January 4, 2022

House Properties
c/o Mr. Randy Figueiredo, AIA
35 Corte Madera Avenue
Mill Valley, CA 94941

Focused Traffic Analysis for the 3111 Santa Rosa Avenue Project

Dear Mr. Figueiredo;

As requested, W-Trans has prepared a focused traffic analysis for the proposed mixed-use project to be located at 3111 Santa Rosa Avenue in the City of Santa Rosa. The purpose of this letter is to address the project's potential impact in terms of VMT and the anticipated trip generation as well as the resulting proportional share of the cost of signalizing the intersection of Santa Rosa Avenue/Bellevue Avenue. Additionally, a review was performed to ensure that the planned improvements as part of the project will accommodate the signal equipment that would need to be located at the intersection.

Existing Conditions

The study area consists of Santa Rosa Avenue, which runs north-south along the project frontage and two 11-foot travel lanes in each direction and a center two-way left-turn lane. Traffic counts obtained on February 19, 2019, indicate that the roadway is carrying about 27,500 vehicles per day.

Project Description

The proposed project includes 48 units of multifamily housing and an approximately 85,000 square foot self-storage facility. The project site is approximately 4.51 acres, of which 1.83 acres would be devoted to the residential component of the project.

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*, 10th Edition, 2017 for "Multifamily Housing (Mid-Rise)" (ITE LU 221) and "Mini-Warehouse" (ITE LU151). Because the site is currently occupied by an automobile and RV storage and the number of vehicle trips generated is negligible, no trips were deducted for the existing use.

Total Project Trip Generation

The expected trip generation potential for the proposed project is indicated in Table 1. The proposed project is expected to generate an average of 390 trips per day, including 26 trips during the a.m. peak hour and 36 during the p.m. peak hour; these new trips represent the increase in traffic associated with the project compared to existing volumes.

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
Proposed											
Mini-Warehouse	85.5 ksf	1.51	129	0.10	9	5	4	0.17	15	7	8
Multifamily Housing (Mid-Rise)	48 du	5.44	261	0.36	17	4	13	0.44	21	13	8
Total			**390**		**26**	**9**	**17**		**36**	**20**	**16**

Note: ksf = 1,000 square feet; du = dwelling unit

Vehicle Miles Traveled (VMT)

The potential for project-related VMT impacts was assessed by applying the City of Santa Rosa's *Vehicle Miles Traveled (VMT) Guidelines, Final Draft*, 2020, which provides significance thresholds to determine such impacts. For mixed-use projects, the guidelines indicate that each proposed use is to be evaluated separately; alternatively, only the dominant use could be evaluated if the project includes small secondary uses. While the residential portion of the project would generate the majority of the project-related trips, based on the size of the storage facility, the estimated VMTs associated with both uses were considered for this analysis.

Residential Project Component

For the residential component of the project, the City's VMT screening maps were consulted, and it was determined that the project traffic analysis zone (TAZ) was not included in areas identified as generating low levels of residential VMT and therefore required more detailed VMT analysis. Per the City guidelines, residential projects generating VMT that is 15 or more percent below the existing countywide residential VMT per capita may indicate a less-than-significant VMT impact.

Based on data from the version of the Sonoma County Transportation Authority (SCTA) travel demand model released in October 2020, the County of Sonoma has a baseline average residential VMT of 16.53 VMT per capita. To fall 15 percent below this average translates to a significance threshold of 14.05 vehicle miles per capita. The SCTA model includes traffic analysis zones (TAZ) covering geographic areas throughout Sonoma County. The project site is located within TAZ 561, which has a VMT per capita of 14.85. While this figure is greater than the significance threshold, there are factors not accounted for in the model data that influence project-related VMT.

Increased density is a project characteristic that is recognized as contributing to reductions in project-generated VMT for residential projects. The publication *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, California Air Pollution Control Officers Association (CAPCOA), 2021, includes a methodology to determine the VMT reductions associated with increases in residential density. The proposed 48-unit residential component of the project is located on a 1.83-acre portion of the project site and therefore has a density of 26.23 units per acre, substantially higher than the typical residential density of 9.1 units per acre cited by CAPCOA. Based on the CAPCOA methodology, this translates to a 30-percent reduction in per capita VMT as compared to the default TAZ value. Upon applying this reduction, the project is anticipated to generate 10.40 VMT per capita, which is below the significance threshold of 14.05 VMT per capita, and therefore considered to constitute a less-than-significant VMT impact. A summary of the VMT findings is shown in Table 2.

Table 2 – Vehicle Miles Traveled Analysis Summary – Residential Component

VMT Metric	VMT Per Capita (Countywide Avg)	Threshold (15% Below Countywide Avg)	Project VMT Analysis		
			Base Unadjusted (TAZ 561)	With Density Adjustment	Significance Finding
Residential VMT per Capita (Citywide Baseline)	16.53	14.05	14.85	10.40	Less than Significant

Note: TAZ=Traffic Analysis Zone

Self-Storage Project Component

For purposes of evaluating VMT, the characteristics of the proposed self-storage facility most closely resemble that of a retail use, as employees contribute only a small portion of the total travel associated with the project. Per City guidelines, VMT impacts for retail projects are considered significant if a project results in a net increase in regional total VMT. Retail projects under 10,000 gross square feet are considered local-serving and are screened out from further VMT analysis as they are presumed to redistribute existing trips by improving retail destination proximity. While the square footage associated with the self-storage facility is greater than 10,000 square feet, this use is unlike a retail project in that it is less intensive and generates fewer trips (the daily trip generation rate for a shopping center is 37.75 trips per thousand square feet (ksf), while a mini-warehouse use has a daily rate of only 1.51 trips per ksf, as applied in this analysis). Therefore, a quantitative approach was used to determine if the proposed use should be considered local-serving. This method is summarized as follows.

1. Determine the average self-storage trip length in the project area by measuring the distance between existing self-storage facilities and a common point in the center of Santa Rosa, in this case City Hall.
2. Measure the trip length from the project site to Santa Rosa City Hall.
3. If the project trip length is less than the average self-storage trip length for existing self-storage facilities, then the project may be presumed to reduce the average distance traveled for this type of use and is considered to have a less-than-significant VMT impact.

There are currently 20 similar self-storage facilities within the City of Santa Rosa. The average distance between each facility and Santa Rosa City Hall is 2.9 miles. The distance between the project site and City Hall is 2.8 miles. Since the length of travel from City Hall to the project site is less than the average distance to other existing similar self-storage facilities, this component of the project is considered to have a less-than-significant VMT impact. A list of existing self-storage facilities in Santa Rosa along with the corresponding distances between each location and Santa Rosa City Hall are provided in Table 3.

Table 3 – Existing Self-Storage Facilities in Santa Rosa

Name	Address	Distance to City Hall (Miles)
Public Storage	3491 Santa Rosa Ave	3.3
Santa Rosa Ave Self Storage	3512 Santa Rosa Ave	3.3
Santa Rosa Ave Self Storage	3205 Dutton Ave	3.3
Stor-N-Loc	3047 Santa Rosa Ave	2.5
American Storage	3000 Dutton Ave	3.3
Extra Space Storage	2868 Dutton Meadow	3.0
Storage Care Rental Spaces	1447 Cass Rd	3.1
Extra Space Storage	496 Hearn Ave	1.9
Barham Self Storage, Inc	49 Barham Ave	1.4
Extra Space Storage	555 Roseland Ave	1.6
Buxbear Storage	1435 Sebastopol Rd	1.8
Southpoint Self Storage	700 Lombardi Ct	2.8
Self Storage	500 4th St	0.3
Extra Space Storage	2053 Steele Ln	2.8
StoragePRO Self Storage	420 Sonoma Hwy	5.2
Santa Rosa Storage	3383 Airway Dr	3.8
Lock-It-Up Self Storage	3570 Airway Dr	3.8
Public Storage	914 Hopper Ave	3.8
Security Public Storage	1021 Hopper Ave	3.9
Average		**2.9**
Project	3111 Santa Rosa Ave	2.8

Finding – The residential component of the project would have a less-than-significant VMT impact after accounting for VMT reductions based on the project density. The self-storage component of the project would have a less-than-significant impact as it would be local-serving and project-related trips would be redistributing existing trips from nearby self-storage facilities to the project site. Therefore, considering the potential impacts of both proposed land uses, the project as a whole would have a less-than-significant VMT impact.

Proportional Share

The City has identified a need for a traffic signal at the intersection of Santa Rosa Avenue/Bellevue Avenue. Due to the proximity of the project to the intersection, the project should pay a proportional share toward the planned signalization project.

Turning movements counts were not available for the intersection of Santa Rose Avenue/Bellevue Avenue, therefore it was conservatively assumed that no future development would occur that would contribute new trips to the Bellevue Avenue approaches. Existing and future volumes for northbound and southbound Santa Rosa Avenue were taken from the Sonoma County Transportation Authority's (SCTA) model and used in the proportional share calculation. Project trips were assumed to be distributed such that 60 percent would be to and from the north, thereby adding to volumes at the signal. These 16 a.m. peak hour and 22 p.m. peak hour trips were considered the project's contribution to the intersection's future volumes.

To offset the project's effect at Santa Rosa Avenue/Bellevue Avenue the project should make a proportional share contribution of 2.28 percent of the cost of signalizing the intersection, estimated as $15,960 for an assumed cost for the signal of $700,000. The calculation for the proportional share is enclosed.

Site Review

The site plan, including right-of-way (ROW) at the southwest corner of Santa Rosa Avenue/Bellevue Avenue, was reviewed for adequacy to accommodate the planned future traffic signal installation. With the planned update to the project's frontage along Santa Rosa Avenue, the ROW lines should be modified to be consistent with the back of the sidewalk. The project should also include the restriping of the crosswalk on the west leg of the intersection as shown in the enclosure as part of reconstructing the southwest corner. With the ROW set at the back of the sidewalk there would be adequate space for the installation of the traffic signal equipment. Potential pole locations are also shown in the enclosure.

Conclusions and Recommendations

- The proposed project is expected to generate an average of 390 trips per day, including 26 trips during the a.m. peak hour and 36 during the p.m. peak hour.
- The project would have a less-than-significant transportation impact in terms of VMT.
- The project should make a proportional share contribution of 2.28 percent towards the cost of a traffic signal installation at Santa Rosa Avenue/Bellevue Avenue.
- The crosswalk on the west leg of Santa Rosa Avenue/Bellevue Avenue should be restriped with the construction of the new curb ramp.

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

Sincerely,

Allison Jaromin

Allison Jaromin, EIT
Associate Engineer

Dalene J. Whitlock

Dalene J. Whitlock, PE, PTOE
Senior Principal

DJW/acj/SRO581.L1

Enclosures: Proportional Share Calculation, Future Traffic Signal Pole and Crosswalk Locations

Equitable Share Calculations
3111 Santa Rosa Avenue

	AM	PM
Project Trips (T)	16	22

Total Volume Entering the Intersection of
Santa Rosa Ave/Bellevue Ave

	AM	PM
Existing	1104	1389
Future Year	1786	2379

Description of Project Improvement:

Install a traffic signal.

Calculation of Project Share

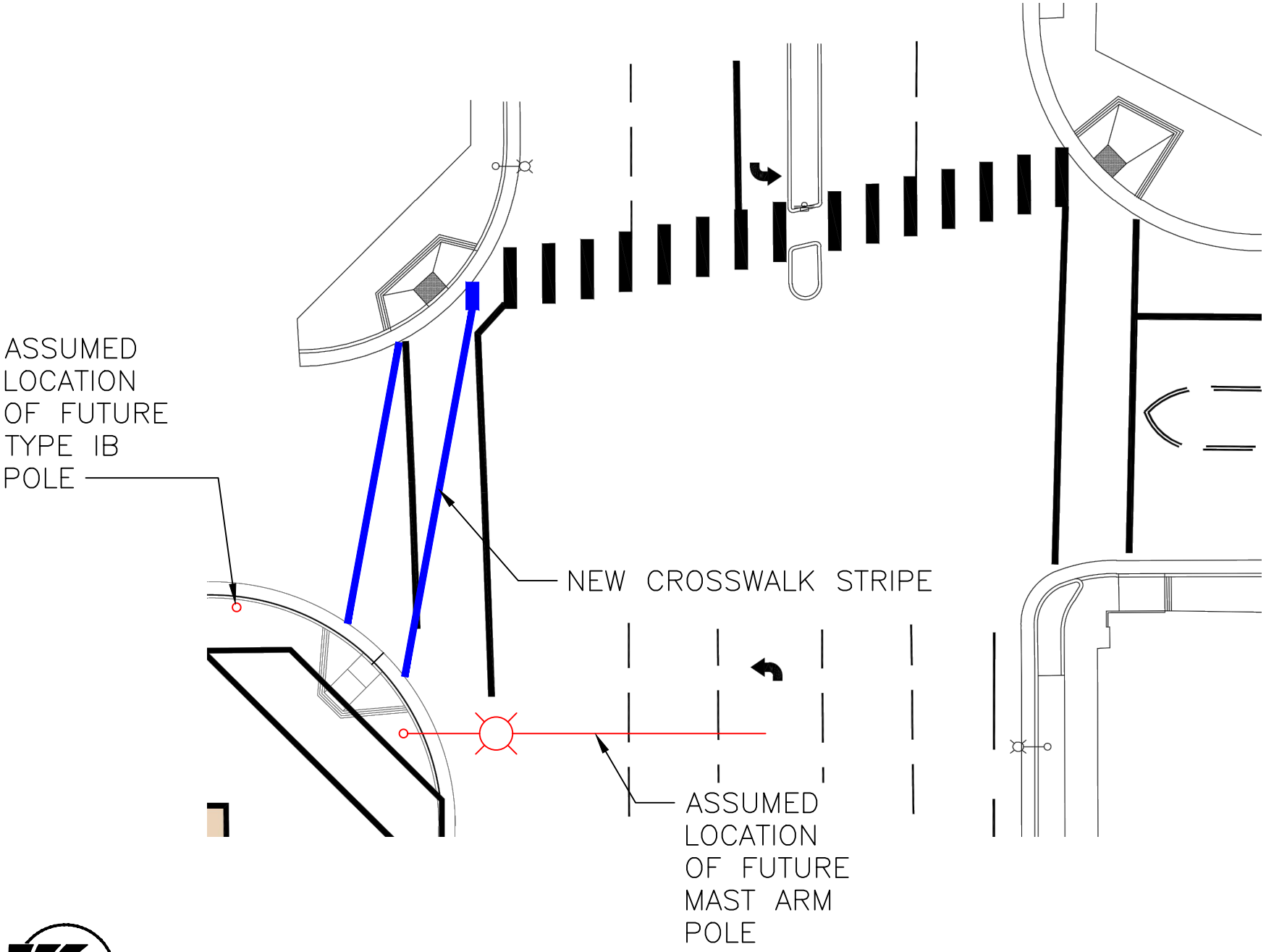
P = T / (TB - TE)
where:
P = Equitable Share
T = Project trips during the affected peak hour
TB = Build-out volumes
TE = Existing volumes

T	16	22
TB	1786	2379
TE	1104	1389
P	2.3%	2.2%

Average
2.28%

Total Estimated Cost of Improvements	$700,000
Equitable Share Contribution	**$15,960**

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")



W-Trans

FUTURE TRAFFIC SIGNAL POLE AND CROSSWALK LOCATIONS