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Project No. 192044

Farhang Fotovat
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Re: Traffic Impact Statement, Mixed-Use Development, Hogan Court, Bedford, NS

Mr. Fotovat,

Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality (HRM) requirements, to support the development agreement (DA) amendment for the proposed mixed-use development on Hogan Court in Bedford, Nova Scotia.

Study Area and Site Context: The proposed development is located on Hogan Court near the Highway 102 interchange at Larry Uteck Boulevard. The site context is illustrated in Figure 1.

Larry Uteck Boulevard is an arterial roadway that runs east-west from the Bedford Highway to Kearney Lake Road. In the vicinity of the proposed development, Larry Uteck Boulevard has a four-lane cross section, with two lanes in each direction and an active transportation greenway on the north side of the roadway. Larry Uteck Boulevard has a posted speed limit of 60 km/h west of the Highway 102 interchange.

Hogan Court is a local roadway located off of the Highway 102 interchange at Larry Uteck Boulevard. Hogan Court has a two-lane cross section with sidewalk on the west side of the roadway.

The area is serviced by Halifax Transit Route 194 – West Bedford Express, bus stops for Route 194 are located on Larry Uteck Boulevard at Amesbury Gate, approximately 550 metres west of Hogan Court. The adjacent commercial area east of the Highway 102 interchange is serviced by Route 90 – Larry Uteck. Bus stops for Route 90 are located on Larry Uteck Boulevard and Starboard Drive, approximately 850 metres east of Hogan Court.



Figure 1: Site Context

Description of Development Agreement Amendment: The original development agreement allowed a population of 1476 people on Hogan Court. An amendment allowed the transfer of 265 people to Bedford South, leaving a maximum population of 1211 people. The agreement allows for a maximum of 200 residential units or 450 persons (2.25 persons per unit), the remainder of population is allotted to commercial development. Of the commercial population, 298 persons have already been used.

Table 1: Existing Development Agreement Population Calculations

Block	DA	
	People	Units
MR-1 (Residential)	450	200
CG-A (Commercial)	463	-
2-R2 (Commercial) ¹	298	-
Total	1211	200
Notes:		
1. Previously used		

The amendment to the development agreement proposes a reallocation of a portion of the commercial population in Block CG-A (Commercial) to increase the residential population in Block MR-1 (Residential). The proposed amendment would allow a residential population of 612 persons, allowing an additional 72 units for a total of 272 residential units.

Table 2: Development Agreement Amendment Population Calculations

Block	DA		DA Amendment	
	People	Units	People	Units
MR-1 (Residential)	450	200	612	272
CG-A (Commercial)	463	-	301	-
Total	913	200	913	272

The original development plan for Hogan Court is shown in Figure 2; the plan included 62,000 square feet of commercial space and a gas station in Block CG-A and 200 residential units in Block MR-1.

The updated development plan for Block CG-A is shown in Figure 3, the updated development plan includes 67,068 square feet of commercial space and a gas station. Modifications to the commercial area result in an additional 5,068 square feet of commercial space. The development plan maintains the same access points on Hogan Court.

Estimation of Site Generated Trips: The trip generation estimates for the development were quantified using trip generation rates from the Trip Generation Manual, 10th edition, published by the Institute of Transportation Engineers (ITE). The vehicle trip estimates were adjusted to reflect trips made using non-auto transportation modes such as transit and active transportation.

The Integrated Mobility Plan (IMP) set mode share targets for different areas of HRM: including the Regional Centre, Inner Suburban area and Outer Suburban area. The development is located in the Inner Suburban area; the Inner Suburban targets for non-auto mode share established in the IMP were used for the modal split reductions. For the Inner Suburban area, the IMP set the target that at least 26 percent of trips will be made using non-auto modes. The non-auto mode targets are that at least 20 percent of trips will be made using transit and at least 6 percent of trips will be made using active transportation.



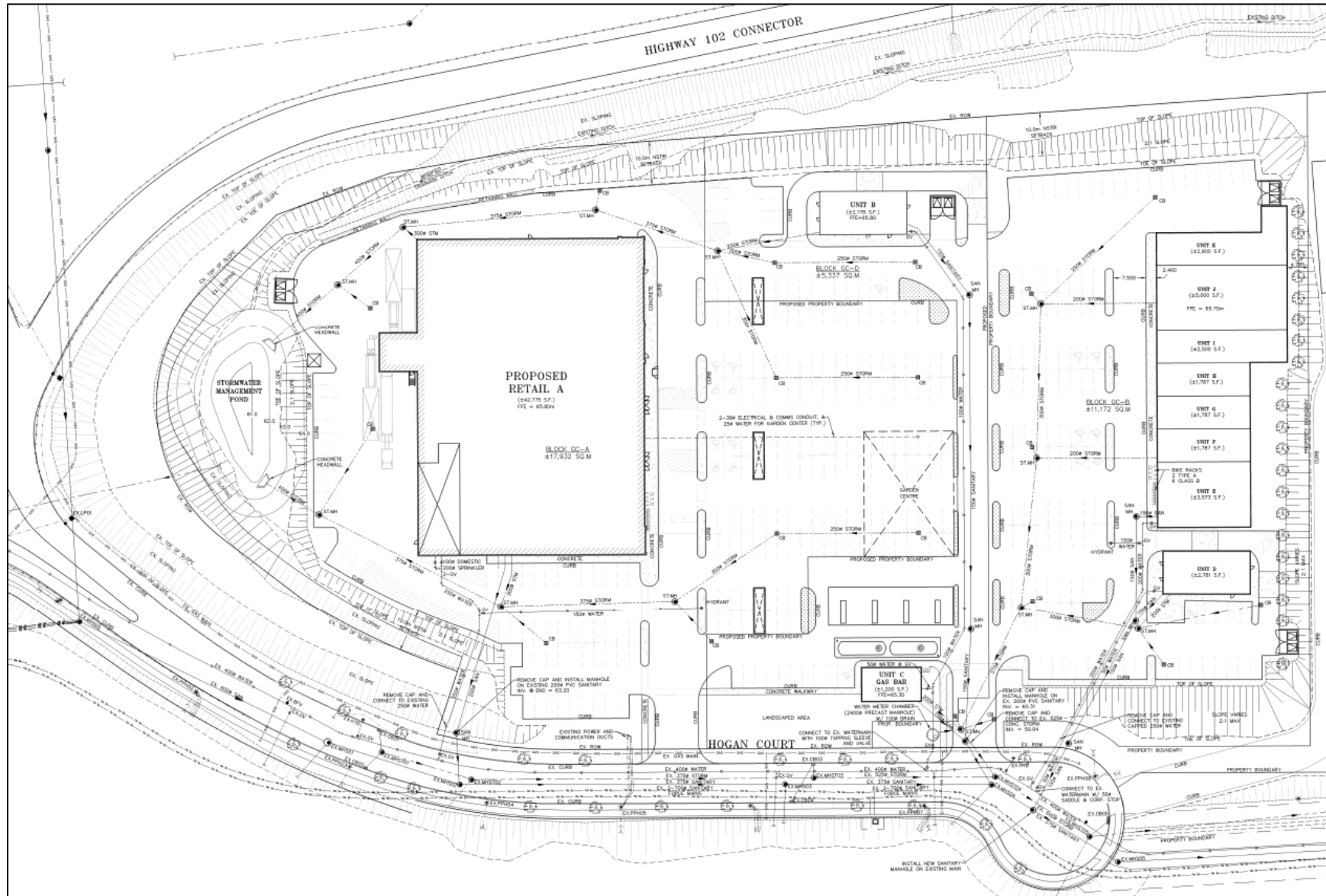


Figure 3: Updated Development Plan (2019)

The weekday morning (AM) and afternoon (PM) peak hour trip generation estimates and modal split adjustments for the proposed development are summarized in Table 1. On a typical weekday, the proposed development is expected to generate 171 vehicle trips in the AM peak hour (75 trips in/96 trips out) and 346 vehicle trips in the PM peak hour (178 trips in/168 trips out).

Table 3: Trip Generation Estimates – Updated Development Plan (2019)

Land Use ¹	Units		Trip Generation Rates ²						Trips Generated ³					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
ITE LUC 820 - Shopping Centre	67.07	1000 ft ²	0.94	62%	38%	3.81	48%	52%	64	40	24	256	123	133
ITE LUC 944 - Gasoline/ Service Station	8.00	Pumps	10.28	50%	50%	14.03	50%	50%	83	42	41	113	57	56
ITE LUC 222 - Multifamily Housing (High-Rise)	272	Units	0.31	24%	76%	0.36	61%	39%	85	20	65	98	60	38
Total Vehicle Trips									232	102	130	467	240	227
Modal Split Reduction (26 percent non-auto modes)									61	27	34	121	62	59
Site Generated Vehicle Trips									171	75	96	346	178	168
Notes:														
1. Land use codes are from the Trip Generation Manual, 10th edition, Institute of Transportation Engineers, 2017.														
2. Trip generation rates are in 'vehicles per hour per unit.'														
3. Trips generated are in 'vehicles per hour'.														

When compared to the trip generation estimates for the original development plan summarized in Table 2, the additional commercial space and dwelling units will result in an additional 20 vehicle trips in the AM peak hour (5 trips in/15 trips out) and 34 vehicle trips in the PM peak hour (19 trips in/15 trips out). The additional 5,068 square feet of commercial space and 72 residential dwelling units will result in negligible increases in traffic volumes on Hogan Court.

Table 4: Trip Generation Estimates – Original Development Plan (2015)

Land Use ¹	Units		Trip Generation Rates ²						Trips Generated ³					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
ITE LUC 820 - Shopping Centre	62.00	1000 ft ²	0.94	62%	38%	3.81	48%	52%	59	37	22	237	114	123
ITE LUC 944 - Gasoline/ Service Station	8.00	Pumps	10.28	50%	50%	14.03	50%	50%	83	42	41	113	57	56
ITE LUC 222 - Multifamily Housing (High-Rise)	200	Units	0.31	24%	76%	0.36	61%	39%	62	15	47	72	44	28
Total Trips (vph)									204	94	110	422	215	207
Modal Split Reduction (26 percent non-auto modes)									53	24	29	110	56	54
Site Generated Vehicle Trips									151	70	81	312	159	153
Notes:														
1. Land use codes are from the Trip Generation Manual, 10th edition, Institute of Transportation Engineers, 2017.														
2. Trip generation rates are in 'vehicles per hour per unit.'														
3. Trips generated are in 'vehicles per hour'.														

Summary and Conclusions: Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality requirements, to support the development agreement amendment for the proposed development on Hogan Court in Bedford, Nova Scotia.

The original development agreement allowed a population of 1476 people on Hogan Court. An amendment allowed the transfer of 265 people to Bedford South, leaving a maximum population of 1211 people. The agreement allows for a maximum residential development of 450 persons (200 residential units) on Block MR-1. The remainder of population is allotted to commercial development; 298 persons have already been used, leaving 463 persons for commercial development on Block CG-A.

The amendment to the development agreement proposes a reallocation of a portion of the commercial population in Block CG-A (Commercial) to increase the residential population in Block MR-1 (Residential).

The proposed amendment would allow a residential population of 612 persons (272 residential units at 2.25 persons per unit).

The following conclusions were gathered from the traffic impact statement:

- The original development plan for Hogan Court included 62,000 square feet of commercial space and a gas station in Block CG-A and 200 residential units in Block MR-1. The updated development plan for Block CG-A and the proposed amendment include 67,068 square feet of commercial space and a gas station in Block CG-A and 272 residential units in Block MR-1. The proposed amendment and modifications to the development plan result in an additional 5,068 square feet of commercial space and 72 residential units.
- The vehicle trip generation estimates for the proposed development were quantified using trip generation rates obtained from the ITE Trip Generation Manual (10th edition). The proposed development is expected to generate 171 vehicle trips in the AM peak hour (75 trips in/96 trips out) and 346 vehicle trips in the PM peak hour (178 trips in/168 trips out).
- When compared to the trip generation estimates for the original development plan, the additional commercial and residential development will result in an additional 20 vehicle trips in the AM peak hour (5 trips in/15 trips out) and 34 vehicle trips in the PM peak hour (19 trips in/15 trips out).
- The additional 5,068 square feet of commercial space and 72 residential dwelling units will result in negligible increases in traffic volumes on Hogan Court.

If you have any questions or additional discussion, please feel free to contact the undersigned.

Regards,

Original Signed

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