APPENDIX B.4 -TRANSPORTATION ANALYSIS MEMO

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MEMORANDUM

To: Davis Suls, WSP USA	**From:** Sean Daly, Iteris, Inc.
Date: June 27, 2023	
RE: Foothill Boulevard and Central Area Specific Plans Transportation Analysis	

INTRODUCTION

This memorandum describes the transportation analysis of the City of Rialto Foothill Boulevard and Central Area Specific Plans. This includes Vehicle Miles Traveled (VMT) analysis in support of California Environmental Quality Act (CEQA) transportation impact analysis and an assessment of roadway segment average daily traffic capacity analysis in support of the mobility analysis of the Specific Plans.

BACKGROUND

The Proposed Project updates and merges the existing City of Rialto Foothill Boulevard and Central Area Specific Plans into the Foothill Central Specific Plan (Proposed Project) and amends the Rialto Municipal Code Chapter 18 Zoning. The Proposed Project increases the allowable density of residential and commercial uses within the Foothill Central Area (see **Error! Reference source not found.**) and provides updates to the development standards for this area. The Specific Plan identifies permitted land uses within the Foothill Central Area and establishes development standards for implementation of future development within the Specific Plan area.

METHODOLOGY

To ensure conformance with the Rialto General Plan, Rialto Municipal Code, Federal and State environmental legislation, SB 743 and the Congestion Management Plan, the City of Rialto requires development projects to analyze and report on traffic and circulation impacts caused by new development or re-development. This analysis was prepared in conformance with requirements established by the City of Rialto in its Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) (October 2021, adopted by Council July 26, 2022).

A technical analysis was performed using the San Bernardino Transportation Analysis Model (SBTAM). SBTAM is a tool to estimate VMT as it models transportation system usage among land uses based on socio-economic data such as population, households and employment. The calculation of VMT for land use projects is based on the number of trips generated and the average trip length of each vehicle. For the purposes of the analysis, the SBTAM 2040 scenario is used to represent the General Plan buildout year of 2045.

In order to determine the GPU project's potential level of impact, new SBTAM scenarios were prepared, incorporating the 2045 land use projections due to the Specific Plan. For land use plans, which include both residential and employment uses, the appropriate analysis metric is VMT per service population, where service population is defined as the number of residents plus the number of jobs. **Table 1** summarizes the General Plan Update's proposed net changes in land use, which were incorporated into the TAZ's based on the location of change areas. No changes in the local circulation network are included in the Specific Plan.

Table 1: Proposed Foothill Boulevard and Central Area Specific Plans Land Use Changes

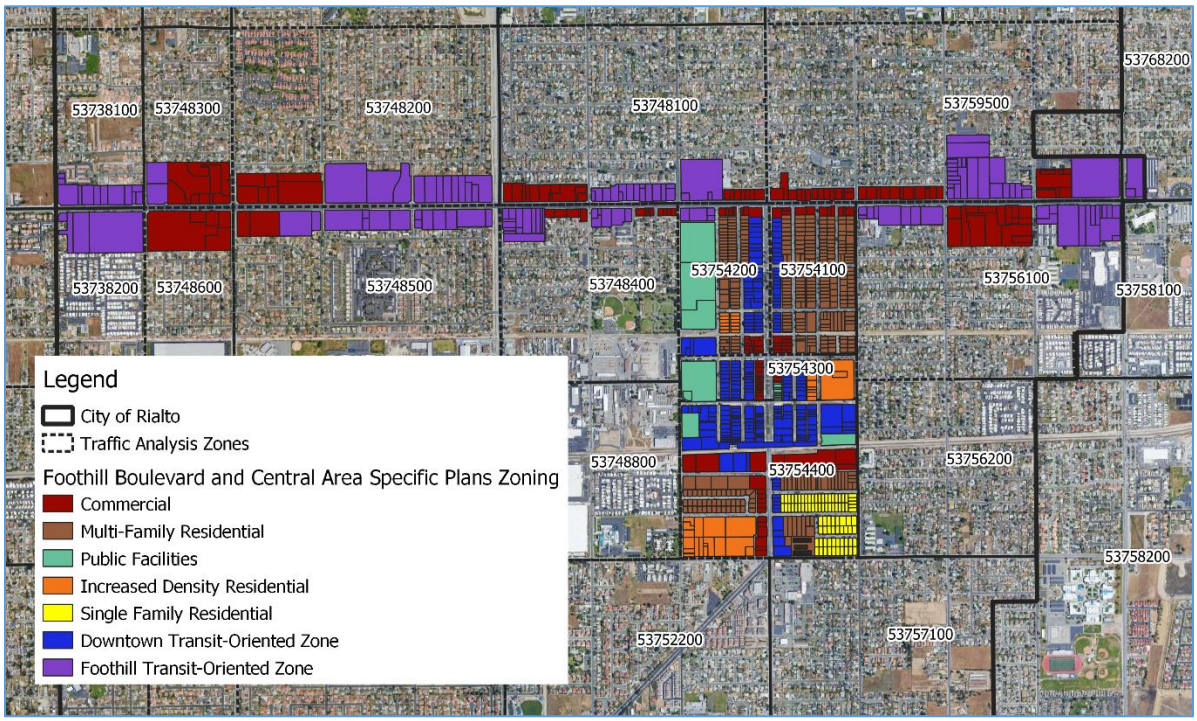
	Existing Development	Total 2045 Buildout (Adopted Land Use)	Delta (change 2045 Adopted minus existing)	Total 2045 Buildout (Preferred Alternative)	Delta (change 2045 Adopted to 2045 Preferred)	Percent Change from Adopted Land Use and Preferred Alternative
City Dwelling Units	27,924	29,589	1,665	30,504	915	3.09%
Retail/Office Space (SF) within the Plan Area	1,732,653	4,767,915	3,035,262	5,138,749	370,834	7.78%
City Population	103,799	114,213	10,414	117,746	3,533	3.09%

As shown, the SP's anticipated change in dwelling units and employment over the 2045 estimated buildout is:

- Addition of 915 residential units (an estimated 3,533 new residents); and
- Addition of 11,370,834 square feet of retail and office space which was estimated to add 1,218 jobs.

The growth in population and employment was allocated to project area traffic analysis zones based on a proportional allocation to the acreage of proposed zoning changes in the Foothill Central Specific Plan. Fifteen traffic analysis zones compose the Specific Plan area in SBTAM as shown in **Figure 1**.

Figure 2: Proposed Foothill Boulevard and Central Area Specific Plans Zoning and SBTAM Traffic Analysis Zones



Based on the change in type and density of land use in the proposed zoning of the Foothill Boulevard and Central Specific Plans, the and the resulting distribution among zones**.** The 916 housing units and 370,834 square feet of retail/office space in the Plan area were distributed as shown in **Table 2.**

Table 2: Proposed Foothill Boulevard and Central Area Specific Plans Land Use Change in SBTAM Traffic Analysis Zones

SBTAM Traffic Analysis Zone	Housing Units	Retail/Office Space (SF) within the Plan Area
53738100	42	-
53738200	67	23,023
53748100	70	-
53748200	119	-
53748300	20	-
53748400	40	27,983
53748500	94	-
53748600	-	-
53754100	21	-
53754200	51	52,723
53754300	34	32,260
53754400	112	234.845
53756100	98	-
53759500	130	-
53768200	17	-
Total	**915**	**370,834**

Vehicle Miles Traveled Analysis

In accordance with City Guidelines, the Project-generated VMT was output from the origin-destination (OD) trip matrix from the SBTAM travel demand model and include total VMT for all vehicle trips (i.e., passenger cars and trucks) and trip purposes, and include the calculation of total VMT per service population (population plus employment). As shown in **Table 3**, VMT per service population is 24.4 under existing conditions in the project area and 22.1 with the addition of the proposed Project land use changes. Under 2045 Buildout conditions, the future baseline of the adopted land use was analyzed as 23.6 VMT per service population with the proposed Project changes reducing the VMT per service population to 21.6.

Table 3: Proposed Foothill Boulevard and Central Area Specific Plans Vehicle Miles Traveled Analysis

	Existing Study Area	Specific Plan Buildout	Delta (Specific Plan change minus existing)	Total 2045 Buildout (Adopted Land Use)	Total 2045 Buildout (Preferred Alternative)	Delta (change 2045 Adopted to 2045 Preferred)
Population	24,894	28,427	3,533	30,970	34,503	3,533
Employment	6,276	7,895	1,719	6,218	7,937	1,719
Total VMT	757,999	802,308	44,310	876,958	918,731	41,774
VMT/Service Population	24.4	22.1	(2.3)	23.6	21.6	(2.0)

City guidelines state a project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

1. The baseline project-generated VMT per service population exceeds the San Bernardino County regional average baseline of 32.7% VMT per service population, or
2. The cumulative project-generated VMT per service population exceeds the San Bernardino County regional average baseline of 32.7% VMT per service population

The proposed Specific Plans would not exceed the City's threshold of significance for VMT.

Daily Roadway Segment Volumes

Roadway segment volume analysis was performed by comparing the Average Daily Traffic (ADT) on a segment to the Roadway Segment Analysis as shown in Thresholds and Methodology Sections. Roadway link analysis is always required Specific Plan analysis. Development proposals that increases traffic beyond the approved General Plan are required to perform an additional build-out analysis to evaluate long term impacts. This analysis evaluates proposed changes to applicable plans to determine if the Circulation Element of the General Plan is adequate to accommodate the projected traffic at the target LOS, or if additional mitigation is necessary.

City of Rialto guidelines for infrastructure deficiencies deem a traffic impact to occur at any intersection in which the project causes the LOS to fall below level D. Roadway segments may or may not be governed by signalized intersections at the ends of the segment. If the segments exceed 1,500 feet and the V/C ratio exceeds 1.0, the segment must be mitigated even if improved intersections at the ends do not exceed LOS D.

Table 4 shows the roadway segment capacity analysis using existing ADT volumes obtained from 2022 Citywide Traffic Volume Report and future conditions with the Specific Plans being derived from the SBTAM model used in the VMT analysis. As shown in the table, no roadway segments would exceed LOS D, and therefore would not be deficient under conditions with the Specific Plans implemented.

Table 4: Proposed Foothill Boulevard and Central Area Specific Plans Roadway Segment Volumes

	Segment	Existing ADT Volumes		Future Year with SP Project ADT Volumes	
		ADT Volume	Service Level	ADT Volume	Service Level
1	Foothill Blvd between Willow Ave & Riverside Ave	24,195	<C	30,980	C
2	Foothill Blvd between Riverside Ave & Sycamore Ave	24,745	<C	31,130	C
3	Rialto Ave west of Riverside Ave	4,756	<C	7,820	<C
4	Rialto Ave east of Riverside Ave	4,008	<C	7,670	<C
5	Merrill Ave west of Riverside Ave	8,989	<C	12,420	<C
6	Merrill Ave east of Riverside Ave	9,968	<C	12,080	<C
7	Cedar Ave north of Foothill Blvd	19,344	<C	26,180	<C
8	Cedar Ave south of Foothill Blvd	23,330	<C	31,570	<C
9	Cactus Ave north of Foothill Blvd	12,173	<C	16,400	<C
10	Cactus Ave south of Foothill Blvd	12,824	<C	17,380	<C
11	Willow Ave north of Foothill Blvd	6,473	<C	9,280	<C
12	Willow Ave south of Foothill Blvd	6,729	<C	10,173	<C
13	Riverside Ave between Etiwanda Ave & Foothill Blvd	18,508	<C	24,940	<C
14	Riverside Ave between Foothill Blvd & Rialto Ave	18,391	<C	24,190	<C
15	Riverside Ave between Rialto Ave & Merrill Ave	20,001	<C	25,560	<C
16	Sycamore Ave north of Foothill Blvd	5,279	<C	6,160	<C
17	Sycamore Ave south of Foothill Blvd	7,188	<C	10,910	C
18	Acacia Ave north of Foothill Blvd	3,473	<C	3,140	<C
19	Acacia Ave south of Foothill Blvd	4,907	<C	4,830	<C
20	Eucalyptus Ave north of Foothill Blvd	2,947	<C	3,790	<C
21	Eucalyptus Ave south of Foothill Blvd	4,559	<C	5,860	<C
22	Pepper Ave north of Foothill Blvd	16,602	<C	19,430	<C
23	Pepper Ave south of Foothill Blvd	17,757	<C	19,080	<C