

## 7.4 ROADWAY SEGMENT ANALYSIS

EAPC (2019) roadway segment operations have been evaluated based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. Table 7-2 provides a summary of the EAPC (2019) conditions roadway segment capacity analysis based on the City of Rialto Roadway Segment Capacity Thresholds. As shown in Table 7-2, the following study area roadway segment is anticipated to operate at an unacceptable LOS under EAP (2019) traffic conditions, based on the City's planning level daily roadway capacity thresholds:

- Alder Avenue, from Walnut Avenue to Renaissance Parkway (#1) – LOS F

## 7.5 RECOMMENDED IMPROVEMENTS

### 7.5.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The following improvement strategies have been recommended for intersections that are anticipated to operate at an unacceptable LOS under EAPC (2019) conditions. The effectiveness of the recommended improvements to address EAPC (2019) traffic impacts are presented in Table 7-3. Improvement strategies have been recommended at the intersections to achieve acceptable LOS.

***Alder Avenue & Walnut Avenue (#1)*** – The following improvements would be necessary to improve the intersection's peak hour operations to acceptable levels, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards the addition of a northbound right turn lane.
- Contribute fair share towards the addition of a southbound right turn lane.
- Contribute fair share towards restriping the eastbound approach to accommodate dual eastbound left turn lanes and a shared through-right turn lane and modifying the traffic signal to implement lead-lag left turn operation (with the westbound left turn leading) and implement a 110 second cycle length.

***Alder Avenue & Miro Way (#2)*** – The following improvement would be necessary to improve the intersection's peak hour operations to acceptable levels, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards modifying the traffic signal to implement a 110 second cycle length.

Table 7-2

Roadway Segment Analysis for EAPC (2019) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity <sup>1</sup>	EAPC (2019)			Acceptable LOS <sup>4</sup>
					ADT <sup>2</sup>	V/C <sup>3</sup>	LOS <sup>4</sup>	
1	Alder Av.	Walnut Av. to Renaissance Pkwy.	4D	33,000	42,509	1.29	F	D

**BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

<sup>1</sup> These maximum roadway capacities have been obtained from the City of Rialto's Traffic Impact Analysis Report Guidelines and Requirements.

<sup>2</sup> ADT = Average Daily Traffic

<sup>3</sup> V/C = Volume to Capacity Ratio

<sup>4</sup> LOS = Level of Service

Table 7-3

## Intersection Analysis for EAPC (2019) Conditions With Improvements

#	Intersection	Traffic Control <sup>3</sup>	Intersection Approach Lanes <sup>1</sup>												Delay <sup>2</sup> (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
1	Alder Av. & Walnut Av. - Without Improvements - With Improvements <sup>4,5</sup>	TS TS	1	2	0	1	2	0	1	1	1	1	1	0	39.9 15.1	<b>191.7</b> 54.6	D B	F D
2	Alder Av. & Miro Wy. - Without Improvements - With Improvements <sup>5</sup>	<b>TS</b> TS	<b>1</b>	2	0	1	1	0	0	<b>1</b>	0	1	<b>1</b>	1	49.7 27.8	<b>67.3</b> 42.0	D C	E D
5	Alder Av. & Baseline Rd. - Without Improvements - With Improvements <sup>5</sup>	TS TS	1	1	0	1	1	1>	1	1	0	1	1	1>	<b>&gt;200.0</b> 47.2	<b>197.9</b> 42.9	F D	F D

\* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap Phasing; **1** = Improvement

<sup>2</sup> Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

<sup>4</sup> Eastbound and westbound left turn movements to operate on a lead-lag operation (with the westbound left leading).

<sup>5</sup> 110-second cycle length assumed for the signalized intersections along Alder Avenue.

**Alder Avenue & Baseline Road (#5)** – The following improvements would be necessary to improve the intersection’s peak hour operations to acceptable levels, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards the addition of a 2<sup>nd</sup> northbound through lane.
- Contribute fair share towards the addition of a northbound right turn lane.
- Contribute fair share towards the addition of a 2<sup>nd</sup> southbound left turn lane.
- Contribute fair share towards the addition of a 2<sup>nd</sup> southbound through lane.
- Contribute fair share towards the addition of a 2<sup>nd</sup> eastbound through lane.
- Contribute fair share towards the addition of an eastbound right turn lane.
- Contribute fair share towards modifying the traffic signal to implement a 110 second cycle length.

### 7.5.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

Improvement strategies have been recommended at roadway segments that have been identified as deficient to reduce each location’s volume-to-capacity ratio and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the proposed recommended improvements is presented in Table 7-4 for EAPC (2019) traffic conditions.

### 7.5.3 MITIGATION MEASURES

**Mitigation Measure 1.1** – Prior to the issuance of building permits, the Project applicant shall participate in the City’s DIF program by paying the requisite DIF fee at the time of building permit; and in addition, shall pay the Project’s fair share amount of \$26,592 for the improvements identified in Table 1-3 (see Chapter 1) that are consistent with the improvements shown in Table 7-3 and Table 7-4, or as agreed to by the City and Project Applicant.

**Mitigation Measure 2.1** – Table 1-3 (see Chapter 1) of the TIA includes intersections that either share a mutual border with the City of Fontana or are wholly located within the City of Fontana that have recommended improvements which are not covered by DIF. Because the City of Rialto does not have plenary control over intersections that share a border with the City of Fontana, the City cannot guarantee that such improvements will be constructed. Thus, the following additional mitigation measure is required: The Developer shall contribute to the City of Rialto their fair-share amount for the intersections that either share a mutual border with the City of Fontana or are wholly located within the City of Fontana that have recommended improvements for Project Buildout which are not covered by DIF, which equals \$8,118.

Table 7-4

Roadway Segment Analysis for EAPC (2019) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity <sup>1</sup>	EAPC (2019)			Acceptable LOS <sup>4</sup>
					ADT <sup>2</sup>	V/C <sup>3</sup>	LOS <sup>4</sup>	
1	Alder Av.	Walnut Av. to Renaissance Pkwy.	<b>6D</b>	49,500	42,509	0.86	D	D

**BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

<sup>1</sup> These maximum roadway capacities have been obtained from the City of Rialto's Traffic Impact Analysis Report Guidelines and Requirements.

<sup>2</sup> ADT = Average Daily Traffic

<sup>3</sup> V/C = Volume to Capacity Ratio

<sup>4</sup> LOS = Level of Service