

State that a deviation request from the right turn lane requirement will be submitted with the subsequent preliminary plan application for consideration.

Update the conclusion/recommendation to also identify the plan to submit a deviation request with the future preliminary plan application.

traffic is predicted to be below 100 DHV. The right turn lane at the project access along Meadowbrook directional hourly volume is less than 150 vehicles per hour. The implementation of right turn lanes is obtained from CDOT standards. However, it should be noted that CDOT standards are only for arterial roadways or higher classifications. Typical engineering practice does not incorporate right turn lanes along collector roadways unless needed operationally.

- A westbound left turn lane **is not** warranted at this intersection based on projected 2023 total traffic volumes being one (1) westbound left turn during the peak hour and the threshold being 25 vehicles per hour.

5.5 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 6** with calculations provided within the level of service operational sheets of **Appendix D** for unsignalized intersections and **Appendix E** for signalized intersections.

Table 6 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2023 Calculated Queue (feet)	2023 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
Meadowbrook & Marksheffel					
Eastbound Left	200' DL	231' DL	200' DL	285' DL	200' DL
Eastbound Right	200'	0'	200'	10'	200'
Westbound Left	300'	269'	300'	250'	300'
Westbound Right	200'	18'	200'	30'	200'
Northbound Left	400'	22'	400'	40'	400'
Northbound Right	C	19'	C	29'	285'+200'T
Southbound Left	350'	10'	350'	51'	350'
Southbound Right	350'	88'	350'	46'	350'
US-24 & Marksheffel					
Eastbound Left	1225'/1350'	254' DL	1225'/1350'	486' DL	1225'/1350'
Eastbound Right	650'	0'	650'	0'	650'
Westbound Left	1150' DL	413' DL	1150' DL	239' DL	1150' DL
Westbound Right	700'	0'	700'	0'	700'
Northbound Left	300'	18'	300'	44'	300'
Northbound Right	375'	0'	375'	0'	375'
Southbound Left	375'	18'	375'	24'	375'
Southbound Right	C	0'	C	159'	C

DL = Dual Left Turn Lanes; C = Continuous; **Red** Text = Storage Deficiency; **Blue** Text = Recommendation