



MEMO

TO: Robert Brown, H. Ba., MCIP, RPP – Town of Kingsville
FROM: Mike Walters, P.Eng.
cc: Chris Patten, P.Eng.
DATE: February 24, 2017
SUBJECT: 342 Main Street East, Kingsville – Traffic Impact Assessment Peer Review
OUR FILE: 17-5221

As part of a development application for 342 Main Street East in the Town of Kingsville, a Traffic Impact Assessment (TIA) report was prepared by F.R. Berry & Associates. The report is dated August 2016. An addendum letter was also prepared, dated December 6, 2016. Dillon Consulting Limited (Dillon) was requested by the Town of Kingsville to peer review these two documents.

The following summarizes the findings from that peer review exercise.

The comments are categorized as per the sections in the original documents, for ease of reference.

August 2016 TIA

Introduction and Background

The development proposed consists of a 95-unit condominium apartment building with ground floor commercial uses.

Two new accesses to the site are proposed – one on Jasperson Drive, north of the Libro Credit Union driveway, and the other on Main Street East, opposite the Esso Gas Station.

Existing Conditions

Both Main Street East and Jasperson Drive are arterial roadways in the Town of Kingsville. Jasperson Drive has a posted speed limit of 50 km/h and is primarily a two-lane roadway. Between Main Street East and Applewood Road, a back-to-back left turn lane is present to facilitate left turns into commercial properties. In the vicinity of the site, Main Street East has a three-lane cross-section, consisting of one travel lane in each direction and a centre two-way left turn lane. The posted speed limit on Main Street East is 50 km/h.

Main Street is a busy street during peak times of the day. As noted in the TIA report, the Town of Kingsville is considering a proposal to rationalize existing traffic congestion on the two-way left turn lane on Main Street East.

Given the commercial activity in this section of Kingsville, field traffic counts were undertaken on Friday, June 10 and Saturday, June 11, 2016. These days likely represent typical peak days for this section of Main Street East.

Proposed Development

The proposed development is envisioned to consist of:

- 95 apartment units; and
- 13,489 ft² of retail and office space.

A full movement access is proposed on Jasperson Drive.

A right-in/right-out only access is proposed on Main Street East.

Vehicle Trip Generation

Trip generation was based on information contained within the Institute of Transportation Engineers (ITE) document *Trip Generation*, 8th Edition.

Land Use Codes 220 (Apartment) and 820 (Shopping Centre) were used to estimate future trips associated with residential and commercial retail components of the development, respectively. This resulted in:

- 61 AM peak hour trips
- 118 PM peak hour trips
- 123 Saturday peak hour trips

The 9th Edition of the Trip Generation Manual is now available from ITE. A check of whether 9th Edition trip rates would result in different trip generation estimates was conducted. It was found that the difference in trip estimates between the 8th and 9th Editions of the Trip Generation Manual would be extremely minor (a couple of trips during the AM and PM peak hours) and does not warrant any revisions to the report.

The trips for the commercial retail component used the average trip rate, as opposed to the equation. Some justification should be provided in the report as to why the average trip rate more closely reflects the anticipated site trips for this use, as opposed to the equation; since there would be a significant difference in the number of trips between the two approaches.

The site trips were not discounted to account for any on-site synergies between the residential and commercial uses. This is a conservative approach, as some on-site synergy could be expected to exist to some degree.

Vehicle Trip Distribution and Assignment

The trip distribution was based on the peak directional flows on Main Street East and Jasperson Drive, as well as previous traffic studies in the area. The studies that were used to assist in developing the distribution should be referenced specifically.

Projected Traffic

To project future traffic volumes, a two percent annual growth rate was assumed. The source for this growth rate should be provided.

Future background conditions included the remaining build out of the Kingsville Marketplace shopping centre located to the east of the subject site. Approximately 32,600 ft² remains to be developed within this shopping centre. Trips associated with this remaining space were incorporated based on the trip generation data contained within the traffic impact assessment report for that development. A traffic count at the shopping centre driveway should be undertaken during the peak hours to validate the trip generation estimates included in the original traffic impact assessment report. If the site-specific trip rates for the shopping centre significantly differ from those included in the report, the future background trip forecasts should be updated accordingly.

Jasperson Drive and Main Street

Under future background conditions, the southbound queue during the PM peak hour and Saturday mid-day peak hour are expected to block the driveways to the Zehrs plaza and Libro Credit Union on Jasperson Drive north of Main Street East. With the addition of site traffic, the southbound queue will increase, further exacerbating this anticipated situation. No mitigation is proposed within this section of the report to address this future condition.

Main Street and Site Access

Operational analyses at the site access location on Main Street East were based on a right-in/right-out driveway configuration.

Given the operational issues on the southbound Jasperson Drive approach to Main Street East, sensitivity analyses were conducted based on the assumption that left turn movements are permitted at the site access. The report indicates that up to 21 vehicles would be reduced on the southbound left turn movement at Jasperson Drive and Main Street East, yet Figure 7 shows a total of 20 AM peak hour, 23 PM peak hour and 29 Saturday peak hour reductions on this movement.

While the conversion of the site access on Main Street East to a full movement driveway (to permit left turns) would address the southbound operational issue on Jasperson Drive north of Main Street East, it would only exacerbate mid-block operations on Main Street East, east of Jasperson Drive, where a number of turning conflicts occur.

December 2016 Addendum Letter

An addendum letter was prepared on December 6, 2016 to further clarify some concerns with respect to the operation of the Main Street East and Jasperson Drive intersection.

The letter concludes that some additional studies should be undertaken to assess in more detail possible solutions to the operational issues at the Main Street East and Jasperson Drive intersection, as well as access along Main Street East, east of Jasperson Drive.

We concur that these studies would be beneficial in arriving at a more holistic solution to traffic concerns in the area.

Conclusions

Based on our review of both the August 2016 traffic impact assessment and the December 2016 addendum letter, we conclude the following:

- The 8th Edition trip rates from the Trip Generation Manual do not significantly differ from the rates included in the more recent 9th Edition;
- Some justification should be provided as to why the published average trip rate more closely reflects the anticipated site trips for the commercial retail component, as opposed to the trip rates derived from the published equations;
- The site trips forecasted may be conservative as some on-site synergies between the residential and commercial uses may occur;
- The previous area traffic studies that were used in developing the trip distribution should be referenced;
- The source for the 2% annual growth factor should be referenced;
- Traffic counts should be undertaken at the Kingsville Marketplace shopping centre driveway to confirm existing site trip rates which could be used to provide a potentially more realistic picture of future background volumes (rather than rely on the previous traffic study forecasts); and
- Additional studies should be explored by the Town to arrive at a holistic solution to traffic operational issues along Main Street in the vicinity of Jasperson Drive.