



# memorandum

**DATE:** August 18, 2021  
**TO:** Nicholas R. Lowe, PE, Senior Engineer, Albert A. Webb Associates  
**FROM:** Sandipan Bhattacharjee, PE, TE, AICP, ENV-SP  
**SUBJECT:** Canyon Lake Towne Center – VMT Analysis

Translutions, Inc. (Translutions) is pleased to provide this memorandum discussing the Vehicle Miles Traveled (VMT) evaluation for the proposed Canyon Lake Towne Center project in the City of Canyon Lake. This memorandum is intended to satisfy the requirements for a VMT analysis established by the City of Canyon Lake for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA).

The proposed project includes modifications to the existing Canyon Lake Towne Center. The project will remove approximately 79,700 square feet of existing retail uses and add the following uses:

- Retail – 31,000 square feet
- Office Commercial – 103,000 square feet.
- Multi-Family Residential – 188 units

Therefore, the proposed project will reduce retail uses by approximately 49,700 square feet, and add 103,000 square feet of office and 188 multifamily units.

## BACKGROUND AND GUIDANCE

Senate Bill 743 (SB-743), which was codified in Public Resources Code section 21099, was signed by the Governor in 2013 and directed the Governor's Office of Planning and Research (OPR) to identify alternative metrics for evaluating transportation impacts under CEQA. Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." Recently adopted changes to the CEQA Guidelines in response to Section 21099 include a new section (15064.3) that specifies that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts. A separate Technical Advisory issued by OPR provides additional technical details on calculating VMT and assessing transportation impacts for various types of projects.

The City of Canyon Lake has adopted VMT thresholds based on the recommendations from the Western Riverside County Council of Governments in June 2020. Based on the resolution, a project would result in a significant VMT impact if the project VMT exceeds the baseline VMT per Service Population (SP). The city also requires the use of RIVTAM for the analysis.

## ANALYSIS METHODOLOGY

The analysis methodology for the project were developed consistent with standard modeling practice. This section discusses the assumptions and methodology used for the analysis.

**Socio-Economic Data.** The project socio-economic date (SED) was based on median factors for Riverside County from the SCAG Employment Density Survey (October 31, 2001). The SCAG Study recommends a factor of 1148 square feet per employee for retail uses and 598 square feet per employee for office uses. The population of the multifamily residential was calculated using a population per household factor of 3.25 based on the model factors for multifamily residential in the city. Income groups and other parameters were kept consistent with the factors included in RIVTAM for the City of Canyon Lake.

**Other Edits.** No network edits were made for the project beyond using spare zones for the project, which isolated the project related land uses in separate zones.

**Model Runs.** Each model was run for 5 loops, and the convergence criteria was set at 0.01. Final assignment runs were completed. Several separate model runs were conducted.

- **Model Run 1.** This run included the existing model land uses for the area with no changes. This was used to set the baseline threshold.
- **Model Run 2.** This run included the proposed project components. Under this scenario, no changes were made to the existing uses, i.e., the project VMT was calculated as if the project was in addition to the existing uses on site. So, this run included 31,000 square feet of retail (27 employees), 188 multifamily units (611 residents), and 103,000 square feet of office uses (172 employees).
- **Model Run 3.** This run included a zone with 79,000 square feet of retail uses (69 employees). This model would show the VMT generated by the retail portion of the project that would be demolished.

**Model Outputs.** VMT data was extracted using the time-of-day origin-destination (OD) matrices multiplied by the time-of-day skims.

### PROJECT VMT

Table A shows the project VMT per service population. As shown in Table A, the project generates 28.9 VMT/SP in the base year which is less than the city average of 33.4 VMT/SP. Detailed calculations and model outputs are included in Attachment A.

**Table A - Project Generated VMT**

2012	Proposed Retail	Proposed Office	Proposed Residential	Retail to be demolished	Net Project VMT	City Threshold
Households	0	0	188	0	188	4,056
Population	0	0	611	0	611	11,516
Employment	27	172	0	(69)	130	1,435
Service Population	27	172	611	(69)	741	12,951
OD VMT	7,932	8,026	18,296	(12,825)	21,429	432,566
OD VMT per service population	294	47	30	186	28.9	33.4

### CONCLUSION

The baseline project VMT per service population is 28.9 miles which is lower than the threshold of 33.4 miles. Therefore, the project will have a less than significant impact on VMT.

Attachment A: Model Outputs and Calculations

	Project Retail	Project Office	Project Residential	Gross Project	Retail Reduction	Net Project	City of Canyon Lakes
[seq #]	4927	4928	4929		4927		
TAZ_ID	404191807	404191808	404191809		404191807		
District	4	4	4		4		
POP			611	611		611	11,525
RES			611	611		611	11,516
HH			188	188		188	4,056
Tot_emp	27	172		199	69	130	1,435
OD_CarP_VMT	3,597	3,839	8,624	16,059	5,876	10,183	207,210
OD_CarA_VMT	3,982	4,134	9,366	17,483	6,196	11,287	213,961
OD_CarP_Trps							
OD_CarA_Trps							
OD_TrkP_VMT	176	27	153	356	377	-21	5,696
OD_TrkA_VMT	176	27	153	356	377	-21	5,699
OD_TrkP_Trps							
OD_TrkA_Trps							
OD_TotP_VMT	3,773	3,865	8,777	16,415	6,253	10,162	212,906
OD_TotA_VMT	4,159	4,161	9,519	17,839	6,573	11,266	219,660
TotOD_VMT	7,932	8,026	18,296	34,254	12,825	21,429	432,566
Tot_SerPop	27	172	611	810	69	741	12,960
ODVMT/Serpop	293.76	46.66	29.94	42.29	185.87	28.92	33.38