

MEMORANDUM

DATE: June 27, 2014

TO: Scott Smith
City of Mill Creek

FROM: Jeff Schramm
TENW

SUBJECT: Response to WSDOT Comments
Crestview Village Residential Development
TENW Project No. 4855

This document provides responses to comments from WSDOT received via email dated May 23, 2014 related to the proposed Crestview Village residential project. WSDOT provided four comments; responses to each are provided below.

Comment #1. Please provide a TIA for Crestview development that includes all phases of development. The site plan shows the south end of the access road ending at what may be a connection to the adjacent parcel to the east, which appears to be a future phase. We request the TIA include queue analysis using both Synchro and SimTraffic modeling for SR 96 at 21st Avenue SE and 25th Avenue SE intersections.

TENW Response: The traffic analysis previously submitted for the proposed Crestview Village development included the full buildout with 25 single-family lots. The south end of the access road was required to provide a connection to the adjacent parcel. The adjacent parcel is not owned by the developer of this project and it is uncertain when or if that third party will redevelop.

Detailed weekday AM and PM peak hour LOS and queuing analysis were evaluated at the SR-96 signalized intersections at 21st Drive SE and 25th Avenue SE. A summary of the analysis is provided in Attachment A. As shown, left-turn queues at both signalized intersections in the AM peak hour are anticipated to be no more than 2 vehicles (50 feet). During the PM peak hour, the maximum queue at the 21st Drive SE intersection is anticipated to be 125 feet, and the westbound through lane queue 150 feet. Since the proposed access road for Crestview Village is located about 300 feet east of the left-turn lane at the 21st signal, the maximum 95th-percentile queue would not inhibit or block turns into or out of the access at the proposed location.

Comment #2. This section of SR 96/132nd St SE is a class 3 highway. Per Design Manual Section 540.04 (3), we should not consider two-way left turn lanes on class 3 highways with an Average Daily Traffic (ADT) above 25,000. The 2013 ADT at this location is 33,000. In addition, the site access is located near the start of the WB left turn lane for the signal at 21st. As a result we recommend eliminating the two-way left turn lane along the development frontage and restricting the site access to right-in/right-out.

TENW Response: The center two-way left-turn lane exists along SR-96 from I-5 to west of 35th Avenue SE (2,800 feet east of the site). Elimination of the two-way left-turn lane along the development frontage would impact numerous others properties along SR-96 that rely upon left-turn access. Additionally, the location of the site access road for Crestview Village is proposed as far east of the

signal at 21st as possible, and it would share access with the adjacent parcel to the east. As long as the center turn lane along SR-96 continues to operate in its current configuration and function, it is expected that full access would be maintained along the development frontage, and this parcel would be given the same access allowance as other properties have along this corridor.

Comment #3. We suggest that the city work with the developer and adjoining property owners on a future plan to develop a new local road parallel to SR 96 to connect to 21st Ave SE or 25th Ave SE due to lack of U-turn accommodation on SR 96 at 21st Ave SE, SR 527, or 25th Ave SE intersections, and/or develop a plan for modifications to accommodate U-turns on SR 96 at 21st Ave SE or 25th Ave SE.

TENW Response: There are no know capital project plans by the City to develop a new local road parallel to SR-96 in this vicinity. In the future, if the City and/or WSDOT decide to make modifications to this or other sections of SR-96 to limit left-turn access, it would be expected that as part of that plan, U-turns would be accommodated at the signalized intersections of 21st Drive SE and 25th Avenue SE as well as other signalized intersections along the SR-96 corridor. Until such time a capital project is planned to limit access to parcels along SR-96, left-turn access is expected to be maintained in its current configuration and function safely.

Comment #4. We request this development to extend existing traffic curbing from 21st Ave SE eastward along SR 96 to prevent left turn access to and from the site. Existing traffic curb on SR 96 begins at 21st Avenue SE and ends at the proposed site access. The traffic curbing will create back-to-back left turn lanes for 21st Avenue SE and 25th Avenue SE. A raised island may be required depending on the queue analysis in the TIA.

TENW Response: The existing c-curb on SR-96 does not end at the proposed site access. In fact, the c-curb ends about 300 feet west of the proposed access for the Crestview Village development.

The queuing analysis (attached) does not support the need to extend a c-curb on SR-96 further east from the 21st Drive SE intersection. Preventing left-turn access into the proposed Crestview Village project and other parcels along this corridor would create unnecessary and potential unsafe U-turn maneuvers along SR-96 since there are no existing locations designed to adequately accommodate U-turn maneuvers.

In conclusion, the location of the access road serving the Crestview Village project is proposed at the eastern edge of the property. Maintaining the two-way left turn adjacent to the site would maintain continuity and consistency along this section of the SR-96 corridor. The requested queuing analysis does not support extending the c-curb further east from the 21st Drive SE signal to block left-turn access for the proposed project. Furthermore, preventing left-turn access into the proposed Crestview Village project and other parcels along this corridor would create unnecessary and potential unsafe U-turn maneuvers along SR-96 since there is no current locations designed to adequately accommodate U-turn maneuvers.

If you have any questions regarding the information presented in this Memo, please feel free to contact me at 425-250-0581 or schramm@tenw.com.

Attachment

cc: Kevin O'Brien – Crestview Village 24, LLC
Jeff Haynie, P.E., Principal – TENW

Crestview Village

AM Peak Hour

Intersection	2014 Existing AM Peak Hour						2016 Without-Project AM Peak Hour						2016 With-Project AM Peak Hour						
	Synchro Results ¹			SimTraffic ²			Synchro Results ¹			SimTraffic ²			Synchro Results ¹			SimTraffic ²			
	LOS	Delay	50% Queue	95% Queue	50% Queue	95% Queue	LOS	Delay	50% Queue	95% Queue	50% Queue	95% Queue	LOS	Delay	50% Queue	95% Queue	50% Queue	95% Queue	
21st Drive / 132nd Street SE	A	3.7	-	-	-	-	A	3.7	-	-	-	-	A	3.7	-	-	-	-	
	WB Left-Turn Lane	D	45.8	25	m25	25	50	D	46.6	25	m25	25	50	D	46.7	25	m25	25	50
	WB Through Lanes	A	1.7	100	350	50	125	A	1.7	125	400	50	150	A	1.7	125	400	50	125
25th Ave / 132nd Street SE	B	11.1	-	-	-	-	B	11.7	-	-	-	-	B	11.7	-	-	-	-	
	EB Left-Turn Lane	A	9.5	<25	<25	<25	25	B	10.2	0	<25	<25	25	B	10.2	0	<25	<25	25
	EB Through Lanes	A	1.1	150	225	75	175	A	1.2	150	250	75	175	A	1.2	150	250	100	175

PM Peak Hour

Intersection	2014 Existing PM Peak Hour						2016 Without-Project PM Peak Hour						2016 With-Project PM Peak Hour						
	Synchro Results ¹			SimTraffic ²			Synchro Results ¹			SimTraffic ²			Synchro Results ¹			SimTraffic ²			
	LOS	Delay	50% Queue	95% Queue	50% Queue	95% Queue	LOS	Delay	50% Queue	95% Queue	50% Queue	95% Queue	LOS	Delay	50% Queue	95% Queue	50% Queue	95% Queue	
21st Drive / 132nd Street SE	B	10.7	-	-	-	-	B	11.4	-	-	-	-	B	11.4	-	-	-	-	
	WB Left-Turn Lane	D	54.5	50	100	50	100	E	55.0	50	100	50	125	E	55.1	50	100	50	125
	WB Through Lanes	A	0.8	75	100	75	150	A	0.9	75	125	75	150	A	0.9	75	125	75	150
25th Ave / 132nd Street SE	A	5.9	-	-	-	-	A	6.2	-	-	-	-	A	6.2	-	-	-	-	
	EB Left-Turn Lane	A	4.6	<25	m<25	<25	50	A	4.8	<25	m<25	25	50	A	4.8	<25	m<25	25	50
	EB Through Lanes	A	2.5	175	200	100	250	A	2.8	200	250	125	300	A	2.8	200	250	125	300

1. LOS and Queue results based on Synchro analysis results using HCM 2010 methodology. Signal timing provided by WSDOT (Greg)

2. Queue results based on average of 10 runs with SimTraffic program.

m = metered by upstream signal