Appendix H2
Vehicle Miles Traveled (VMT) Analysis

BERGAMOT SPECIFIC PLAN
INITIAL STUDY

URBAN CROSSROADS

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November 16, 2020

Mr. Steven Cook
MLC Holdings, Inc.
5 Peters Canyon Road Suite 310
Irvine, CA 92606

SUBJECT: CITRUS VALLEY VEHICLE MILES TRAVELLED (VMT) ANALYSIS

Dear Mr. Steven Cook:

The following Vehicle Miles Travelled (VMT) Analysis has been prepared for the proposed Citrus Valley development (**Project**), which is located northwest of Texas Street and Domestic Avenue in the City of Redlands.

PROJECT OVERVIEW

The Project is proposed to consist of 317 single family residential dwelling units and ball fields (6 small soccer fields and 1 ball field).

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate takes effect July 1, 2020.

It is our understanding that the City of Redlands utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool (**Screening Tool**). The Screening Tool allows users to input an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (**Technical Advisory**). (1)

The focus of this memorandum is to more thoroughly evaluate each of the applicable screening thresholds to determine if the proposed Project would be expected to cause a less-than-significant impact to VMT without requiring a more detailed VMT analysis. If the screening thresholds are not met, then project-generated VMT will be calculated and compared to the applicable VMT threshold as identified in the City of Redlands CEQA Assessment VMT Analysis Guidelines (**City Guidelines**). (2)

PROJECT SCREENING

The City Guidelines provides details on appropriate "screening thresholds" that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. Screening thresholds are broken into the following four types:

- Project Type Screening
- Map Based Screening based on Low VMT Area
- Transit Priority Area (TPA) Screening

A land use project need only to meet one of the above screening thresholds to result in a less-than-significant impact.

PROJECT TYPE SCREENING

The City Guidelines identifies projects that are consistent with the current Sustainable Communities Strategy (SCS) or general plan, and that generate less than 3,000 metric tons of CO2e per year can be presumed to have a less-than-significant impact on VMT. Based on substantial evidence provided in the City Guidelines, single family residential projects of 167 dwelling units or fewer would meet this threshold. As the proposed Project exceeds this dwelling unit cap, the Project would not be eligible to screen out based on project type screening.

The Project Type screening threshold is not met.

LOW VMT AREA SCREENING

As noted in the City Guidelines, residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT. The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual traffic analysis zones (TAZ's) within the region. The Project's physical location based on parcel number was input into the Screening Tool to determine the TAZ's VMT as compared to the County average. The parcel containing the proposed Project was selected and the Screening Tool was run for VMT per service population (i.e., population and employment) measure of VMT. Based on the Screening Tool results (see Attachment A), the Project is not located within an already low VMT generating TAZ.

The Low VMT Area screening threshold is not met.

TPA SCREENING

Consistent with guidance identified in the Technical Advisory and City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[1] or an existing stop

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").

along a "high-quality transit corridor"[2]) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

Based on the Screening Tool results presented in Attachment A, the Project site does is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor.

The TPA screening threshold is not met.

PROJECT VMT

The SBTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The City Guidelines identify SBTAM as the appropriate tool for conducting VMT analysis for land use projects in San Bernardino County.

Consistent with City Guidelines, Project VMT has been calculated using the most current version of SBTAM. Adjustments to population for a TAZ representing the Project's location were made to both the SBTAM base year model (2012) and the cumulative year model (2040), as shown in Table 1.

TABLE 1: POPULATION FACTORS

	Project
Population	1,018

A population factor of 3.21 per household was obtained from the City of Redlands Housing Element. The SBTAM base year model and cumulative year models were run, and Project VMT was then calculated for both the base year model (2012) and cumulative year model (2040) and linear interpolation was used to determine the Project's baseline (2020) VMT. VMT value is then normalized by dividing by the Project's service population (SP). As the Project contains only residential and does not contain office, retail, industrial or other employment type uses, the Project's SP is inclusive of only population.

As shown in Table 2, the Project baseline (2020) VMT per SP is 20.55 and the Project cumulative (2040) VMT per SP is 25.88.

[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

TABLE 2: PROJECT VMT PER SP

	2020	2040
Population	1,018	1,018
Employment	0	0
VMT	20,920	26,349
VMT per SP	20.55	25.88

As identified previously, the Project land use was added to the SBTAM network in a separate TAZ. The VMT generated from that separate TAZ would only represent the land use associated with the Project (i.e., residents and households). This is done to isolate the Project VMT. It should also be noted that the SBTAM model is a subregional model and may not capture all the project-level interactions with the local land uses. TAZ 53836301, which the project resides in, is located north of Pioneer Avenue, south of the Santa Ana River, east of the I-210 Freeway, and west of Orange Street. Within the existing TAZ, there exists a mix of population, housing, and employment. Given that the Origin-Destination (OD) Total VMT is inclusive of all trip purposes (home-based, work-based, and other non-home/work based trips) within the TAZ, variances in VMT is expected given that the Project consists entirely of residential uses. The same would apply to the adjacent TAZ 53836303, which also includes residential and employment uses. Even though TAZs may be adjacent to each other, OD VMT results may vary from zone to zone within the same vicinity of one another.

SAN BERNARDINO COUNTY VMT

SBCTA provides VMT calculations from SBTAM for base model year and cumulative model year for each of its member agencies. Urban Crossroads has obtained this data from SBCTA and has used linear interpolation to calculate the San Bernardino County VMT per SP for baseline (2020) conditions, which is 33.13. The San Bernardino County VMT per SP for cumulative (2040) model year is 35.30.

PROJECT GENERATED VMT IMPACT ASSESSMENT

Table 3 illustrates the comparison between the 2020 Project VMT per SP to the 2020 San Bernardino County VMT per SP. As shown, the Project would be 38% below the existing 2020 VMT per SP for San Bernardino County, which meets the City's threshold of 15% below the existing VMT per SP for the San Bernardino County. As such, the Project's impact on VMT for baseline conditions is less-than-significant.

TABLE 3: BASELINE 2020 VMT PER SP COMPARISON

	VMT per SP
Project	20.55
San Bernardino County	33.13
Percent Above/Below	-38%

CUMULATIVE VMT IMPACT ASSESSMENT

Table 4 illustrates the comparison between the 2040 Project VMT per SP to the 2040 San Bernardino County VMT per SP. As shown, the Project would be 26.7% below the cumulative 2040 VMT per SP for San Bernardino County, which meets the City's threshold of 15% below the cumulative VMT per SP for the San Bernardino County. As such, the Project's impact on VMT for cumulative conditions is less-than-significant.

TABLE 4: BASELINE 2040 VMT PER SP COMPARISON

	VMT per SP
Project	25.88
San Bernardino County	35.30
Percent Above/Below	-26.7%

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

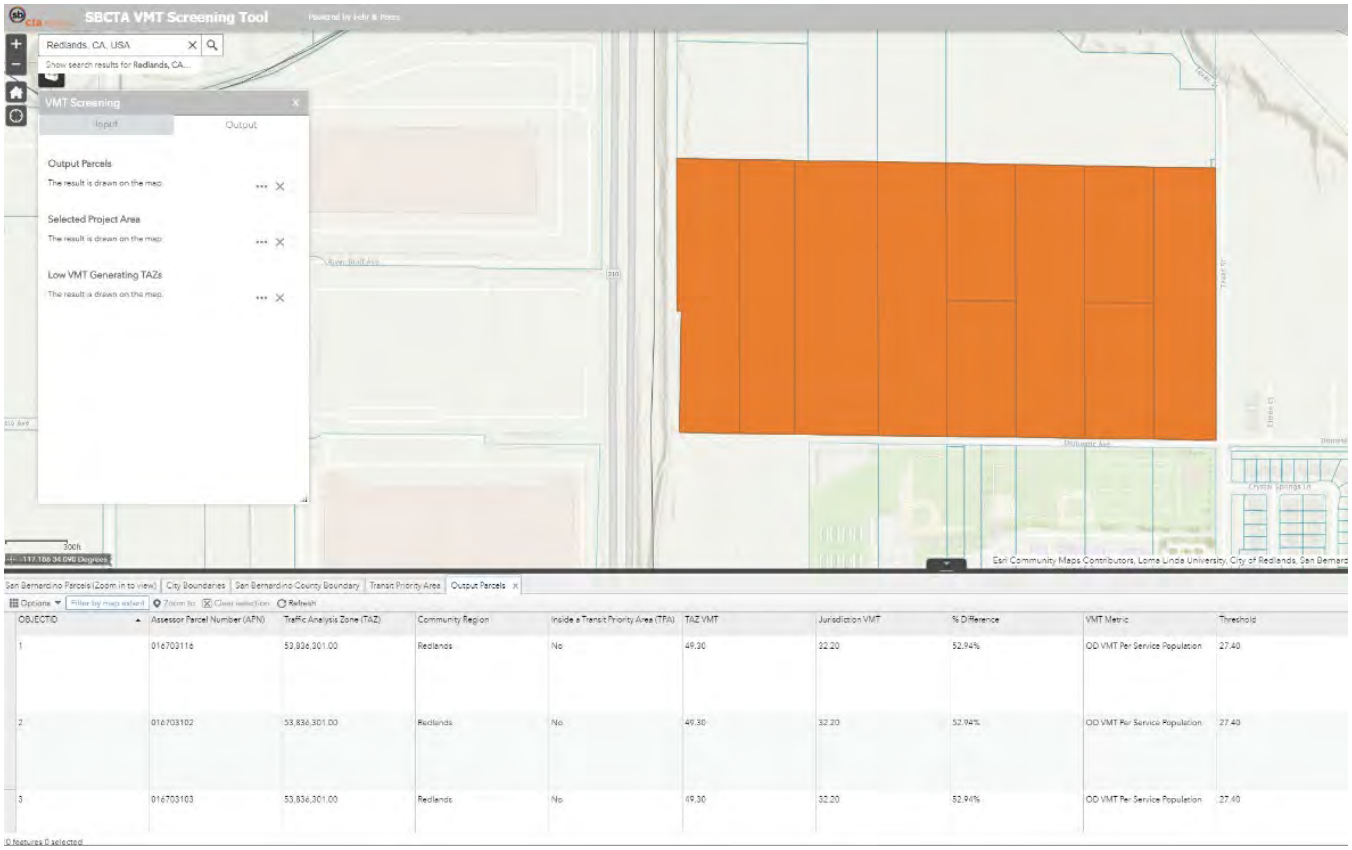
Aric Evatt, PTP
President

Robert Vu, PE
Transportation Engineer

REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **City of Redlands.** *CEQA Assessment VMT Analysis Guidelines.* June 2020.

ATTACHMENT A:
SCREENING TOOL


SBCTA VMT Screening Tool
Redlands, CA, USA
VMT Screening
Input
Output
Output Parcels
The result is drawn on the map.
Selected Project Area
The result is drawn on the map.
Low VMT Generating TAZs
The result is drawn on the map.
Esri Community Maps Contributors, Loma Linda University, City of Redlands, San Bernard
San Bernardino Parcels (Zoom in to view)
City Boundaries
San Bernardino County Boundary
Transit Priority Area
Output Parcels
Options
Filter by map extent
Zoom to
Clear selection
Refresh
OBJECTID
Assessor Parcel Number (APN)
Traffic Analysis Zone (TAZ)
Community Region
Inside a Transit Priority Area (TPA)
TAZ VMT
Jurisdiction VMT
% Difference
VMT Metric
Threshold
1 016703116 53,836,301.00 Redlands No 49.30 32.20 52.94% OD VMT Per Service Population 27.40
2 016703102 53,836,301.00 Redlands No 49.30 32.20 52.94% OD VMT Per Service Population 27.40
3 016703103 53,836,301.00 Redlands No 49.30 32.20 52.94% OD VMT Per Service Population 27.40
0 features 0 selected