ORIGINATION FORM
Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date: November 9, 2020

Office: Traffic Engineering and Ope

Originator: Derek Vollmer

Specification Section: 654

Telephone: 850-921-7361

Article/Subarticle: 654-2.1, 654-2.2.2, 654-2.2.3

email: derek.vollmer@dot.state.fl.us

****Will the proposed revision require changes to:**

Publication	Yes	No	Office Staff Contacted and date contacted
Standard Plans Index	○	◉	Rick Jenkins/Cheryl Hudsor
Traffic Engineering Manual	○	◉	Javier Ponce 11/9/20
FDOT Design Manual	○	◉	Bobby Bull 11/9/20
Construction Project Administration Manual	○	◉	Scott Arnold 11/9/20
Basis of Estimate/Pay Items	○	◉	Melissa Hollis 11/9/20
Structures Design Guidelines	○	◉	Ben Goldsberry 11/9/20
Approved Product List	○	◉	Karen Byram 11/9/20
Materials Manual	○	◉	Tim Counts 11/9/20

**This section must be completed prior to processing proposed revisions.

Will this revision necessitate any of the following:

Design Bulletin ☐ **Construction Bulletin** ☐ **Estimates Bulletin** ☐ **Materials Bulletin** ☐

Are all references to external publications current? **Yes** ◉ **No** ○

If not, what references need to be updated? (Please include changes in the redline document.)

Why does the existing language need to be changed?

The passive detection is another way to activate the In-Roadway Light Assemblies and Rectangular Rapid Flashing Beacons (RRFB). The stated RRFB flashing pattern should be implemented for all deployments. The new sign is being referenced.

Summary of the changes:

In 654-2.1 and 654-2.2.3 clarify passive detection allowed for actuation. In 654-2.2.2, added "No other flash patterns shall be selectable via hardware or software". In 654-2.2.3 added reference to sign FTP-68C-21. 654-6, added midblock crosswalk to pay item name.

Are these changes applicable to all Department jobs? **Yes** ◉ **No** ○

If not, what are the restrictions?

Contact the State Specifications Office for assistance in completing this form.

Daniel Strickland 850-414-4130 Daniel.Strickland@dot.state.fl.us Rebecca Frimmel 850-414-4155 Rebecca.Frimmel@dot.state.fl.us

Valencia Cunningham 850-414-4101 Valencia.Cunningham@dot.state.fl.us Darla Hunsicker 850-414-4114 Darla.Hunsicker@dot.state.fl.us

Florida Department of Transportation
605 Suwannee Street
Tallahassee, FL 32399-0450

RON DESANTIS
GOVERNOR

KEVIN J. THIBAULT, P.E
SECRETARY

M E M O R A N D U M

DATE: December 17, 2020

TO: Specification Review Distribution List

FROM: Daniel Strickland, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **6540201 Midblock Crosswalk Enhancement Assemblies.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Derek Vollmer from the Traffic Engineering and Operations Office to clarify passive detection allowed for actuation.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at http://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx . Comments received after **January 14, 2021,** may not be considered. Your input is encouraged.

DS/rf

Attachment

MIDBLOCK CROSSWALK ENHANCEMENT ASSEMBLIES
(REV 11-12-20)

SUBARTICLE 654-2.1 is deleted and the following substituted:

654-2.1 In-Roadway Light Assemblies: In-roadway light assemblies must meet the physical and operational requirements of the latest edition of the MUTCD, Chapter 4N.

~~In-roadway light assemblies shall be normally dark, initiate operation only upon pedestrian actuation via a pedestrian pushbutton,~~ In-roadway light assemblies can include a passive detector in addition to a pedestrian pushbutton. In-roadway light assemblies must be normally dark and initiate operation upon pedestrian actuation via a pedestrian pushbutton or a passive detector. The In-roadway light assembly will~~and~~ cease operation at a predetermined time after the pedestrian actuation. ~~or, with passive detection, after~~ If a passive detector is used, the In-roadway light assembly may cease operation after the pedestrian clears the crosswalk. The duration of the predetermined period shall be programmable and capable of matching the pedestrian clearance time for pedestrian signals as determined by MUTCD procedures. The timer that controls flashing must automatically reset each time a pedestrian call is received.

In-roadway light assemblies must have a minimum luminance of 101 candelas and a minimum viewing angle of 20 degrees.

SUBARTICLE 654-2.2.2 is deleted and the following substituted:

654-2.2.2 Beacon Flashing Requirements: The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 for Class 1 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005. Ensure RRFB assemblies are capable of automatically dimming to reduce brightness of the LEDs at nighttime.

The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second. When activated, the two yellow indications in each RRFB shall have a flash rate of 75 flash cycles per minute using the following sequence: left side beacon on for 50 milliseconds (msec), both beacons off for 50 msec, right side beacon on for 50 msec, both beacons off for 50 msec, left side beacon on for 50 msec, both beacons off for 50 msec, right side beacon on for 50 msec, both beacons off for 50 msec, both beacons on for 50 msec, both beacons off for 50 msec, both beacons on for 50 msec, both beacons off for 250 msec. No other flash patterns shall be selectable via hardware or software.

SUBARTICLE 654-2.2.3 is deleted and the following substituted:

654-2.2.3 RRFB Operation: RRFB can include a passive detector in addition to a ~~shall be normally dark, initiate operation only upon~~ pedestrian pushbutton. RRFBs must be normally dark and initiate operation only upon pedestrian actuation via a pedestrian pushbutton, or a passive detector. The RRFB will~~and~~ cease operation at a predetermined time after the pedestrian actuation. ~~or, with passive detection, after~~ If the passive detector is used, the RRFB

may cease operation after the pedestrian clears the crosswalk. The duration of the predetermined period shall be programmable and capable of matching the pedestrian clearance time for pedestrian signals as determined by MUTCD procedures. The timer that controls flashing must automatically reset each time a pedestrian call is received.

All RRFBs associated with a single crosswalk (including those with an overhead or advance crossing sign, if used) shall simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.

RRFBs must include an instruction sign (FTP-68C-21)~~with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS~~ mounted adjacent to or integral with each pedestrian pushbutton.

A confirmation light directed at and visible to pedestrians in the crosswalk must be installed integral to the RRFB to give confirmation that the RRFB is in operation.

ARTICLE 654-6 is deleted and the following substituted:

654-6 Basis of Payment.

Price and Payment will be full compensation for all work specified in this Section.

Payment will be made under:

Item No. 654- 1	Midblock Crosswalk - In-Roadway Light Assembly - per assembly.
Item No. 654- 2	Midblock Crosswalk - Rectangular Rapid Flashing Beacon Assembly - per assembly.
Item No. 654- 3	Midblock Crosswalk - Pedestrian Hybrid Beacon Assembly - per assembly.