



Ref. No. 171-13871 Revised Addendum

October 2, 2017

Mr. Eugene Pieczonka
Lydon Lynch Architects Ltd.
1668 Barrington Street, Suite 401
HALIFAX NS B3J 2A2

Sent via Email to eugene@lydonlynch.ca

RE: RE: Revised Addendum (2017) - Traffic Impact Statement, Proposed Residential Development, 592 Bedford Highway, Halifax, Nova Scotia (WSP Canada Inc. July 20, 2012; December 22, 2014; and April 21, 2016)

Dear Mr. Pieczonka:

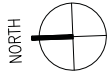
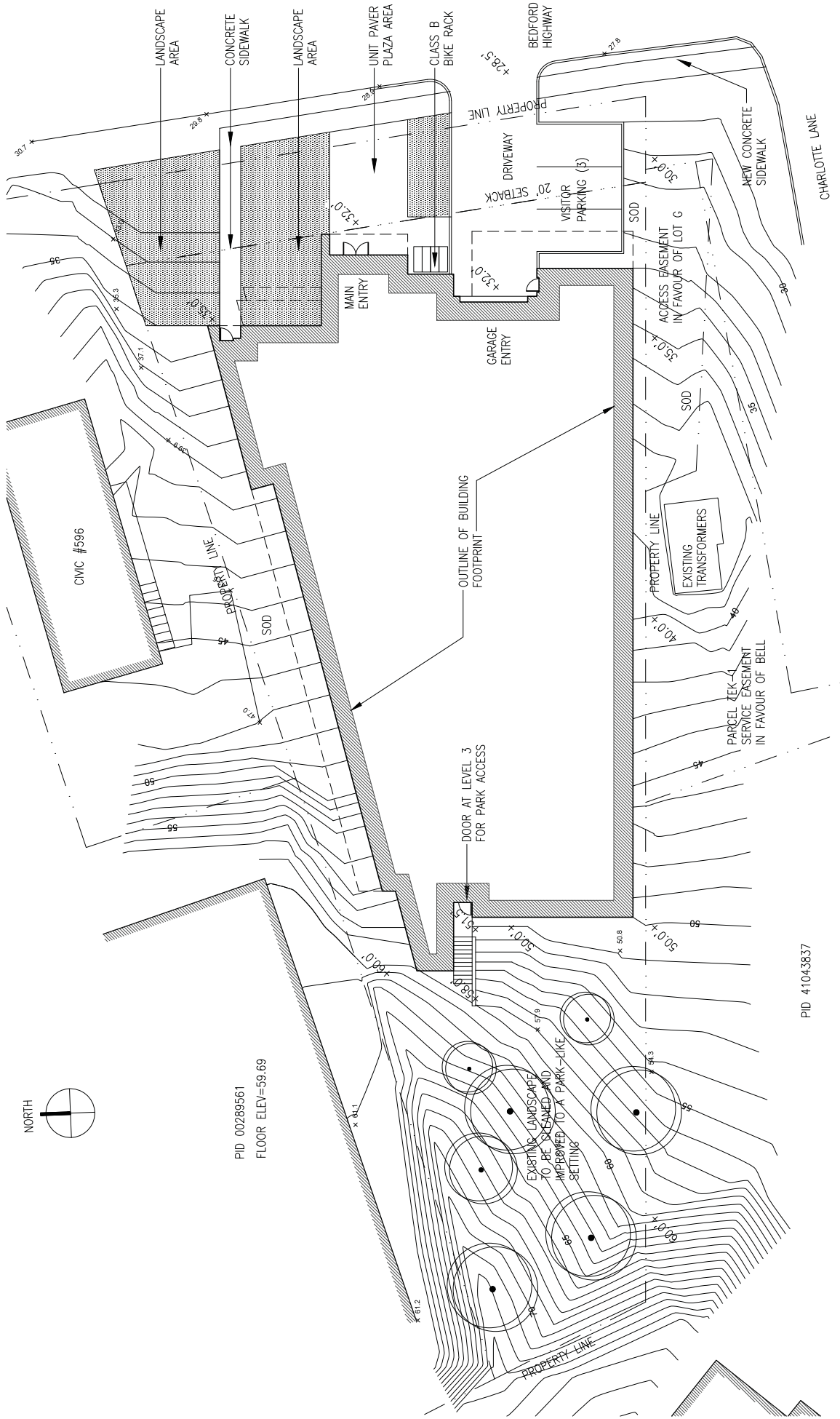
This is the Revised Addendum letter to address proposed development changes that have occurred since a Revised Addendum Traffic Impact Statement (TIS) was prepared in April 2016.

Background - The proposed development has gone through several iterations over the past five years including the following:

- The project considered in the 2012 Traffic Impact Statement (WSP Canada Inc., July 20, 2012) included 58 apartment units and 7,000 square feet of commercial space, with three site driveways on Bedford Highway.
- The project considered in the 2014 Addendum Traffic Impact Statement (WSP Canada Inc., December 22, 2014), which deleted the 7,000 square feet of commercial space, included 58 apartment units with a 'horseshoe' driveway on Bedford Highway.
- The project considered in a Revised Addendum Traffic Impact Statement (WSP Canada Inc., April 21, 2016) included 50 apartment units with 55 parking spaces (45 interior spaces for residents, 6 interior spaces for guests, and 4 exterior spaces for visitors and deliveries).
- The current project which is subject of this Revised Addendum (2017) Traffic Impact Statement (Figure 1-RA) includes 35 apartment units, 35 interior parking spaces for residents, and 3 exterior spaces for visitors and deliveries, with a single site driveway near the south property boundary.

Trip Generation - Trip generation estimates (Table 1-RA) for the project included in this Revised Addendum (2017) were prepared using published trip generation rates from *Trip Generation, 9th Edition*, (Institute of Transportation Engineers, Washington, 2012). Since the existing 4,214 square foot commercial building which now occupies the site will be removed, trips generated by the existing commercial uses have been considered as a 'credit' when determining additional vehicle trips that will be generated by the redeveloped site.

It is estimated (Table 1-RA) that the redeveloped site will generate a total of 10 two-way vehicle trips (3 entering and 7 exiting) during the AM peak hour and 14 two-way vehicle trips (8 entering and 6 exiting) during the PM peak hour. However, when trips generated by the existing commercial land uses are considered, it is estimated that the redeveloped site will generate only 1 additional two-way vehicle trip (3 less entering and 4 more exiting) during the AM peak hour and 1 less two-way vehicle trip (3 more entering and 4 less exiting) during the PM peak hour.



PID 00289561
FLOOR ELEV=59.69

PID 41043837

401 - 1668 BARRINGTON STREET
HALIFAX, NOVA SCOTIA B3J 2A2
902-422-1446 LYDONLYNCH.CA

LYDON LYNCH

PROJECT NAME:
592 BEDFORD HIGHWAY, BEDFORD NS
MULTI RESIDENTIAL DEVELOPMENT

DRAWING TITLE:
SITE PLAN

DATE: 2017.06.19
SCALE: 3/64" = 1'-0"
PROJ.# 16042

Figure 1-RA

A-001

DRAWING #:

Table 1-RA - Trip Generation Estimates for Proposed Revised Development (2017)									
Land Use ¹	Units ²	Trip Generation Rates ³				Trips Generated ³			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Trip Generation Estimates for the Proposed Development (September 2017)									
Mid-Rise Apartment (Land Use 223)	35 Units	0.09	0.21	0.23	0.16	3	7	8	6
Trip Generation Estimate for the Existing Commercial Land Uses									
Medical Office (ITE 720)	2.107 KGFA	1.96	0.52	1.00	2.72	4	1	2	6
Retail ⁴ (ITE 826)	2.107 KGLA	1.01	0.79	1.58	2.01	2	2	3	4
Total Vehicle Trip Estimates for the Existing Commercial Land Uses ⁵						6	3	5	10
Estimated Additional Trips Generated by the Redeveloped Site									
Additional Trip Estimates for 2017 Land Use on the Redeveloped Site ⁶						-3	4	3	-4
NOTES: 1. Rates are for the indicated Land Use Codes, <i>Trip Generation, 9th Edition</i> , Institute of Transportation Engineers, 2012. 2. Units are 'Area X 1000 square feet' for commercial and 'number of apartment units' for residential. 3. Trip generation rates are 'vehicles per hour per unit'. Trips Generated are 'vehicles per hour' for peak hours. 4. The Speciality Retail (Land Use 814) rate for 'Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 PM' have been used. Since the unit is considerably smaller than the average 69.0 KGLA in the published data (Page 1580), the mid-range trip generation rate has been used. Also, since there is no published rate for the AM peak hour of adjacent street for this Land Use, and since AM peak hour trips to Speciality Retail are generally low, AM trip rates have been assumed to be 50% of the PM rate with reversal of the directional split. 5. These are the trip estimates for the existing site which can be considered as a 'credit' for site trip generation estimates for the redeveloped site. 6. These are the estimated additional trips that will be generated by the redeveloped site after consideration of the 'credit' for trips generated by the existing building on the site.									

Comparison of Land Use and Trip Generation Estimates - The number of apartment units, commercial space, and trips estimated to be generated by the existing site, as well for each of the four development scenarios considered during the past five years, are included in Table 2-RA.

The current 2017 proposed development with 35 apartment units is expected to generate approximately the same numbers of vehicle trips during AM and PM peak hours as the existing site land use.

Table 2-RA - Land Use and Trip Generation Comparisons - Existing and Proposed Developments								
Proposed Development	Land Use		Estimated Site Generated Trips (veh./hr.)					
	Apartment (Units)	Commercial (SF)	AM Peak Hour			PM Peak Hour		
			In	Out	Two-Way	In	Out	Two-Way
Existing ⁴	0	4,214	6	3	9	5	10	15
2012 ¹	58	7,000	22	15	37	19	29	48
2014 ²	58	0	5	12	17	13	10	23
2016 ³	50	0	5	10	15	11	8	19
2017 ⁴	35	0	3	7	10	8	6	14
NOTES: 1. <i>Traffic Impact Statement, Proposed Commercial and Residential Development, 592 Bedford Highway, Halifax, Nova Scotia</i> (WSP Canada Inc., July 20, 2012). 2. <i>Addendum Traffic Impact Statement</i> (WSP Canada Inc., December 22, 2014) 3. <i>Revised Addendum Traffic Impact Statement</i> (WSP Canada Inc., April 21, 2016) 4. Land use and trip generation estimates are from Table 1-RA, above.								

Traffic Volumes- HRM Traffic & Right of Way Services obtained AM and PM peak period turning movement counts at the Bedford Highway / Larry Uteck Boulevard intersection on a Friday in early November, 2016. The count indicated Bedford Highway two-way volumes near the site driveway of 1125 vehicles per hour (vph) during the AM peak hour and 1700 vph during the PM peak hour.

Site Driveway - The site driveway is located near the south property line. Since the front of the building is set back about 6 meters (20 feet) from the property line (Figure 1-RA) and about 7 meters from the sidewalk, there should be very good visibility between vehicle drivers exiting the site and pedestrians on the sidewalk.

Summary -

1. The current 2017 proposed redevelopment of 592 Bedford Highway will include removal of the existing commercial building and construction of a new building that has 35 apartment units and does not include any commercial space.
2. It is estimated that the proposed 2017 redeveloped site will generate a total of 10 two-way vehicle trips (3 entering and 7 exiting) during the AM peak hour and 14 two-way vehicle trips (8 entering and 6 exiting) during the PM peak hour.
3. When trips generated by the existing commercial land uses are considered, it is estimated that the redeveloped site will generate only 1 additional two-way vehicle trip (3 less entering and 4 more exiting) during the AM peak hour and 1 less two-way vehicle trip (3 more entering and 4 less exiting) during the PM peak hour.

Conclusion -

4. Since the proposed 2017 land use with 35 apartment units is expected to generate approximately the same numbers of vehicle trips during AM and PM peak hours as those estimated for the existing site land uses, the following conclusion is considered to be appropriate for traffic impacts related to this development:

"While Bedford Highway peak hour volumes are high, the low numbers vehicle trips generated by the redeveloped site are not expected to have any significant impact to the performance of Bedford Highway."

If you have any questions, please contact me by Email to ken.obrien@wsp.com or telephone 902-452-7747.

Sincerely,
Original Signed

Ken O'Brien, P. Eng.
Senior Traffic Engineer
WSP Canada Inc.

