



Florida Department of Transportation

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Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

September 15, 2022

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: **654**
Proposed Specification: **6540000 Midblock Crosswalk Enhancement Assemblies.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Matt DeWitt from the Traffic Engineering and Operations Office to align with content in the Standard Plans and clarify requirements for electrical requirements in pull boxes and restrictions on specific controller types.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on file

Daniel Strickland, P.E.
State Specifications Engineer

DS/ra

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

MIDBLOCK CROSSWALK ENHANCEMENT ASSEMBLIES

(REV ~~97-1420~~-22)

SECTION 654 is deleted and the following substituted:

654-1 Description.

Furnish and install midblock crosswalk enhancement assemblies.

654-2 Materials.

Use In-roadway light assemblies and rectangular rapid flashing beacon (RRFB) assemblies that meet the requirements of Section 995 and are listed on the Department's Approved Product List (APL). Use hardware that meets the requirements of Section 603.

Pedestrian hybrid beacon assemblies must meet the physical and operational requirements of the latest edition of the MUTCD, Chapter 4F. The cabinet, signals, controller, pedestrian detectors, and other traffic control devices used to create a pedestrian hybrid beacon assembly must be listed on the APL.

654-3 Installation Requirements.

Restore any areas impacted by the installation of the crosswalk enhancement assembly to original condition unless otherwise shown in the Plans. Install crosswalk enhancement assembly in accordance with the Americans with Disabilities Act Standards for Transportation Facilities.

Install post mounted RRFB assemblies in accordance with Standard Plans, Index 654-001. Use sign panel attachment hardware in accordance with Standard Plans, Index 700-010.

~~Optional mast arm and pole installation may be used if shown in the Plans.~~ Follow ~~the~~ manufacturer's ~~specifications~~ recommendations on the number of RRFB units that are connected to the timer's output driver. ~~Use attachment hardware in accordance with Section 995.~~ The outside edges of ~~the~~ RRFB indications, including any housings, shall not project beyond the outside edges of the associated warning sign.

If installed with highlighted signs or flashing yellow beacons, in-roadway light assemblies shall operate in unison and with an identical flash rate as the signs or beacons.

654-4 Warranty.

Ensure the midblock crosswalk enhancement assembly has a manufacturer's warranty covering defects for two years from the date of final acceptance in accordance with 5-11 and Section 608. Ensure the warranty includes providing replacements within 10 calendar days of notification for defective parts and equipment during the warranty period at no cost to the Department or the maintaining agency.

654-5 Method of Measurement.

654-5.1 General: All midblock crosswalk assemblies will include all materials, equipment, and labor necessary for a complete and accepted installation.

654-5.2 In-Roadway Light Assembly: The in-roadway light assembly includes in-roadway lights, signs, sign support structures, cabinet, electronics, wiring, and pedestrian detectors for a complete crossing. Include ~~S~~solar panels ~~are included~~ in the cost of the assembly, when shown in the Plans.

654-5.3 Rectangular Rapid Flashing Beacon (RRFB) Assembly: Assemblies mounted in accordance with Standard Plan 654-001 ~~Post-mounted assemblies~~ include ~~the~~ rectangular beacons and signs for each approach, sign support structure, mounting brackets, attachment hardware, cabinet, electronics, wiring, and pedestrian detectors. Include ~~S~~solar panels ~~are included~~ in the cost of the assembly, when shown in the Plans.

~~————— Pole mounted assemblies include the rectangular beacon and signs, pole mount bracket, cabinet, electronics, wiring, and pedestrian detector. Solar panels are included in the cost of the assembly when shown in the Plans. Poles will be paid for separately.~~

~~————— Mast arm mounted assemblies include the rectangular beacon and signs, attachment hardware, and wiring for a single direction unit for non-standard installations. Mast arms will be paid for separately.~~

654-5.4 Pedestrian Hybrid Beacon Assembly: The Contract unit price for each pedestrian hybrid beacon assembly will consist of all labor and materials necessary for a complete and accepted installation. The assembly includes the 3-section signal, hardware, and backplate. Pedestrian signals, cabinet, signs, mast arms, strain poles or other support structures, and signal cable will be paid under the applicable sections for each item.

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. |

MIDBLOCK CROSSWALK ENHANCEMENT ASSEMBLIES (REV 9-14-22)

SECTION 654 is deleted and the following substituted:

654-1 Description.

Furnish and install midblock crosswalk enhancement assemblies.

654-2 Materials.

Use In-roadway light assemblies and rectangular rapid flashing beacon (RRFB) assemblies that meet the requirements of Section 995 and are listed on the Department's Approved Product List (APL). Use hardware that meets the requirements of Section 603.

Pedestrian hybrid beacon assemblies must meet the physical and operational requirements of the latest edition of the MUTCD, Chapter 4F. The cabinet, signals, controller, pedestrian detectors, and other traffic control devices used to create a pedestrian hybrid beacon assembly must be listed on the APL.

654-3 Installation Requirements.

Restore any areas impacted by the installation of the crosswalk enhancement assembly to original condition unless otherwise shown in the Plans. Install crosswalk enhancement assembly in accordance with the Americans with Disabilities Act Standards for Transportation Facilities.

Install post mounted RRFB assemblies in accordance with Standard Plans, Index 654-001. Use sign panel attachment hardware in accordance with Standard Plans, Index 700-010.

Follow manufacturer recommendations on the number of RRFB units that are connected to the timer's output driver. The outside edges of RRFB indications, including any housings, shall not project beyond the outside edges of the associated warning sign.

If installed with highlighted signs or flashing yellow beacons, in-roadway light assemblies shall operate in unison and with an identical flash rate as the signs or beacons.

654-4 Warranty.

Ensure the midblock crosswalk enhancement assembly has a manufacturer's warranty covering defects for two years from the date of final acceptance in accordance with 5-11 and Section 608. Ensure the warranty includes providing replacements within 10 calendar days of notification for defective parts and equipment during the warranty period at no cost to the Department or the maintaining agency.

654-5 Method of Measurement.

654-5.1 General: All midblock crosswalk assemblies will include all materials, equipment, and labor necessary for a complete and accepted installation.

654-5.2 In-Roadway Light Assembly: The in-roadway light assembly includes in-roadway lights, signs, sign support structures, cabinet, electronics, wiring, and pedestrian detectors for a complete crossing. Include solar panels in the cost of the assembly when shown in the Plans.

654-5.3 Rectangular Rapid Flashing Beacon (RRFB) Assembly: Assemblies mounted in accordance with Standard Plan 654-001 include rectangular beacons and signs for each

approach, sign support structure, mounting brackets, attachment hardware, cabinet, electronics, wiring, and pedestrian detector. Include solar panels in the cost of the assembly when shown in the Plans.

654-5.4 Pedestrian Hybrid Beacon Assembly: The Contract unit price for each pedestrian hybrid beacon assembly will consist of all labor and materials necessary for a complete and accepted installation. The assembly includes the 3-section signal, hardware, and backplate. Pedestrian signals, cabinet, signs, mast arms, strain poles or other support structures, and signal cable will be paid under the applicable sections for each item.

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.