



August 12, 2020

Mr. Steve Lafranchi
Steven J Lafranchi & Associates
140 2nd Street #312
Petaluma, CA 94952

Updated VMT Assessment for the 240-250 Casa Grande Road Project

Dear Mr. Lafranchi;

As requested, following is a Vehicle Miles Traveled (VMT) assessment for the proposed 240-250 Casa Grande Road residential development in the City of Petaluma. This assessment is an update to the VMT analysis included in the *Focused Traffic Study for Casa Grande I, W-Trans*, June 9, 2020, and reflects changes to the project description including an updated site plan dated August 5, 2020. The proposed project now includes a total of 36 single-family homes and 11 accessory dwelling units (ADU).

Senate Bill (SB) 743 established a change in the metric to be applied for determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service analysis, the increase in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining impacts. Because the City of Petaluma has not yet adopted a standard of significance for evaluating VMT, guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018, was used. This document indicates that a residential project generating vehicle travel that is 15 or more percent below the existing citywide residential VMT per capita may be a reasonable VMT threshold for a residential project.

Based on data from the recently updated Sonoma County Transportation Authority (SCTA) travel demand model, the City of Petaluma has a baseline average residential VMT of 16.62 miles per capita. Applying OPR's guidance, a residential project generating a VMT that is 15 percent or more below this value, or 14.13 miles per capita, would have a less-than-significant VMT impact. The SCTA model includes traffic analysis zones (TAZ) covering geographic areas throughout Sonoma County. The Casa Grande project site is located within TAZ 341, which has a baseline VMT per capita of 16.81 miles. For the project to achieve the VMT significance threshold of 14.13 miles per capita, its VMT would need to be 16.0 percent lower than the current average for the TAZ in which the site is located.

The VMT associated with a development project is influenced by factors including density and the provision of onsite affordable housing. The publication *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), 2010 includes a methodology to determine the VMT reductions associated with increases in residential density using conventional large-lot single-family home development as a baseline. For the proposed Casa Grande project, which has a residential density of 19.3 units per acre including ADUs, a 10.7 percent reduction in VMT is projected. A methodology published in *Income, Location Efficiency, and VMT: Affordable Housing as a Climate Strategy*, The California Housing Partnership, 2015, was used to determine the VMT reductions associated with provision of onsite affordable housing (this method is also currently used by the City of San Jose). The Casa Grande project would include three moderate income units, two low-income units, and 11 ADUs that per the City's Housing Element may also be considered low income. The corresponding reduction in the project's VMT is projected to be 2.8 percent.

A project's VMT may be effectively reduced by making on-site and off-site improvements to the pedestrian network, particularly where gaps in the pedestrian network are filled in a manner that will have a meaningful effect on whether residents walk or drive. The applicant has proposed constructing an enhanced pedestrian crossing on Casa Grande Road near the project site, including a raised median with pedestrian refuge and rapid rectangular flashing beacon (RRFB) warning lights system. This segment of Casa Grande Road currently lacks any marked

pedestrian crossings, with no marked crosswalks existing on a nearly 2,000-foot segment between Ely Road and Crinella Drive despite being near one of the primary access points to Casa Grande High School. Establishing an enhanced pedestrian crossing near the project site would benefit not only residents of the project but also pedestrians in the surrounding neighborhoods (particularly high school students). Based on methodologies contained in the San Jose VMT Evaluation Tool, the estimated VMT reduction associated with pedestrian network improvements is 2.0 percent.

Similar to pedestrian improvements, if a project makes improvements to transit facilities that make riding transit more convenient, VMT would be reduced since there would be a modest shift in driving trips to bus trips. The nearest bus stops to the Casa Grande I site are on Casa Grande Boulevard near Ely Road at the Casa Grande Senior Apartments and on Ely Road in front of Casa Grande High School. Each of these stops currently has a two-person bench but no shelter. The project applicant is proposing to install bus shelters at both stops. Adding shelters will improve the appeal of taking transit for both the project’s residents as well as current bus users (including seniors and high school students), particularly on hot or rainy days. Based on data contained in the ITE *Trip Generation Handbook*, 2017, as well as methodologies in the San Jose VMT Evaluation Tool, these improvements to transit access are projected to reduce VMT by approximately 2.5 percent.

Combining the “raw” VMT reduction percentages described above, the project’s proposed density, provision of on-site affordable housing, and improvements to pedestrian circulation and transit access would reduce its per capita VMT by 18.0 percent. Per methodologies provided in the CAPCOA publication, this number is dampened to 17.1 percent in order to reflect the diminishing effects of multiple VMT reduction measures. After reducing the base TAZ rate by 17.1 percent, the project-specific rate would be 13.94 VMT per capita. This would fall below the applied VMT significance threshold of 14.13 VMT per capita. The VMT findings are shown in Table 1, and information relative to the development of the VMT reduction factors, including a summary of the input variables and adjustments, is enclosed.

Table 1 – Vehicle Miles Traveled Analysis Summary

VMT Metric	Baseline VMT Rate (Citywide Avg)	Threshold (15% Below Citywide Avg)	Project VMT Rate	
			Base Unadjusted (TAZ 341)	Adjusted
Residential VMT per Capita (Citywide Baseline)	16.62	14.13	16.81	13.94 -17.1 percent

Note: VMT Rate is measured in VMT per Capita, or the number of daily miles driven per resident; TAZ=Traffic Analysis Zone; Adjusted VMT rate reflects the project-specific density, provision of affordable housing, and proposed infrastructure improvements

Finding – The project’s density, provision of onsite affordable housing, and proposed multimodal improvements would be expected to reduce its VMT per capita by 17.1 percent, meeting the applied VMT significance threshold and resulting in a less than significant VMT impact.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,



Zack Matley, AICP
Principal

JZM/PET224.L2

Enclosure: VMT Summary Sheet

240-250 Casa Grande Road Updated VMT Assessment

W-Trans 8/12/2020

OPR Residential VMT Threshold

- 16.62 VMT/Capita Citywide Average - City of Petaluma
- 14.13 OPR Threshold = 15% below Citywide Average

Base Unadjusted Project VMT

16.81 Base VMT/Capita from SCTA Model - Project in TAZ 341		
36 Single Family Units	2.34 Occupancy/Unit	84 Residents
11 ADU Units	1.5 Occupancy/Unit	<u>17</u> Residents
1693 Base Unadjusted Project VMT (mi)		101 Residents ("capita")

VMT Adjustments and Potential Mitigation Measures

- 16.81 Base VMT/Capita from SCTA Model - Project in TAZ 341
- 14.13 OPR Threshold = 15% below Citywide Average
- 16.0% Project VMT Reduction Required to meet OPR Threshold

A. Density Adjustment

Source: CAPCOA

- 47 Project Units including ADU
- 2.4 Project Acres
- 19.3 Project Density
- 10.7% VMT Reduction (compared to ITE Single Family)
- Density calculation includes ADU units for VMT purposes
- 1.81 Adjustment to Base Project VMT/Capita

B. Integrate Affordable Housing

Source: California Housing Partnership

- 16 units: 3 moderate income, 2 low income, 11 ADU (included in low income category for VMT purposes)
- 2.8% VMT Reduction
- 0.47 Adjustment to Base Project VMT/Capita

C. Pedestrian Network Improvements

Source: San Jose VMT Evaluation Tool Methodology

- Install enhanced pedestrian crossing on Casa Grande at project street including raised median ped refuge, rapid rectangular flashing beacon (RRFB), and curb extensions if possible
- 2.0% VMT Reduction
- 0.34 Adjustment to Base Project VMT/Capita

D. Transit Access

Source: San Jose VMT Evaluation Tool, ITE Trip Generation Handbook

- Add bus shelters to existing stops on Casa Grande near PEP and stop on Ely at high school
- 2.5% VMT Reduction
- 0.42 Adjustment to Base Project VMT/Capita

Combined VMT Adjustments and Mitigation Measures (A through D)

- 18.0% Combined Measures VMT Reduction (unadjusted)
- 17.1% Adjusted for Dampening of Combined Measures (per CAPCOA)
- 2.87 Adjustment to Base Project VMT/Capita

VMT Projections After Adjustments and Mitigation

16.81 Base VMT/Capita from SCTA Model	1693 Unadjusted Base Residential VMT (mi)
<u>-2.87</u> Adjustment to Base Project VMT/Capita	<u>-290</u> VMT Reduction with Adjustments and Mitigation
13.94 Project VMT/Capita with Adjustments & Mitigation	1404 Project VMT (mi) with Adjustments and Mitigation
14.13 OPR Significance Threshold	
YES Is threshold met with adjustments and mitigation?	