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November 7th, 2024

Attn: Jarrod Gliddon, P.Eng.
Senior Development Engineer
The Corporation of The City of Belleville
City Hall, 169 Front Street
Belleville, Ontario K8N 2Y8

Re: Park Meadow Court Subdivision – Traffic report

Dear Mr. Jarrod,

Acadia Engineering Inc. is submitting this formal traffic report to the Corporation of the City of Belleville in response to the comment regarding the maximum allowable development density of 100 units for the proposed subdivision, which is served by a single roadway access.

Project Overview:

The proposed development at Park Meadow Court consists of 113 residential units. Access to the site is planned via a two-lane local road intersecting with Farnham Road, an arterial street with a posted speed limit of 50 km/h, located within the City of Belleville.

The City has indicated that the development density should be limited to 100 units due to a policy derived from the National Fire Protection Association (NFPA), an American organization. It is important to note that the NFPA's guidelines do not provide specific data or engineering justification for this limitation, particularly regarding traffic flow and safety concerns.

Traffic Capacity and Safety Considerations:

From an engineering standpoint, there are no significant traffic safety or capacity issues associated with the proposed development. A standard traffic lane can accommodate up to 2,000 vehicles per hour under green time. The proposed access point consists of a standard configuration with one lane inbound and one lane outbound. In the event of an emergency, two outbound lanes would be available for use.

In the case of an evacuation scenario, if each of the 113 units has one vehicle, the departure of 100 vehicles would represent approximately 2.5% of the total entrance capacity and would likely require roughly 10 minutes to clear, depending on time of day

and weather conditions. The additional 13 units would not have a great effect on this calculation and would not substantially alter the clearance time.

Conclusion:

From a transportation engineering perspective, there is no major safety issue associated with increasing the development density from 100 units to 113 units. The limitation appears to be based on an interpretation of the NFPA guidelines, rather than any substantiated concerns related to traffic flow or safety.

It is worth noting that the NFPA's interpretation of Article A.18.2.3.3 states that "This Code avoids establishing a specific threshold for mandating multiple-access roads," indicating that this is a guideline rather than a mandatory regulation. Local bylaws, therefore, should be the determining factor in such matters. As per the NFPA, the final decision on these matters lies with the Authority Having Jurisdiction (AHJ), which, in this case, is the City of Belleville.

We respectfully request that the City of Belleville provide further details regarding the draft Consolidated Zoning By-Law, as it forms the legal basis for determining development density and decision-making in this context.

We appreciate your attention to this matter. Should you require any further information or clarification, please do not hesitate to contact Acadia Engineering Inc.

Prepared by:

John P. Zatorsky, P. Eng.

Senior Transportation Engineer

