



## MEMORANDUM

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Date: November 10, 2015

Project #: 19046.0

To: Mr. Matt Samitore  
City of Central Point  
140 South Third Street  
Central Point, Oregon 97502

From: Brett Korporaal, Julia Kuhn and Sonia Daleiden

Project: Central Point Costco TIA

Subject: Response to Comments – Central Point Costco TIA

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This memorandum responds to comments submitted by staff from the City of Central Point (via Southern Oregon Transportation Engineering, LLC), related to the Central Point Costco Transportation Impact Analysis (TIA). Each comment is summarized below followed by our response.

### COMMENT 1 – SUBMITTED BY CITY OF CENTRAL POINT

“Page 30 of the study in the last paragraph, KAI assumes that planned roadways in the IAMP as well as Tier 1 improvements listed in the City’s TSP have been financially constrained and can be reasonably funded within the next twenty years. Many of the projects and/or improvements identified are not funded and there is no current mechanism for funding at this time. These include:

- Widening East Pine Street to add a second WBL and widening the I-5 SB on-ramp for two receiving lanes (\$1.7 million)
- Widening the I-5 NB off ramp at East Pine Street to include an additional NBR (\$1.3 million)
- Widening west and north approaches at Hamrick/Pine Street intersection
- Widening to include a dual eastbound left at Table Rock/Biddle Road intersection”

### KAI RESPONSE

As part of the scoping process, KAI received confirmation from each of the jurisdictions that the Tier 1 projects identified in the IAMP and RVMPO’s RTP should be included in the TIA analyses. As communicated in an email from Wei Wang, ODOT, on Thursday, July 2, 2015, “Page 8 of TIA, Planned Transportation Improvements – This should reference the RVMPO RTP Tier 1 projects and also

consider improvements/mitigations identified in IAMP 33. It is possible that some of them could be triggered earlier or may be mitigation for this development. Please review the Interchange Area Management Plan I-5 Exit 33 (IAMP 33). The proposed Costco TIA should be consistent with IAMP 33.”

Based on this email, we submitted a “Scoping Memo Response to Comment” memorandum to the City of Central Point, Jackson County and ODOT that stated, “We will include any planned transportation improvements referenced in RVMPO RTP Tier 1 and IAMP 33 that will be completed during or prior to the proposed build out of the site.”

Additionally, on Tuesday, September 29, 2015 KAI held a telephone conference with representing members from each agency to review and discuss the initial findings from the TIA. During this call, we verified with agency staff the funded Tier 1 projects from the RTP and IAMP to include in our analyses.

Our TIA is consistent with all of our previous correspondences from staff. We are unclear as to the change in direction about those projects to include in the analyses and would appreciate additional insights from agency staff.

## COMMENT 2 – SUBMITTED BY CITY OF CENTRAL POINT

“The TIS doesn’t include a queuing analysis, which is a requirement in the scoping letter. A queuing analysis should be performed in SimTraffic and follow the methodology outlined in ODOT’s Analysis Procedures Manual (APM).”

## KAI RESPONSE 2

KAI analyzed queuing for all site access points, the I-5 NB Ramps/E Pine Street and Table Rock Road/Hamrick Road intersections based on scoping direction from the City, County, and ODOT. Queuing was reviewed for the impact of the site-generated trips on 95th percentile queue lengths. Per the TIA, queues were calculated for the 2016 and 2030 scenarios during the weekday p.m. and weekend mid-day peak hours. For comparison purposes, the build-year (2016) total scenario also identifies queues lengths assuming an interim three lane configuration along Table Rock Road. The 2030 scenario provides the queuing assuming the planned and programmed improvements to Table Rock Road are in place.

The queuing analysis was completed using SimTraffic within Synchro 8 software, which implements the *2000 Highway Capacity Manual* methodology and is in compliance with ODOT’s APM. In order to provide a conservative analysis and reflect the worst-case conditions, queues were reported for a peak 15-minute analysis. Vehicle queue lengths were rounded to the next 25<sup>th</sup> foot (assuming 25-foot of storage per vehicle).

**Build-Year (2016) Total Traffic Condition Queue Lengths**

Table 1 presents the queue lengths for the build-year (2016) total traffic scenario. As documented in the TIA, the northbound right-turn at the I-5 NB Ramps/E Pine Street intersection exceeds capacity with the inclusion of site-generated trips. With the inclusion of site-generated trips, the queue lengths increase from approximately 125 feet under background conditions to 350 feet under total conditions. However, with site-generated trips the queue is still maintained within the right-turn lane storage and does not spillback into deceleration area of the northbound off-ramp during the weekday p.m. peak hour.

No queueing impacts were identified at the other intersections analyzed. In addition, a three-lane roadway along Table Rock Road does not change the estimated queue lengths northbound and southbound. However, it is important to note that the absence of a left-turn lane can cause delays to through travelers along Table Rock Road. Further, the absence of a left-turn lane also increases queue lengths and delay for vehicles making left-turns out of the site. The Table Rock Road widening is completed in year 2017 and will provide benefits to the overall transportation system.

**Table 1. 95th Percentile Queuing – 2016 Conditions**

Site Accesses	Peak Period	Queue Lengths (ft) <sup>1</sup>							
		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
<b>Build-Year (2016) Total Traffic Scenario</b>									
2. I-5 NB Ramps/E Pine St	Storage Length <sup>2</sup>	150	-	-	265	335	380	-	-
	PM Peak	25	-	-	200	200	350	-	-
	MID Peak	50	-	-	150	125	225	-	-
8. Table Rock Rd/Hamrick Rd	Storage Length <sup>2</sup>	160	-	-	-	-	-	-	-
	PM Peak	75	25	-	-	25	-	-	0
	MID Peak	50	25	-	-	25	-	-	0
13. Federal Way/Northwest Dwy	PM Peak	-	-	0	25	-	0	25	-
	MID Peak	-	-	0	25	-	0	25	0
14. Federal Way/Southwest Dwy	PM Peak	-	-	0	0	-	0	25	-
	MID Peak	-	-	0	0	-	0	25	0
15. West Hamrick Rd Dwy/Hamrick Rd	PM Peak	-	0	25	-	25	25	-	-
	MID Peak	-	0	25	-	25	25	-	-
16. East Hamrick Rd (RIRO) Dwy/Hamrick Rd	PM Peak	-	0	-	-	-	25	-	-
	MID Peak	-	0	-	-	-	25	-	-
17. Table Rock Rd/Northeast Dwy	PM Peak	75	50	-	-	25	-	-	0
	MID Peak	50	50	-	-	50	-	-	0
18. Table Rock Rd/Southeast Dwy	PM Peak	25	0	-	-	25	-	-	0
	MID Peak	25	0	-	-	25	-	-	0
<b>Build-Year (2016) Total Traffic Scenario with Temporary Improvements Along Table Rock Road<sup>3</sup></b>									
8. Table Rock Rd/Hamrick Rd	Storage Length <sup>2</sup>	160	-	-	-	-	-	-	-
	PM Peak	25	25	-	-	25	-	-	0
	MID Peak	25	25	-	-	25	-	-	0
17. Table Rock Rd/Northeast Dwy	PM Peak	25	50	-	-	25	-	-	0
	MID Peak	25	50	-	-	25	-	-	0
18. Table Rock Rd/Southeast Dwy	PM Peak	25	0	-	-	25	-	-	0
	MID Peak	25	0	-	-	25	-	-	0

Notes: <sup>1</sup> 95<sup>th</sup> percentile queue lengths have been rounded to the next 25<sup>th</sup>-foot, one vehicle represent 25 feet of storage; <sup>2</sup> Storage lengths were reported where applicable at the respective intersection. Storage lanes for left and right turns into the site are not included in the build-year (2016) total scenario with the exception of the West Hamrick Rd Dwy/Hamrick Rd site access where there is presently a two-way left-turn lane. <sup>3</sup> A two-way left-turn lane would be provided along Table Rock Road for access into and of the site driveways; **Bold** indicates 95<sup>th</sup> percentile queues exceeding storage length.

**Future Year (2030) Total Traffic Condition Queue Lengths**

Table presents queue lengths for the future (2030) total traffic scenario. As shown, all estimated queues can be accommodated within the storage provided during both peak hours analyzed.

**Table 2. 95th Percentile Queuing – 2030 Conditions**

Site Accesses	Peak Period	Queue Lengths (ft) <sup>1</sup>							
		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
<b>Future-Year (2030) Total Traffic Scenario</b>									
2. I-5 NB Ramps/E Pine St	Storage Length <sup>2</sup>								
	PM Peak	50	-	-	125	325	200	-	-
	MID Peak	25	-	-	200	150	150	-	-
8. Table Rock Rd/Hamrick Rd	Storage Length <sup>2</sup>								
	PM Peak	25	25	-	-	25	-	-	0
	MID Peak	25	25	-	-	25	-	-	0
13. Federal Way/Northwest Dwy	PM Peak	-	-	0	25	-	0	25	-
	MID Peak	-	-	0	25	-	0	25	0
14. Federal Way/Southwest Dwy	PM Peak	-	-	0	0	-	0	25	-
	MID Peak	-	-	25	0	-	0	25	0
15. West Hamrick Rd Dwy/Hamrick Rd	PM Peak	-	0	25	-	25	25	-	-
	MID Peak	-	0	25	-	25	25	-	-
16. East Hamrick Rd (RIRO) Dwy/Hamrick Rd	PM Peak	-	0	-	-	-	25	-	-
	MID Peak	-	0	-	-	-	25	-	-
17. Table Rock Rd/Northeast Dwy	PM Peak	25	50	-	-	50	-	-	0
	MID Peak	25	50	-	-	50	-	-	0
18. Table Rock Rd/Southeast Dwy	PM Peak	25	0	-	-	25	-	-	0
	MID Peak	25	0	-	-	25	-	-	0

Notes: <sup>1</sup> 95<sup>th</sup> percentile queue lengths have been rounded to the next 25<sup>th</sup>-foot, one vehicle represent 25 feet of storage; <sup>2</sup> Storage lengths were reported where applicable at the respective intersection. Storage lanes along Table Rock Road will be included within the two-way left-turn lane when the Table Rock Road improvements are completed in year 2017. At the West Hamrick Rd Dwy/Hamrick Rd site access there is presently a two-way left-turn lane. Future year scenario does not include storage lanes to accesses the site on Federal Way because of low volume of traffic and turning movements into and out of the site; **Bold** indicates 95<sup>th</sup> percentile queues exceeding storage length.

**COMMENT 3 – SUBMITTED BY CITY OF CENTRAL POINT**

“If multiple access points are being proposed on Table Rock Road and S Hamrick Road then City and County access spacing standards should be taken into consideration and shown to be in compliance or otherwise justified.”

**KAI RESPONSE**

The City’s Transportation System Plan (TSP) identifies Table Rock Road as a major arterial. Based on Table 5.2 in *Central Point’s TSP* a minimum spacing standard of 500 feet applies given the 45 mph posted speed. The Table Rock Road/Northeast Driveway is approximately 420 feet south of the Table Rock Road/S Hamrick Road unsignalized intersection. This driveway serves as the site’s main driveway. The Table Rock Road/Southeast Driveway is located at the very southern edge of the site boundary. The spacing between the two site driveways is 500 feet, meeting City access management standards.

Although distance between the main driveway and the S Hamrick Road intersection does not meet the City’s standards, there are no queue conflicts or operational issues associated with the spacing.

Further, we have worked with the project team to maximize the spacing of access points and to optimize internal circulation for both the warehouse and fuel station.

We can work with the City to seek a design exception to the 500 feet standard between the main driveway and S Hamrick Road intersection with Table Rock Road.

Per Table 5.2 of the TSP, the applicable access spacing standard along S Hamrick Road is 300 feet. The East Hamrick Road Driveway/S Hamrick Road site access meets the spacing requirement between the driveway and the unsignalized intersection of Table Rock Road/S Hamrick Road intersection. The distance between the west and east driveways along S Hamrick Road is roughly 520 feet, also meeting the City's access spacing standards. The West Hamrick Road Driveway/S Hamrick Road site access is located approximately 200 feet west of the Hamrick Road/Federal Way unsignalized intersection, not meeting the City's spacing guidelines. While the spacing does not meet City guidelines, our analyses demonstrated that no operational or queuing conflicts are anticipated between this driveway and the S Hamrick Road/Federal Way unsignalized intersection.

We will also work with City staff to seek a design exception for the spacing between the west driveway and the S Hamrick Road/Federal Way intersection.

#### COMMENT 4 – SUBMITTED BY CITY OF CENTRAL POINT

“The proportional share for impacts to facilities such as the I-5 NB off ramp can be determined by a volume comparison. The 2016 no-build right turn volume is 310 PM trips. Proposed development in 2016 adds 90 PM trips. Adding 90 trips is approximately a 23% impact. The same methodology can be used for other facilities.”

#### KAI RESPONSE

Thank you for clarifying the applicable methodology for proportionate share impacts. We will work with Costco and the agencies in determining the proportional share for projects which Costco will be responsible based on feedback from the agencies.