



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Design Memorandum No. 18-04 **Technical Advisory**

March 5, 2018

TO: All Design, Operations, and District Personnel, and Consultants

FROM: /s/David H. Boruff
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Traffic Engineering Division

SUBJECT: Pedestrian Crossing Treatment RRFB

REVISES: *Indiana Design Manual (IDM) Figure 51-7 O*

EFFECTIVE: Immediately

FHWA rescinded its interim approval for optional use of rectangular rapid flashing beacons (RRFB), effective December 21, 2017. The RRFB has been removed from the referenced IDM figure as a Level 4 treatment option for shared use path and roadway intersections. Pedestrian-activated flashing LED crosswalk signage has been added as an alternative.

The revised figure is included for reference below and has been incorporated into the IDM on-line.

Questions regarding project-specific pedestrian crossing treatments should be discussed with the appropriate district Traffic Engineer.

Speed Limit	Roadway Type	ADT	Proposed Treatments Levels
≤ 30 mph	2 Lanes	<12,000	1 or 2
		≥12,000	2 + (3 or 4)
	3 Lanes	<12,000	1 or 2
		≥12,000	2 + (3 or 4)
	≥ 4 Lanes with Raised Median	<12,000	1 or 2
		12,000 ≤ ADT < 15,000	2 + (3 or 4)
		≥15,000	[2 + (3 or 4)] or 5
	≥ 4 Lanes without Raised Median	< 9,000	1 or 2
		9,000 ≤ ADT < 12,000	2 + (3 or 4)
		≥12,000	[2 + (3 or 4)] or 5
35 mph or 40 mph	2 Lanes	<12,000	2
		≥12,000	2 + (3 or 4)
	3 Lanes	<9,000	2
		9,000 ≤ ADT < 15,000	2 + (3 or 4)
		≥15,000	[2 + (3 or 4)] or 5
	≥ 4 Lanes with Raised Median	<9,000	2
		9,000 ≤ ADT < 15,000	2 + (3 or 4)
		≥15,000	[2 + (3 or 4)] or 5
	≥ 4 Lanes without Raised Median	<12,000	2 + (3 or 4)
		≥12,000	[2 + (3 or 4)] or 5
≥ 45 mph	2 Lanes	<12,000	2 + (3 or 4)
		≥12,000	[2 + (3 or 4)] or 5
	3 Lanes	<12,000	2 + (3 or 4)
		≥12,000	[2 + (3 or 4)] or 5
	≥ 4 Lanes with Raised Median	<15,000	2 + (3 or 4)
		≥15,000	5
	≥ 4 Lanes without Raised Median	<12,000	[2 + (3 or 4)] or 5
		≥12,000	5

RECOMMENDED TREATMENT OF SHARED USE PATH
AND ROADWAY INTERSECTION

Figure 51-7 O (Pg. 1 of 2)

Level 1 Basic Crosswalk Treatment

Standard crosswalk (two transverse lines)

Level 2 Enhanced Crosswalk Treatment

- 1) Longitudinal crosswalk markings (“Piano Key” or “Continental” pattern)
- 2) Raised midblock crosswalk (crossing elevated to match top of curb across entire width and length of crosswalk, formed with concrete or HMA, a plan detail is required.)
- 3) For local projects, other high visibility crosswalk marking patterns such as diagonal crosswalk markings (“Zebra” pattern) may be used or textured pavement crosswalks with white retroreflective markings.

Level 3 Refuge Islands and Bulbouts

- 1) Median refuge islands
- 2) Split pedestrian crossover (SPXO – median refuge island with longitudinal offset between crosswalks)
- 3) Intersections bulbouts*
- 4) Midblock bulbouts*

*A bulbout is an extension of the sidewalk/curb area at a pedestrian or shared use path crossing and is designed to reduce the crossing length. A plan detail is required.

Level 4 Flashing Beacons and Flashing LED Signs

- 1) Ground-mounted flashing beacons
- 2) Overhead signs and flashing beacons
- 3) Pedestrian-activated flashing LED signs

Level 5 Traffic Signals and Grade Separation

- 1) Pedestrian hybrid beacon (“HAWK Signal”)
- 2) Pedestrian-actuated traffic signal
- 3) Grade-separated crossing

RECOMMENDED TREATMENT OF SHARED USE PATH AND ROADWAY INTERSECTION

Figure 51-7 O (Pg. 2 of 2)