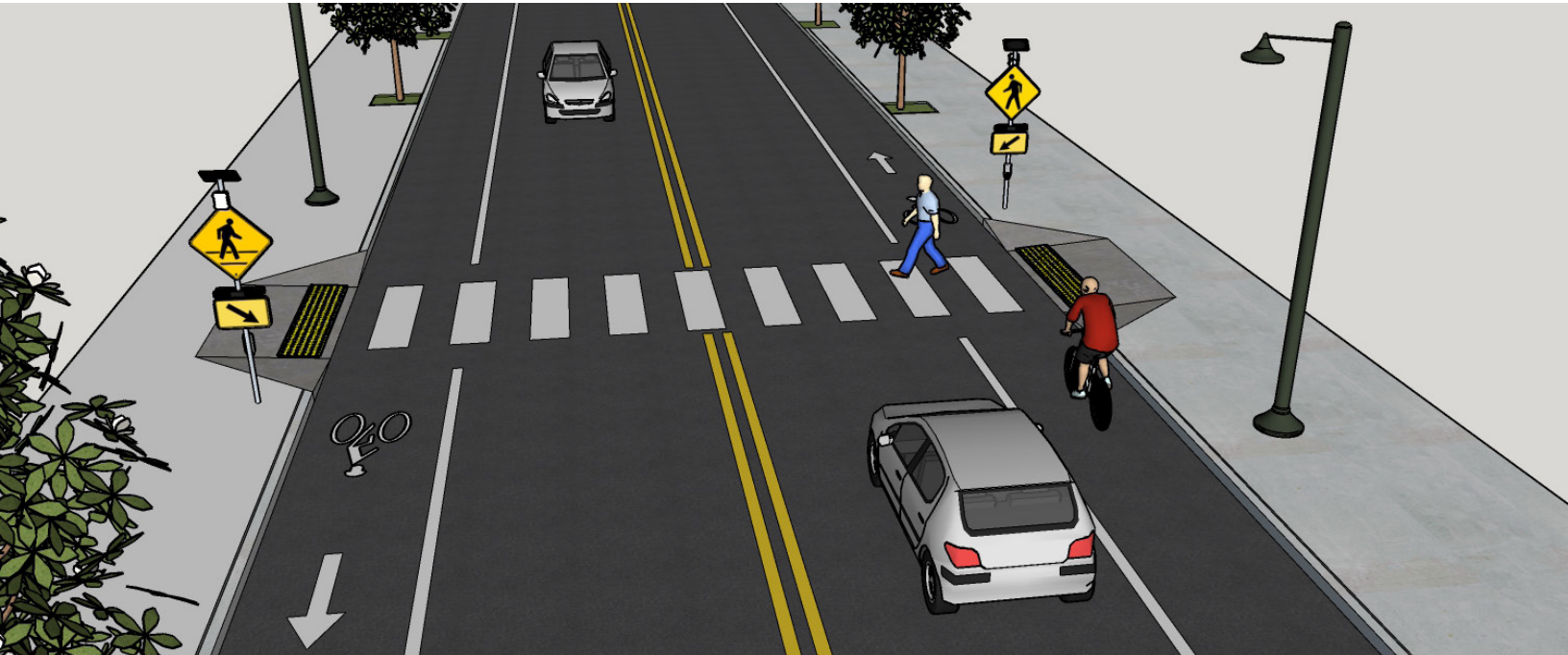




Rectangular Rapid Flashing Beacon (RRFB)



DESCRIPTION

- A Rectangular Rapid Flashing Beacon (RRFB) is a pedestrian-activated device that emits rapidly flashing yellow LED lights.
- The LED lights flash long enough to allow pedestrians to cross the street in the crosswalk.
- RRFBs supplement warning signs at mid-block crossings and are a lower-cost alternative to traffic signals and pedestrian hybrid beacons.
- Flashing beacons can also be installed overhead or in advance of an intersection. RRFBs are a unique type of beacon because of the distinct flashing pattern and signage installed under the signal.

CONTEXT

- The RRFB is installed in combination with pedestrian, school, or trail crossing warning signs. They cannot be installed in conjunction with other signs.
- RRFBs are installed at both ends of a crosswalk or overhead. If a crosswalk contains a pedestrian refuge island, an RRFB should be placed to the right of the crosswalk and on the median.
- RRFBs may draw power from solar panel units or be wired to a traditional power source.
- RRFBs may be installed at midblock locations or at intersections for crossings of the uncontrolled traffic movements.

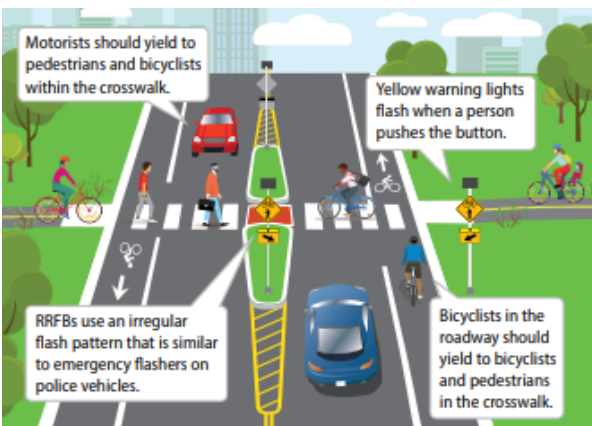
BENEFITS

- ✓ **Improved safety**
- ✓ **Traffic compliance**
- ✓ **Cost effective**



POLICY AND DESIGN GUIDANCE

- The RRFB should meet the application guidelines provided in the VDOT Traffic Engineering Division Memorandum IIM-TE-384 Attachment A, "Unsignalized Marked Crosswalk Standards."
 - RRFBs are a candidate treatment for roads with two or more lanes that generally have annual average daily traffic (AADT) above 1,500.
 - RRFBs may be considered as an additional crossing treatment to supplement marked crosswalks on roadways where the speed limits are less than or equal to 45 miles per hour.
 - RRFBs are not currently included in the 2009 MUTCD and may be installed in Virginia per FHWA's Interim Approval. Localities may install RRFBs without seeking separate Interim Approval, however each road agency is responsible for ensuring they comply with FHWA's Interim Approval requirements.
- RRFB costs range from \$4,500 to \$52,000 depending on power service and/or other geometric improvements (e.g., median refuge island, ramps, etc.). On average, RRFBs cost \$22,250.



Source: AlertTodayFlorida.com
funded by Florida DOT

RESOURCES

Design guidance for Virginia:

[VDOT IIM-TE-384](#)

[FHWA](#)

Treatment applications and general design guidance:

[VA Center for Transportation Innovation and Research](#)

[VDOT Pedestrian Safety Action Plan](#)

[Fairfax County](#)

[City of Roanoke](#)

[PEDSAFE](#)

[NCHRP 841](#)

Guidelines are provided for informational purposes only. For detailed design guidance, please refer directly to design manuals and standards.

For more information on **RRFBs** and other bicycle and pedestrian treatments, visit virginiadot.org/programs/bikeped/bicycle_and_pedestrian_treatments.asp

