



Appendix B Trip Generation

Exhibition Park

Baseline Vehicle Trips																							
Land Use					Weekday						AM Peak						PM Peak						
Building	Type	Land Use Code	Quantiy	Units	Daily Average Rate	Daily Entering	Daily Exiting	Daily Average Rate Total	Daily Average Rate Entry	Daily Average Rate Exit	AM Average Rate	AM Entering	AM Exiting	AM Average Rate Total	AM Average Rate Entry	AM Average Rate Exit	PM Average Rate	PM Entering	PM Exiting	PM Average Rate Total	PM Average Rate Entry	PM Average Rate Exit	
New Trip Generation																							
A	Muilti-unit Mid Rise	221	160	Dwelling Units	4.54	50%	50%	726	363	363	0.37	23%	77%	59	14	46	0.39	61%	39%	62	38	24	
B	Muilti-unit Mid Rise	221	390	Dwelling Units	4.54	50%	50%	1,771	885	885	0.37	23%	77%	144	33	111	0.39	61%	39%	152	93	59	
C	Muilti-unit Mid Rise	221	58	Dwelling Units	4.54	50%	50%	263	132	132	0.37	23%	77%	21	5	17	0.39	61%	39%	23	14	9	
D	Muilti-unit Mid Rise	221	110	Dwelling Units	4.54	50%	50%	499	250	250	0.37	23%	77%	41	9	31	0.39	61%	39%	43	26	17	
E	Muilti-unit Mid Rise	221	110	Dwelling Units	4.54	50%	50%	499	250	250	0.37	23%	77%	41	9	31	0.39	61%	39%	43	26	17	
F	Muilti-unit Mid Rise	221	110	Dwelling Units	4.54	50%	50%	499	250	250	0.37	23%	77%	41	9	31	0.39	61%	39%	43	26	17	
G	Muilti-unit Mid Rise	221	199	Dwelling Units	4.54	50%	50%	903	452	452	0.37	23%	77%	74	17	57	0.39	61%	39%	78	47	30	
H	Muilti-unit Mid Rise	221	143	Dwelling Units	4.54	50%	50%	649	325	325	0.37	23%	77%	53	12	41	0.39	61%	39%	56	34	22	
I	Muilti-unit Mid Rise	221	102	Dwelling Units	4.54	50%	50%	463	232	232	0.37	23%	77%	38	9	29	0.39	61%	39%	40	24	16	
J	Muilti-unit Mid Rise	221	143	Dwelling Units	4.54	50%	50%	649	325	325	0.37	23%	77%	53	12	41	0.39	61%	39%	56	34	22	
K	Muilti-unit Mid Rise	221	154	Dwelling Units	4.54	50%	50%	699	350	350	0.37	23%	77%	57	13	44	0.39	61%	39%	60	37	23	
L	Muilti-unit High Rise	222	210	Dwelling Units	4.54	50%	50%	953	477	477	0.27	26%	74%	57	15	42	0.32	62%	38%	67	42	26	
M	Muilti-unit High Rise	222	386	Dwelling Units	4.54	50%	50%	1,752	876	876	0.27	26%	74%	104	27	77	0.32	62%	38%	124	77	47	
N	Muilti-unit High Rise	222	232	Dwelling Units	4.54	50%	50%	1,053	527	527	0.27	26%	74%	63	16	46	0.32	62%	38%	74	46	28	
O	Muilti-unit High Rise	222	250	Dwelling Units	4.54	50%	50%	1,135	568	568	0.27	26%	74%	68	18	50	0.32	62%	38%	80	50	30	
P	Muilti-unit High Rise	222	158	Dwelling Units	4.54	50%	50%	717	359	359	0.27	26%	74%	43	11	32	0.32	62%	38%	51	31	19	
Q	Muilti-unit High Rise	222	229	Dwelling Units	4.54	50%	50%	1,040	520	520	0.27	26%	74%	62	16	46	0.32	62%	38%	73	45	28	
R	Muilti-unit High Rise	222	315	Dwelling Units	4.54	50%	50%	1,430	715	715	0.27	26%	74%	85	22	63	0.32	62%	38%	101	62	38	
S	Muilti-unit High Rise	222	315	Dwelling Units	4.54	50%	50%	1,430	715	715	0.27	26%	74%	85	22	63	0.32	62%	38%	101	62	38	
T	Muilti-unit High Rise	222	286	Dwelling Units	4.54	50%	50%	1,298	649	649	0.27	26%	74%	77	20	57	0.32	62%	38%	92	57	35	
U	Muilti-unit High Rise	222	286	Dwelling Units	4.54	50%	50%	1,298	649	649	0.27	26%	74%	77	20	57	0.32	62%	38%	92	57	35	
V	Muilti-unit High Rise	222	232	Dwelling Units	4.54	50%	50%	1,053	527	527	0.27	26%	74%	63	16	46	0.32	62%	38%	74	46	28	
W	Muilti-unit High Rise	222	250	Dwelling Units	4.54	50%	50%	1,135	568	568	0.27	26%	74%	68	18	50	0.32	62%	38%	80	50	30	
X	Muilti-unit High Rise	222	229	Dwelling Units	4.54	50%	50%	1,040	520	520	0.27	26%	74%	62	16	46	0.32	62%	38%	73	45	28	
Y	Muilti-unit Mid Rise	221	130	Dwelling Units	4.54	50%	50%	590	295	295	0.37	23%	77%	48	11	37	0.39	61%	39%	51	31	20	
Z	Muilti-unit Mid Rise	221	143	Dwelling Units	4.54	50%	50%	649	325	325	0.37	23%	77%	53	12	41	0.39	61%	39%	56	34	22	
AA	Muilti-unit Mid Rise	221	173	Dwelling Units	4.54	50%	50%	785	393	393	0.37	23%	77%	64	15	49	0.39	61%	39%	67	41	26	
BB	Muilti-unit High Rise	222	218	Dwelling Units	4.54	50%	50%	990	495	495	0.27	26%	74%	59	15	44	0.32	62%	38%	70	43	27	
Townhomes	Single Family Attached House	215	38	Dwelling Units	7.2	50%	50%	274	137	137	0.48	25%	75%	18	5	14	0.57	59%	41%	22	13	9	
Stacked Townhomes	Single Family Attached House	215	108	Dwelling Units	7.2	50%	50%	778	389	389	0.48	25%	75%	52	13	39	0.57	59%	41%	62	36	25	
New Commercial	Strip Retail Plaza	822	42.83	m2	54.45	50%	50%	2,332	1,166	1,166	2.36	60%	40%	101	61	40	6.59	50%	50%	282	141	141	
Sub Total - Residential Trips			5,867	Dwelling Units				29,356	14,678	14,678				1,928	511	1,417				2,345	1,409	936	
Existing Trip Generation																							
Tim Hortons	Fast-Food Restaurant with Drive-Through	934	2.69 1,338 1,535	ft2/100 AM Peak Hour PM Peak Hour	467.48	50%	50%	1,258	629	629	0.12	54%	46%	161	87	74	0.04	53%	47%	61	33	29	
Petro Canada	Gasoline/Service Station	944	8	fuel positions	172.01	50%	50%	1,376	688	688	10.28	50%	50%	82	41	41	13.91	50%	50%	111	56	56	
Sub Total - Commercial Trips								2,634	1,317	1,317				243	128	115				173	88	84	
Total Vehicle Trips								31,991	15,995	15,995				2,171	639	1,532				2,518	1,497	1,020	

enter

exit

enter

exit

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	3			Organization:	Fathom
Project Location:	200 Prospect Road, Goodwood, NS			Performed By:	James Lockhart
Scenario Description:				Date:	2025-04-29
Analysis Year:	2025			Checked By:	Roger Boychuk
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	715	10,000	ft2	0	0	0
Retail	822	42,830	ft2	101	61	40
Restaurant	934	1,338	AM Peak Hour	120	30	90
Cinema/Entertainment	0	-	0	0	0	0
Residential	215,221,222	5,867	Dwelling Units	1,826	450	1,376
Hotel	0	-	0	0	0	0
All Other Land Uses ²	944	8	Fuel Positions	62	13	49
				2,109	554	1,555

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.20	15%	6%	1.50	15%	6%
Retail	1.50	15%	6%	1.50	15%	6%
Restaurant	2.00	15%	6%	2.00	15%	6%
Cinema/Entertainment						
Residential	1.20	15%	6%	1.20	15%	6%
Hotel						
All Other Land Uses ²	1.20	15%	6%	1.20	15%	6%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		8	0	8	0
Restaurant	0	7		0	7	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	16	12	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	2,658	708	1,950
Internal Capture Percentage	4%	8%	3%
External Vehicle-Trips ⁵	1,605	409	1,196
External Transit-Trips ⁶	381	97	284
External Non-Motorized Trips ⁶	153	39	114

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	25%	27%
Restaurant	33%	8%
Cinema/Entertainment	N/A	N/A
Residential	3%	2%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	3
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.20	0	0	1.50	0	0
Retail	1.50	61	92	1.50	40	60
Restaurant	2.00	30	60	2.00	90	180
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.20	450	540	1.20	1376	1651
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	17		8	0	8	0
Restaurant	56	25		0	7	5
Cinema/Entertainment	0	0	0		0	0
Residential	33	17	330	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		29	14	0	0	0
Retail	0		30	0	11	0
Restaurant	0	7		0	27	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	16	12	0		0
Hotel	0	4	4	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	23	69	92	37	10	4
Restaurant	20	40	60	16	6	2
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	525	540	345	79	32
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	16	16	11	2	1

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	16	44	60	23	7	3
Restaurant	14	166	180	66	25	10
Cinema/Entertainment	0	0	0	0	0	0
Residential	28	1623	1651	1069	243	97
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	59	59	38	9	4

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Exhibition Park			Organization:	Fathom Studios
Project Location:	200 Prospect Road, Goodwood, NS			Performed By:	James Lockhart
Scenario Description:				Date:	2025-05-28
Analysis Year:	2025			Checked By:	
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	715	10,000	ft2	0	0	0
Retail	822	42,830	ft2	282	141	141
Restaurant	934	1,338	AM Peak Hour	41	20	21
Cinema/Entertainment	0	-	0	0		
Residential	215,221,222	5,867	Dwelling Units	2,063	1,268	795
Hotel	0	-	0	0		
All Other Land Uses ²	944	8	Fuel Positions	89	44	45
				2,475	1,473	1,002

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.20	15%	6%	1.20	15%	6%
Retail	1.50	15%	6%	1.50	15%	6%
Restaurant	2.00	15%	6%	2.00	15%	6%
Cinema/Entertainment						
Residential	1.20	15%	6%	1.20	15%	6%
Hotel						
All Other Land Uses ²	1.20	15%	6%	1.20	15%	6%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					0	
Restaurant					0	
Cinema/Entertainment						
Residential		0	0			
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		12	0	55	0
Restaurant	0	17		0	8	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	21	6	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	3,089	1,827	1,262
Internal Capture Percentage	8%	7%	9%
External Vehicle-Trips ⁵	1,825	1,096	729
External Transit-Trips ⁶	428	256	172
External Non-Motorized Trips ⁶	171	102	69

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	18%	32%
Restaurant	45%	60%
Cinema/Entertainment	N/A	N/A
Residential	4%	3%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Exhibition Park
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.20	0	0	1.20	0	0
Retail	1.50	141	212	1.50	141	212
Restaurant	2.00	20	40	2.00	21	42
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.20	1268	1522	1.20	795	954
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	4		61	8	55	11
Restaurant	1	17		3	8	3
Cinema/Entertainment	0	0	0		0	0
Residential	38	401	200	0		29
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		17	1	0	61	0
Retail	0		12	0	700	0
Restaurant	0	106		0	244	0
Cinema/Entertainment	0	8	1		61	0
Residential	0	21	6	0		0
Hotel	0	4	2	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	38	174	212	92	26	10
Restaurant	18	22	40	9	3	1
Cinema/Entertainment	0	0	0	0	0	0
Residential	63	1459	1522	960	219	88
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	53	53	35	8	3

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	67	145	212	76	22	9
Restaurant	25	17	42	7	3	1
Cinema/Entertainment	0	0	0	0	0	0
Residential	27	927	954	610	139	56
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	54	54	36	8	3

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.