



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Design Memorandum No. 18-11 **Technical Advisory**

May 9, 2018

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

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

SUBJECT: Pedestrian Crossing Treatment RRFB

SUPERSEDES: Design Memo 18-04

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

EFFECTIVE: Immediately

FHWA issued a new interim approval for optional use of rectangular rapid flashing beacons (RRFB), effective March 20, 2018. INDOT applied for and received interim approval to use the RRFB on a statewide basis subject to the conditions of the interim approval memorandum, as revised on March 21, 2018. INDOT is responsible for maintaining an inventory of all RRFB locations in Indiana; therefore, the Traffic Administration Office should be notified of all proposed RRFB installations at Final Plans/Stage 3 submittal.

The RRFB has been reinstated in the referenced IDM figure as a Level 4 treatment option for shared use path and roadway intersections. Additional revisions include Level 2 treatment for raised pedestrian crosswalks. A raised pedestrian crosswalk may be considered only for local roads with a speed limit 25 mph or lower. Raised pedestrian crosswalks may not be considered on the state highway system. The revised figure is included on the following pages for reference.

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

Contact Dave Boruff, Office of Traffic Administration Manager, dboruff@indot.in.gov with questions regarding the interim approval of RRFBs.

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.) This treatment may be considered only for local roadway functional classifications with a design speed of 25 mph or less.
- 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
- 4) Rectangular rapid flashing beacons (RRFBs). The device is subject to interim approval. INDOT is responsible for maintaining an inventory of all RRFB locations in Indiana; therefore, the Traffic Administration Office should be notified of all proposed RRFB installations at Final Plans/Stage 3 submittal.

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)