

Appendix K
Traffic Signal Warrants

Location: **Mississauga Road at Bush Street**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	32	6	4	5	25	23	15	2	59	2	1	1
PM Peak hour volume:	171	69	4	5	59	6	8	1	152	6	2	5

Justification 7- Projected Volumes

Location: Mississauga Road at Bush Street

Lane Number: 1

Scenario: 2031 Total Traffic

Operating Environment: Urban

100% SATISFIED -
80% SATISFIED -

YES
YES

NO
NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		Entire %
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	166	23%	23%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	64	38%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	102	14%	12%
	B. Combined vehicle and pedestrian volume crossing artery	50	75	120	170	9	12%	

Location: **Mississauga Road at Caledon Mountain Dr.**

Scenario: **2031 Total Traffic**

AM Peak hour volume:

PM Peak hour volume:

Major						Minor					
L	T	R	L	T	R	L	T	R	L	T	R
0	53	2	1	217	0	0	0	0	1	0	2
0	225	4	5	80	0	0	0	0	4	0	1

Justification 7- Projected Volumes

Location: Mississauga Road at Caledon Mountain Dr.

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -

YES

<input type="checkbox"/>
<input type="checkbox"/>

NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

80% SATISFIED -

YES

NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		Entire %
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	149	31%	2%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	2	2%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	147	31%	2%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	1	2%	

Location: **Mississauga Road at The Grange Sideroad**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	1	41	6	5	206	0	0	1	16	11	7	1
PM Peak hour volume:	14	257	4	6	74	0	1	5	8	5	5	5

Justification 7- Projected Volumes

Location: Mississauga Road at The Grange Sideroad

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -

YES

NO

80% SATISFIED -

YES

NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance Sectional		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
		1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	16	13%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	154	32%	14%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	7	14%	

Location: **Mississauga Road at Woodland Ct.**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	0	28	1	0	216	0	0	0	0	12	0	1
PM Peak hour volume:	0	251	8	2	77	0	0	0	0	5	0	1

Justification 7- Projected Volumes

Location: Mississauga Road at Woodland Ct.

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -

YES

NO

80% SATISFIED -

YES

NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		Entire %
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	151	31%	4%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	5	4%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	146	30%	8%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	4	8%	

Location: **Olde Base Line Road at Shaws Creek Road**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	2	209	0	0	60	4	0	0	0	5	0	1
PM Peak hour volume:	5	88	0	0	202	8	0	0	0	7	0	2

Justification 7- Projected Volumes

Location: Olde Base Line Road at Shaws Creek Road

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -
80% SATISFIED -

YES
YES

NO
NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	148	31%	3%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	4	3%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	145	30%	6%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	3	6%	

Location: **Olde Base Line Road at Mississauga Road**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	16	45	11	18	224	2	0	59	170	8	29	8
PM Peak hour volume:	123	201	19	14	75	2	1	33	42	6	56	25

Justification 7- Projected Volumes

Location: Olde Base Line Road at Mississauga Road

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -
80% SATISFIED -

YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	297	62%	62%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	109	91%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	188	39%	39%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	33	66%	

Location: **Olde Base Line Road at Rockside Road**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	0	215	1	1	42	0	2	0	2	0	0	0
PM Peak hour volume:	0	75	0	5	213	0	0	0	2	0	0	0

Justification 7- Projected Volumes

Location: Olde Base Line Road at Rockside Road

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -

YES

NO

80% SATISFIED -

YES

NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	140	29%	2%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	2	2%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	138	29%	2%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	1	2%	

Location: **Winston Churchill Boulevard at 5th Sideroad**

Scenario: **2031 Total Traffic**

AM Peak hour volume:

PM Peak hour volume:

Major						Minor					
L	T	R	L	T	R	L	T	R	L	T	R
7	43	0	0	171	1	5	0	51	0	0	0
60	149	0	0	63	5	5	0	25	0	0	0

Justification 7- Projected Volumes

Location: Winston Churchill Boulevard at 5th Sideroad

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -

YES

NO

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80% SATISFIED -

YES

NO

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Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	146	30%	18%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	22	18%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	125	26%	6%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	3	6%	

Location: **Winston Churchill Boulevard at Bush Street (East Intersection)**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	0	129	157	2	63	0	61	0	14	0	0	0
PM Peak hour volume:	0	65	65	2	159	0	167	0	7	0	0	0

Justification 7- Projected Volumes

Location: Winston Churchill Boulevard at Bush Street (East Intersection)

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -
80% SATISFIED -

YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	223	46%	46%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	62	52%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	161	34%	34%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	57	114%	

Location: **Winston Churchill Boulevard at Olde Base Line Road**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	0	15	25	191	45	0	0	0	0	10	0	37
PM Peak hour volume:	0	51	18	75	25	0	0	0	0	24	0	176

Justification 7- Projected Volumes

Location: Winston Churchill Boulevard at Olde Base Line Road

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -

YES

NO

80% SATISFIED -

YES

NO

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	173	36%	36%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	62	52%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	111	23%	18%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	9	18%	

Location: **Winston Churchill Boulevard at The Grange Sideroad**

Scenario: **2031 Total Traffic**

	Major						Minor					
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak hour volume:	0	59	5	7	168	0	0	0	0	2	0	4
PM Peak hour volume:	0	163	5	7	62	0	0	0	0	6	0	16

Justification 7- Projected Volumes

Location: Winston Churchill Boulevard at the Grange Road

Scenario: 2031 Total Traffic

Lane Number: 1

Operating Environment: Rural

100% SATISFIED -
80% SATISFIED -

YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Entire %
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Sectional		
						Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	720	600	900	126	26%	6%
	B. Vehicle volume, along minor streets (average hour)	120	170	120	170	7	6%	
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	720	600	900	119	25%	4%
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	75	120	170	2	4%	