Technical Memorandum

To:	Mike Giampa – City of Ottawa	Date:	2021-06-09
Cc:	Zeyad Hassan – Caivan Communities Viktoriya Zaytseva – CGH Transportation		
From:	Mark Crockford, P.Eng.	Project Number:	2020-82

Re: 2275 Mer-Bleue Road Transportation Impact Assessment Addendum

1 Introduction

To support the development at 2275 Mer-Bleue Road, a Transportation Impact Study (TIS) was prepared and finalized in March 2021 and forms the basis for this memo. This addendum acts as a covering letter for the 2275 Mer-Bleue TIA and has been prepared to examine the changes between the original concept plan considered in the TIA and the current plan that is being put forward. This includes examining the unit count and type, pertaining and updated trip generation (using the same factors as those presented in the TIA), and the addition of a right-in / right-out access along Mer-Bleue in response to the public feedback received during the public consultation session on April 20th, 2021.

2 Site Plan Comparison

The original concept plan considered in the TIS is included as Attachment 1. The updated plan, to be analyzed through this memo, is included as Attachment 2. Table 1 summarizes the unit count changes between the original concept and the updated plan.

Table 1: Land Use Statistic Comparison

	Townhouses (TRANS LUC 224)	Mid-Rise (TRANS LUC 223)	Shopping Centre (ITE LUC 820)
Original	112	170	15,000 s.f.
Updated	123	170	15,000 s.f.
Change	+11	0	0
% Change	+ 10%	0%	0%

As shown above, the revised plan would increase the townhouse units by 11 (10% of the total number of townhouses). Due to the change in unit counts the trip generation has been examined to determine if the proposed changes would significantly impact the trip generation originally considered. The trip generation rates for the townhouse units, mid-rise apartment units, and shopping center used in the original TIA are summarized in Table 2.

Table 2: ITE Trip Generation Factor

	Townhouses (TRANS LUC 224)	Mid-Rise (TRANS LUC 223)	Shopping Centre (ITE LUC 820)
AM Peak	0.98	0.66	1.2
PM Peak	1.16	0.84	4.88

Using the above trip generation rates the total trip generation for the site has been recalculated and compared to the TIA trip generation. Table 3 summarizes and compares the trip generation between the two scenarios (original and updated).

Table 3: Vehicle Trip Generation Comparison

Scenario	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Original	79	161	240	193	153	346
Updated	83	168	251	200	159	359
Difference	4	7	11	7	6	13
% Difference	5%	4%	5%	4%	4%	4%

As shown above, the changes to the unit count of the proposed development will result in a net increase of 5% in vehicle traffic. This is a relatively minor change, and the results of the original TIA remain valid and therefore no updated operational analysis is required.

3 Site Access Design

As part of the public consultation feedback on April 20th, 2021, a right-in / right-out access to the proposed development has been proposed along Mer-Bleue Road. This access will be stop controlled on the minor approach and located approximately 170 meters south of Brian Coburn Boulevard, measured from edge to edge. The right-in / right-out access will serve as a second access to the townhouse component of the proposed development. Alternatively, the 2275 Mer-Bleue residents will be able to reach their destination via the future full-movement intersection of Mer-Bleue Road and Decoeur Drive, traveling eastbound along future Decoeur Drive and then northbound along future Sculpin Street.

Using the 2017 TAC Geometric Guide for Canadian Roads, Figure 8.8.2, the spacing between the proposed right-in / right-out access along Mer-Bleue Road and Decoeur Drive as well as Brian Coburn Boulevard has been checked for suggested minimum corner clearances. It has been found that the suggested minimum clearance is 70 metres between the proposed site access and Decoeur Drive (Scenario D). This guideline is met as the right-in / right-out access along Mer-Bleue Road will be located approximately 240 metres north of Decoeur Drive. The site access should also be located in advance of the left-turn lane storage and taper length at an upstream intersection (Scenario B). As the upstream intersection of Mer-Bleue Road and Brian Coburn Boulevard is a roundabout, and no left turn lanes are present at this intersection, the TAC corner clearance requirement in not applicable for this scenario. To remain conservative, Scenario C requirement of 70 metres has been applied to the spacing between the proposed site access and Brian Coburn Boulevard. This requirement is met as the distance between the right-in / right-out access along Mer-Bleue Road and Brian Coburn Boulevard is approximately 170 metres. Figure 8.8.2 from the 2017 TAC Geometric Design Guide is included in Attachment 3.

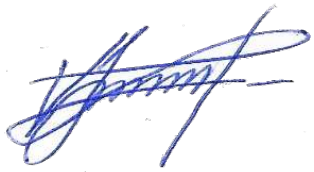
The right-in / right-out access to the townhouse component of the proposed development will reduce the northbound right turns as well as the westbound right turns at the future signalized intersection of Mer-Bleue Road and Decoeur Drive. Based on the site-generated volumes previously projected to make a northbound right turn at Mer-Bleue and Decoeur Drive (1 AM peak trip and 2 PM peak trips), a northbound right turn lane into the secondary access to the townhouse subdivision is not warranted. Further, the addition of the right-in / right-out access along Mer-Bleue Road will result in a net zero impact on the nearby intersections of Mer-Bleue Road and Brian Coburn Boulevard as well as Mer-Bleue Road at Renaud Drive, as the localized change in traffic between the right-in / right-out access and Decoeur Drive will balance out before reaching other study area intersections. Lastly, due to the right-in / right-out restriction as a result of the centreline median along Mer-Bleue Road, limited traffic is expected to utilize this access and thus no operational constrains are anticipated.

4 Conclusions

The proposed development concept has been refined since the original TIA was prepared. This addendum has verified that the changes to the unit counts and development accesses will have no impact on the operational analysis and that the 2275 Mer-Bleue Road TIA remains valid.

If you have any questions or comments, please do not hesitate to contact the undersigned.

Prepared By:



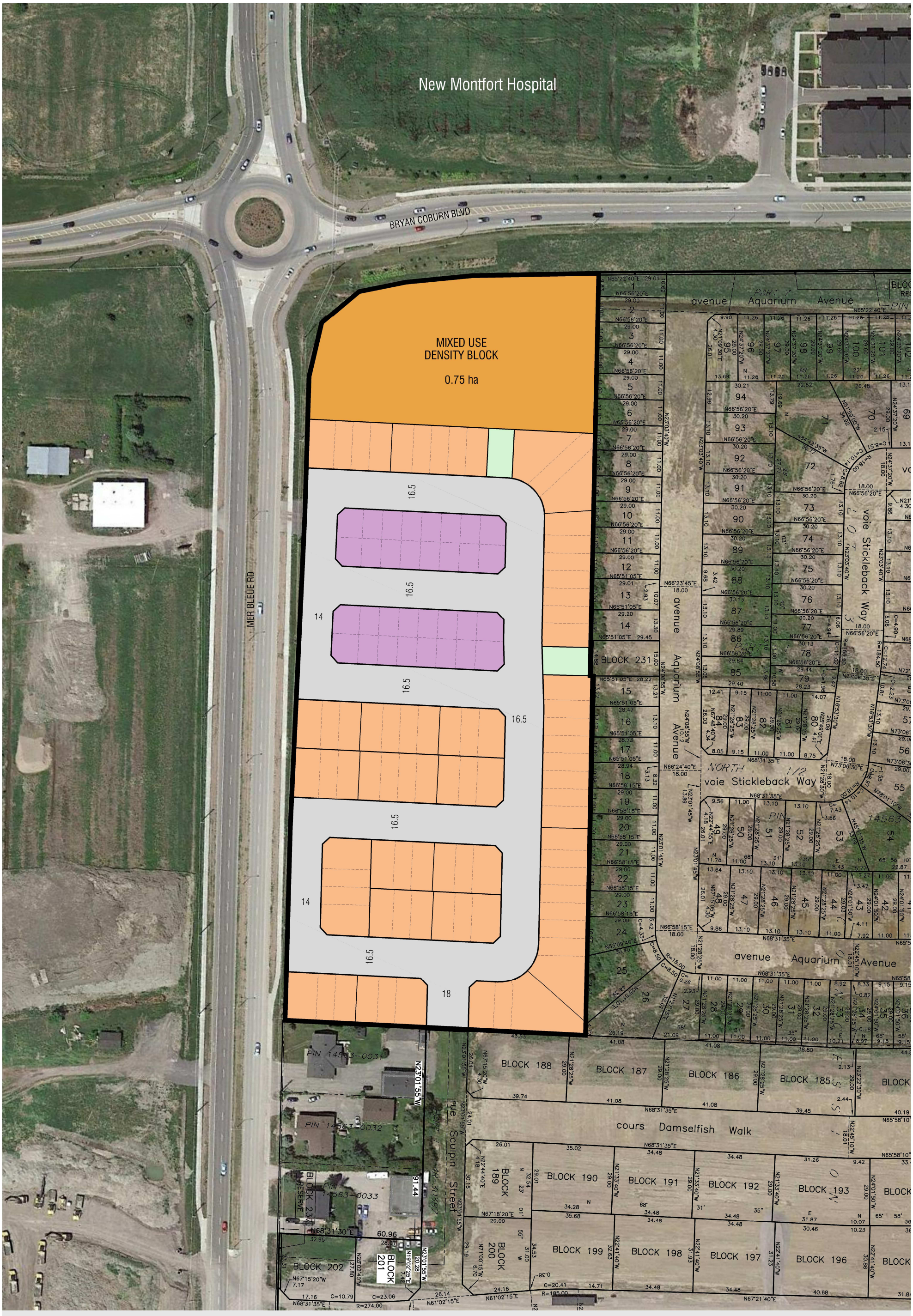
Viktoriya Zaytseva, E.I.T.
CGH Transportation Inc.
P: 437-221-1343
E: Viktoriya.Zaytseva@CGHTransportation.com

Reviewed By:

Mark Crockford, P.Eng.
CGH Transportation Inc.
P: 905-251-4070
E: Mark.Crockford@CGHTransportation.com

Attachment 1

Original Concept Plan



DRAFT

- All Units In Metric Unless Otherwise Noted.
- Base Information Obtained From Various Sources And Is Approximate.
- Schedule / Plan Information Is Conceptual And Requires Verification by Appropriate Agency.
- Aerial Photo: Google Earth, Approx. Spring 2018

GERRARD DESIGN

CAIVAN 2075 MER BLEUE | Ottawa, Ontario

PRELIMINARY LOTTED CONCEPT

NOV 25, 2020

PROJECT 2063

SCALE 1:1500

SK-08

Attachment 2

Updated Draft Plan

LEGEND

- Mer Bleue Lands
- 25′ Traditional Townhomes
- Back-to-Back Townhomes
- Mixed Use Density Block
- Open Space

0 25 50
metres

June 2021

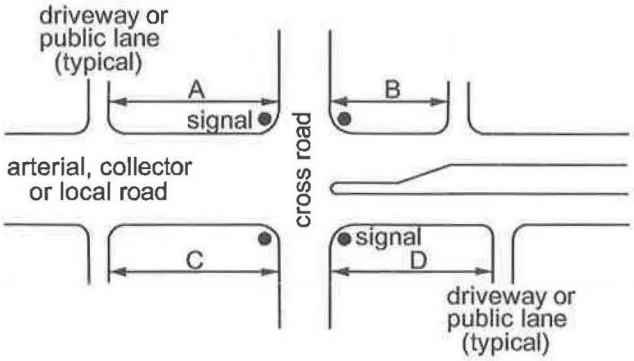
CAIVAN MER BLEUE INC. | Ottawa, Ontario

CAIVAN

CONCEPT PLAN

Attachment 3

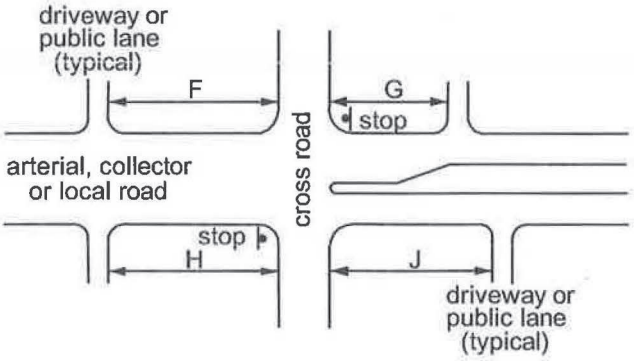
2017 TAC Geometric Design Guide – Figure 8.8.2



item	min. clearance, m		
	arterial	collector [b]	local [b]
A	70 [c]	55	15
B	# [a]	25	15
C	70	55	15
D	70 [c]	55	15

Notes: a. Distance (#) positions driveway or public lane in advance of the left turn storage length (min.) plus bay taper (des.).
b. Lesser values reflect lower volumes and reduces level of service on collectors and locals.
c. Reduced distances feasible if auxiliary lane implemented, see Section 8.5
d. Values based on operating speed of 50km/h, higher values desirable for higher speeds or may be warranted by traffic conditions.

signals at the cross road



item	min. clearance, m		
	arterial	collector [b]	local [b]
F	35	20	15
G	# [a]	25	15
H	25	25	15
J	35	20	15

Notes: a. Distance (#) positions driveway or public lane in advance of the left turn storage length (min.) plus bay taper (des.).
b. Lesser values reflect lower volumes and reduces level of service on collectors and locals.

stop control at the cross road

Figure 8.8.2: Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections

Inadequate corner clearance between accesses and signalized intersections along a major road, such as a major arterial, can create serious operational problems including: