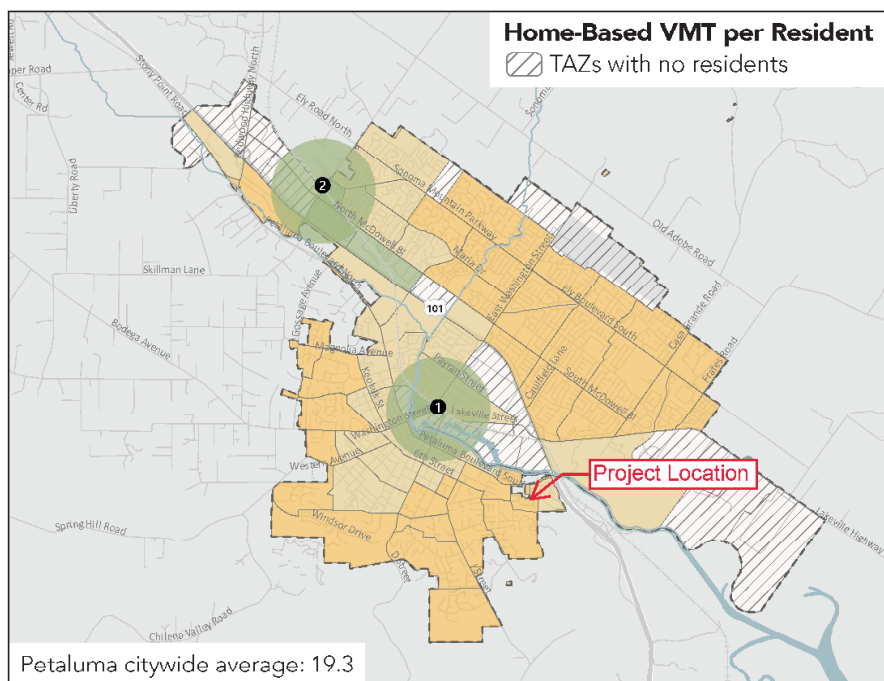
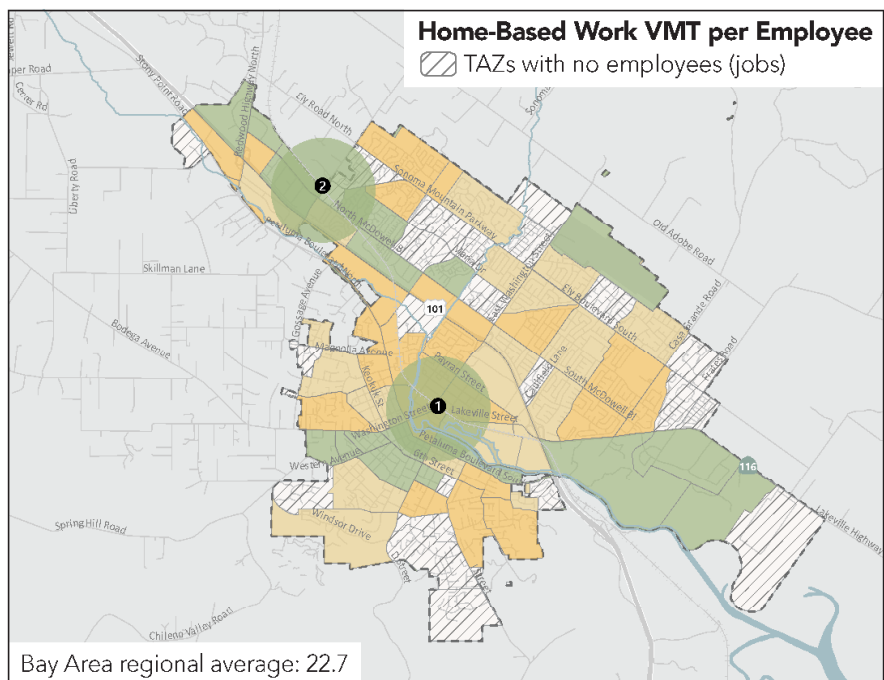
- T-1. Increase Residential Density – The project proposes 32.1 DU/acre. The surrounding area is zoned as R-4 in the Petaluma zoning code, which permits densities of 8 to 18 units per acre. Therefore, the density of typical development was left at the default value of 9.1 DU/acre. As a stand-alone measure, this strategy would result in a 30% decrease in VMT per resident.
- T-4. Integrate Affordable and Below Market Rate Housing – The proposed project consists of 100% affordable housing (permanently dedicated to lower income families earning 80 percent of area median income or below). As a stand-alone measure, this strategy would result in a 28.6% reduction.

According to the VMT Reduction Calculator, the two strategies combined would result in a 50% reduction in project trips (see results sheet attached to this memorandum).

The expected VMT characteristics of the project site were obtained from base year (2019) SCTA model outputs provided by the City of Petaluma. The project is located in Transportation Analysis Zone (TAZ) 898, which exhibits 25.61 home-based VMT per resident. Assuming the average trip length remains constant and applying the reduction factor from the VMT Reduction Calculator, the expected VMT per resident would therefore be 12.8, falling below the threshold of significance.

## PROJECT TRIP GENERATION

The anticipated trip generation associated with the proposed project was estimated using the average rate published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11<sup>th</sup> Edition* for "Multifamily Housing (Mid-Rise)" (ITE LU #221). The proposed development, which includes 32 multifamily dwelling units, is expected to generate 12 morning peak hour trips (three inbound and nine outbound) and 13 afternoon peak hour trips (eight inbound and five outbound). The resulting expected trip generation for the proposed project is



\* These values were calculated using the 2015 base year of the August 2020 version of the Sonoma County Transportation Authority (SCTA) travel demand model. This model incorporates 'Big Data' to refine trip length estimates for inter-county trips. The 2015 horizon year was chosen as a baseline due to the effects of 2017 and 2019 Sonoma County wildfires and the 2020 COVID-19 pandemic. **These values should be updated with new baseline SCTA model information as it becomes available.**

Source: City of Petaluma. Senate Bill 743 Vehicle Miles Traveled Implementation Guidelines (July 2021)

**FIGURE 1: VMT SCREENING MAP**



shown in **Table 1**. Trip generation rates used from the *Trip Generation Manual, 11<sup>th</sup> Edition* are provided in **Attachment A**.

The estimated trips associated with the project will be distributed along the study roadways based on the project trip distributions as shown in **Figure 2**.

**TABLE 1: ESTIMATED PROJECT TRIP GENERATION**

LAND USE	ITE CODE	SIZE	UNIT	DAILY TOTAL	VEHICLE TRIPS GENERATED					
					A.M. PEAK HOUR			P.M. PEAK HOUR		
					ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Multifamily Housing (Mid-Rise)	221	32	DU	145	3	9	12	8	5	13

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition



**FIGURE 2: PROJECT TRIP DISTRIBUTION**

## PROJECT TRAFFIC VOLUMES AND ROADWAY CAPACITY

Twenty four-hour tube counts were collected between Tuesday, December 12, 2023, and Thursday, December 14, 2023, to observe the daily hourly traffic along the following roadways:

- Petaluma Boulevard South between McNear Avenue and Rovina Lane;
- McNear Avenue between Petaluma Boulevard South and Nadine Lane;
- Jacquelyn Lane between Mission Drive and Rovina Lane; and
- Mission Drive between McNear Avenue and Lena Lane.

The 24-hour tube counts are provided in **Attachment B**.

The project-related trips were distributed along nearby roadways and compared to the observed traffic counts to assess the relative level of impact. Error! Reference source not found. summarizes the percent increase in daily traffic with the expected project trips for each roadway.

With respect to the capacity of roadways to handle additional traffic, it is useful to refer to the concept of service volumes. These represent the rough magnitude of traffic roads of each classification are intended to handle. The upper range of service volumes by functional classification taken from City of Petaluma design standards is presented in Table 2 to provide this context. Note that the operation of arterial roadways such as Petaluma Boulevard will be governed by the capacity of the signalized intersections and roundabouts. With respect to residential roadways, quality of life issues rather than theoretical roadway capacity typically govern whether additional traffic is considered burdensome.

In almost all locations, the additional traffic associated with the proposed project constitutes a small percentage increase. Traffic on Mission Drive would increase by a more noticeable percentage, but the absolute number remains small and well within the expected range. This represents a conservative analysis with no reduction in vehicular trip generation assumed for a lower income and likely more transit dependent resident population.

**TABLE 2: ROADWAY CLASSIFICATION, SERVICE VOLUMES, AND DAILY TRAFFIC WITH PROJECT**

	<b>FUNCTIONAL CLASSIFICATION</b>	<b>SERVICE VOLUME STANDARD (DAILY TRAFFIC) <sup>a</sup></b>	<b>OBSERVED DAILY TRAFFIC <sup>b</sup></b>	<b>PROJECT TRIPS</b>	<b>ADJUSTED DAILY TRAFFIC</b>	<b>PERCENT INCREASE</b>
<b>PETALUMA BOULEVARD SOUTH</b>	Arterial Street	Up to 20,000	10,794	51	10,845	0.5%
<b>MCNEAR AVENUE</b>	Collector	Up to 6,000	2,018	102	2,120	5.1%
<b>JACQUELYN LANE</b>	Residential Street	Up to 2,000	244	7	251	2.9%
<b>MISSION DRIVE</b>	Residential Street	Up to 2,000	569	138	707	24.3%

<sup>a</sup>.Traffic service volumes are ranges by functional classification given in City of Petaluma Streets Design and Construction Standards, Street Construction Detail, Specification No. 41 (approved January 2019).

<sup>b</sup> Traffic counts collected in December 2023.

Sources: City of Petaluma, DKS Associates.

## SITE CIRCULATION AND ACCESSIBILITY

### BICYCLE, PEDESTRIAN, AND TRANSIT ACCESS

---

To support the assumption of less than significant VMT impacts, the proposed project should provide adequate facilities to support active transportation and transit use. As described below, the overall bicycle, pedestrian, and transit accessibility of the site is adequate.

Petaluma Transit operates public bus service in the City of Petaluma. The nearest transit bus stop, served by **Route 501**, is located along McNear Avenue, north of Mission Drive, approximately 0.2 miles from the project site (Route 501 is a school service route that is available to the general public). The bus stop is not provided with a bus shelter but includes a bench. Route 501 operates between Petaluma Boulevard at Gossage Avenue (Park and Ride) and the Petaluma Market along Keller Street north of Western.

Given that the nearest bus stop (Route 501) is 0.2 mile from the project site, it would take approximately four minutes to walk to the bus stop from the project site. The shortest path to access the bus stop from the project site would be via the existing pedestrian path between Rovina Lane and Lena Lane, turn left on Lena Lane, then turn right on Mission Drive, and take the crosswalk across McNear Avenue. The alternative walking route to the transit stop on McNear Avenue would be via the existing pedestrian path to Lena Lane, Nadine Lane, and McNear Avenue, which would take approximately five minutes.

The second nearest bus stop (Route 501) is located along Petaluma Boulevard, south of the TruckMax development. Pedestrians may walk to this bus stop by using the publicly accessible easements located within the Quarry Heights Subdivision east of the site which would take approximately seven minutes (0.37 mile). It is noted that crosswalks do not exist between the two easements. However, it is assumed that traffic volumes along this area are generally lower since it is within a residential subdivision.

The downtown commercial area with access to additional bus transit routes is approximately one mile from the project via Petaluma Boulevard. Currently, Class II buffered bike lanes exist on both sides of Petaluma Boulevard and on the east side of McNear Avenue, south of Petaluma Boulevard S. West of Mountain View Avenue, the bicycle facilities on Petaluma Boulevard S transition to standard Class II lanes. These facilities will provide adequate bicycle access from the project site and help support reduced VMT per resident.