

8 July 2019
Project: 170287

Jared Dykstra, MCIP, RPP
Principal, Dykstra Planning & Development Group
100 King Street West
Suite 5700
Toronto, ON M5X 1C7

Dear Mr. Dykstra:

**RE: 425 KING STREET EAST, COBOURG, APPLICATION FOR DRAFT SUBDIVISION,
2ND SUBMISSION
RESPONSE TO TOWN OF COBOURG STAFF (DEVELOPMENT REVIEW TEAM)
COMMENTS, LETTER OF 3 JULY 2019**

This letter is in response to comment 4 in Section A of the above referenced letter. Staff state a concern about the potential for traffic from the Coverdale Avenue neighbourhood to shortcut through Orchard Avenue (once extended) to avoid the King Street East/Brook Road North traffic signal. The rationale provided for this potential shortcutting is that some motorists may wish to avoid possible delays for travelling either eastbound or westbound through this signalized intersection. Staff also state that the Transportation Brief prepared by Paradigm and dated 20 February 2019 contained a cursory comment about this potential shortcutting being negligible and that the “issue” should be analyzed in more detail.

While the commentary in the Transportation Brief regarding potential shortcutting was limited, it was not “cursory” in that it was based on the technical information in the report as well as field observations of traffic conditions in this area – both of which led to the conclusion that shortcutting should be negligible. The supporting technical information for this conclusion includes:

- ▶ The operational analysis for existing and future conditions at the King Street East/Brook Road North signalized intersection for both the weekday AM and PM peak hours (highest volume of traffic entering the intersection) shows that the eastbound and westbound through movements operate at Level of Service A in both the AM and PM peak hours, which is the highest level of service. The average delay per vehicle for eastbound or westbound through movements during these peak periods is less than 10 seconds. This means that most motorists travelling through the intersection would arrive during the east-west green phase and experience no delay, while some motorists would

arrive during the east-west red phase and experience some delay. **Therefore, there is no significant congestion at this intersection to avoid;**

- ▶ The King Street East/Coverdale Avenue intersection (stop control on the Coverdale Avenue approach) was not formally part of the study area for the Transportation Brief (i.e. traffic volumes were not collected or analyzed). However, to be thorough, Paradigm staff observed its operation during the weekday AM and PM peak hours as part of the overall study area observations. As stated in the report, this intersection was observed to operate with little delay. It is also noted that the sight lines at this intersection are very good since King Street East is relatively flat and straight. The movements that could be avoided by using Orchard Avenue would be the northbound left turn from Coverdale Avenue to King Street East and the eastbound right turn from King Street East to Coverdale Avenue. The northbound left turn was not observed to be a problematic movement and it benefits from gaps in King Street East traffic created by the signal at Brook Road North. The eastbound right turn is a free flow movement with no delay unless a pedestrian happens to be crossing the Coverdale Avenue approach. The traffic counts conducted at the study area intersections showed that there is very little pedestrian activity in this area. **Therefore, there is no significant congestion at this intersection to avoid;** and
- ▶ While the Orchard Avenue extension would provide an alternative route between Coverdale Avenue and King Street East, the travel distance between these two roads is the same whether one uses the Coverdale Avenue-Orchard Avenue-King Street East route or the more direct Coverdale Avenue-King Street East route. **Therefore, there are no savings from a distance travelled perspective.**

Given the above, the concern about potential shortcutting appears to be based on a “human factors” argument, i.e. Coverdale Avenue neighbourhood residents or visitors may be so concerned about the potential of arriving at a red light at the King Street East/Brook Road North intersection that they will divert to Orchard Avenue. While this is certainly possible, it seems that all but very few northbound motorists using Coverdale Avenue would opt to turn left at Orchard Avenue to avoid the potential delay at the signalized King Street East/Brook Road North intersection (Level of Service A operation, less than 10 seconds average delay), negotiate a 90 degree turn within the new subdivision, and then have to make the same northbound left turn onto King Street East that they would have made at the Coverdale Avenue/King Street East intersection. And similarly, eastbound motorists on King Street East that are destined for the Coverdale Avenue neighbourhood would have very little to gain from a travel time perspective by turning right onto Orchard Avenue to avoid the King Street East/Brook Road North intersection (Level of Service A operation, less than 10 seconds average delay), negotiating the 90 degree turn within the new subdivision, and turning right from Orchard Avenue onto Coverdale Avenue.

While no traffic count was done at the King Street East/Coverdale Avenue intersection as part of the Transportation Brief, one was done at the similar King Street East/Brook Road South intersection. At that intersection, the existing northbound traffic turning left from Brook Road South to King Street East in the AM peak hour (peak time for the left turn movement) is 21 vehicles and the eastbound traffic turning right from King Street East to Brook Road South is



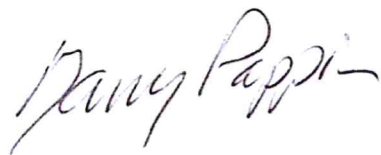
10 vehicles for a total two-way volume of 31 vehicles. For the PM peak hour, the comparable numbers are 12 and 21 (peak time for the right turn movement), respectively, which total 33 vehicles. Since Coverdale Avenue has a larger catchment area in terms of the number residences it serves compared to Brook Road South, it could be assumed that these same turning movements at the King Street East/Coverdale Avenue intersection may be double, i.e. a two-way total volume of 60 to 65 vehicles. If a **conservatively high** estimate of 10% of this amount of traffic opted to use Orchard Avenue as a shortcut despite the very limited opportunity for travel time savings, this would amount to approximately six to seven shortcutting vehicles in either peak hour or one shortcutting vehicle every eight to 10 minutes. As noted in the Transportation Brief, this represents a negligible amount of traffic and in our view would be imperceptible in terms of Orchard Avenue traffic conditions.

Based on the information presented above, it is concluded that there are no mitigation measures required to address the unlikely potential of any more than a nominal amount of shortcutting traffic using Orchard Avenue.

If you have any question or comments, please contact the undersigned.

Yours truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Garry Pappin
BES, CET, LEL
Senior Project Manager

