
Appendix N-3

Memorandum for VMT Analysis for Lyons Canyon
Mixed Use Alternative

Memorandum

Date: October 3, 2022
To: Jonathan Frankel, NUWI - Lyons Canyon, LLC
From: Jeremy Klop and Dongyang Lin, Fehr & Peers
Subject: **Vehicle Miles Traveled Analysis for Lyons Canyon Mixed Use Alternative**

LA20-3234

This memorandum summarizes an assessment of VMT generated by the Lyons Canyon project's mixed-use alternative ("Alternative"). The Alternative includes 361 total multi-family dwelling units (with 36 affordable units and 325 market rate units) and 49,000 square feet retail uses.

VMT Screening

The first step of a VMT analysis is to determine what type of analysis, if any, is needed. Since the Alternative has a retail component, it was evaluated against four different screening criteria to assess if a VMT analysis would be applicable per the Los Angeles County's guidelines¹. The screening criteria are detailed below and applied for the Alternative to determine whether further VMT analysis is warranted.

Retail Project Site Plan Screening Criteria

In the LA County Guidelines, Section 3.1.2.2 pertains to retail screening criteria. The guidance states that:

A project that contains a local serving retail use is assumed to have less than significant VMT impacts for the retail portion of the project. If the answer to the following question is no, a less than significant determination can be made for the portion of the project that contains retail uses.

- *Does the project contain retail uses that exceed 50,000 square feet of gross floor area?*

The Alternative contains 49,000 square feet retail uses so the retail portion is **screened out** from further VMT analysis under this screening criteria.

¹ *Transportation Impact Analysis Guidelines*, Los Angeles County Public Works, July 2020



Non-Retail Project Trip Generation Screening Criteria

In the LA County Guidelines, Section 3.1.2.1 pertains to non-retail project screening criteria. The guidance states that:

If the answer is no to the question below, further analysis is not required, and a less than significant determination can be made.

- *Does the development project generate a net increase of 110 or more daily vehicle trips?*

Based on the Alternative's daily vehicle trip generation estimated using *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017), the Alternative's estimated trip generation is greater than 110 daily trips and is therefore **not screened out** on this criteria.

Proximity to Transit Based Screening Criteria

In the LA County Guidelines, Section 3.1.2.3 pertains to transit proximity screening criteria. The guidance states that:

If a project is located near a major transit stop or high-quality transit corridor, the following question should be considered:

- *Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor?*

The Alternative will be located on the same site as the original project. There are no transit stops within a half-mile of the project site that provide access to the high frequency transit service and there are no major transit stops (planned or existing) within a half-mile radius. Therefore, the Alternative is **not screened out** from further VMT analysis under this screening criteria.

Residential Land Use Based Screening Criteria

In the LA County Guidelines, Section 3.1.2.4 pertains to residential land use based screening criteria. The guidance states that:

Independent of the screening criteria for non-retail and retail projects, certain projects that further the State's affordable housing goals are presumed to have less than significant impact on VMT. If the project requires a discretionary action and the answer is yes to the question below, further analysis is not required, and a less than significant determination can be made.

- *Are 100% of the units, excluding manager's units, set aside for lower income households?*

The Alternative will not be providing 100% of the units for lower income households so is **not screened out** from further VMT analysis under this screening criteria.



Project VMT Analysis

VMT Methodology

Per the County's procedures, since the retail portion of the Alternative was screened out for future VMT analysis, daily household VMT per capita was estimated and compared with the County's published threshold guidance. No changes on the thresholds of significance used to assess the VMT impact have occurred since the prior analysis. It remains 10.6 residential VMT per capita. To account for the internalization of project trips associated with mixed use program in the Alternative, Fehr & Peers used the Mixed-Use Development (MXD) trip generation methodology to estimate changes in external trip generation and applied that new trip generation to the daily household VMT per capita estimated using the VMT Tool.

Mixed Use Trip Generation Estimate

Standard trip generation methodologies typically use the Institute of Transportation (ITE) Engineers Trip Generation Manual to establish trip rates for each individual land use in isolation. However, most of the empirical data used to develop ITE trip generation rates were collected in isolated settings, and do not accurately predict trip generation for mixed use that can facilitate walking and biking. Therefore, The MXD methodology was developed in partnership with the United States Environmental Protection Agency (EPA), to more accurately estimate the internalization of project trips associated with mixed use developments and districts, and the associated net external trip generation of mixed-use projects, which typically generate fewer vehicle trips than single use developments located in more isolated settings. The MXD methodology adjusts typical Institute of Transportation Engineers (ITE) trip rates to reflect the internalization and site-specific attributes of mixed-use developments. The MXD model was developed and calibrated to 239 existing mixed-use developments.

Subsequent to the development of the original MXD methodology, Fehr & Peers has updated and refined the methodology to include additional model sensitivities, updated ITE trip generation rates, and updated input data calculated from the Southern California Association of Government's (SCAG) travel demand model (TDFM), which includes the project area. The updated MXD methodology also takes into account data collected from additional mixed-use development sites to use for additional model validation purposes. This methodology, MXD 2.0, has been incorporated into Fehr & Peers' MainStreet trip generation tool ("MainStreet tool"), which represents the current best practice for mixed-use trip generation.

The evaluation of the Alternative's trip generation has been conducted using the MainStreet tool. **Table 1** shows that the Alternative is expected to generate 4.2% fewer vehicle trips with the mixed-use program than trips generated from each individual land use in isolation.



Table 1: Alternative’s Daily Vehicle Trip Generation Difference Using MainStreet Tool

	ITE	MXD 2.0	Mixed Use Trip Generation Difference
Daily Vehicle Trips	4,493	4,303	-4.2%

Project VMT Impact Analysis

Per the County’s published guidelines, if the project’s residential VMT per capita is not more than 16.8% below the existing residential VMT per capita for the Baseline Area in which the project is located, the project would have a significant VMT impact. If the Project would generate VMT higher than the threshold for the County baseline, then it would be expected to have a significant VMT impact, and if the Project would generate VMT lower than the threshold, then it would not be expected to have a significant VMT impact.

Consistent with the original project’s VMT analysis, the baseline residential VMT per capita is 12.7 for the analysis year of 2022². The significance threshold of 16.8% below 12.7 equals to 10.6 VMT per capita. According to the VMT Tool, the daily residential VMT per capita of the Alternative is estimated at 17.0 without accounting for the mixed-use internalization, as shown in **Figure 1**. After applying the -4.2% mixed use vehicle trip internalization, the daily residential VMT per capita of the Alternative is estimated at 16.3, as shown in **Table 2**. The significance threshold of 16.8% below the County baseline for 2022 is 10.6 residential VMT per capita (16.8% below 12.7). Thus, the Alternative’s 16.3 residential VMT per capita represents **a significant impact**.

Table 2: Mixed-Use Alternative VMT Analysis

	Residential VMT Per Capita Without Mixed-Use Internalization	Mixed Use Trip Generation Difference	Residential VMT Per Capita With Mixed-Use Internalization
	(A)	(B)	(C) = (A) * [1+(B)]
Alternative	17.0	-4.2%	16.3

Cumulative VMT analysis

No changes on the thresholds of significance used to assess the cumulative VMT impact have occurred since the prior analysis. As outlined in the County’s guidelines, any increase in residential VMT per capita above that which was forecasted in the RTP/SCS would constitute a significant impact.

² LA County Baseline VMT Data Memorandum, Fehr & Peers, January 2022



As shown in **Table 3**, the cumulative “no project” residential VMT per capita for the project area is 18.4. Any increase to this number would represent a cumulative VMT impact. The cumulative “plus alternative” scenario is estimated to generate 18.6 daily residential VMT per capita, which represents an increase over the cumulative “no project” residential VMT per capita. Compared with the original project, which has a cumulative residential VMT per capita of 18.7, the Alternative has a slightly lower impact and still indicates **a significant transportation impact** under cumulative conditions.

Table 3: Cumulative VMT Analysis for Alternative

Cumulative Project VMT Impact Analysis	Cumulative Year
Average Home-Based Trip Length (miles) [a]	14.5
Home-Based Vehicle Trips [a][d]	23,797
Daily Residential VMT [b]	345,061
Population [b]	18,508
Threshold: Cumulative No Project Baseline Residential VMT per Capita [c]	18.4
Cumulative Residential VMT per Capita	18.6
Significant Impact	YES

Notes:

[a] The Southern California Association of Governments (SCAG) Travel Demand Forecasting Model provides the ability to evaluate the transportation system in the SCAG region. The model forecasts AM and PM peak period and daily vehicle and transit flows on the transportation network in the region and calculates trip origins and destinations for those vehicle flows. Household VMT per capita is based on the home-based work and home-based other productions trips from the SCAG model as run by Fehr & Peers, February 2021.

[b] Daily VMT for residential land uses is calculated using the home-based vehicle trips and the average trip length calculated using the SCAG model.

[c] Baseline VMT and impact thresholds are based on the Los Angeles County Public Works Transportation Impact Guidelines, July 23, 2020.

[d] Home-Based Vehicle Trips accounts for trip generation differences related to mixed-use development.

Conclusion

The Alternative is estimated to generate an average daily household VMT per resident of 16.3 under project conditions and 18.6 under cumulative conditions. The Alternative would have a significant transportation impact under both conditions using the County’s VMT significance thresholds.

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name	Analysis Year
Lyons Canyon Mixed Use Alternative	2022
Parcel Number (TAZ# 20227100)	
2826022027	

Project Land Use Information

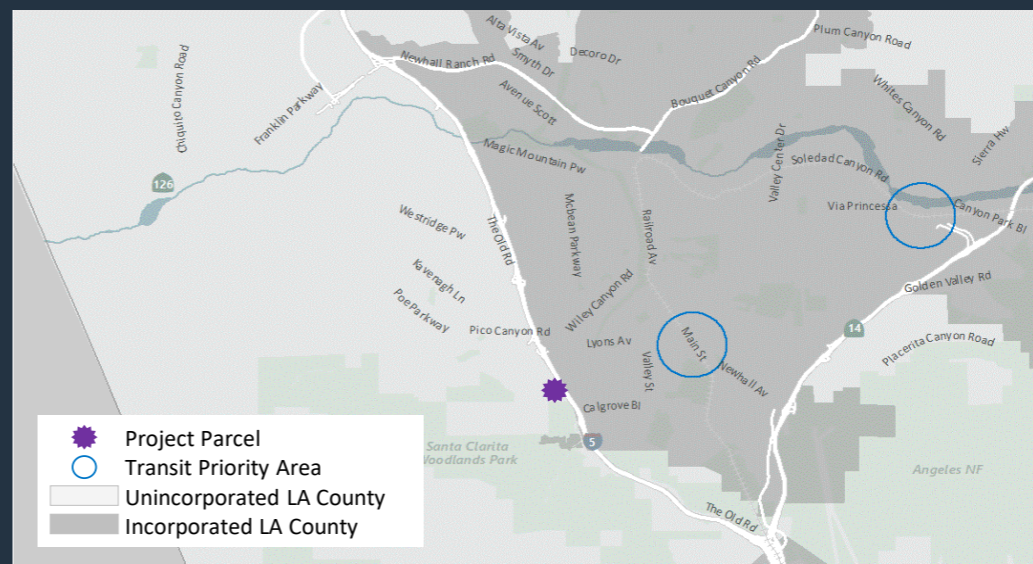
	Values	Unit
Residential - Single-Family Housing		DU
Residential - Multifamily Housing	325	DU
Residential - Affordable Housing	36	DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services	49,000	KSF
Industrial - Warehousing		KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)		Daily Trips

Project Daily Trips: 3,768

Screening Criteria for County of Los Angeles

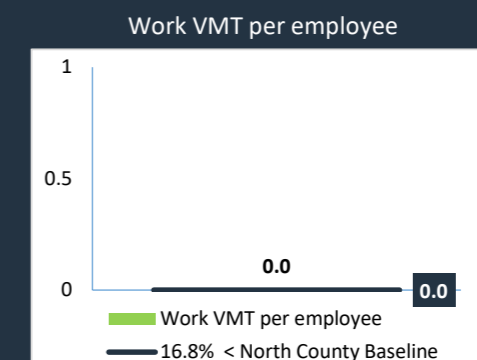
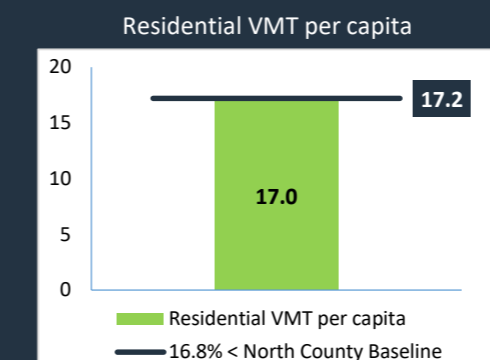
	Value
Is the project screened in a Transit Priority Area?	No
Is the project's residential land uses 100% affordable housing?	No
Is the project's local service retail land uses under 50,000 square foot?	Yes
Does the project generate fewer than 110 daily trips? (enter project land use in the section above)	No

Project Location and VMT Information



Project Summary Information

North County Residential VMT Baseline (20.7)	16.8%	% Threshold for Screening
North County Work VMT Baseline (15.9)	16.8%	% Threshold for Screening



The retail portion of this project is presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis for the retail portion is not required. The project is not presumed to have a less than significant impact on VMT, therefore a CEQA VMT analysis may be required. Please refer to the Transportation Impact Analysis Guidelines on how to proceed forward.

Figure 1

