## Ontario Traffic Manual Book 12 Traffic and Pedestrian Signal Warrant Justifications

#	CRITERIA	DESCRIPTION
1	Minimum Volume (8 peak hour volumes)	<ul> <li>Considers cumulative volume on minor and major street and volume of intersecting traffic</li> <li>Minimum Volume warrant at 100% fulfillment</li> </ul>
2	Delay to Cross Traffic (8 peak hour volumes)	<ul> <li>Applied where heavy major street volume results in excessive minor street delay or hazardous crossing conditions</li> <li>Delay to Cross Traffic warrant at 100% fulfillment</li> </ul>
3	Volume/Delay Combination	Volume/Delay Combination warrant where <u>both</u> Criteria 1 and 2 warrant at 80% fulfillment
4	Minimum Four-hour Vehicle Volume	<ul> <li>Intended for intersections with excessive peak hour delays</li> <li>Not to be applied in combination with other justifications</li> <li>Minimum Four-hour Vehicle Volume warrant at 100% fulfillment</li> </ul>
5	Collision Experience	<ul> <li>Signals may be considered at intersections with unusually high collision history</li> <li>Collision Experience warrant at an average of five or more collisions susceptible to correction per 12-month period</li> <li>Collision Experience at 100% fulfillment</li> </ul>
6	Pedestrian Volume & Delay	<ul> <li>Applicable where pedestrians experience excessive delays or hazard due to heavy traffic volume</li> <li>Applicable for high pedestrian crossing volumes</li> <li>Pedestrian Volume &amp; Delay at 100% fulfillment</li> </ul>
7	Projected Volume	<ul> <li>Identifying traffic signal requirements as a result of development</li> <li>Average hourly volume applied to Criteria 1 and 2</li> <li>Project Volume warrant at 150% fulfillment</li> </ul>