



March 31, 2021

Mr. Doyle Heaton  
Falcon Point Associates, LLC  
c/o DRG Builders  
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Pleasant Hill, CA 94523

## **Focused Traffic Study for the Creekwood Residential Development**

Dear Mr. Heaton;

As requested, W-Trans has prepared a focused traffic study for the proposed Creekwood Residential Development project to be located at 270-280 Casa Grande Road in the City of Petaluma. The purpose of this letter is to address the potential traffic impacts associated with the proposed single-family residential development.

### **Project Description**

The proposed project would include construction of 42 condominiums, replacing the current residence located at 280 Casa Grande Road. The 42 residences would include address numbers ranging from 270 to 280. The project site would be accessible via a new roadway with two connections to Casa Grande Road, each having full ingress and egress. The project's site plan is enclosed for reference.

### **Circulation Setting**

#### **Vehicular Circulation**

The study area consists of Casa Grande Road, which runs along the frontage of the project site. Casa Grande Road, which is generally oriented east-west, is classified as a major arterial. Along the project frontage the road has two 12-foot travel lanes in each direction, with a two-way left-turn lane dividing the two directions, and a posted speed limit of 35 mph.

#### **Pedestrian Facilities**

Pedestrian facilities include sidewalks, crosswalks, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, and curb ramps provide access for pedestrians in the vicinity of the proposed project site. There are continuous sidewalks along both sides of Casa Grande Road fronting the project.

#### **Bicycle Facilities**

There is an existing trail adjacent to the site along the Adobe Creek between South Ely Boulevard and the Schollenberger Hiking Path. There are bicycle lanes in both directions along Casa Grande Road between South Ely Boulevard and South McDowell Boulevard. According to the *SCTA Countywide Bicycle and Pedestrian Master Plan, 2014*, existing bicycle lanes on Casa Grande Road are planned to be extended from South Ely Boulevard to Old Adobe Road. It is noted that while the City has their own plan, the SCTA plan is more current and includes planned projects within the City of Petaluma.

## Transit Facilities

Petaluma Transit provides fixed route bus service in Petaluma. Route 33 provides loop service to destinations throughout the east side of the city and stops on Casa Grande Road between Satori Drive and Crinella Drive. Route 33 operates Monday through Friday with approximately one-hour headways between 7:04 a.m. and 8:04 p.m. Saturday service has approximately one-hour headways between 8:04 a.m. and 8:04 p.m. and Sunday service has about one-hour headways between 9:04 a.m. and 5:04 p.m.

Route 3 provides service to the Eastside Transit Center, the Senior Center, Casa Grande Highschool. Route 3 operates Monday through Friday with one-half-hour headways between 6:30 a.m. and 8:00 p.m.

Two bicycles can be carried on most Petaluma Transit buses. Bike rack space is a first come first served basis. Additional bicycles are allowed on Petaluma Transit buses as the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Petaluma Paratransit is designed to serve the needs of individuals with disabilities within Petaluma area and includes area within a three-quarters of a mile from an active Petaluma Transit route.

## Safe Routes to School - Casa Grande High School

As part of the Safe Routes to School program (SRTS) for Casa Grande High School, the segment of Casa Grande Road fronting the project site was designated as a recommended walking and bicycling route to campus. In the SRTS Engineering Evaluation for the campus, speeding along the school frontage on Casa Grande Road was identified as an issue affecting safe access to the campus. It was recommended that the City conduct speed surveys and implement traffic calming measures along Casa Grande Road between South Ely Boulevard and McDowell Boulevard. A safety measure identified to improve access was installation of a crosswalk on Casa Grande Road near the frontage of the Casa Grande High School to connect students with the bus stop on the south side of the road. As part of the improvements to increase access to existing transit stops on Casa Grande Road near the school site, it was recommended that bus shelters be installed at existing stops that only have benches and no all-weather shelter. It was also recommended that bicycle lanes along both directions of this segment be repainted for higher visibility. It is noted that these improvements have been proposed as one of the VMT mitigations for the Casa Grande I project at 240-250 Casa Grande Road.

## Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10<sup>th</sup> Edition, 2017 for "Multifamily Housing (Low-Rise)" (ITE LU #220) as it most closely represents condominiums. As indicated in Table 1 the proposed project is expected to generate an average of 307 trips per day, including 19 trips during the a.m. peak hour and 24 during the p.m. peak hour.

**Table 1 – Trip Generation Summary**

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Single Family Dwellings	42 du	7.32	307	0.46	19	4	15	0.56	24	15	9

Note: du = dwelling unit

## Vehicle Miles Traveled

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 is an appropriate VMT threshold for a residential project.

Based on data from the Sonoma County Transportation Authority (SCTA) travel demand model version released in October 2020, the City of Petaluma has a baseline average residential VMT of 19.27 miles per capita. Applying OPR's guidance, a residential project generating a VMT that is 15 percent or more below this value, or 16.38 miles per capita or less, would have a less-than-significant VMT impact. The SCTA model includes traffic analysis zones (TAZ) covering geographic areas throughout Sonoma County. The Creekwood project site is located within TAZ 341, which has a baseline VMT per capita of 20.22 miles. Based on the model, for the project to achieve the VMT significance threshold of 16.38 miles per capita, its VMT would need to be 19.0 percent lower than the current average for the TAZ in which the site is located.

While the project may be unable to fall below the VMT significance threshold, its characteristics would help to lower VMT below levels associated with conventional suburban single-family home development. 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. It is estimated that the proposed project has a density of approximately 3.76 units per acre. Based on the CAPCOA methodology, this translates to a 3.3 percent reduction in per capita VMT. Another 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 on-site affordable housing (this method is also currently used by the City of San Jose). The project would include three low-income units. The corresponding reduction in the project's VMT associated with these deed-restricted affordable units is projected to be 0.7 percent. Note that the project would also include three moderate-income units, though these units would not be credited a VMT reduction per the applied methodology.

Upon adjusting for the project's residential density and onsite affordable housing, the project is anticipated to generate 19.46 VMT per capita. A summary of the VMT findings is shown in Table 2.

**Table 2 – Vehicle Miles Traveled Analysis Summary**

VMT Metric	Baseline VMT Rate (Citywide Avg)	Threshold (15% Below Citywide Avg)	Project VMT Rate		
			Base Unadjusted (TAZ 341)	With Adjustments	Significance Finding
Residential VMT per Capita (Citywide Baseline)	19.27	16.38	20.22	19.42	Significant

Note: VMT Rate is measured in VMT per Capita, or the number of daily miles driven per resident; TAZ=Traffic Analysis Zone

**Finding** – Based on State significance thresholds, the project is anticipated to result in a significant impact in terms of vehicle miles traveled.

## Sight Distance

Sight distances along Casa Grande Road from the proposed roadways to be constructed were evaluated based on sight distance criteria contained in the *Highway Design Manual, 6<sup>th</sup> Edition* published by Caltrans. The recommended sight distances along the Casa Grande Road at the private project roadway are based on stopping sight distance.

Based on a design speed of 35 mph, the minimum stopping sight distance needed is 250 feet. Based on field measurements, sight distance along Casa Grande Road is adequate in both directions, with more than 300 feet to the north and approximately 500 feet to the south. It is noted that there are trees and shrubs in the center median along Casa Grande Road directly north of the proposed roadway which slightly hinder sight lines. However, it does not completely block vision of oncoming traffic and drivers can see between each shrub as they travel toward the proposed roadway. It is recommended that any existing or proposed landscaping along Casa Grande Road be kept outside of the driver's vision triangle to maintain adequate sight lines.

**Finding** – Sight distance based on the posted speed limit is adequate in both directions at the driveway locations on Casa Grande Road.

**Recommendation** – The project should be designed to keep any landscaping along Casa Grande Road outside of the driver's vision triangle to maintain adequate sight lines.

## Non-Auto Modes

### Pedestrian Facilities

Given the proximity of Casa Grande High School and bus stops within one-quarter mile surrounding the site, it is reasonable to assume that some project residents will want to walk, bicycle, and/or use transit to reach the project site. Based on the identified issue of speeding on the segment of Casa Grande Road fronting the project site, radar speed feedback signs are recommended on both sides of the street on either approach to the school frontage. Since the project site is located across from the western end of the school site, it is recommended that the radar speed feedback sign for eastbound traffic be installed along the project frontage.

**Project Site** – Sidewalks exist along the project frontage on Casa Grande Road. There are proposed sidewalks throughout the site connecting the residences to each other and the surrounding street system. A pedestrian crossing on Casa Grande Road, with a Rectangular Rapid Flashing Beacon (RRFB) warning lights system and a raised median, which is one of the SRTS recommended improvements near Casa Grande High School, has been

proposed as one of the VMT mitigations for the Casa Grande I project at 240-250 Casa Grande Road. As proposed, this crossing would be placed just west of the high school campus and the project site.

**Finding** – Planned sidewalks within the project site, along with existing facilities, are adequate for anticipated demand.

**Recommendation** – It is recommended that a radar speed feedback sign be installed on the project frontage on Casa Grande Road to implement a speed-reduction measure contained in the Casa Grande High School SRTS evaluation.

**Recommendation** – The project applicant should construct or contribute to the planned crosswalk on Casa Grande Road on the western side of the Casa Grande High School campus.

### **Bicycle Facilities**

Existing bicycle facilities, including bike lanes Casa Grande Road and the multi-use path along the Adobe Creek, together with shared use of minor streets, provide adequate access for bicyclists. The SRTS evaluation recommended that the existing bicycle lanes on Casa Grande Road be remarked for improved visibility with the goal of enhanced safety. Due to the limited width of the project frontage on Casa Grande Road, implementation of this recommendation would not be appropriate as part of the project as it would result in inconsistent markings for the segment; however, the applicant should work with City staff to establish a proportional share to these planned improvements.

**Finding** – Bicycle facilities serving the project are adequate.

**Recommendation** – The applicant should work with City staff to determine a proportional share of the cost of planned improvements to bicycle lanes along Casa Grande Road.

### **Transit**

Existing transit routes are acceptable to accommodate project-generated transit trips. Existing bus stops are within an acceptable walking distance of the site, and accessible via sidewalks. It is understood that a portion of the project frontage will be allocated for a future Petaluma Transit bus stop on Casa Grande Road.

**Finding** – Transit facilities serving the project site, together with planned improvements to existing stops on Casa Grande Road near the project site, are adequate.

### **Conclusions and Recommendations**

- The project as proposed includes construction of 42 single-family dwelling units. Based on standard rates, the project is expected to generate 307 daily trips, including 19 trips during the a.m. peak hour and 24 trips during the p.m. peak hour.
- The project is expected to have a significant impact on VMT.
- Sight distances at the proposed street connections on Casa Grande Road are expected to be adequate in both directions. It is recommended that any existing or planned landscaping near the proposed intersections be designed to be outside of the driver's vision triangle.

- The existing bicycle and transit facilities serving the project site, together with planned contributions towards improvements on Casa Grande Road, are adequate for the anticipated demand. The existing pedestrian facilities, combined with planned sidewalks throughout the site and the crossing on Casa Grande Road, would be adequate. It is recommended that a radar speed feedback sign be installed on the project frontage on Casa Grande Road, based on the SR2S recommendation for traffic calming measures.

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

Sincerely,

Andre Huff  
Associate Planner

Zack Matley, AICP  
Principal

Dalene J. Whitlock, PE, PTOE  
Senior Principal

DJW/arh/zm/PET227.L2

Enclosures: Site Plan; VMT Summary Sheet

DRAFT



## Creekwood VMT Assessment

W-Trans 3/25/21 evaluation

### Significance Threshold - Based on Fall 2020 SCTA Model and OPR Guidance

19.27 VMT/Capita Citywide Average - City of Petaluma

16.38 Applied Significance Threshold = 15% below Citywide Average

### Base Unadjusted Project VMT

20.22 Base VMT/Capita from SCTA Model - Project in TAZ 341

42 Project Units

2.34 Occupancy/Unit

98 Residents

0 Accessory Dwelling Units (ADU)

1.50 Occupancy/ADU

0 Residents

1987 Base Unadjusted Project VMT (mi)

98 Residents ("capita")

### Project Specific VMT Adjustments

20.22 Base VMT/Capita from SCTA Model - Project in TAZ 341

16.38 Applied Significance Threshold = 15% below Citywide Average

-19.0% Project VMT Reduction Required to meet Significance Threshold

#### A. Density Adjustment

Source: CAPCOA

42 Project Units

3.76 Project Acres

11.2 Project Density

-3.3% VMT Reduction (compared to ITE Single Family)

-0.66 Adjustment to Base Project VMT/Capita

#### B. Integrate Affordable Housing

Source: California Housing Partnership, San Jose VMT Evaluation Tool

3 low income units

(project also includes 3 moderate Income units not included

-0.7% VMT Reduction

in VMT reductions per methodology)

-0.14 Adjustment to Base Project VMT/Capita

### Combined VMT Adjustments and Mitigation Measures (A and B)

-3.99% Combined Measures VMT Reduction (unadjusted)

-3.97% Adjusted for Dampening of Combined Measures (per CAPCOA)

-0.80 Adjustment to Base Project VMT/Capita

### VMT Significance

20.22 Base VMT/Capita from SCTA Model

1987 Unadjusted Base Residential VMT (mi)

-0.80 Adjustment to Base Project VMT/Capita

-79 VMT Reduction with Adjustments

19.42 Adjusted Project VMT/Capita

1908 Project VMT (mi) with Adjustments

16.38 Significance Threshold

**NO** Threshold met

SIGNIFICANT