



Florida Department of Transportation

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MIKE DEW
SECRETARY

ROADWAY DESIGN MEMORANDUM 17-05
TRAFFIC ENGINEERING AND OPERATIONS MEMORANDUM 17-01

DATE: October 2, 2017

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Geotechnical Engineers, District Structures Design Engineers, District Maintenance Engineers, District Consultant Project Manager Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Program Management Engineers, District Materials Engineers, District Bicycle Pedestrian Coordinators, District Bicycle Pedestrian Safety Specialists

FROM: Michael Shepard, P.E., State Roadway Design Engineer *Michael Shepard*
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COPIES: Brian Blanchard, Tom Byron, Courtney Drummond, Tim Lattner, Rudy Powell, David Sadler, Dan Hurtado, Amy Tootle, Dan Scheer, Gregory Schiess, Stefanie Maxwell, Robert Robertson, Lora Hollingsworth, Kevin Burgess (FHWA), Nick Finch (FHWA), Chad Thompson (FHWA), Bren George (FHWA)

SUBJECT: Use of bicycle signal faces, intersection bicycle boxes and two-stage bicycle turn boxes on the Florida State Highway System (SHS)

The Federal Highway Administration (FHWA) has issued Interim Approvals (IA), for the use of bicycle signal faces, bicycle boxes and two-stage bicycle queue boxes. FDOT has received approval from FHWA for use of these devices and markings on the SHS.

The FHWA Interim Approvals may be found at the following links:

- o [IA.16](#): Optional Use of Bicycle Signal Faces
- o [IA.18](#): Optional Use of Intersection Bicycle Box
- o [IA.20](#): Optional Use of Two-Stage Queue Box

BICYCLE SIGNAL FACES (IA 16)

The use of bicycle signal faces are to meet the requirements contained in IA.16 and be approved the State Traffic Operations Engineer.

INTERSECTION BICYCLE BOXES (IA.18)

The use of intersection bicycle boxes are to meet the requirements in IA.18 and be approved by the State Roadway Design Engineer. In addition, intersection bicycle boxes must comply with all of the following conditions:

- There is a bicycle lane or bicycle keyhole preceding the bicycle box
- ‘Right turn on red’ is prohibited without a bicycle keyhole present and the left turn signal is protective
- All approaches to the intersection have a posted speed no greater than 35 mph
- Bicycle detection is provided
- There is no more than one through lane on the approach to the bicycle box
- There is a receiving bicycle facility (bicycle lane or paved shoulder) on the opposite side of the intersection

TWO-STAGE QUEUE BOXES (IA.20)

The use of intersection two-stage queue boxes are to meet the requirements in IA.20 and be approved by the State Roadway Design Engineer. In addition, two-stage queue boxes must comply with all of the following conditions:

- ‘Right turn on red’ is prohibited
- All approaches to the intersection have a posted speed no greater than 45 mph
- Bicycle detection is provided

Materials used for the bicycle boxes and two-stage bicycle queue boxes must be in compliance with FDOT Specification 523, Patterned Pavement. The color green must be in compliance with [IA.14](#): Optional Use of Green Colored Pavement for Bike Lanes.

It is recommended that an educational program be developed to accompany the installation of bicycle boxes or two-stage bicycle queue boxes.

CONTACT

Bicycle Signal Faces (IA.16):

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Intersection Bicycle Boxes (IA.18) and Two-Stage Queue Boxes (IA.20):

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