

APPENDIX G

VMT Analysis

TECHNICAL MEMORANDUM

To: Chandler Elliott, NorthPoint Development
From: Carla Dietrich, Michael Baker International
 Dawn Wilson, Michael Baker International
CC: Eddie Torres, Michael Baker International
Date: November 30, 2023
Subject: Antelope Valley Logistics Center West VMT Assessment

Introduction

The purpose of this memorandum is to document a vehicle miles traveled (VMT) assessment for the proposed Antelope Valley Logistics Center West Project (Project) in support of the transportation component of the California Environmental Quality Act (CEQA) analysis. The Project proposes two (2) 1,007,536 square foot speculative warehouse buildings on vacant land located in Los Angeles County (County), California north of the City of Lancaster. **Table 1** provides key project information. **Exhibit 1** shows the location of the Project and **Exhibit 2** shows the conceptual site plan. A Project traffic operations and site access analysis report is being prepared separate from this document.

Table 1: Project Information

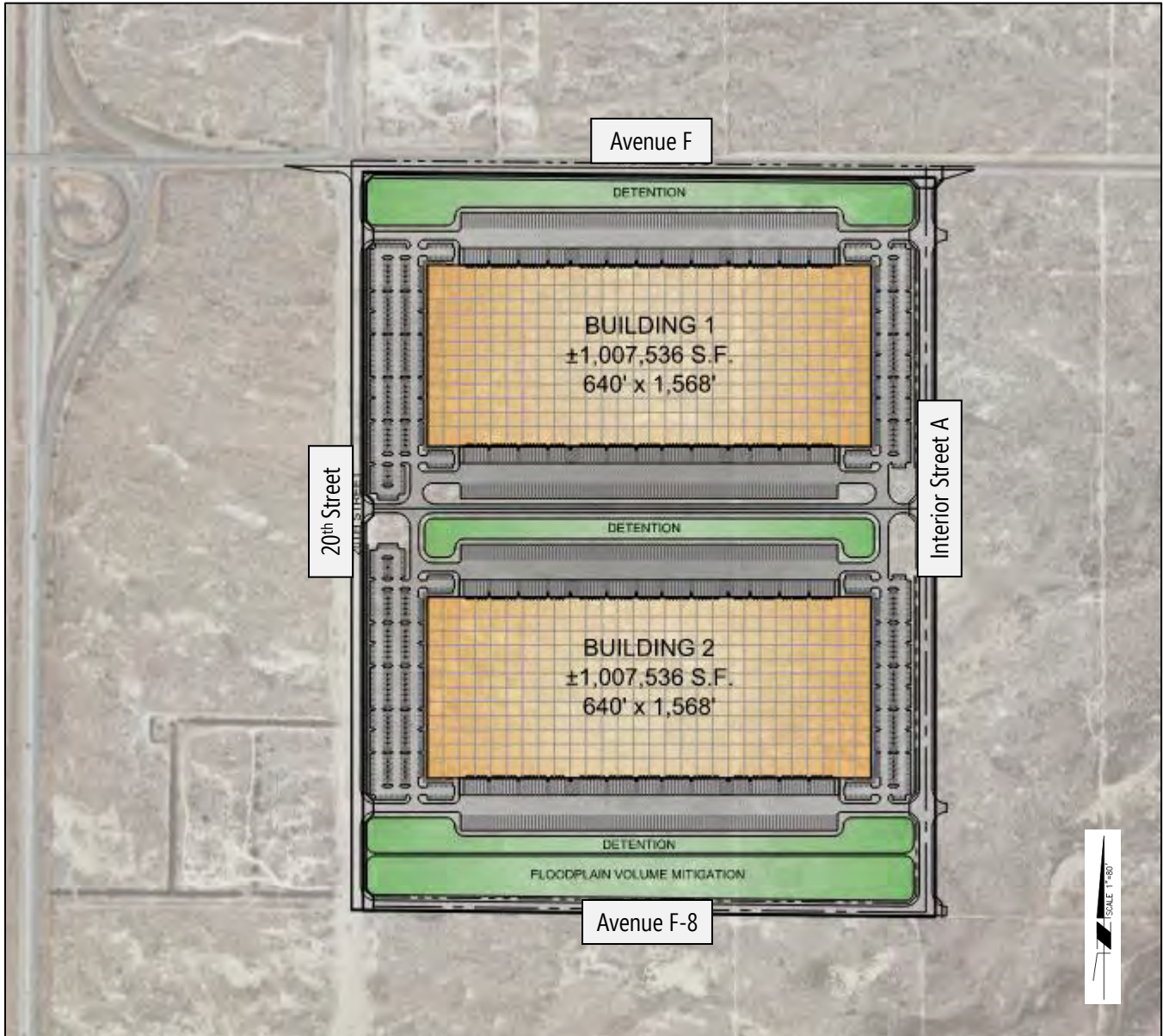
Item	Description
Project Title	Antelope Valley Logistics Center West
Project Identifiers	Project No. PRJ2022-002897; Supervisorial District 5 CUP RPPL2022013992; RPPL2022013992; ENV RPPL2023000522
Project Location	Northern portion of Los Angeles County, in the geographic sub-region of the western tip of the Mojave Desert. Immediately east of SR-14, south of Avenue F, and adjacent to 20th Street West.
Assessor Parcel Numbers (APNs)	3118-015-010 and 3118-015-011
Travel Demand Model Traffic Analysis Zone (TAZ)	Southern California Association of Governments (SCAG) Regional Travel Demand Model (TDM) TAZ 20310400
Existing Use	The 121-acre Project site is fenced, vacant and undeveloped.
Proposed Use	The Project would include construction of two speculative industrial short-term storage warehouse buildings. Each new building is approximately 1,007,536 square-feet, which includes approximately 40,000 square feet of office space. The office space is ancillary to the warehouse use. Each building will have 82 truck loading docks, 222 trailer parking stalls, and 849 passenger vehicle parking spaces.
Employment	Multiple shifts are expected and dependent on tenant requirements. The Project may operate up to 24 hours a day, seven days a week, and employ up to approximately 1,000 people (total of 2,000 employees).
Site Area	Approximately 121 acres

Exhibit 2: Project Area



Source: Michael Baker International.

Exhibit 3: Conceptual Site Plan



Source: NorthPoint Development.

Plan Consistency

The *Los Angeles County's Town & County - Antelope Valley Area Plan* (adopted on 7/16/2015) Land Use Policy Map identifies three economic opportunity areas (EOAs). The Project site is located within one of the EOAs and is designated/zoned Light Industrial (IL). The IL designation is intended for development of a broad range of industrial activities, including light manufacturing, assembly, warehousing, and distribution. The proposed warehouse land use is consistent with the IL designation and land use type identified in the Area Plan.

Analysis Guidelines

The *Los Angeles County Public Works Transportation Impact Guidelines, July 23, 2020 (County Guidelines)* have been utilized as the primary resource for this analysis. The analysis documented in this memorandum is consistent with the scoping agreement dated May 25, 2023, which was approved by County staff on June 20, 2023.

Project Trip Generation

The Project site trips were estimated using trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* (11th Edition). **Table 2** provides the trip generation rates for High Cube Warehouse Transload and Short-Term Storage Warehouse land use (ITE code 154, High Cube Transload and Short-Term Storage Warehouse) and Land Use Code 710 (General Office Building).

Table 2: Trip Generation Rates

Land Use	ITE Code	Vehicle Type Breakdown		Daily Trips Rate ¹	AM Peak Hour			PM Peak Hour		
					Rate	In	Out	Rate	In	Out
High Cube Transload and Short-Term Storage Warehouse	154	Passenger Cars	69.0% ²	0.966 / KSF	0.055	77% / 23%	0.069	28% / 72%		
		2 Axle Trucks	6.8% ³	0.095 / KSF	0.006					
		3 Axle Trucks	5.5% ³	0.077 / KSF	0.004	49% / 51%	0.005	47% / 53%		
		4+ Axle Trucks	18.7% ³	0.262 / KSF	0.015					
		Total Trucks	31.0% ²	0.434 / KSF	0.025	-- / --	0.031	-- / --		
		Total		1.40 / KSF	0.080	-- / --	0.100	-- / --		
General Office Building	710	Passenger Cars	100%	10.84 / KSF	1.52	88% / 12%	1.44	17% / 83%		

Sources: 1) Trip Rates - Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 11th Edition
 2) Passenger Car/Truck Breakdown: ITE-South Coast Air Quality Management District's (SCAQMD) *High-Cube Warehouse Vehicle Trip Generation Analysis* (October 2016) (<https://www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498>).
 3) Truck Type Breakdown: ITE-South Coast Air Quality Management District's (SCAQMD) Stakeholder Working Group presentation July 17, 2014 (<https://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finalswg071714backup.pdf?sfvrsn=2>).

Note: KSF = Thousand square feet.

Office space is a typical component of a modern warehouse. Modern warehouse building office space generally consists of common areas including but not limited to reception space, breakrooms, conference rooms, warehouse bathrooms, shipping and receiving centers, employee health and wellness rooms, and learning centers. The *ITE Trip Generation Manual* indicates that the office or employee wellness areas are typically insignificant in proportion to the total building area. As outlined in the project description, the anticipated office space is 40,000 square-feet per building. It is anticipated that the office space for this Project will include common areas that would likely account for 25 to 50 percent of the 40,000 square feet of office area and are directly related to general warehouse operations. Furthermore, the office space is purely ancillary to the warehousing operation and would not be an additional use separate from the warehouse tenant.

A separate level of service and traffic operations report was also prepared for this Project. To prepare a conservative traffic operations analysis, the trip generation for the Project separated the office use for those additional office portions of the proposed buildings. The *ITE Trip Generation Manual* warehouse data has been reported for studies that include up to 10% of their square footage as office space. In the case of this Project, that would result in approximately 10,000 square feet per building. Each building contains 40,000 square-feet of proposed office space. Since ITE Land Use Code 154 accounts for office space of approximately 1%

of gross floor area, or approximately 10,000 square-feet, trips associated with remaining 30,000 square-feet of proposed office space were estimated using ITE Land Use Code 710.

Table 3 shows the trip generation calculations for the Project. The total estimated Project trips include 3,388 daily trips, 248 AM Peak Hour trips (192 inbound / 56 outbound), and 282 PM Peak Hour trips (78 inbound / 204 outbound).

Table 3: Project Trip Generation

Land Use	ITE Code	Intensity	Vehicle Type Breakdown		Daily Trips	AM Peak Hour			PM Peak Hour		
						Volume	In	Out	Volume	In	Out
Building 1											
High Cube Transload and Short-Term Storage Warehouse	154	977.536 KSF	Passenger Cars	69.0%	944	54	42	12	67	19	48
			2 Axle Trucks	6.8%	93	6	5	1	7	2	5
			3 Axle Trucks	5.5%	75	4	2	2	5	2	3
			4+ Axle Trucks	18.7%	257	14	7	7	19	9	10
			Total Trucks	31.0%	425	24	14	10	31	13	18
			Total		1,369	78	56	22	98	32	66
General Office Building	710	30.000 KSF	Passenger Cars	100.0%	325	46	40	6	43	7	36
Subtotal (Building 1)		1,007.536 KSF			1,694	124	96	28	141	39	102
Building 2											
High Cube Warehouse Transload and Short-Term Storage Warehouse	154	977.536 KSF	Passenger Cars	69.0%	944	54	42	12	67	19	48
			2 Axle Trucks	6.8%	93	6	5	1	7	2	5
			3 Axle Trucks	5.5%	75	4	2	2	5	2	3
			4+ Axle Trucks	18.7%	257	14	7	7	19	9	10
			Total Trucks	31.0%	425	24	14	10	31	13	18
			Total		1,369	78	56	22	98	32	66
General Office Building	710	30.000 KSF	Passenger Car	100.0%	325	46	40	6	43	7	36
Subtotal (Building 2)		1,007.536 KSF			1,694	124	96	28	141	39	102
Total (Both Buildings, 2,015,072 Square Feet)					3,388	248	192	56	282	78	204

- Notes:**
- 1) KSF = Thousand square feet.
 - 2) Values may vary slightly due to rounding after rate calculation.
 - 3) Each building contains 40 KSF of proposed office space. ITE Land Use Code 154 accounts for office space of approximately 1% of GFA, or approximately 10 KSF. Trips associated with remaining 30 KSF of proposed office space estimated using ITE Land Use Code 710.

Screening Criteria

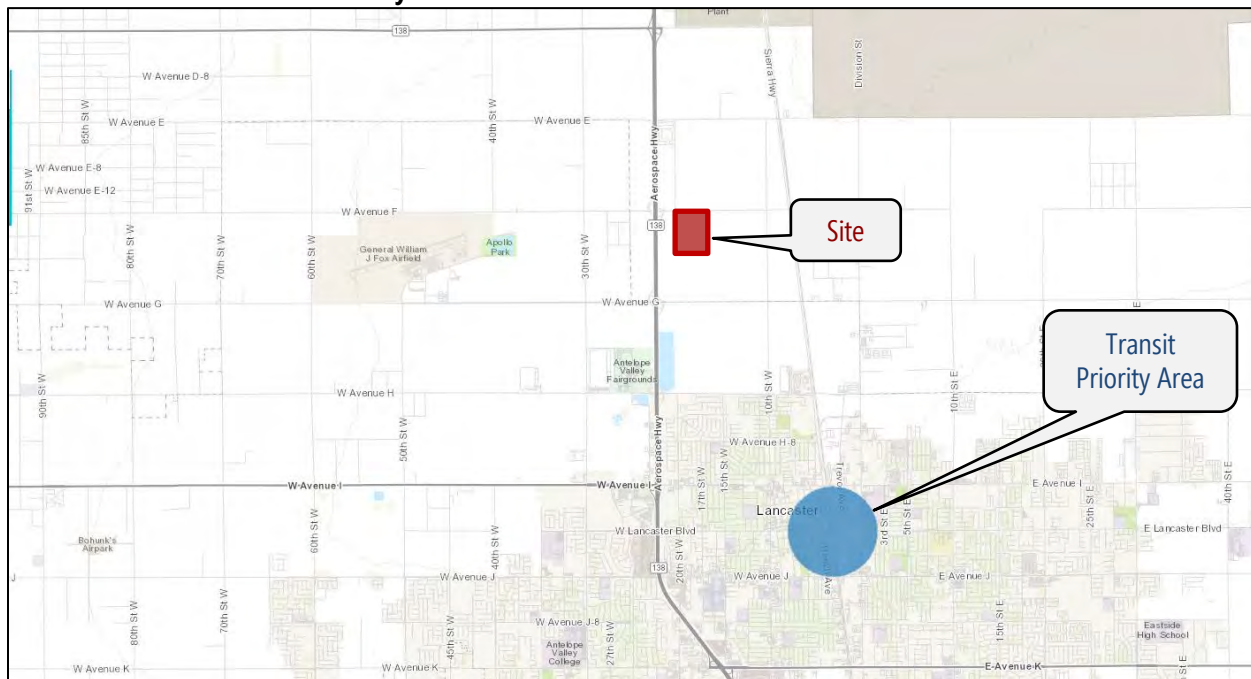
Land use projects that meet the *County Guidelines* screening thresholds identified in **Table 4** are assumed to result in a less-than-significant transportation impact under CEQA and do not require a detailed quantitative VMT assessment with a VMT calculation. As shown, the Project does not meet any of the Screening Criteria for land use projects, thus a **project-specific VMT assessment is required**.

Table 4: Screening Criteria for Land Use Projects Exempt from VMT Calculation

Screening Criteria	Project Evaluation	Result	
3.1.2.1 – Non-Retail Project Trip Generation Screening Criteria	Does the development project generate a net increase of 110 or more daily vehicle trips?	Project is anticipated to generate more than 3,000 daily trips.	Does Not Meet
3.1.2.2 – Retail Project Site Plan Screening Criteria	Does the project contain retail uses that exceed 50,000 square feet of gross floor area?	The Project includes industrial (warehouse) uses only.	Does Not Meet
3.1.2.3 – Proximity to Transit Based Screening Criteria	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?	Exhibit 4 shows that the Project is not located with a Transit Priority Area.	Does Not Meet
3.1.2.4 – Residential Lane Use Based Screening Criteria	Are 100% of the units, excluding manager’s units, set aside for lower income households?	Project does not include any residential housing.	Does Not Meet

Source: Screening Criteria obtained from *Los Angeles County Public Works Transportation Impact Guidelines* (July 23, 2020).

Exhibit 4: SCAG 2016 Transit Priority Areas



Source: <https://gisdata-scag.opendata.arcgis.com/datasets/high-quality-transit-areas-hqta-2016-scag-region>

Note: Blue area indicates High Quality Transit Areas.

VMT Analysis Methodologies

Analysis Tool

Through coordination with County staff, the County of Los Angeles VMT Tool was determined to be the appropriate analysis tool for use in calculating VMT. Version 1.0 of the Excel tool was utilized in the analysis. The signed VMT Tool User Agreement has been provided in **Attachment 1**.

Thresholds of Significance

Table 5 shows the impact criteria per the *County Guidelines*. As shown, the primary site use (warehouse) is not directly addressed in the guidance. Given the employment nature of the warehouse, it is recommended that the Office criteria is utilized where VMT per employee is analyzed. This is consistent with the Governor's Office of Planning and Research *Technical Advisory* (December 2018) guidance which states that "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks." Given this guidance, the evaluation of automobiles via the VMT per employee metric (excluding heavy vehicles) is recommended for the Project.

Table 5: VMT Metrics and Impact Thresholds by Project Type

Project Type	VMT Metric	County Impact Threshold
Residential	VMT per capita	The project's residential VMT per capita would not be 16.8% below the existing residential VMT per capita for the Baseline Area in which the project is located.
Office	VMT per employee	The project's employment VMT per employee exceeding would not be 16.8% below the existing employment VMT per employee for the Baseline Area in which the project is located.
Regional Serving Retail	Total VMT	The project would result in a net increase in existing total VMT.
Land Use Plans	VMT per service population	The plan total VMT per service population (residents and employees) would not be 16.8% below the existing VMT per service population for the Baseline Area in which the plan is located.
Other Land Use Types	Varies	Contact Public Works to determine which of the above area an appropriate threshold of significance to be utilized.

Source: *County Guidelines*, Section 3.1.3. Impact Criteria

Project Level VMT Assessment

VMT Calculator Tool Results

Michael Baker utilized the County's VMT Tool to conduct the Project-specific analysis. The Project VMT calculation results are shown in **Exhibit 5** and summarized in **Table 6**. Inputs included the Project's APNs (3118-015-010 and 3118-015-011) and the Project size (2,015.072 thousand square feet of warehouse). The Project land use type is consistent with the Project description since the proposed office space is ancillary to the warehouse operations and is not an additional separate use. Coordination was conducted with the County to confirm consistency of this data input with the County's VMT Tool requirements.

The VMT evaluation was based on the North County region thresholds given the Project's location; therefore, the VMT impact threshold is 13.0 VMT per employee, or 16.8% of the North County Work VMT Baseline of 15.6 VMT per employee. The Project is estimated to generate 11.4 VMT per employee. A comparison of the Project VMT per employee (11.4 VMT per employee) to the County VMT Impact Criteria (13.0 VMT per employee) shows that the Project VMT is anticipated to be 12.3% below the threshold; therefore, **the Project is not anticipated to result in a significant transportation impact.**

Exhibit 5: VMT Calculator Output

COUNTY OF LOS ANGELES VMT TOOL

version 1.0

Project Information

Project Name: **AVLC** Analysis Year: **2023**

Parcel Number (TAZ# 20310200)
3118015001

Project Land Use Information

	Values	Unit
Residential - Single-Family Housing		DU
Residential - Multifamily Housing		DU
Residential - Affordable Housing		DU
Office - General Office		KSF
Office - Medical Office		KSF
Retail - Shopping Center, Restaurant, Services		KSF
Industrial - Warehousing	2,015.072	KSF
Industrial - Light Industrial		KSF
Custom Land Use (ignores all other land use entries)		Daily Trips

Project Daily Trips: 3,506

Screening Criteria for County of Los Angeles

Question	Value
Is the project screened in a Transit Priority Area?	No
Is the project's residential land uses 100% affordable housing?	N/A
Is the project's local service retail land uses under 50,000 square foot?	N/A
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 (20.5) **16.8%** % Threshold for Screening

North County Work VMT Baseline (15.6) **16.8%** % Threshold for Screening

Residential VMT per capita

0.0

Work VMT per employee

11.4

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.

Additionally, a screen capture of the VMT Tool Transit Priority Area Secondary Information excel file tab has been provided in **Attachment 2**.

Table 6: Project VMT Summary

Category	VMT Per Employee
North County Work VMT Baseline	15.6
North County Work VMT Impact Threshold (16.8% below Baseline)	13.0
Project Work VMT Per Employee	11.4 (12.3% below County Impact Criteria)

Cumulative Analysis

As noted previously, the proposed warehouse land use is consistent with the land use type identified in the Area Plan and the project impact level analysis indicates no significant impact. Given these factors, the Project can be presumed to have a less-than-significant cumulative impact.

Conclusions

The VMT evaluation of the Antelope Valley Logistics Center West Project proposed in unincorporated Los Angeles County shows that the Project does not meet the screening criteria and thus a VMT assessment was required to determine whether the Project will result in a transportation impact under CEQA. Evaluation of the Project demonstrated that the Project VMT per employee does not exceed the County's threshold for North County VMT per employee. As such, **the Project is not projected to result in a significant transportation project impact; therefore, mitigation measures are not required. Additionally, the Project is anticipated to result in less-than-significant cumulative impacts.**

Attachment 1 – VMT Tool Signed User Agreement

County of Los Angeles VMT Tool User Agreement

The Los Angeles County Department of Public Works, with the assistance of its consultant, Fehr & Peers, developed the County of Los Angeles Vehicle Miles Traveled (VMT) Tool to estimate project-specific daily Residential VMT per capita and Work VMT per employee for land-use development projects. This application, the VMT Tool, has been provided to You, the User, to assess VMT outcomes of land-use projects within the County of Los Angeles (County). When the term “County” is used herein as a geographical descriptor, it shall refer to the unincorporated areas of Los Angeles County. In using the VMT Tool, You agree to be bound by all of the terms and provisions of this VMT Tool User Agreement (Agreement).

VMT Tool Application for the County of Los Angeles. The County’s consultant calibrated the VMT Tool’s parameters in 2020 based on the 2016 SCAG Travel Demand Model. However, this calibration process is limited to locations within the unincorporated areas of the County.

Limited License to Use. This Agreement gives You a limited, non-transferrable, non-assignable, non-exclusive, and revocable license to use and execute a copy of the VMT Tool on a computer system owned, leased, or otherwise controlled by You in Your own facilities, as set out below, provided You do not use the VMT Tool in an unauthorized manner, and that You do not republish, copy, distribute, reverse-engineer, modify, decompile, disassemble, transfer, or sell any part of the VMT Tool, and provided that You understand, agree to, and follow the terms of this Agreement. Your failure to follow any of the terms of this Agreement shall automatically terminate this license and Your right to use the VMT Tool.

Ownership. You understand and acknowledge that the County exclusively owns the VMT Tool, and shall continue to exclusively own it through Your use of it, and that no transfer of ownership of any kind is intended, or occurs, when allowing You to use the VMT Tool.

Warranty Disclaimer. In spite of the efforts of the County and Fehr & Peers, it is possible that some of the information contained in the VMT Tool may not be accurate. The VMT Tool, OUTPUTS AND ASSOCIATED DATA ARE PROVIDED “as is” WITHOUT WARRANTY OF ANY KIND, whether expressed, implied, statutory, or otherwise including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

No Liability. It is understood that the VMT Tool is provided to You without charge. It is further understood and agreed that neither the County nor Fehr & Peers will be responsible or liable in any manner for Your use of, or Your inability to use, the VMT Tool, including, without limitation, for any information derived from its use, for any delays, inaccuracies, incompleteness, errors or omissions, or damages of any kind, arising out of Your use of the VMT Tool or with respect to the material contained in the VMT Tool, including, without limitation, any damage to Your computer, network, or system resulting from receiving, downloading, or using the VMT Tool. By using the VMT Tool, You hereby voluntarily and unconditionally waive and release all claims, responsibilities, liabilities, actions, damages of any kind, costs, and losses, known and unknown, against the County and Fehr & Peers related to or arising from Your use of the VMT Tool, including, without limitation, whether the VMT Tool improperly or incorrectly determined that You are exempt from doing a transportation impact analysis or any other environmental analysis, or made an improper or incorrect environmental review determination. In no

event shall the County or Fehr & Peers be responsible or liable to You or anyone else for, or have liability for any actual, special, direct, indirect, incidental or consequential or any other type or category of damages (including, without limitation, damages for loss of business profits or changes to businesses costs) or lost data or downtime, however caused, and on any theory of liability from the use of, or the inability to use, the VMT Tool, whether the data, and/or formulas contained in the VMT Tool are provided by the County or Fehr & Peers, or another third party, even if the County or Fehr & Peers have been advised of the possibility of such damages. Further, the County has no obligation to provide You with the VMT Tool or to continue to provide You with the VMT Tool in the future. If the County determines for any reason that the VMT Tool should no longer be used, the County may discontinue Your use of the VMT Tool in the County's sole discretion.

Term and Termination. This Agreement and License shall be governed by the laws of the State of California without regard to conflicts of law provisions and shall be effective as of the date set forth below and, unless terminated in accordance with the above or extended by written amendment to this Agreement, shall terminate on the earlier of the date that You are not making use of the VMT Tool or one year after the beginning of Your use of the VMT Tool.

Termination for Convenience. The County may terminate this Agreement (and the User's right to use the VMT Tool), with or without cause, including for the County's convenience, by giving no less than thirty (30) days' written notice thereof to the User.

Print and sign below and submit to Los Angeles County Department of Public Works.

You, the User	
By:	<u>Carla R Dietrich</u>
Print Name:	<u>Carla R. Dietrich</u>
Title:	<u>Traffic Task Lead</u>
Company:	<u>Michael Baker International</u>
Address:	<u>3536 Concours, Suite 100, Ontario, CA 91764</u>
Phone:	<u>(909) 974-4908</u>
Email Address:	<u>cdietrich@mbakerintl.com</u>
Date:	<u>10/3/2023</u>

Attachment 2 – VMT Tool TPA Secondary Information

VMT Tool TPA Secondary Information Screen Capture

COUNTY OF LOS ANGELES VMT TOOL version 1.0

Project Information

Project Name	Analysis Year	Parcel Number (TAZ# 20310200)
AVLC	2023	3118015001

Project Land Use TPA Secondary Information

	Values	Additional Info on Secondary Information
Does the project have a Floor Area Ratio less than 0.75? [1]	<input type="button" value="Yes"/>	Determine from Project Site Plan
Does the project provide more parking than required by the County Code? [1]	<input type="button" value="Yes"/>	Please contact the Department of Regional Planning for parking requirements
Is the project inconsistent with the SCAG RTP/SCS? [1]	<input type="button" value="No"/>	Contact Public Works to determine how to check for consistency with the SCAG RTP/SCS
Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units? [1]	<input type="button" value="No"/>	The total number of lower income housing units that exist on the project site should be counted and compared to the total number of lower income and market-rate residential units proposed by the project.

Note:
[1] As referenced in the Governor's Office of Planning and Research (OPR), Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.

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.