

VIA EMAIL: jones@fotenn.com

March 24, 2025

AG File No. 17533-1

Fotenn
The Woolen Mill
4 Cataraqui St, Suite 315
Kingston, ON
K7K 1Z7

Attn: Kelsey Jones, MCIP RPP
Senior Planner

Re: Fawcettville Subdivision, PEC – Response to Peer Review Comments
Traffic Impact Study

Dear Kelsey:

Further to our submission of the revised Traffic Impact Study made to your office December 5, 2024, please see the following table with Ainley Graham & Associates responses to comments made by the County peer reviewer, Garry Pappin, LEL of Paradigm Transportation Solutions dated 2024-10-29.

Category	Comment - Paradigm	Response – Ainley Graham & Associates
Existing Conditions:	The consultant correctly describes the characteristics of Fawcett Avenue (two-lane local road with a rural cross section, posted maximum speed 40 km/h), County Road 49 (two-lane arterial road with an urban cross section, posted maximum speed 50 km/h), and the County Road 49/Fawcett Avenue intersection (stop control on the Fawcett Avenue approach and an auxiliary right turn lane on the County Road 49 southbound approach). We note a minor typo where the consultant states that the County Road 49 northbound approach to Fawcett Avenue has a “shared through-right lane” whereas it has a shared through-left lane	Noted. Typo has been corrected.

	<p>The consultant does not report any field observations of current traffic operations. Generally, it is good practice to conduct observations (preferably at the time when traffic counts are conducted) to support analysis findings and to determine if there are any unusual or unexpected conditions related to traffic operations or traffic safety. While not part of the scope of a typical TIS, the MTO guidelines do include a detailed field review where potential safety concerns are identified during the preparation of a TIS</p>	<p>Section 4.1 has been updated to describe traffic operations (See Page 7, Section 4.1)</p>
Background Traffic Forecasts	<p>We note that it is a requirement of the MTO TIS guidelines that in addition to a growth factor, additional trips that would be generated by approved developments near the study area should also be considered in establishing background traffic forecasts. The consultant does not mention inquiring with PEC staff about any approved developments that should be included in the forecasts. Therefore, for the purposes of this review, we assume that the 2% growth factor addresses both general traffic growth and additional trips that would be generated by approved local developments (if any)</p>	<p>Section 4.2 has been added to describe the developments within the study area.</p>
Site Traffic Forecasts	<p>While we do not disagree with the trip generation estimates, we note that it is typical to calculate trip generation with either the average rates or the fitted curve equations. The ITE Trip Generation Handbook provides guidance regarding how to select the appropriate method.</p>	<p>The ITE Generation Handbook Manual procedure has been followed to select the appropriate method to estimate the generated trips.</p>
Operational Analysis of Future Conditions	<p>This is primarily due to the low volume of southbound traffic on County Road 49 that opposes the northbound left turn movement. Notwithstanding this finding, it would be prudent to reconsider northbound left turn lane requirements along this and adjacent sections of County Road 49 as development is proposed in the designated future residential development areas along this corridor.</p>	<p>SimTraffic was used to determine 95th queue length. The results were shown in the tables and it is clear that the queue length is very low (max of 13.9m). Therefore, it is clear that there is no issue with traffic operations at the intersection. However, left-turn warrants analysis has been conducted. However, a sentence has been added to the TIS. (See Page 15)</p>

	<p>Another consideration that is not explicitly addressed in the TIS is the need for emergency access.</p>	<p>The report has been added to discuss providing emergency access (Section 6.2). Recommendation for future developments in the adjacent areas have been provided.</p>
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We have also attached to this letter, our updated memorandum dated March 24, 2025 related to the comments regarding a secondary access to the subdivision.

If you have any questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY GRAHAM & ASSOCIATES LIMITED



Jennifer Diaz, P.Eng.
Senior Project Manager

Attachment: Memorandum dated March 24, 2025 Fawcettville Subdivision DPA, Secondary Access

cc: Holly Newitt - Fotenn (By Email newitt@fotenn.com)
Eric Denouden – Hilden Homes (By Email eric@hildenhomes.com)

Memorandum

To: Kelsey Jones

Copies To: Eric DenOuden

From: Jennifer Diaz, P.Eng., Senior Project Manager

Date: March 24, 2025

Reference: Fawcettville Subdivision DPA
Secondary Access
Ainley File No. 17533-1

We understand that the County Peer Reviewer and the local residents have expressed concern related to emergency access to the proposed development and existing Fawcett Avenue subdivision.

The Traffic Impact Study and modeling has determined that the proposed development and future traffic volumes for years 2026, 2031 and 2036 will have insignificant impact to traffic operations within the road network. The capacity analysis results in low delays, short queue lengths and high levels of service at the intersection of Fawcett Avenue and County Road 49, which is beneficial for emergency vehicles gaining access into the development.

Industry accepted provincial and federal guidelines are referenced and implemented in the preparation of the Fawcettville Subdivision Traffic Impact Study. The evaluation of the number of accesses to a development is not a requirement of these guidelines.

In the comment from the County's peer reviewer (Garry Pappin of Paradigm Transportation Solutions Ltd., 2024-10-29) reference is made to the *National Fire Protection Association (NFPA) Document 1141, "Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural and Suburban Areas"*. Table 11.1.4.1 (a) states that for a development with 101-600 households, a second access route is required. The total households in the subdivision following full build out of the proposed development will be 135, near the low end of the specified range.

11.1.4.3 states that "Where multiple means of access are required, one of the means of access shall be permitted to be restricted for emergency use only, when approved by the AHJ." (AHJ = Authority having jurisdiction)

The County By-law 742-2001, applies to the Millenium Trail as per the existing erected signs within the trail right of way. This By-law stipulates permitted use by police and emergency vehicles.

Document 1141, as titled (“*Standard for Fire Protection Infrastructure for Land Development in **Wildland, Rural and Suburban Areas***”), is intended for areas outside of the urban core. Fawcett Avenue and the proposed development are within Picton’s urban boundary. We ask that the County staff confirm if this standard is applicable to the proposed development and whether it is applied for all developments within Prince Edward County.

In addition, when cross referencing the equivalent Canadian code, The National Fire Code of Canada (NFC), the requirement for a secondary access is not stipulated and it does not reference the American NFPA 1141 document. The NFC references the National Building Code, a subsidiary to the Ontario Building Code (OBC).

Section 3.2.5.6 “Access Route Design” of the OBC requires access routes for the fire department to be a minimum of 6 meters wide, have turning facilities for dead ends more than 90 meters long, and be connected with a public thoroughfare. All requirements are met under the existing condition with the exception of the turning facilities for dead ends over 90 meters. The addition of the proposed development, configured with a looped road will remedy this deficit. The proposed loop will provide alternate access to any of the lots within the proposed development.

Additionally, road extensions to the north and south of the loop are proposed for two (2) future connections. The existing development has an additional five (5) future connection points, ultimately with the potential for a total of nine (9) access points, including County Road 49 and the Millenium Trail.

The other reference made in the peer review comments is from the Institute of Transportation Engineers, which states that typical design guidelines for the length of a cul-de-sacs range between 215 – 305 meters, which is currently exceeded by the existing Fawcett Avenue roadway.

In cases where a municipality’s required length of a cul-de-sac cannot be met, alternative means such as roadway widening or restricting road parking are considered. Widening of the existing paved surface along Fawcett Ave is being reviewed and would be a suitable alternative.

Based on our review, it is logical to maintain the existing access conditions to the subject property including the access from County Road 49 and emergency vehicle access from the trail. The proposed looped road and widening of the existing paved surface to 7.8 meters will meet Ontario Building Code requirements and improve the current conditions.

We recommend that the design of the access from the subject property to the trail be covered as a condition of draft plan approval.