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TECHNICAL MEMORANDUM

To: Donald Young, City of Redlands, Manager – One Stop Permit Center
Ryan Murphy, City of Redlands, Contract Planner

From: Carla Dietrich, Michael Baker International

CC: Emily Elliott, Michael Baker International
John Deacon, Redlands Summit LLC

Date: June 23, 2023

Subject: **Neighborhoods at Lugonia Village VMT Assessment**

Introduction

The purpose of this memorandum is to document a Vehicle Miles Traveled (VMT) assessment for the proposed Neighborhoods at Lugonia Village residential project (Project) located in the City of Redlands, California in support of the Transportation component of the California Environmental Quality Act (CEQA) process. A traffic operations analysis including level of service is also being prepared for this Project. The operations analysis is contained in a separate report. **Table 1** provides key project information. **Exhibit 1** shows the location of the Project and **Exhibit 2** shows the conceptual site plan. A memorandum dated January 13, 2023, documented the VMT analysis for a previous version of the site plan for this Project. This version of the memorandum documents the site plan as of June 2023.

Table 1: Project Information

Item	Description
Project Title	Neighborhoods at Lugonia Village
Project Location	City of Redlands; Northwest quadrant of West Lugonia Ave and Karon St.
Assessor's Parcel Numbers [APN]	APN 0167-171-06, 0167-171-05, 0167-171-04
Tentative Tract Map No.	40490 & 40491
Site Area	The Project site consists of a total of 24.4 acres.
Existing Use	Currently vacant. Surrounding roads are paved. Power lines are present on W Lugonia Ave. and Karon St.
Surrounding Land Use	Vacant land use to the north and west, Karon St. and residential uses to the east, and vacant land and commercial uses to the south uses to the south.
Proposed Project (Updated from January 2023 Study)	The Project proposes to construct 451 multi-family dwelling units, 72 townhomes, and 18 single family dwelling units.

Exhibit 1: Project Location

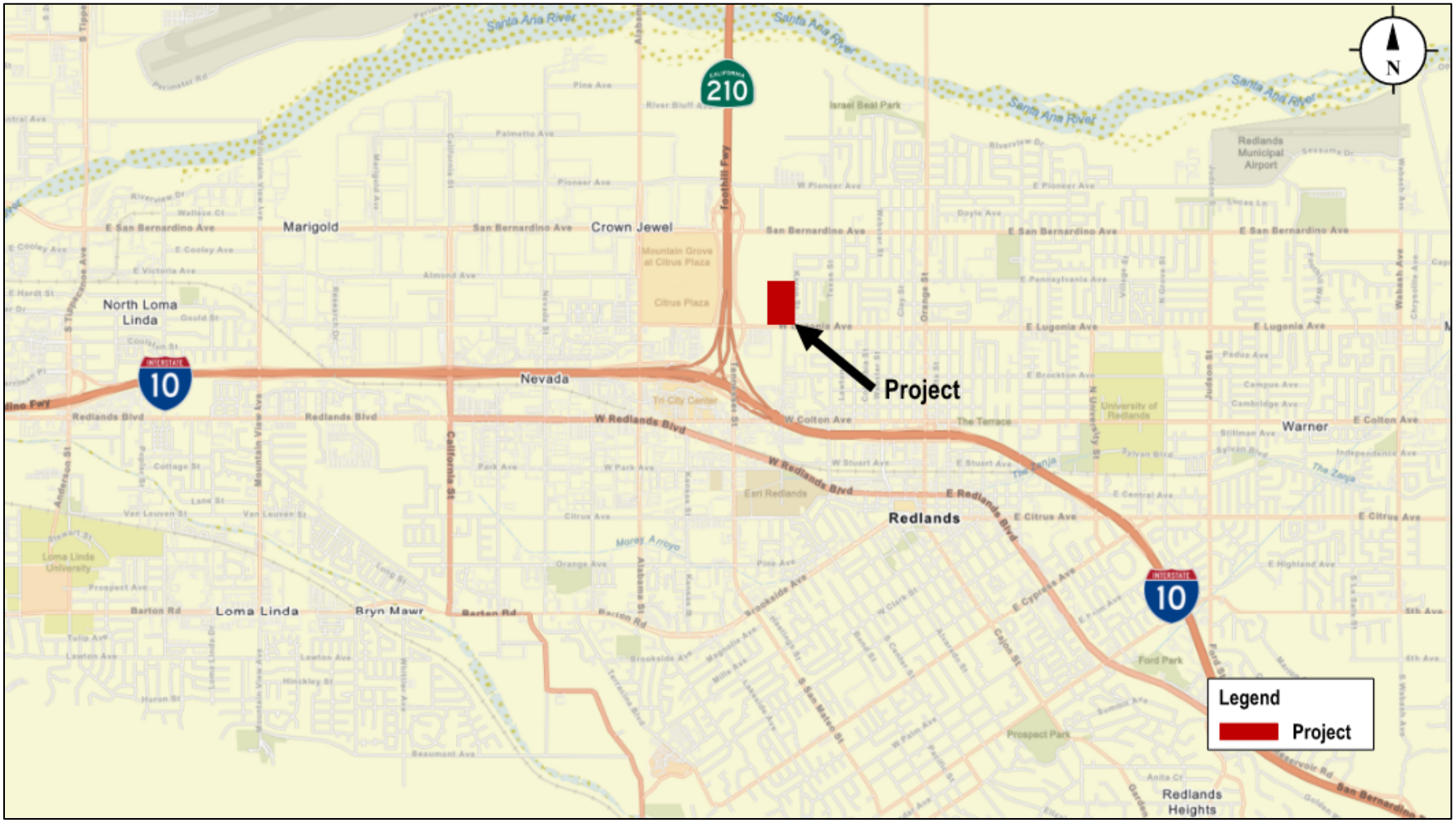

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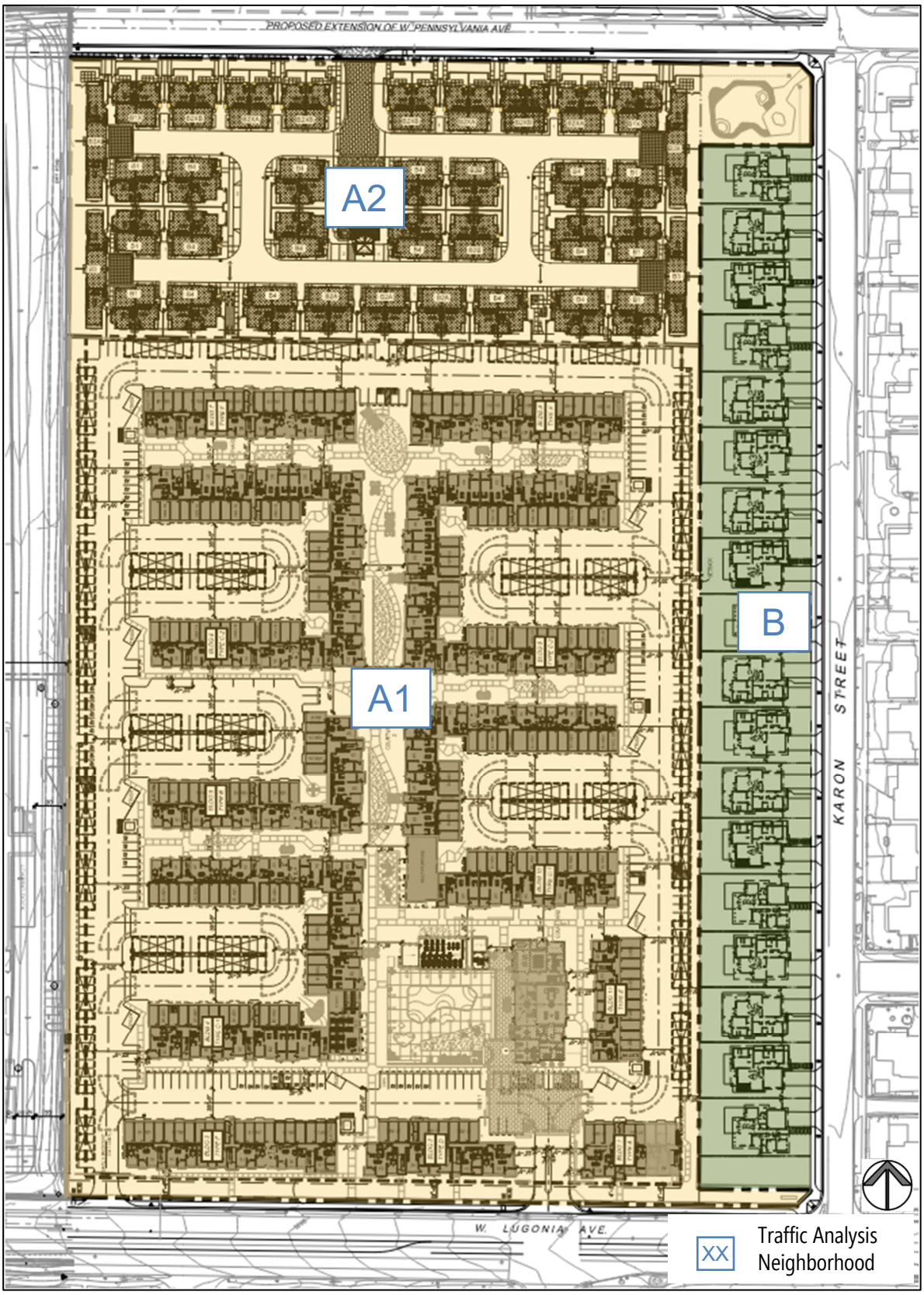
Exhibit 2: Conceptual Site Plan



Notes: 1) Sourced from Architects Orange, Angeleno Associates Inc., and Archi2Group. Traffic Analysis Neighborhood labels added by MBI.
2) Site plan shows the Scenario B condition with Pennsylvania Avenue connection.
3) Site plan depicts full-width construction on Pennsylvania Avenue rather than the recommended half-width construction.

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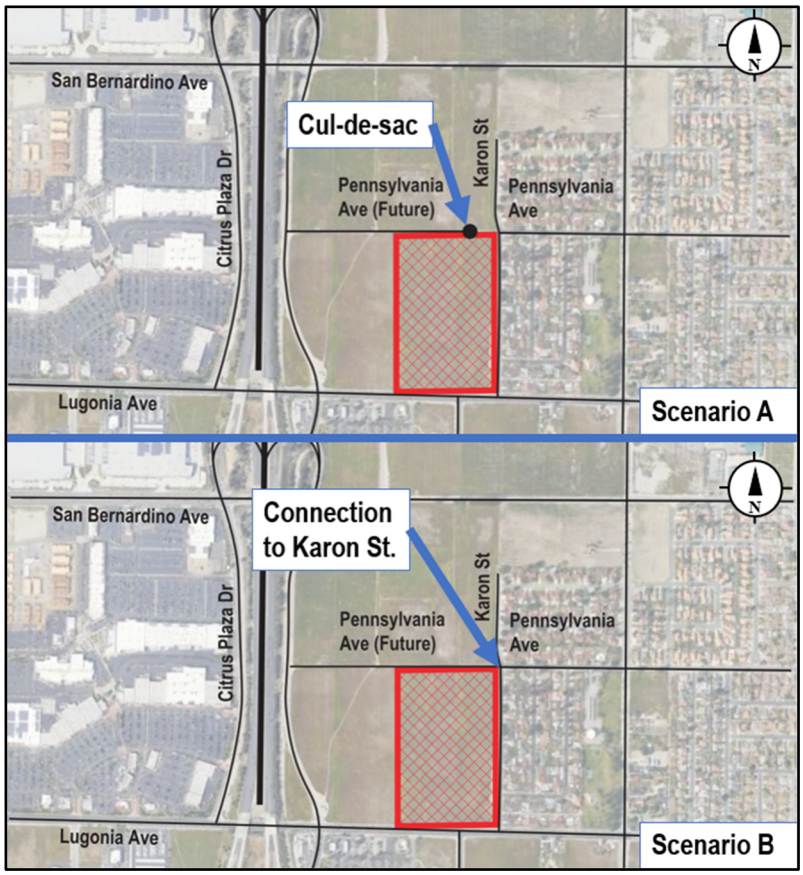
With Project Scenarios

Two scenarios were evaluated as part of this study. Under Scenario A, a cul-de-sac would exist on Pennsylvania Avenue just west of the existing three-legged intersection of Pennsylvania Avenue and Karon Street as documented in the Project site plan (**Exhibit 2).** Thus, the newly constructed Pennsylvania Avenue would connect to Tennessee Street only. Under Scenario B, the study analyzed the Project with an alternative access condition where Pennsylvania Avenue would extend from Karon Street west to Tennessee Street thus creating a complete connection between Tennessee Street and the existing Pennsylvania Avenue east of Karon Street. The intersection of Pennsylvania Avenue and Karon Street would become a four-legged two-way stop-controlled intersection.

The proposed land use types, number of units, and residential locations do not vary between the scenarios; however, localized travel pattern differences would occur due to the varying access options. These localized travel pattern variations impact the LOS analysis, but are not significant enough to impact the regional VMT evaluation documented in this memorandum.

Exhibit 3: Scenarios A and B Comparison



Project Trip Generation

As shown in the site plan, the Project plans to have three distinct residential land-uses, each with separate access. For the purposes of this memorandum, they are referred to as Neighborhoods A1, A2, and B. Each neighborhood is planned as a different residential land use with multi-family housing, single-family townhomes, and single-family homes. In order to calculate vehicle trips to be generated by the proposed projects, trip generation rates were taken from the *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition).* **Table 2** summarizes the average trip generation rates for the proposed land uses.

Table 3 summarizes the vehicular trip generation estimate to be generated by the project using the rates shown in **Table 2**. As shown, the proposed project is estimated to generate approximately 3,581 daily trips with 219 AM peak hour trips (55 in / 164 out) and 277 PM peak hour trips (172 in / 105 out).

Table 2: Trip Generation Rates

Land Use	ITE Code	Neighborhood	Daily Trips Rate	AM Peak Hour			PM Peak Hour		
				Rate	In / Out		Rate	In / Out	
Single-Family Detached	210	Neighborhood B	9.43 / DU	0.70	26%	74%	0.94	63%	37%
Single-Family Attached	215	Neighborhood A2	7.2 / DU	0.48	31%	69%	0.57	57%	43%
Multifamily (Low Rise)	220	Neighborhood A1	6.74 / DU	0.40	24%	76%	0.51	63%	37%

Notes: 1) Sourced from ITE *Trip Generation Manual*, 11th Edition.
2) DU = Dwelling Units.

Table 3: Project Trip Generation

Land Use	ITE Code	Neighborhood	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
					Volume	In	Out	Volume	In	Out
Single-Family Detached	210	Neighborhood B	18 DU	170	13	3	10	17	11	6
Single-Family Attached	215	Neighborhood A2	72 DU	518	35	11	24	41	23	18
Multifamily (Low Rise)	220	Neighborhood A1	451 DU	3,040	180	43	137	230	145	85
Total			**541 DU**	**3,728**	**228**	**57**	**171**	**288**	**179**	**109**

Notes: 1) DU = Dwelling Units

Analysis Guidelines

The primary resource for this assessment is the *City of Redlands CEQA Assessment VMT Analysis Guidelines* (June 2020) (*City Guidelines*), and the *San Bernardino County Transportation Impact Study Guidelines* (July 2019) (*County Guidelines*).

Screening Criteria

Based on the *City Guidelines*, land use projects that meet any of the screening thresholds based on size, location, proximity to transit or trip-making potential identified in **Table 4** are presumed to result in a less-than-significant transportation impact under CEQA and do not require a detailed quantitative VMT assessment. **The Project meets the Screening Criteria for Low VMT Area, thus allowing for a determination of a less-than-significant impact on VMT. Therefore, a detailed project specific VMT calculation is NOT required.**

Table 4: Screening Assessment Summary

Category (City Guidelines)	Description	Project Assessment	Result
Step 1: Transit Priority Area (TPA)	Is the project located within a half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor?	No. The Project is located within a half mile of OmniTrans Route 15 transit stops. Route 15 has service intervals of 60 minutes, and thus does not meet the criteria of a 15-minute service interval for a "high-quality transit corridor."	Does Not Meet
Step 2: Low VMT Area	Is the project located in a low VMT generating area (less 15% below the San Bernardino County regional average VMT per service population)?	Yes. Using the SBCTA VMT screening tool referenced in the City Guidelines, the Project is in a Low VMT Area. See **Attachment A**.	**Project Meets Step 2**
Step 3: Project Type	Is the project a local servicing retail project with less than 50,000 square feet, or a locally serving use including (but not limited to) the following? • Public/Community Use (school/library/park/fire station/ local government) • Day Care • Locally serving Bank • Assisted living/senior housing Or, Does the project generate less than 3,000 MT CO2e per year? Including projects such as: • Single Family Res. – 167 DU's or fewer • Multifamily Res. (1-2 stories) – 232 DU's or fewer • Multifamily Res. (3+ stories) – 299 DU's or fewer • Office – 59,100 square feet or less • Local Serving Retail Center – 112,400 SF or less • Warehousing – 463,600 SF or less • Light Industrial – 74,600 SF or less	No. The Project proposes the construction of 451 multi-family dwelling units, 72 townhomes, and 18 single family dwelling units	Does Not Meet

Source: Category and Description obtained from the *City of Redlands CEQA Assessment VMT Analysis Guidelines* (June 2020)

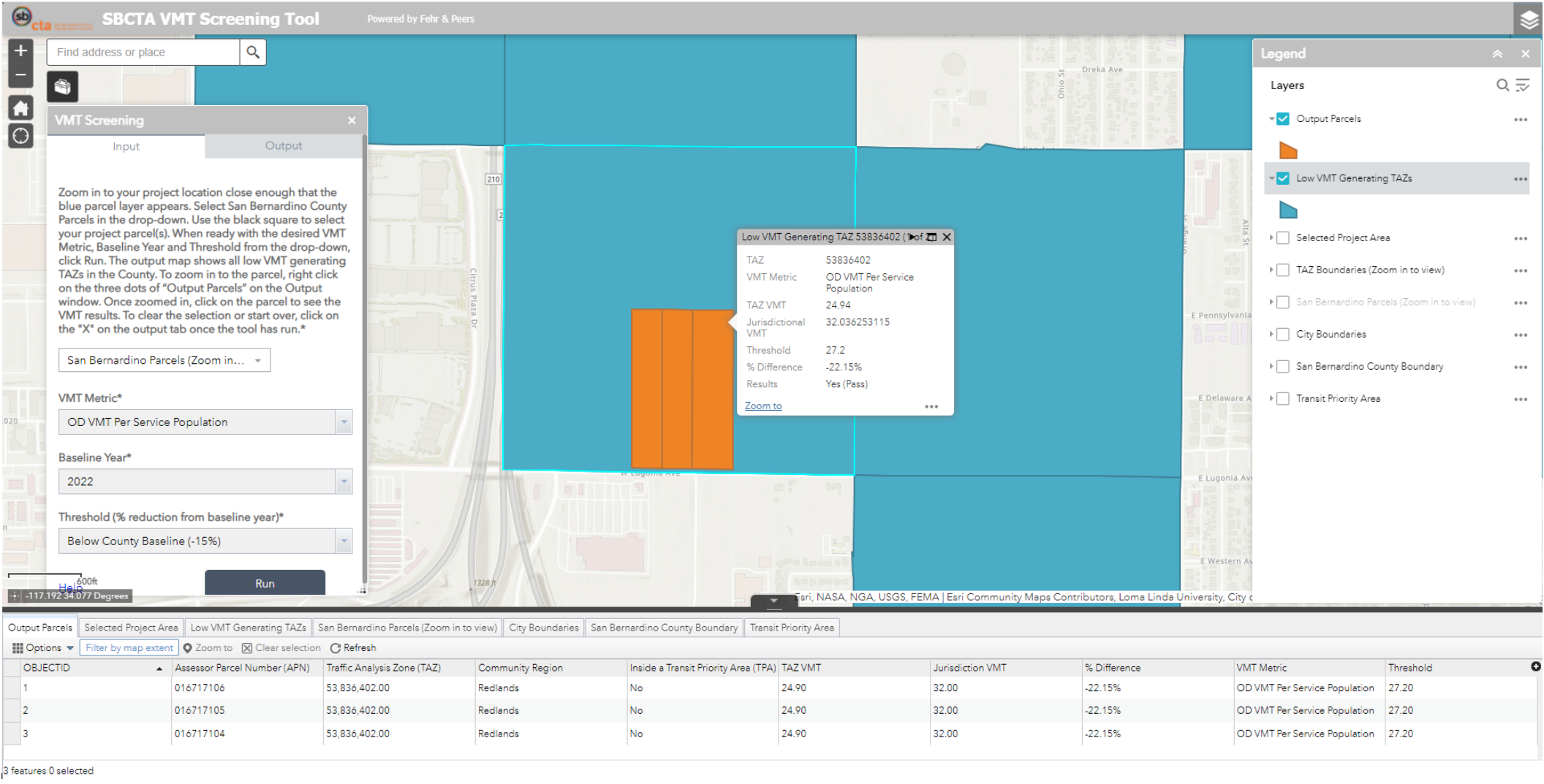
Project Level VMT Assessment & Mitigation Measures

Since the Project is presumed to have a less than significant impact, a detailed project level VMT analysis and development of mitigation measures are not required.

Conclusions

The VMT evaluation of the Neighborhoods at Lugonia Village residential project located in the City of Redlands shows that the Project meets the screening criteria for Low VMT Area and thus a project specific VMT assessment is not required. As such, **the Project is presumed to result in a less-than-significant impact and no mitigation is required.**

Attachment A -
SBCTA Screening Tool



Output Parcels | Selected Project Area | Low VMT Generating TAZs | San Bernardino Parcels (Zoom in to view) | City Boundaries | San Bernardino County Boundary | Transit Priority Area

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	016717106	53,836,402.00	Redlands	No	24.90	32.00	-22.15%	OD VMT Per Service Population	27.20
2	016717105	53,836,402.00	Redlands	No	24.90	32.00	-22.15%	OD VMT Per Service Population	27.20
3	016717104	53,836,402.00	Redlands	No	24.90	32.00	-22.15%	OD VMT Per Service Population	27.20

3 features 0 selected