



TECHNICAL MEMORANDUM

TO: Cheryl Tubbs | LILBURN CORPORATION

FROM: Perrie Ilercil, Senior Engineer | GANDDINI GROUP, INC.

DATE: October 3, 2024

SUBJECT: TTM 20707 (Magnolia and Verdemont)
Vehicle Miles Traveled Analysis
GGI Project No. 19741

The purpose of this memorandum is to evaluate the project's vehicle miles traveled (VMT) impact in the context of the California Environmental Quality Act (CEQA) based on the methodology and thresholds established by the City of San Bernardino as the Lead Agency. We trust the findings of this analysis will aid you and the City of San Bernardino in assessing the project.

PROJECT DESCRIPTION

The 107.7-acre project site (APN: 0261-011-02, 03, 10 and 0348-121-14, 27, 28) is located north of Verdemont Drive between Antique Street and Chason Way alignment in the City of San Bernardino, California. The project site is currently vacant and zoned as Residential Low (RL, 3.1DU/AC).

The proposed project (TTM 20707) involves construction of 115 single-family dwelling units. Vehicle access for the project site is proposed via three project internal circulation roadways to Verdemont Drive. The site plan is provided in Attachment A.

PROJECT TRIP GENERATION

The project trip generation forecast is based on rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). Based on review of the ITE land use description, trip generation rates for ITE Land Use Code 210 (Single Family Detached Housing) were determined to adequately represent the land use for the proposed project and were selected for calculation of the project trip generation forecast.

For informational purposes, the project trip generation estimate is provided in Attachment B. As shown in Attachment B, the proposed project is estimated to generate approximately 1,084 daily trips, including 81 trips during the AM peak hour and 108 trips during PM peak hour.

VMT BACKGROUND

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary

metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

METHODOLOGY

Based on guidance from the OPR Technical Advisory, the City of San Bernardino developed the *City of San Bernardino Traffic Impact Analysis Guidelines* (August 2020) ["City TIA Guidelines"], which establish the City-approved methodologies and thresholds for VMT analysis.

VMT Screening Criteria

The City TIA Guidelines identify screening criteria for certain types of projects that typically reduce VMT and may be presumed to result in a less than significant VMT impact. To qualify for VMT screening, the project need only satisfy one of the following screening criteria:

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

Methodology for Non-Screened Development

In accordance with the City TIA Guidelines, the project-generated VMT and project effect on VMT were calculated using San Bernardino Transportation Analysis Model (SBTAM) for the following scenarios:

- Baseline Conditions: This scenario reflects the existing SBTAM base year model.
- Baseline Plus Project: This scenario reflects a new SBTAM base year model run with the addition of project socio-economic data (SED) to the project traffic analysis zone (TAZ).
- Cumulative No Project: This scenario reflects the existing SBTAM future year model (2040).
- Cumulative Plus Project: This scenario reflects a new SBTAM future year model run with the addition of project SED to the TAZ.

Thresholds of Significance

Project-Generated VMT

A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

- The baseline project-generated VMT per service population exceeds the City of San Bernardino General Plan Buildout VMT per service population; or
- The cumulative project-generated VMT per service population exceeds the City of San Bernardino General Plan Buildout VMT per service population.

Project Effect on VMT

A project's effect on VMT would be considered significant if it resulted in the following condition:

- The cumulative link-level boundary VMT per service population within the City boundary increases under the plus project condition compared to the no project condition.

The cumulative no project condition reflects the adopted Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Accordingly, cumulative impacts shall be considered less than significant if a project is consistent with the RTP/SCS, absent substantial evidence to the contrary.

PROJECT-GENERATED VMT

In accordance with the City TIA Guidelines, project-generated VMT was calculated using SBTAM (version 2.2). The SBTAM model is a trip-based travel demand model developed and maintained by the San Bernardino County Transit Authority (SBCTA). The model analyzes a complex system of inputs such as highway networks, socio-economic data (SED), driver behavior, and goods movement to forecast travel patterns as the region grows and changes. The SBTAM model covers the entire SCAG region, but the model data is more refined and focused within San Bernardino County as opposed to other areas of the region.

To evaluate project VMT within SBTAM, the project land use must be converted into socio-economic data (SED). Table 1 below shows the project's population estimate based on the average household size obtained from the City of San Bernardino General Plan.

Table 1.
Project Household Estimate

Land Use	Household Factor	Project Size	Project Residents
Single Family Residential	3.340 persons / household	115 DU	384

Source: City of San Bernardino General Plan, Appendix 5.

The project site is located in TAZ 53860202; however, this TAZ primarily reflects development in the San Bernardino mountains and only includes one centroid connector to State Route 138 near Crestline. Since this TAZ would not accurately reflect the project's access to Verdemont Drive and the surrounding roadway system in the City of San Bernardino, the project SED (254 residents) was added to TAZ 53746202. The adjacent TAZ 53746202 better reflects SED characteristics of the Verdemont neighborhood and with similar access provided to/from Little League Drive, thus providing a more accurate estimate of the project-generated VMT. The project-generated VMT was determined as the net change in total VMT for the project TAZ between without and with project model runs.

Baseline Conditions

Table 2 shows the project-generated VMT for baseline conditions.

**Table 2.
 Project-Generated VMT for Baseline Conditions**

Total VMT		Project-Generated VMT (Net Change)	Project Service Population	Project VMT per Service Population
Without Project	With Project			
36,923	43,986	7,063	384	18.4

Source: SBTAM, Version 2.2, Baseline Model. Total origin-destination VMT for TAZ 53746202.

As specified in the City TIA Guidelines, the threshold for project-generated VMT is based on the City of San Bernardino General Plan Buildout VMT per service population. The numerical threshold was determined based on the total origin-destination VMT from all zones within City boundaries using the SBTAM cumulative conditions model as summarized in Table 3.

**Table 3.
 Project-Generated VMT Threshold**

Citywide Buildout Conditions		
Total VMT (No Project)	Service Population	VMT per Service Population
11,853,191	367,671	32.2

Source: SBTAM, Version 2.2, Cumulative Model. Total origin-destination VMT and service population (population + employment) for all TAZs within City boundaries.

As shown in Table 2, the baseline project-generated VMT per service population is estimated to equal to 18.4 VMT per service population, which is less than the City-established threshold for 32.2 VMT per service population. Therefore, the baseline project-generated VMT impact is less than significant based on the City-established thresholds; no mitigation is required.

Cumulative Conditions

As specified in the City TIA Guidelines, cumulative impacts shall be considered less than significant if a project is consistent with the RTP/SCS, absent substantial evidence to the contrary.

The project is located within the Southern California Association of Governments (SCAG) Metropolitan Planning Organization (MPO). SCAG is the MPO responsible for development of Connect SoCal, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the region. Through the local input process, SCAG solicited input from all 197 local jurisdictions, including the City of San Bernardino, regarding current land use, socio-economic projections, sustainability and transit measures to develop the Connect SoCal plan. The information collected and used in development of the SCAG's long-range plans and environmental goals is documented in Data/Map Books for each jurisdiction. Based on review of the Data/Map Book for the City of San Bernardino, the project site is zoned for Residential use per SCAG's land use codes and is therefore consistent with the RTP/SCS.

Since the proposed project is consistent with the SCAG RTP/SCS, the project-generated VMT impact for cumulative conditions is less than significant based on the City-established thresholds; no mitigation is required.

PROJECT EFFECT ON VMT

As specified in the City TIA Guidelines, cumulative impacts shall be considered less than significant if a project is consistent with the RTP/SCS, absent substantial evidence to the contrary. As noted above, the proposed project is consistent with the SCAG RTP/SCS. Since the proposed project is consistent with the SCAG RTP/SCS, the project's effect on cumulative link-level boundary VMT is less than significant based on the City-established thresholds; no mitigation is required.

CONCLUSION

The baseline project-generated VMT per service population is estimated to equal to 18.4 VMT per service population, which is less than the City-established threshold for 32.2 VMT per service population. Therefore, the baseline project-generated VMT impact is less than significant based on the City-established thresholds; no mitigation is required.

Since the proposed project is consistent with the SCAG RTP/SCS, the cumulative project-generated VMT impact and the project's effect on cumulative link-level boundary VMT is less than significant based on the City-established thresholds; no mitigation is required.

We appreciate the opportunity to assist you with this project. Please contact Perrie Ilercil at (714) 795-3100 ext. 103 or perrie@ganddini.com if we can be of further assistance.

ATTACHMENT A

SITE PLAN

ATTACHMENT B
PROJECT TRIP GENERATION

**Table 1
Project Trip Generation**

Trip Generation Rates									
Land Use	Source ¹	Land Use Variable ²	AM Peak Hour			PM Peak Hour			Daily Rate
			% In	% Out	Rate	% In	% Out	Rate	
Single-Family Detached Housing	ITE 210	DU	25%	75%	0.70	63%	37%	0.94	9.43

Trips Generated									
Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Single-Family Detached Housing	ITE 210	115 DU	20	61	81	68	40	108	1,084

Notes:

1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
All rates based on General Urban/Suburban setting.
2. DU = Dwelling Units.