

This is the site/parking lot
of the proposed 12-storey,
125-unit apartment building.

Highcliffe Drive



was based on the new intersection layout which includes an extended southbound left-turn lane, and the conversion of the northbound and southbound right-turn lanes to shared through/right-turn lanes. **Section 4.3** describes the reconstruction in further detail.

3.3 Traffic Data

To determine the existing conditions at the study intersection, turning movement counts were undertaken on Wednesday, July 31, 2019 by Spectrum Traffic Data Inc. (Spectrum) from 7:00 a.m. to 10:00 a.m. and from 4:00 p.m. to 7:00 p.m. The traffic count data is detailed in **Appendix D**, and the 2019 existing traffic volumes are illustrated in **Figure 5**.

The Region was consulted for turning movement counts, however the latest counts they had were from 2014, which does not comply with the two-year time frame outlined in the Region's "Transportation Mobility Plan Guidelines".

Peak hour factors (PHF) associated with the weekday a.m. and p.m. peak hours were calculated for the study intersections based on the existing traffic volumes. **Table 2** outlines the PHFs as calculated and applied to the model for the study intersections.

Table 2: Traffic Data Summary

Intersection	Peak Hour	Peak Hour Factor
Bathurst Street and Flamingo Road/Worth Boulevard	Weekday AM (8:30-9:30)	0.92
	Weekday PM (17:30-18:30)	0.98
Flamingo Road and the Site Access	Weekday AM (8:15-9:15)	0.84
	Weekday PM (17:00-18:00)	0.94

3.4 Traffic Modelling

The assessment of the study intersections is based on the method outlined in the "Highway Capacity Manual, 2000" using Synchro 9 modelling software. The intersections are assessed using a Level of Service metric with ranges from "A" to "F". A Level of Service "A" to "C" would typically be measured during off-peak hours when lesser volumes are on the roadways. Levels of Service "D" through "F" would typically be measured in the commuter peak hours when greater vehicle volumes cause longer travel times. The Level of Service definitions for stop-controlled and signalized intersections are included in **Appendix E**.

95th percentile queue lengths were derived from the average of five runs in Sim Traffic with a seeding interval of 10 minutes and a recording interval of 60 minutes.

Per the Region's Transportation Mobility Plan Guidelines, an ideal (base) saturation flow rate of 2000 vehicles per hour per lane was assumed in the Synchro modelling, and the peak hour factors were based on the existing traffic counts as noted above.

The signal timing plan for the intersection of Bathurst Street and Flamingo Road/Worth Boulevard was obtained from Viva staff and was used in the analysis of the existing conditions. The signal timing plan has been included in **Appendix F** for reference.

As summarized in **Section 3.5**, the eastbound left-turn movement experiences a volume-to-capacity ratio in excess of 1.00. This is a result of Synchro considering the westbound right-turns as opposing



Site driveway
proximity
to intersection

Reduced lane width on both sides of Flamingo Rd.

Cars can no longer turn right onto Bathurst on red if car ahead is waiting to go through the intersection, causing further traffic congestion.

