

Pedestrian Crossovers (PXOs)

COUNTY OF ESSEX

JUNE 21, 2017



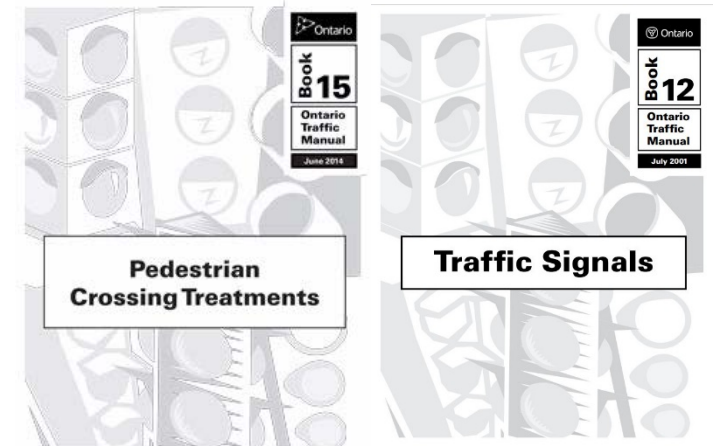
What regulates pedestrian crossings?

Highway Traffic Act– (HTA)

- S. 140 Pedestrian Crossover
- S. 144 Traffic Control and Pedestrian Control Signals
- S. 176 School Crossings

Ontario Traffic Manuals– (OTM)

- OTM Book 15 – Pedestrian Crossing Treatments
- OTM Book 12 – Traffic Signal Justification



Highway Traffic Act

Under the HTA on Jan. 1, 2016 Ontario Regulation 402/15 Pedestrian Crossover Signs came into effect. The regulation introduces two levels of pedestrian crossovers:

- Level 1 – Type A
- Level 2 – Types B, C and D

****Now requires drivers to stop and yield the entire roadway to pedestrians before proceeding at pedestrian crossovers.**

Types of Crossings

Controlled

- Traffic Control Signals
- Intersection Pedestrian Signals
- STOP sign
- Supervised School Crossing
- ***Pedestrian Crossovers***

Uncontrolled

- **Mid-Block Crossings** (in the absence of traffic controls signals or pedestrian crossovers)
- **Designated School Crossing** (in the absence of a crossing guard and without other forms of control)
- **Marked Crossings** (at an intersection, in the absence of STOP or YIELD signs)

Hierarchy for Controlled Pedestrian Crossing

- Traffic Signals
 - Full traffic Signal
 - Intersection Pedestrian Signals (IPS)
 - Mid-block Pedestrian Signals (MPS)
- Pedestrian Crossovers (PXOs)
 - PXO A
 - PXO B
 - PXO C
 - PXO D
- STOP controlled or YIELD controlled
- Supervised School Crossing

Hierarchy for Controlled Pedestrian Crossing

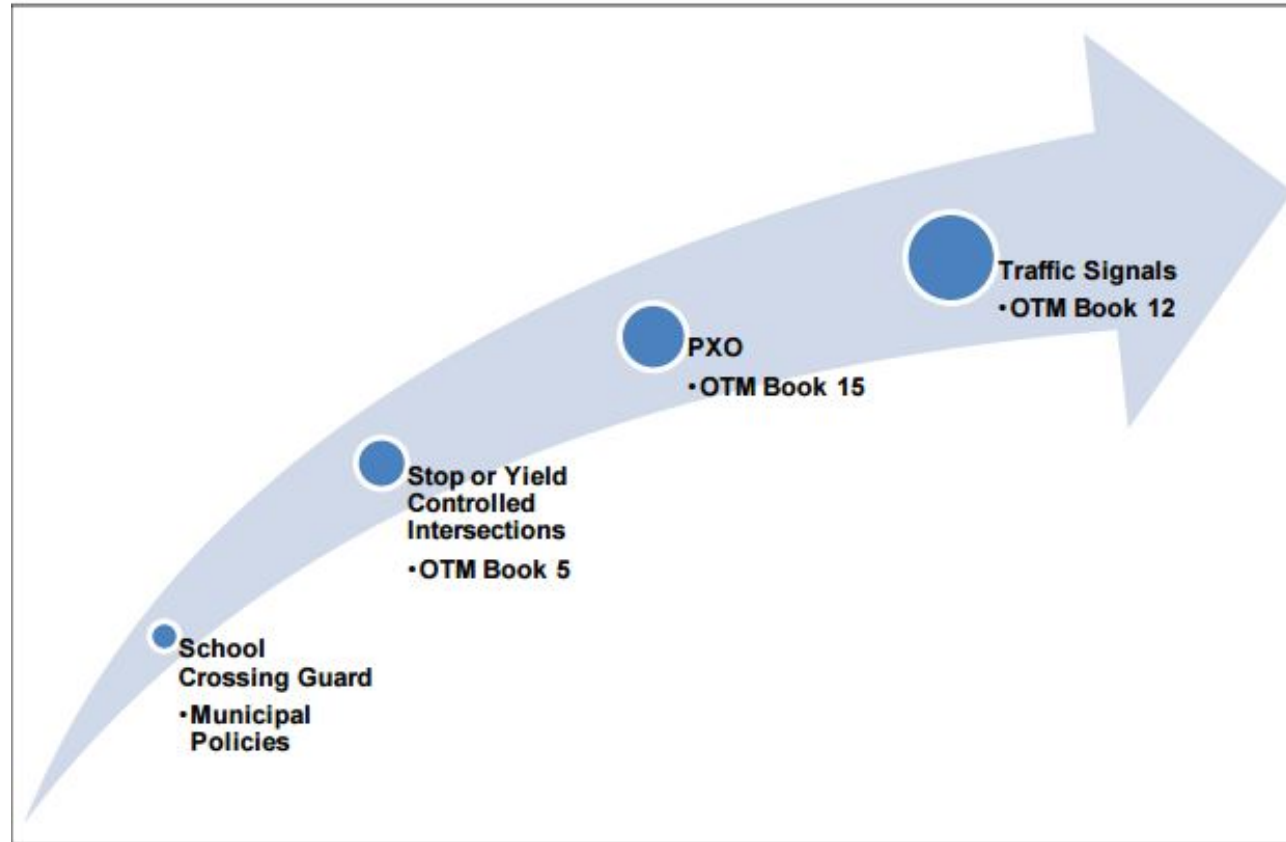


Figure 2: Hierarchy of Controlled Crossing Treatment Systems and Current Policies and Guidelines

Justification

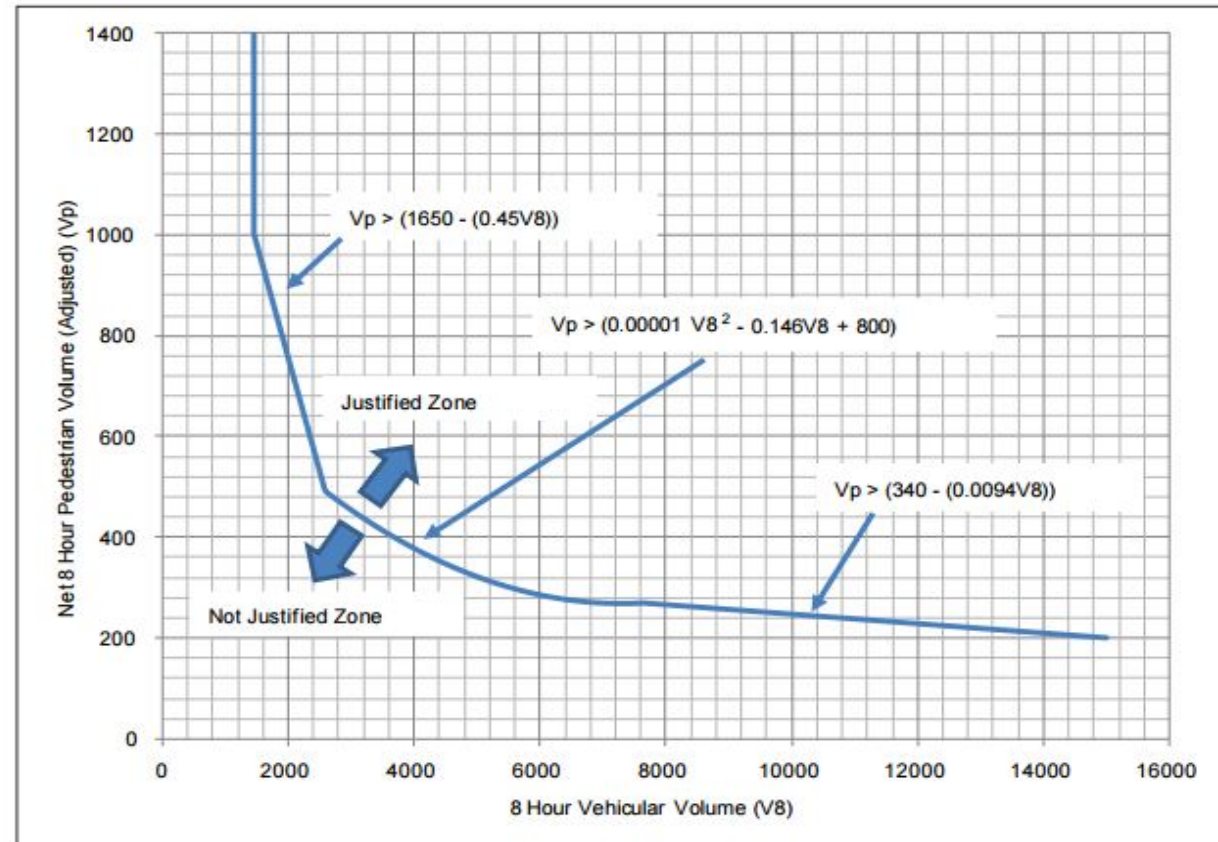


Figure 4: OTM Book 12 Justification 6 - Pedestrian Volume

Pedestrian Crossover Assessment

There are four variables used to select a PXO for a site:

- 8-hour and 4-hour two way vehicular volume of the roadway
- Posted speed limit of roadway. PXO's are not to be installed on roads exceeding a posted speed limit of 60 km/h
- Total number of lanes for the entire roadway section.
- Presence of raised pedestrian refuge or median

Selection Matrix – from OTM Book 15

SELECTION MATRIX

Two-way Vehicular Volume			Posted Speed Limit (km/h)	Total Number of Lanes for the Roadway Cross Section ¹			
Time Period	Lower Bound	Upper Bound		1 or 2 Lanes	3 lanes	4 lanes w/raised refuge	4 lanes w/o raised refuge
8 Hour	750	2,250	≤50	Level 2 Type D	Level 2 Type C ²	Level 2 Type D ²	Level 2 Type B
4 Hour	395	1,185		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	750	2,250	60	Level 2 Type D	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	395	1,185		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	2,250	4,500	≤50	Level 2 Type D	Level 2 Type B	Level 2 Type D ²	Level 2 Type B
4 Hour	1,185	2,370		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	2,250	4,500	60	Level 2 Type D	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	1,185	2,370		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	4,500	6,000	≤50	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	2,370	3,155		Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	4,500	6,000	60	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	2,370	3,155		Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	6,000	7,500	≤50	Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 1 Type A
4 Hour	3,155	3,950		Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 1 Type A
8 Hour	6,000	7,500	60	Level 2 Type B	Level 2 Type B		
4 Hour	3,155	3,950		Level 2 Type B	Level 2 Type B		
8 Hour	7,500	17,500	≤50	Level 2 Type B	Level 2 Type B		
4 Hour	3,950	9,215		Level 2 Type B	Level 2 Type B		
8 Hour	7,500	17,500	60	Level 2 Type B			
4 Hour	3,950	9,215		Level 2 Type B			

Type A
 Type B
 Type C
 Type D

SITE DETAILS

8 Hour	7,500	17,500	60	Level 2 Type B
4 Hour	3,950	9,215		

Type A
 Type B
 Type C
 Type D

PXO - CR 11 @ TCT Crossing location Details:

- Posted Speed – 60 km/h
- The Average Annual Daily Traffic Count (AADTs) is 10,500

Pedestrian Crossover Assessment

- Traffic Volume
- Crossing Distance
- Pedestrian System Connectivity** - *facilitating connectivity between trail networks involves understanding and monitoring pedestrian desire lines, which evolve as a function of land use, the location of pedestrian generators and attractors, and proximity to existing crossing facilities.*
- CHECK** - distance of the site from the closest traffic control device should be more than 200 m.
The intersection of CR 11/South Talbot Rd – 611m ; CR 11/Hwy 3 – 622m
- The location is a candidate for a PXO.

Types of Pedestrian Crossovers (PXOs)

LEVEL 1 – TYPE A

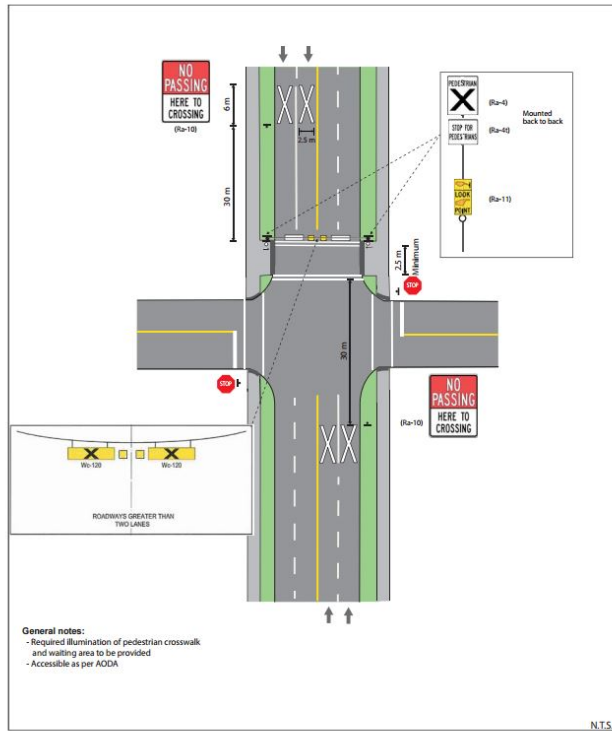


Figure 19: Pedestrian Crossover Level 1 Type A – Intersection (2-way)

LEVEL 2 – TYPE B

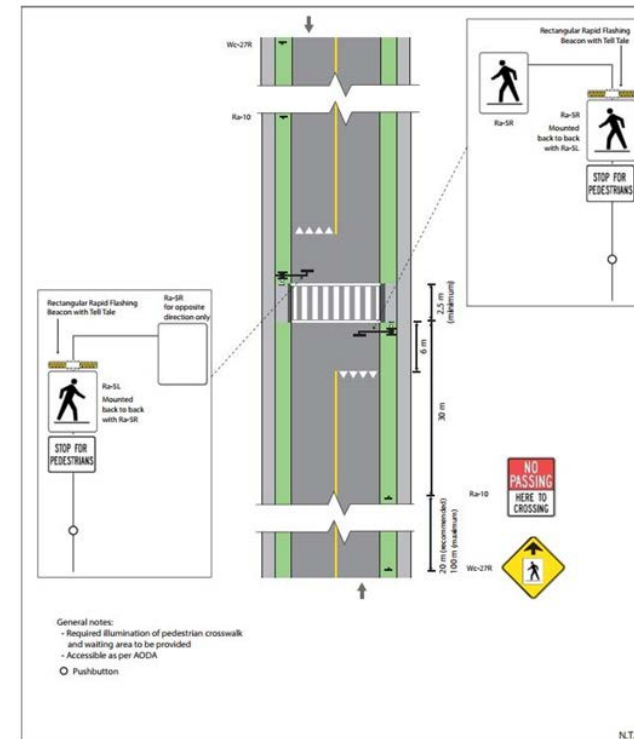


Figure 21: Pedestrian Crossover Level 2 Type B – Mid-block (2-lane, 2-way)

Types of Pedestrian Crossovers (PXOs)

LEVEL 2 – TYPE C

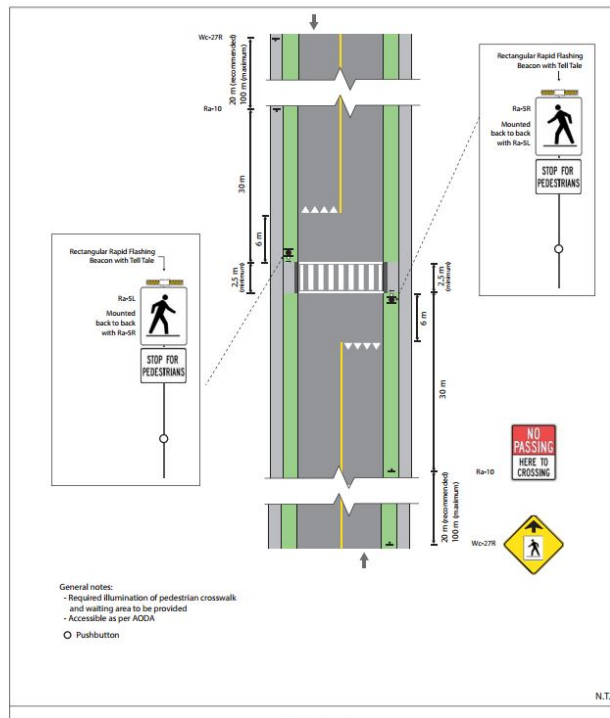


Figure 30: Pedestrian Crossover Level 2 Type C – Mid-block (2-lane, 2-way)

LEVEL 2 – TYPE D

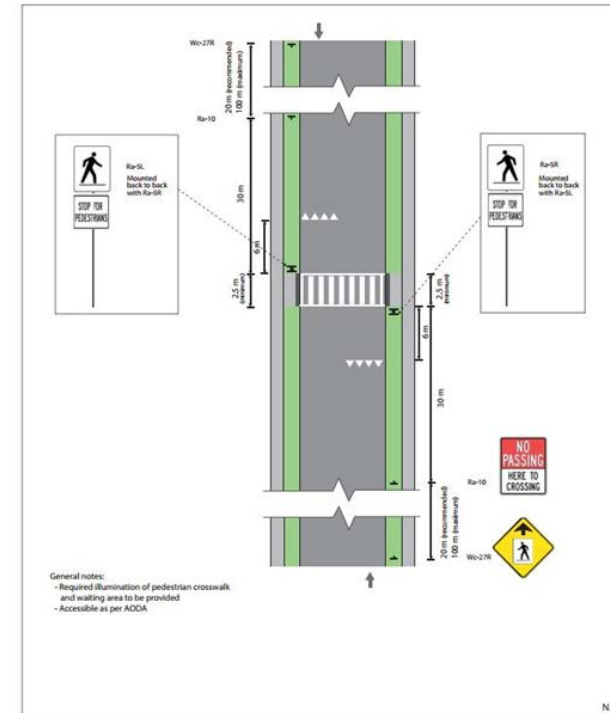


Figure 39: Pedestrian Crossover Level 2 Type D – Mid-block (2-lane, 2-way)

Selected PXO Level 2 Type B

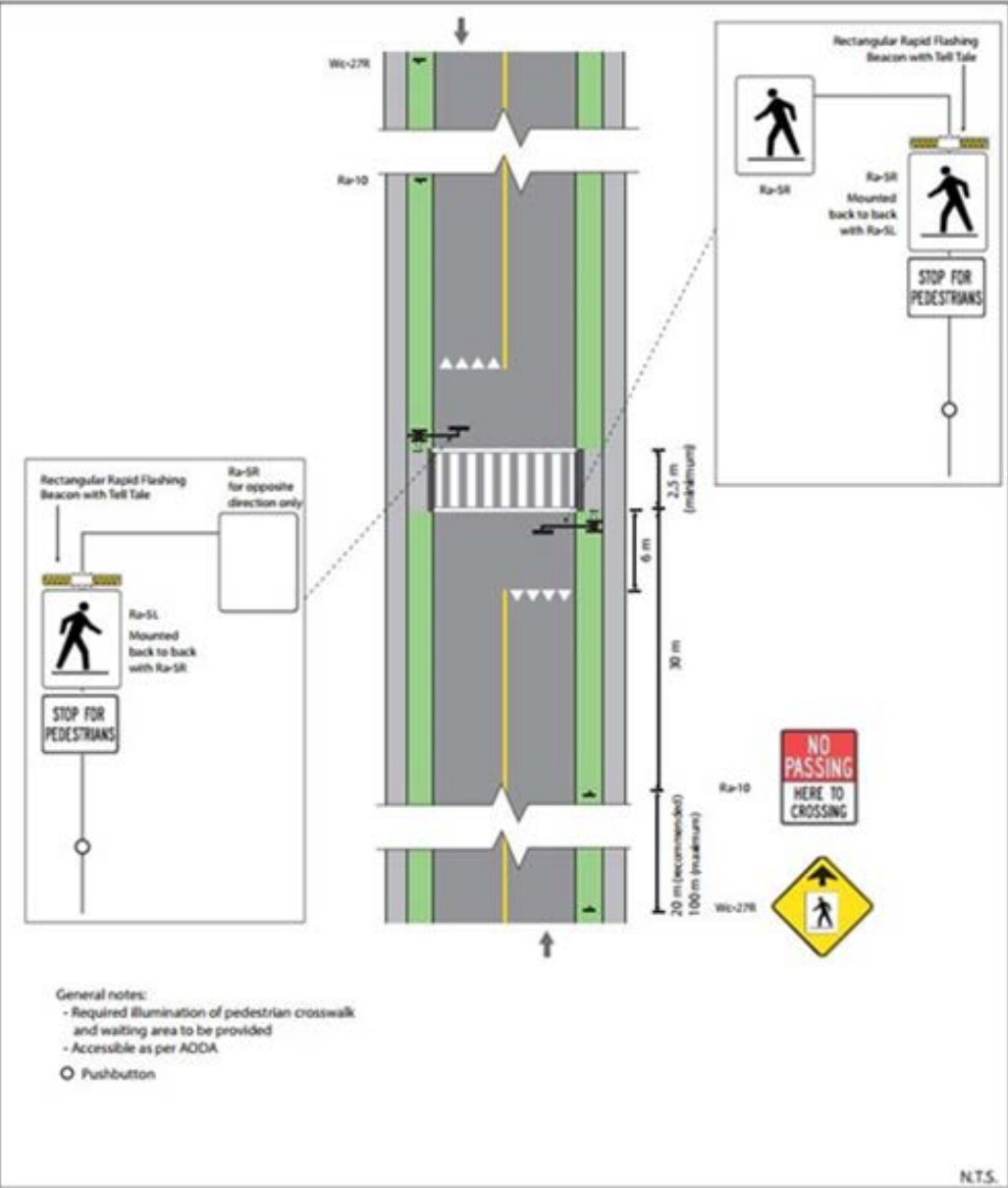


Figure 21: Pedestrian Crossover Level 2 Type B – Mid-block (2-lane, 2-way)

Features of Level 2 – Type B PXO

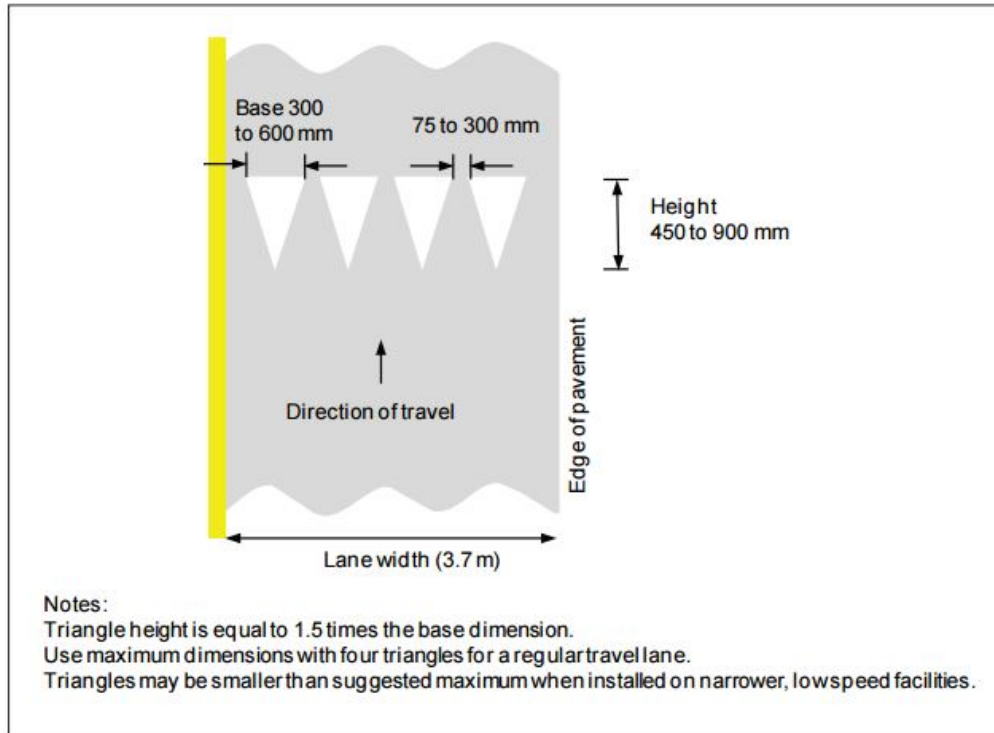


Figure 12: Specifications for Yield to Pedestrian Line

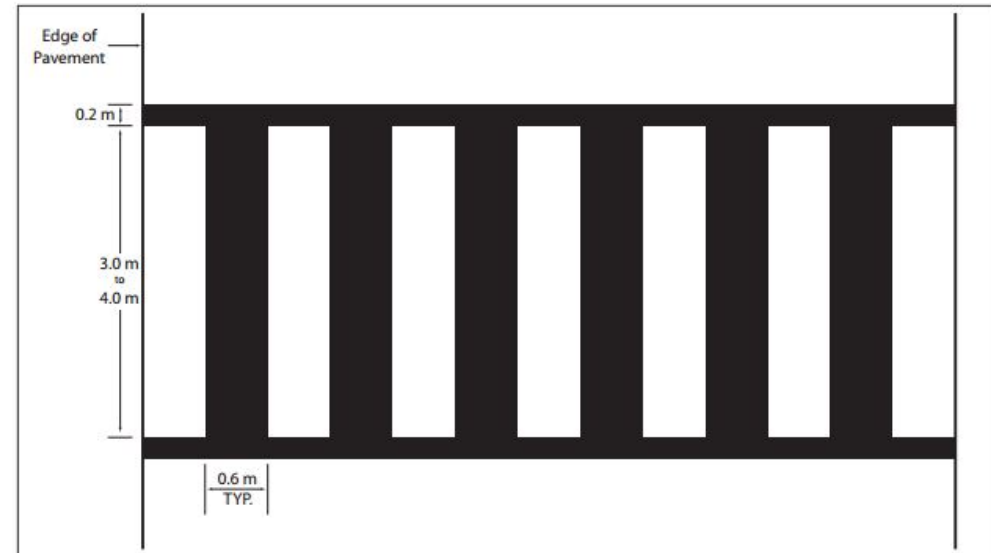
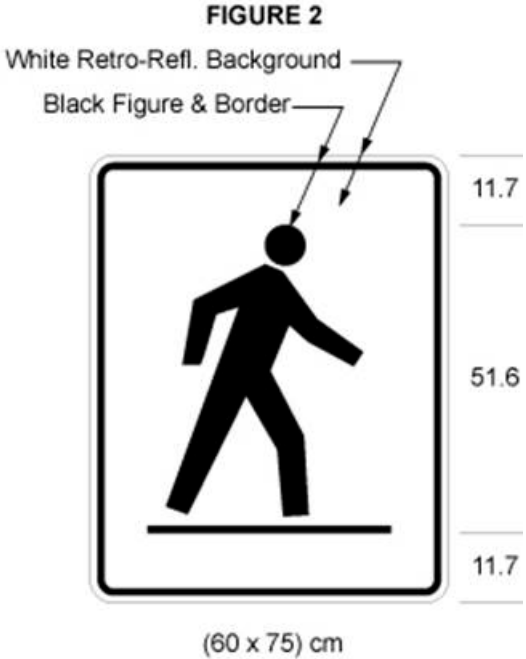


Figure 13: Pavement Markings for Ladder Crosswalk

Features of Level 2 – Type B PXO

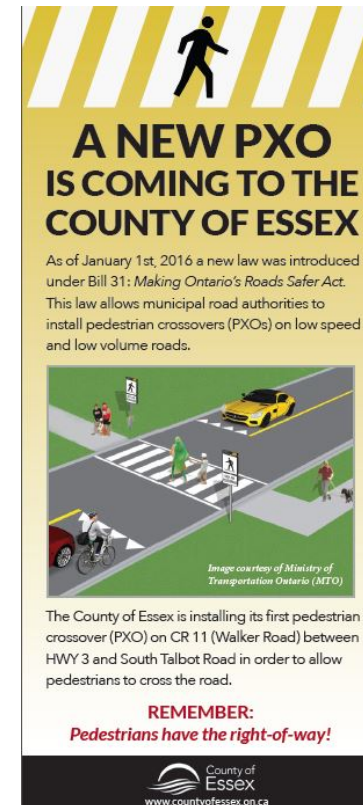


NO PASSING HERE TO CROSSING Sign



Education & Outreach

- Website- County of Essex, CWATS;
- Social Media;
- Media Campaign, Radio Ads;
- Education Pamphlet; and
- Consultation with Police Services



A NEW PXO IS COMING TO THE COUNTY OF ESSEX

As of January 1st, 2016 a new law was introduced under Bill 31: *Making Ontario's Roads Safer Act*. This law allows municipal road authorities to install pedestrian crossovers (PXOs) on low speed and low volume roads.




Image courtesy of Ministry of Transportation Ontario (MTO)

The County of Essex is installing its first pedestrian crossover (PXO) on CR 11 (Walker Road) between HWY 3 and South Talbot Road in order to allow pedestrians to cross the road.


REMEMBER:
Pedestrians have the right-of-way!

County of Essex
www.countyofessex.on.ca



PXO FEATURES

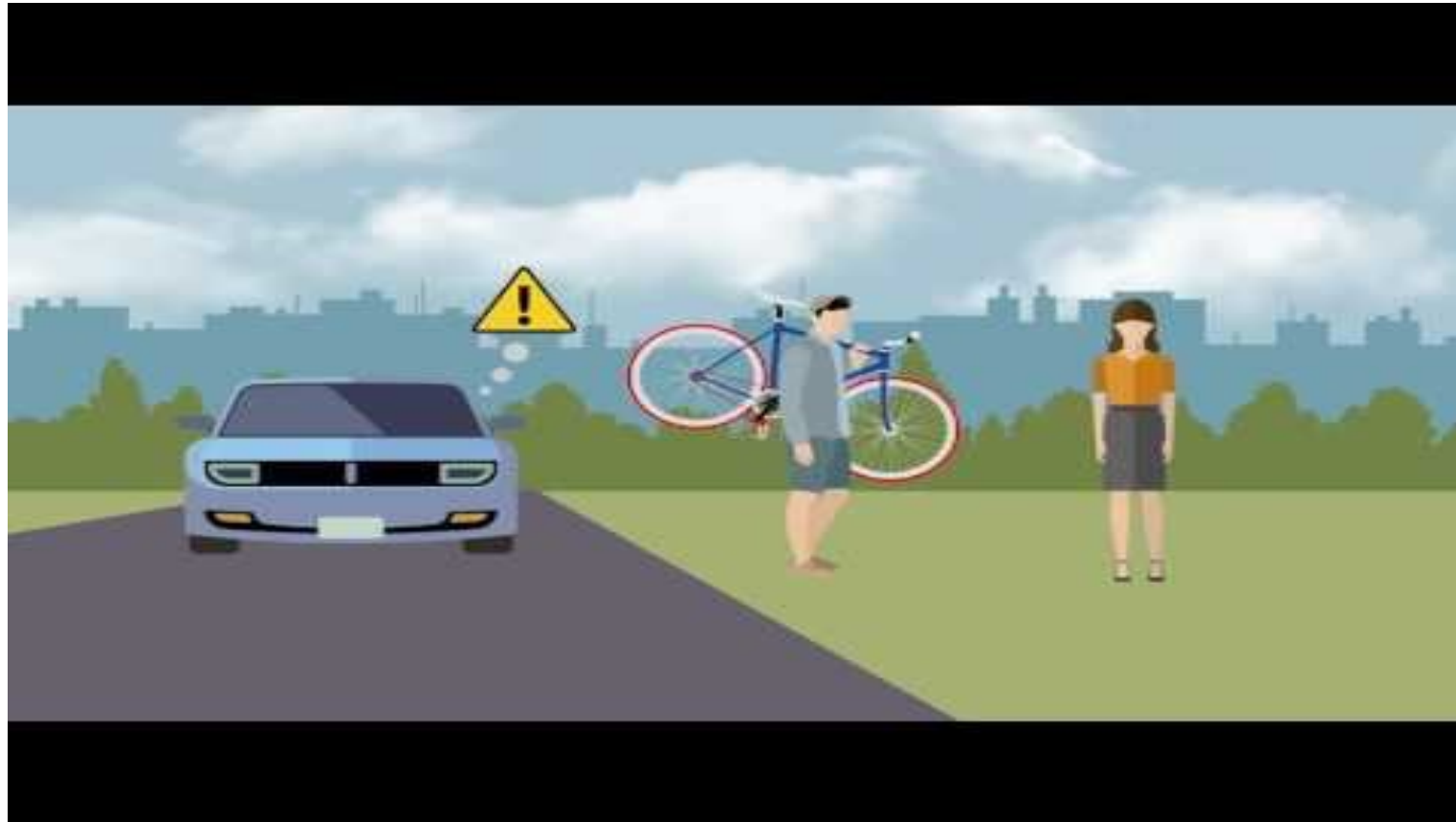
Below are some features that you may come across as you approach a PXO.

-  Yield Line marking: Advance yield markings to guide drivers and cyclists to stop further from pedestrian crossing area
-  Ladder Stripe Crossing marking: Ladder road markings identify the pedestrian crossing area
-  Pedestrian Crossing sign: Identifies the pedestrian crossover area
-  Stop for Pedestrians sign: All road users must STOP for Pedestrians
-  Pedestrian Crossing Ahead sign: Warning that PXO is ahead, prepare to stop
-  No Passing - Here to Crossing sign: Passing is prohibited within a 30m stretch upstream of PXO
-  Pedestrian Pushbutton sign: Pedestrians must use push button to get a walk signal to initiate crossing the road
-  Rectangular Rapid Flashing Beacon (RRFB): An active warning device used to alert drivers and cyclists of crossing pedestrians

For more information, visit our websites
www.countyofessex.on.ca or www.cwats.ca
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County of Essex

Pedestrian Crossover in Hamilton



Pedestrian Crossover in Hamilton



Questions?