

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills

Major Street: Steeles Avenue North/South?: N  
 Minor Street: Sixth Line

Number of Approach Lanes: 2 or more  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Sixth Line						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	55	1440	0	0	745	20	0	0	0	240	0	55	
PM Peak Hour	70	1230	0	0	1735	115	0	0	0	45	0	50	
Average Hourly Volume	31	668	0	0	620	34	0	0	0	71	0	26	0

Warrant	AHV
1A - All	1450
1B - Minor	98
2A - Major	1353
2B - Cross	71

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	1450
	All Approaches	480	720	600	900	1450
		% Fulfilled				161.1%
1B	Flow Conditions				X	98
	Minor Street Approaches	180	255	180	255	98
		% Fulfilled				38.2%

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	1353
	Major Street Approaches	480	720	600	900	1353
		% Fulfilled				150.3%
2B	Flow Conditions				X	71
	Traffic Crossing Major Street	50	75	50	75	71
		% Fulfilled				95.0%

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills  
 Major Street: Steeles Avenue  
 Minor Street: Sixth Line South

North/South?: N

Number of Approach Lanes: 2 or more  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Sixth Line South						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	0	1230	5	15	765	0	5	0	5	0	0	0	0
PM Peak Hour	50	515	5	30	1850	0	5	0	15	0	0	0	0
Average Hourly Volume	13	436	3	11	654	0	3	0	5	0	0	0	0

Warrant	AHV
1A - All	1124
1B - Minor	8
2A - Major	1116
2B - Cross	3

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	1124
	All Approaches	480	720	600	900	1124
		% Fulfilled				124.9%
1B	Flow Conditions				X	8
	Minor Street Approaches	180	255	180	255	8
		% Fulfilled				2.9%

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	1116
	Major Street Approaches	480	720	600	900	1116
		% Fulfilled				124.0%
2B	Flow Conditions				X	3
	Traffic Crossing Major Street	50	75	50	75	3
		% Fulfilled				3.3%

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills

Major Street: Steeles Avenue North/South?: N  
 Minor Street: Hornby Road

Number of Approach Lanes: 2 or more  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Hornby Road						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	25	1125	0	0	580	25	0	0	0	10	0	50	
PM Peak Hour	50	685	0	0	1465	25	0	0	0	5	0	80	
Average Hourly Volume	19	453	0	0	511	13	0	0	0	4	0	33	0

Warrant	AHV
1A - All	1031
1B - Minor	36
2A - Major	995
2B - Cross	4

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	
	All Approaches	480	720	600	900	1031
		% Fulfilled				114.6%
1B	Flow Conditions				X	
	Minor Street Approaches	180	255	180	255	36
		% Fulfilled				14.2%

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	
	Major Street Approaches	480	720	600	900	995
		% Fulfilled				110.6%
2B	Flow Conditions				X	
	Traffic Crossing Major Street	50	75	50	75	4
		% Fulfilled				5.0%

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills  
 Major Street: Steeles Avenue  
 Minor Street: Eighth Line South

North/South?: N

Number of Approach Lanes: 2 or more  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Eighth Line South						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	0	1705	5	5	935	0	5	0	0	0	0	0	0
PM Peak Hour	0	1385	5	0	2320	0	5	0	10	0	0	0	0
Average Hourly Volume	0	773	3	1	814	0	3	0	3	0	0	0	0

Warrant	AHV
1A - All	1595
1B - Minor	5
2A - Major	1590
2B - Cross	3

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	
	All Approaches	480	720	600	900	1595
		% Fulfilled				177.2%
1B	Flow Conditions				X	
	Minor Street Approaches	180	255	180	255	5
		% Fulfilled				2.0%

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	
	Major Street Approaches	480	720	600	900	1590
		% Fulfilled				176.7%
2B	Flow Conditions				X	
	Traffic Crossing Major Street	50	75	50	75	3
		% Fulfilled				3.3%

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills

Major Street: Trafalgar Road North/South?: Y  
 Minor Street: Hornby Road

Number of Approach Lanes: 2 or more  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Trafalgar Road						Minor Street Hornby Road						Peds Crossing
	Northbound			Southbound			Eastbound			Westbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	5	480	0	0	1850	30	20	0	10	0	0	0	0
PM Peak Hour	5	1465	0	0	410	95	50	0	10	0	0	0	0
Average Hourly Volume	3	486	0	0	565	31	18	0	5	0	0	0	0

Warrant	AHV
1A - All	1108
1B - Minor	23
2A - Major	1085
2B - Cross	18

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	1108
	All Approaches	480	720	600	900	123.1%
		% Fulfilled				
1B	Flow Conditions				X	23
	Minor Street Approaches	180	255	180	255	8.8%
		% Fulfilled				

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	1085
	Major Street Approaches	480	720	600	900	120.6%
		% Fulfilled				
2B	Flow Conditions				X	18
	Traffic Crossing Major Street	50	75	50	75	23.3%
		% Fulfilled				

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills  
 Major Street: 5 Sideroad  
 Minor Street: Fifth Line

North/South?: N

Number of Approach Lanes: 1  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street 5 Sideroad						Minor Street Fifth Line						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	20	885	20	35	255	5	10	35	30	60	75	40	
PM Peak Hour	55	300	10	25	635	30	10	60	35	5	45	20	
Average Hourly Volume	19	296	8	15	223	9	5	24	16	16	30	15	0

Warrant	AHV
1A - All	675
1B - Minor	106
2A - Major	569
2B - Cross	51

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions		X			675
	All Approaches	480	720	600	900	675
		% Fulfilled				93.8%
1B	Flow Conditions		X			106
	Minor Street Approaches	180	255	180	255	106
		% Fulfilled				41.7%

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions		X			569
	Major Street Approaches	480	720	600	900	569
		% Fulfilled				79.0%
2B	Flow Conditions		X			51
	Traffic Crossing Major Street	50	75	50	75	51
		% Fulfilled				68.3%

## Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Background Traffic)  
 Region/City/Township: Town of Halton Hills

Major Street: 5 Sideroad North/South?: N  
 Minor Street: Sixth Line

Number of Approach Lanes: 1  
 Tee Intersection?: Y  
 Flow Conditions: Restricted  
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street 5 Sideroad						Minor Street Sixth Line						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	15	710	230	15	255	5	20	15	50	35	30	25	
PM Peak Hour	5	270	40	20	635	25	100	45	25	10	20	10	
Average Hourly Volume	5	245	68	9	223	8	30	15	19	11	13	9	0

Warrant	AHV
1A - All	653
1B - Minor	96
2A - Major	556
2B - Cross	56

### Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions		X			
	All Approaches	480	720	600	900	653
		% Fulfilled				90.6%
1B	Flow Conditions		X			
	Minor Street Approaches	180	255	180	255	96
		% Fulfilled				37.7%

### Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions		X			
	Major Street Approaches	480	720	600	900	556
		% Fulfilled				77.3%
2B	Flow Conditions		X			
	Traffic Crossing Major Street	50	75	50	75	56
		% Fulfilled				75.0%