

Port Wallace Development: Safety and Traffic Concerns

April 12, 2018



Highway 107 at the Quarry: 2017 Traffic Figures

November 21, 2017 Staff Recommendation: Traffic and Infrastructure

- ***‘In May 2017, the Municipality retained CBCL to prepare a master plan infrastructure study for the Port Wallace secondary plan area, including the 242 acre portion the subject site included in the secondary planning study area’.***
- On February 27th, 2018 the City presented a summary to the PPC on this report. The report was released less than a week before Regional Council. It estimates peak directional traffic at 1,400 to 1,600 vph peak direction. It assumes 1% annual growth.
- These figures are below 2017 TIR counts and the growth rate not consistent with what has been happening.

Traffic and Infrastructure Continued

Date	Highway 107: Montague Exit to Highway 118	Average Annual Daily Traffic (AADT)	Vehicles Per Hour (Peak) Two-Way	Vehicles Per Hour One-Way	Remaining Capacity (vph 2-way)
May 26 2016	2015 Baseline Transportation Study	16,000	1,600	N/A	130
March 21, 2018 CBCL	For Regional Council Mar 27th			1,400-1,600	
February 20 2018	Nova Scotia Department of Transportation & Infrastructure Renewal (October 2017 stats)	19,300	2,392	1,811	
Variance		21%	50%	13-29%	

*** Hourly Volume Summary for : Mon, October 23 2017 to Mon, October 30 2017 ***

Name: 0107-015-02-1 Start Date: 23 Oct,2017 End Date: 30 Oct,2017 Counter: 565 Lane: 2

County: HALIFAX Location: AT CONRADS GRAVEL PIT (PORTOBELLO) (EASTBOUND) (LOOPS)

Hour Periods for 24 Hour Clock

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
M23	0	0	0	0	0	0	0	0	0	0	0	0	0	613	663	1018	1804	1480	668	451	371	273	136	82	7559
T24	64	20	26	19	15	67	213	296	370	373	437	496	577	562	717	1002	1856	1508	793	464	397	319	132	93	10816
W25	50	29	19	13	21	65	195	330	393	360	398	495	581	642	726	1131	1773	1434	728	467	391	285	161	101	10788
T26	63	24	26	15	22	51	165	323	418	378	430	568	594	649	760	1105	1864	1454	680	477	358	289	164	118	10995
F27	50	17	28	25	22	67	180	304	485	363	488	589	697	729	837	1208	1777	1344	751	495	406	332	220	157	11571
S28	93	34	34	8	14	35	68	123	228	333	504	584	668	730	687	700	688	623	495	402	278	273	170	138	7910
S29	88	55	33	11	21	29	49	73	151	230	362	463	648	757	673	717	653	653	481	394	243	193	99	66	7142
M30	49	20	14	14	20	71	177	290	384	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1403

Group: A Week Total: 69657/7 = ADT 9951 x Factor 0.9655833 = AADT 9610* Total for Count: 68184

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- The 2015 baseline report indicated traffic was at or near capacity. This is based on traffic figures 21% below current levels for AADT and 50% below current figures for VPH (2-way).
- The more current CBCL report shows peak volumes 13-29% below October 2017 levels as provided by the Province.
- Growth figures are approximately 4.1% per year on average over the past 6 years. Compare to 1% in report. See following table.

Traffic and Infrastructure Continued

HIGHWAY: 107 SECTION: 015 LENGTH: 3.57

HWY 118 INTER/C TO EXIT 14 (MONTAGUE RD INTER/C)			AADT	% Change
Date	Location	Lanes		
1/11/2011	Conrads Gravel Pit	All	15,480	
29/10/2013	Conrads Gravel Pit	All	15,900	2.7%
25/11/2014	Conrads Gravel Pit	All	16,280	2.4%
26/10/2015	Conrads Gravel Pit	All	17,560	7.9%
16/06/2016	Conrads Gravel Pit	All	18,130	3.2%
30/10/2017	Conrads Gravel Pit	All	19,270	6.3%
2011-2017 Total % Growth		All		24.5%
2011-2017 Average Annual Increase (%)				4.1%

- Burnside and the airport continue to expand.
- The construction of the Bedford to Burnside/Hwy 107 highway within the next 5 years will place more upward pressure on traffic. (hospital)
- The 2018 CBCL report suggests volumes could exceed 1,900 vph peak direction by 2031. They assume highway expansion by that time. At current growth rates, based on the October 2017 traffic counts, it will reach that peak figure in less than 2 years.
- It could be decades before Hwy 107 is widened.

Comparison to other roads

Date	Name	Location	ADT	AADT	Lanes	AADT Per Lane (Est)	Per Lane Equivalency (2016/2017)
14/11/2016	Hwy 107	Between Akerley and Hwy 118 (Both)	12,783	12,740	4	3,185	-65%
14/11/2016	Hwy 118	Between Wright Ave and 107 Connector	28,743	28,600	4	7,150	-21%
30/06/2016	Hwy 101	Lower Sackville to Beaverbank Rd(Both)	35,451	31,300	4	7,825	-14%
	2016 Hwy 118	Between Trunk 107 and Fall River	28,200	28,200	4	7,050	-22%
23/06/2016	Hwy 102	Kearney Lk Rd to Larry Uteck (NB)	33,275	30,700	3	10,233	13%
27/10/2015	Hwy 33 (Bedford Bypass)	Between Dartmouth Rd and Hwy 103 (Both)	26,419	25,500	4	6,375	-30%
18/01/2017	Hwy 101	Between Hwy 3 and Hwy 102 (EB)	14,306	14,700	2	7,350	-19%
Subject							
16/06/2016	Hwy 107	<i>Between Montague Exit and Hwy 118</i>	19,883	18,130	2	9,065.00	
30/10/2017	Hwy 107	<i>Between Montague Exit and Hwy 118</i>	19,952	19,300	2	9,650.00	

Widened for L.U Interchange Exit
New 4 lane highway being built

Year	AADT Growth at current 4.0% Growth rate	Per Lane	Notes
18,130.00	Hwy 107: 2017 Actual	19,300.00	9,650
1.04	2018	20,072.00	10,036
	2019	20,874.88	10,437
	2020	21,709.88	10,855
	2021	22,578.27	11,289
	2022	23,481.40	11,741
	2023	24,420.66	12,210
	2024	25,397.48	12,699
	2025	26,413.38	13,207
	2026	27,469.92	13,735
	2027	28,568.71	14,284
	2028	29,711.46	14,856
	2029	30,899.92	15,450
	2030	32,135.92	16,068
	2031	33,421.36	16,711

Traffic volumes similar to the Bedford Bypass in 8 years, but with half the capacity

These figures assume current average % traffic increases and do not allow for the 3,700 housing units and industrial park development.

Next Steps?

- With safety as a priority, can eastbound Hwy 107 be widened from Waverley Rd overpass to Montague exit or further to currently widened area of Hwy 107? No overpasses required.
- Jersey barriers can be used to separate directional traffic on the curved section of road.
- Waverley Rd at Montague Exit is already dangerous. Recommend a roundabout is a first step, not years into development.
- Explore options for construction access off of the eastbound merge lane at Montague exit, near the end of Wilcot lane. See next slide.

Construction Access Possibility



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- Explore options for construction access off of the eastbound merge lane at Montague exit, near the end of Wilcot lane.
- Can the PPC with backing from public help lobby the Provincial Government? Petitions, letters, contacts?

Thank you