June 19 - 20, 2025
Hollywood, FL

TRANSPORTATION SYMPOSIUM

MUTCD Updates

June 19th, 2025

Chris Lewis, P.E.
Director, Office of Forecasting and Performance

Rick Jenkins, P.E.
State Standard Plans Engineer, Roadway Design Office

Mariano Amicarelli, P.E., CPM, CQC
Traffic Services Program Engineer, District 4

Transportation Symposium Website
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1

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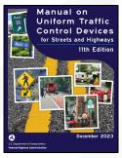
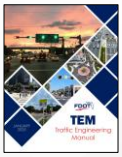
TRANSPORTATION SYMPOSIUM

Agenda



General MUTCD Overview

RDO Criteria Updates



TEM Updates

Transportation Symposium Website
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2

June 19 - 20, 2025
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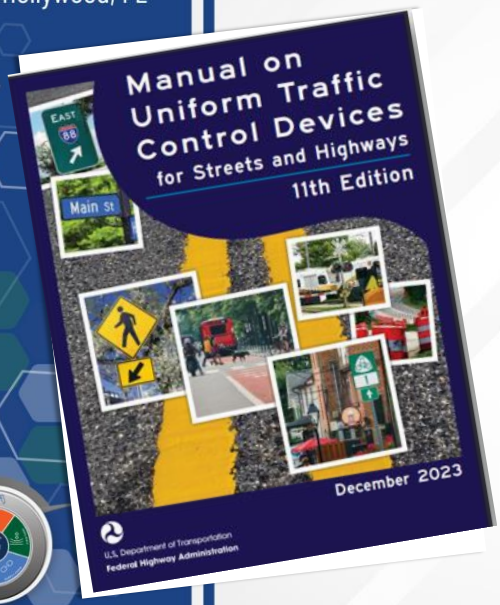

General MUTCD Overview

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3

General Updates - Outline

- Overview
- Timeline
- Impacted FDOT Rules, Procedures, and Manuals
  - Florida Administrative Code
- FHWA Compliance Dates and Process
  - Notice of Proposed Amendments (NPA)
- FDOT Progress Tracker
  - FDOT Publication Release Dates

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4

4

Overview

EACH STATE HAS ITS OWN ADOPTION DATE

States can choose when to adopt the policy, ranging from immediately to 2 years from release.

12/19/2023 – Release Date

01/18/2024 – Effective Date

PROPOSED ADOPTION DATE

January 2026

RAPID RULE ADOPTIONS, F.S. 120.54

Florida adopts via rule change. Accelerates the adoption of the latest Federal compliance.

BI-WEEKLY MEETINGS

Met with FHWA every other week to discuss project status and next steps.

Participating FDOT Offices

- Traffic Operations
- Roadway Design
- Safety
- Systems Implementation
- Construction
- Maintenance
- Specifications
- Legal

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5

5

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Adoption Process and Rulemaking

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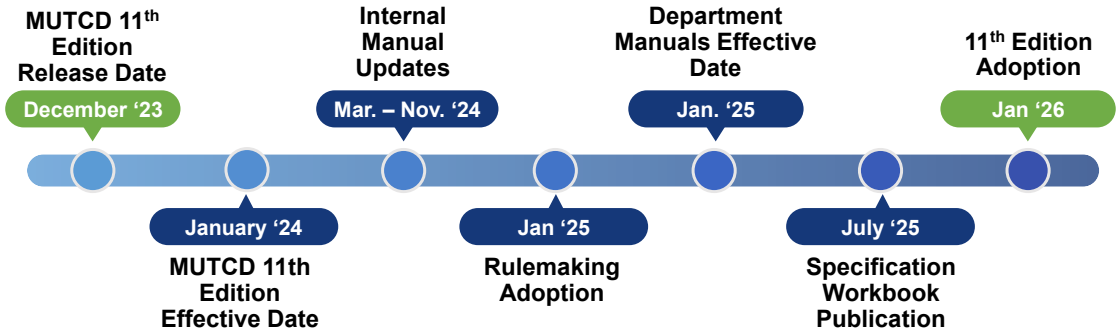
6

Timeline



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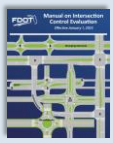
Impacted FDOT Procedures and Manuals

TEM
(Traffic Engineering Manual)
163 References to the MUTCD

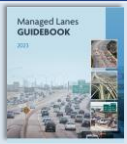


ICE
(Manual on Intersection Control Evaluation)
10 References to the MUTCD

MUTS
(Manual on Uniform Traffic Studies)
43 References to the MUTCD

FDM
(FDOT Design Manual)
71 References to the MUTCD

SZM
(Speed Zoning Manual)
45 References to the MUTCD



Managed Lanes Guidebook
10 References to the MUTCD

PD&E
(Project Development and Environment Manual)
1 References to the MUTCD

Florida Greenbook
74 References to the MUTCD

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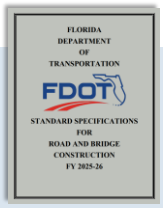
Impacted FDOT Procedures and Manuals

FDOT Website

167 webpages with references to the MUTCD



FDOT Standard Specifications for Road and Bridge Construction

53 references to the MUTCD

FDOT Standard Plans for Road and Bridge Construction

(along with the Standard Plans Instructions)

9 references to the MUTCD

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9

9

F.A.C. Update

Rule 14-15.010

Manual on Uniform Traffic Control Devices (MUTCD)
- Final Rule (Adoption) Effective from 01/28/2025

Rule 14-15.012

Manual on Speed Zoning
- Notice of Development of Rulemaking – Published on 02/26/2025
- Notice of proposed rule stage
- Publish Rule

Rule 14-51

Florida's Highway Guide Sign Program
- Filed Rule Development Language
- Notice of proposed rule stage
- Publish Rule

10

10

June 19 - 20, 2025
Hollywood, FL

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NPA and Statewide Reviews

Transportation Symposium Website

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11

MUTCD Target Compliance Dates

Table 1B-1. Target Compliance Dates Established by the FHWA			
MUTCD Section(s)	Subject Area	Specific Provision	Compliance Date
2B.64	Weight Limit Signs	Paragraph 14 - requirement for additional Weight Limit sign with the advisory distance or directional legend in advance of applicable section of highway or structure	5 years from the effective date of this edition of the MUTCD
2C.25	Low Clearance Signs (W12-2)	Paragraph 1 - Required posting of the Low Clearance Advance (W12-2) sign in advance of the structure	5 years from the effective date of this edition of the MUTCD
2C.25	Low Clearance Signs (W12-2a, W12-2b)	Paragraph 8 - Recommended posting of Low Clearance Overhead (W12-2a or 12-2b) signs on an arch or other structure under which the clearance varies greatly	5 years from the effective date of this edition of the MUTCD
3A.05	Maintaining Minimum Retro reflectivity	Implementation and continued use of a method that is designed to maintain retro reflectivity of longitudinal pavement markings (see Paragraph 1 of Section 3A.05)	September 6, 2026
8B.16	High-Profile Grade Crossings	Paragraphs 3 and 7 - Recommended installation of Low Ground Clearance and/or Vehicle Exclusion signs and detour signs for vehicles with low ground clearances that might hang up on high-profile grade crossings at locations with a known history	5 years from the effective date of this edition of the MUTCD
8D.09 through 8D.12	Highway Traffic Signals at or Near Grade Crossings	Assessment and determination of appropriate treatment to achieve compliance (preemption, movement prohibition, pre-signals, queue cutter signals)	10 years from the effective date of this edition of the MUTCD

FHWA identified that State DOTs will need time to address

TRANSPORTATION SYMPOSIUM

12

12

FDOT Notice of Proposed Amendments (NPA) Disagreements

Section 1B.05 Experimentation	Section 4F.17 Yellow Change and Red Clearance Intervals
Section 2A.18 Signs, Posts and Mounting	Section 4S.01 and 4S.04 Use of LEDs within Sign Legend or Border
Section 2B.20 In-Street and Overhead Pedestrian and Trail Crossing Signs (R1-6 and R1-9 Series)	Section 6K.01 Suggest Changes to Channelizing Devices
Section 2B.50 Divided Highway Crossing Signs (R6-3 and R6-3a)	Section 6K.02 Suggest Changes to Pedestrian Channelizing Devices
Section 2C.06 Device Selection for Changes in Horizontal Alignment	Section 6L.01 Temporary Traffic Control Signals
Section 2C.10 One-Direction Large Arrow Sign (W1-6)	Figure 6P-28 Suggest Changes to MOT Sidewalk Closure
Section 2J.01 Specific Service Sign Eligibility	Figure 6P-29 Suggest Changes to Crosswalk Closures
Section 2L.02 Applications of Changeable Message Signs	Section 8B.16 Low Ground Clearance Rail Crossing Warning Sign (Compliance Date 5 Years)
Section 3C.05 through 3C.08 High-Visibility Crosswalks	Section 9E.02 Suggest Changes to Yield Makings at Bicycle Lane Intersection Approaches
Section 3D.01 Roundabout Fishhook Pavement Markings	Section 9E.09 Suggest Changes to Shared-Lane Markings
Section 3D.04 Yield Lines for Roundabouts	

10 Sections were not addressed based on FDOT comments

3 Sections partially addressed in the MUTCD 11 Edition

8 Sections were addressed in the MUTCD 11 Edition

TRANSPORTATION SYMPOSIUM

MUTCD Progress Tracker

FDOT

MUTCD 11th Edition Department NPA Review

Comment No.	MUTCD 11th Edition				FDOT								FHWA			
	NPA	Page	Part	Section	Paragraph (s)	FDOT Reference	Reference Section	COMMENT	Reviewer	FDOT Office	FDOT Contact	Date Submitted to FHWA	Status	FHWA RESPONSE	FHWA Response Date	FHWA Responder	FHWA Substantial Conformance (Y or N)
1	13	6	1	1B.05	(02)	Other, Specify in Column G	Does not directly impact an existing FDOT reference, manual, or guide	The added Standard language increases the time and cost of evaluating and implementing potentially innovative safety and/or mobility solutions. Clarify what is a legally binding statement. The agency or the supplier should not be legally responsible for a traffic control device's patent, trademark, or copyright.	Jack Freeman	Traffic Engineering and Operations	Chris Lewis	3/22/2024	In review	I am not sure what process they followed before, but the guidance is like the standard. Is the process much different than before? There are two additional steps, I identified, for submitting a request: 1. Comparison of the proposed device to other compliant devices or treatment, either individually or in combination, that address the same condition. 2. Control sites for comparison purposes or justification for not using control sites. The MUTCD requires reporting on a semi-annual basis with a final report	4/17/2024	Mark Parry	
2	234	387	2	F.10	(01)	Other, Specify in Column G	Does not directly impact an existing FDOT reference, manual, or guide	The updated Guidance removed the option to place the warning plaque below the guide sign.	Shannon Bonilla	Traffic Engineering and Operations	Chris Lewis	3/22/2024	In review	Is the issue that FDOT standard is to place the signs below the guide sign and that FHWA will require FDOT to expend additional resources to move the sign to above the guide signs outside of normal maintenance and upgrades?	4/17/2024	Mark Parry	
3	240	403	2	F.17	(10)	Other, Specify in Column G	Does not directly impact an existing FDOT reference, manual, or guide	The added Standard restricts the current language used on FDOT signs. The new 'TOLL BILLED BY MAIL' word message should be provided as an example and not a standard – Florida uses 'TOLL BY PLATE'	Dana Knox	Traffic Engineering and Operations	Chris Lewis	3/22/2024	In review	Eliminates the payment options information from these guide signs at all locations approaching AET facilities and would rely exclusively on a single roadside mounted sign that may be more difficult to see on crowded interchange approaches and multi-lane arterial corridors in both urban and rural areas. FDOT should include a TOLL-BY-PLATE legend instead of requiring the sign to display a "TOLL BILLED BY MAIL OR SUN PASS" legend. The message on the Periods of Operation signs is shown on the other signs leading to an express lane entrance. Having this same information on a standalone overhead sign is redundant and adds to sign clutter.	4/17/2024	Mark Parry	

FHWA Summary | ICE | TEM | MUTS | FDM | SZM | Standard Plans | Specs | Drop Down Menu Ref | RDO 0801024

Release Dates

Current Manuals/Bulletins Release

Design Office

- ✓FY 2025-26 Standard Plans for Road and Bridge Construction Bulletin – 11/01/2024
- ✓2025 FDOT Design Manual Bulletin – 11/01/2024
- ✓FY 2025-26 Standard Specifications for Road and Bridge Construction Bulletin – 11/04/2024
- ✓2023 Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook) – 03/13/2025
- ✓FY 2026-27 Standard Specifications for Road and Bridge Construction Bulletin – **TBD, 2025**

Traffic Engineering and Operations Office

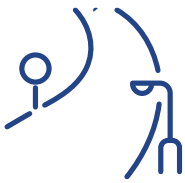
- ✓ICE Manual Bulletin – 11/15/2024
- ✓TEM Bulletin – 11/22/2024
- ✓MUTS – **TBD, 2025**
- ✓Speed Zoning Manual - **TBD, 2025**

TRANSPORTATION SYMPOSIUM

15

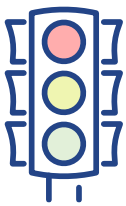
15

FDM & TEM: Critical Manuals for FDOT Project Design



FDM

- Roadway design standards
- Drainage design
- Roadside safety features



TEM

- Traffic signal design and operation
- Signage and pavement markings
- Traffic management strategies

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16

16

June 19 - 20, 2025
Hollywood, FL

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RDO Criteria Updates

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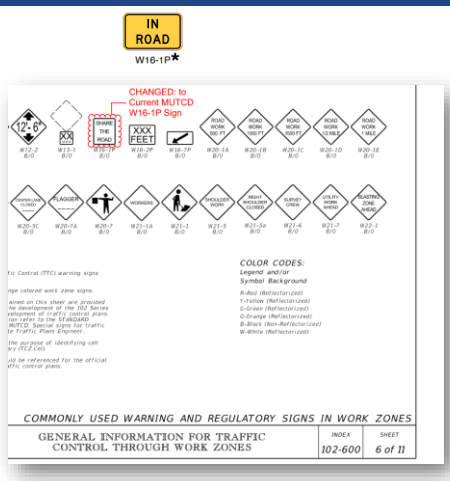
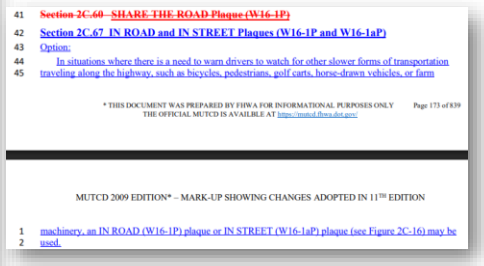
17

Standard Plans Updates

- Updated TTC Indexes
- Matched sign names and details to MUTCD



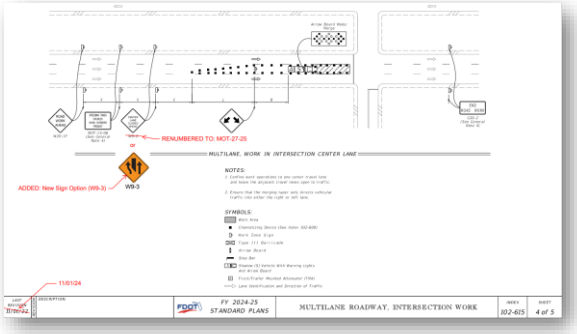


TRANSPORTATION SYMPOSIUM

18

18

Standard Plans Index 102-615



Section ~~6F.22~~6H.07 Lane(s) Closed Signs (W20-5, W20-5a, and W9-3)

Standard:

The Lane(s) Closed sign (see Figure ~~6F-4~~6H-1) shall be used in advance of that point where one or more through lanes of a multi-lane roadway are closed.

For a single lane closure, the Lane Closed (W20-5) sign (see Figure ~~6F-4~~6H-1) shall ~~have~~ use the legend RIGHT (LEFT) LANE CLOSED~~, XX FEET, XX MILES, or AHEAD~~. Where two or more adjacent lanes are closed, the W20-5a sign (see Figure ~~6F-4~~6H-1) shall ~~have~~ use the legend XX RIGHT (LEFT) LANES CLOSED~~, XX FEET, XX MILES, or AHEAD.~~

Option:

The distance legend may be either XX FEET, XX MILES, or AHEAD.

~~Section 6F.23 CENTER LANE CLOSED AHEAD Sign (W9-3)~~

Guidance:

The ~~CENTER LANE CLOSED AHEAD~~ Interior Lane Shift (W9-3) sign (see Figure ~~6F-4~~6H-1) should be used in advance of that point where work occupies ~~the center~~an interior lane(s) and approaching motor vehicle traffic is directed to the right or left of the work zone in the ~~center lane~~ lane(s) by using a shifting taper to route traffic around the closed interior lane(s).

TRANSPORTATION SYMPOSIUM

19

19

Standard Plans Index 102-661

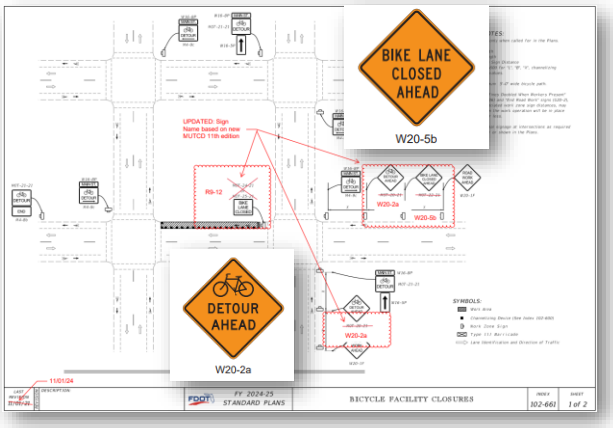


Table 6G-1. Temporary Traffic Control Zone Regulatory Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway	Minimum
Sidewalk Closed, Cross Here	~~R9-11a~~	~~6G.10~~	24 x 12	—	—
Bike Lane Closed	R9-12	6P.01	24 x 12	—	—

Section ~~6F.19~~6H.04 DETOUR Sign (W20-2)

Guidance:

The DETOUR (W20-2) sign (see Figure ~~6F-4~~6H-1) should be used in advance of a road user detour over a different roadway or route.

~~**Standard:**~~

~~**The DETOUR sign shall have the legend DETOUR, XX FEET, XX MILES, or AHEAD.**~~

Option:

The distance legend may be either XX FEET, XX MILES, or AHEAD.

CHAPTER ~~6H~~6P. TYPICAL APPLICATIONS

Section ~~6H.01~~6P.01 Typical Applications

Support:

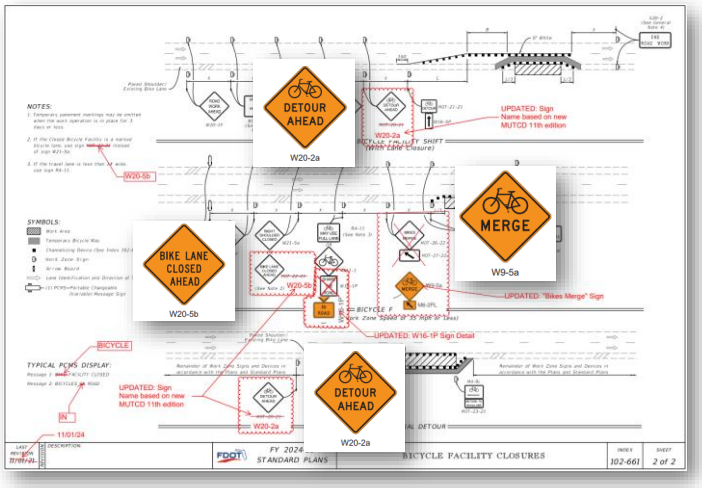
Chapter ~~6G~~ 6N contains discussions of typical TTC activities. Section 6A.02 contains discussions on development of TTC plans for the various activities. This Chapter presents typical applications for a variety of situations commonly encountered. While not every situation is addressed, the information illustrated can generally be adapted to a broad range of conditions. In many instances, an appropriate TTC plan is achieved by combining features from various typical applications. For example, work at an intersection might present a near-side ~~work~~TTC zone for one street and a far-side ~~work~~TTC zone for the other street. These treatments are found in two different typical applications, while a third typical application shows how to handle pedestrian crosswalk closures. ~~For convenience in using the typical application diagrams, Tables 6C-1 and 6C-4 are reproduced in this Chapter as Tables 6H-3 and 6H-4, respectively.~~

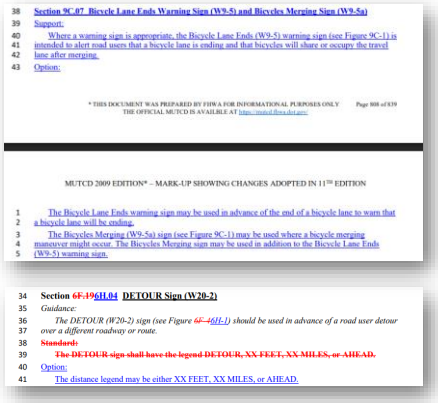
TRANSPORTATION SYMPOSIUM

20

20

Standard Plans Index 102-661





38 **Section 9C.07 Bicycle Lane Ends Warning Sign (W9-5) and Bicycles Merging Sign (W9-5a)**
39 Support:
40 Where a warning sign is appropriate, the Bicycle Lane Ends (W9-5) warning sign (see Figure 9C-1) is
41 intended to alert road users that a bicycle lane is ending and that bicycles will share or occupy the travel
42 lane after merging.
43 Option:

* THIS DOCUMENT WAS PREPARED BY FHWA FOR INFORMATIONAL PURPOSES ONLY — Page 808 of 839
THE OFFICIAL MUTCD IS AVAILBLE AT https://mutcd.fhwa.dot.gov/

MUTCD 2009 EDITION* – MARK-UP SHOWING CHANGES ADOPTED IN 11TH EDITION

1 The Bicycle Lane Ends warning sign may be used in advance of the end of a bicycle lane to warn that
2 a bicycle lane will be ending.
3 The Bicycles Merging (W9-5a) sign (see Figure 9C-1) may be used where a bicycle merging
4 maneuver might occur. The Bicycles Merging sign may be used in addition to the Bicycle Lane Ends
5 (W9-5) warning sign.

34 **Section ~~6F.19~~6H.04 DETOUR Sign (W20-2)**
35 *Guidance:*
36 *The DETOUR (W20-2) sign (see Figure ~~6F-4~~6H-1) should be used in advance of a road user detour*
37 *over a different roadway or route.*
38 ~~**Standard:**~~
39 ~~**The DETOUR sign shall have the legend DETOUR, XX FEET, XX MILES, or AHEAD.**~~
40 Option:
41 The distance legend may be either XX FEET, XX MILES, or AHEAD.

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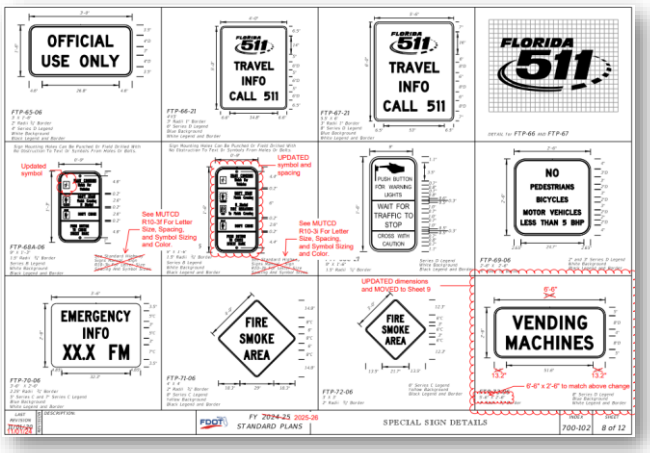
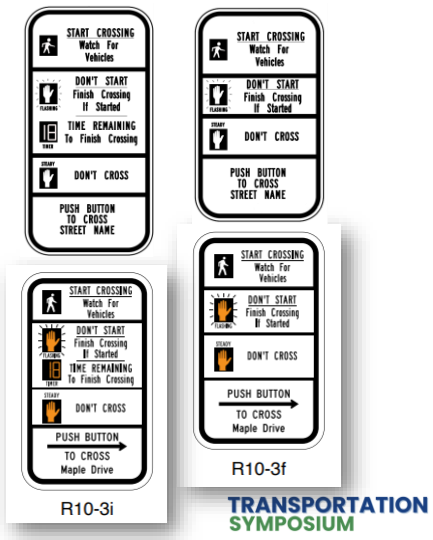
21

21

Standard Plans Index 700-102



- FDOT
- MUTCD



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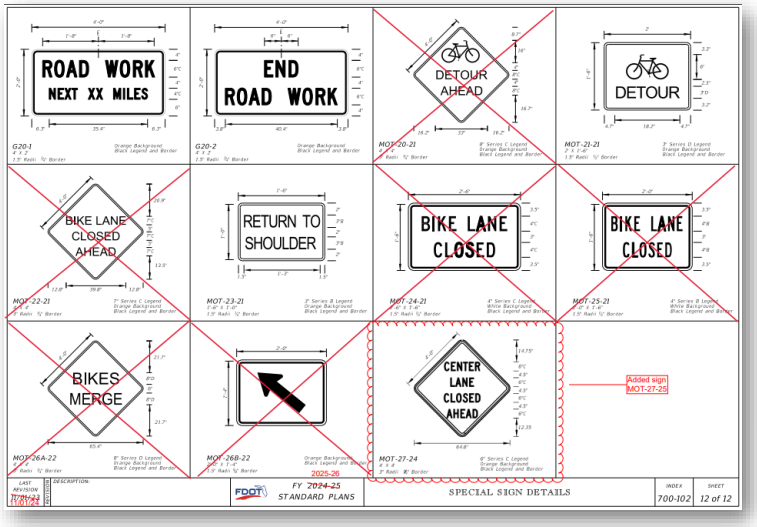
22

22

Standard Plans Index 700-102



Section ~~6F-22~~6I.07 Lane(s) Closed Signs (W20-5, W20-5a, and W9-3)

Standard:

The Lane(s) Closed sign (see Figure ~~6F-4~~6I-1) shall be used in advance of that point where one or more through lanes of a multi-lane roadway are closed.

For a single lane closure, the Lane Closed (W20-5) sign (see Figure ~~6F-4~~6I-1) shall ~~have~~ use the legend RIGHT (LEFT) LANE CLOSED. ~~XX FEET, XX MILES, or AHEAD.~~ Where two or more adjacent lanes are closed, the W20-5a sign (see Figure ~~6F-4~~6I-1) shall ~~have~~ use the legend XX RIGHT (LEFT) LANES CLOSED. ~~XX FEET, XX MILES, or AHEAD.~~

Option:

The distance legend may be either XX FEET, XX MILES, or AHEAD.

~~Section 6F-23 CENTER LANE CLOSED AHEAD Sign (W9-2)~~

Guidance:

The ~~CENTER LANE CLOSED AHEAD~~ Interior Lane Shift (W9-3) sign (see Figure ~~6F-4~~6I-1) should be used in advance of that point where work occupies ~~the center~~ an interior lane(s) and approaching motor vehicle traffic is directed to the right or left of the work zone in the ~~center lane~~ lane(s) by using a shifting taper to route traffic around the closed interior lane(s).

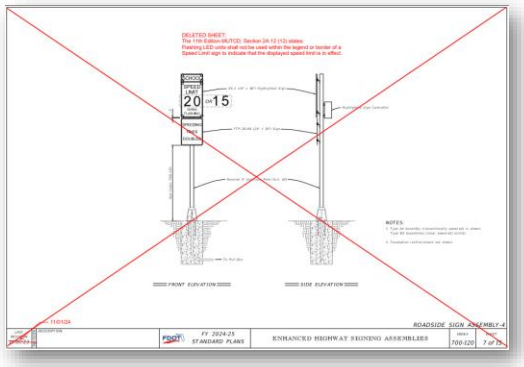
TRANSPORTATION SYMPOSIUM

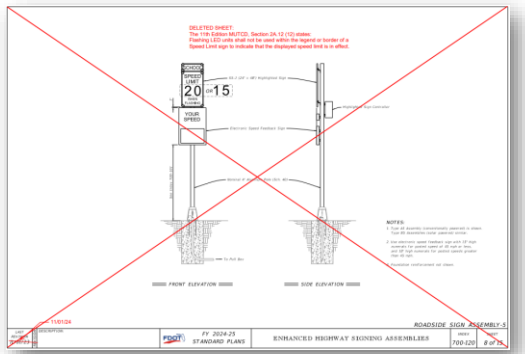
23

23

Standard Plans Index 700-120

11 **Flashing LED units shall not be used within the legend or border of a Speed Limit sign to**
12 **indicate that the displayed speed limit is in effect.**





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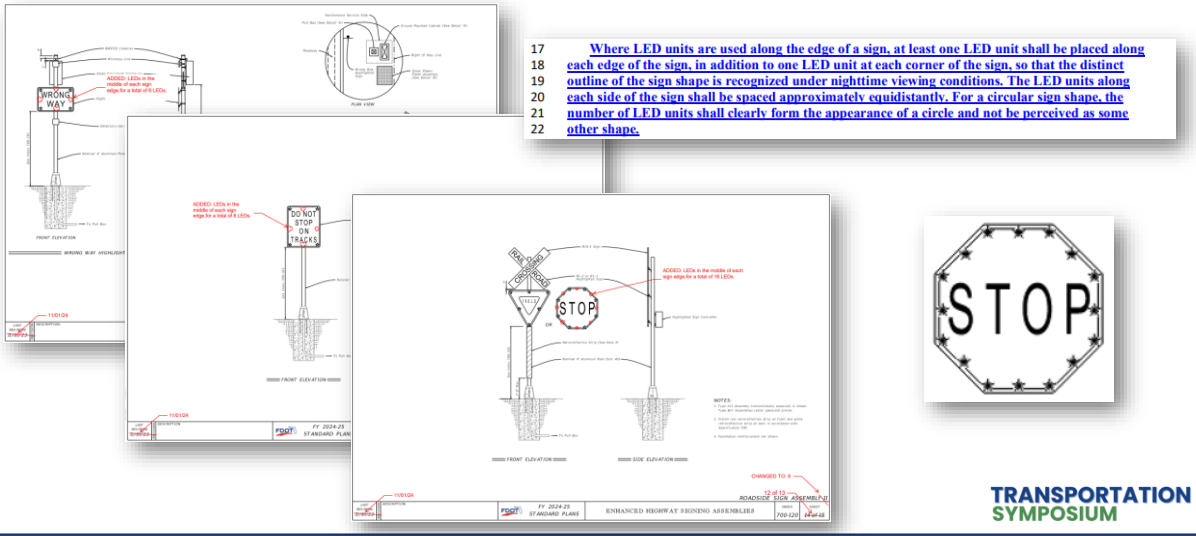
24

24

Standard Plans Index 700-120



TRANSPORTATION SYMPOSIUM

25

25

FDOT Design Manual Updates

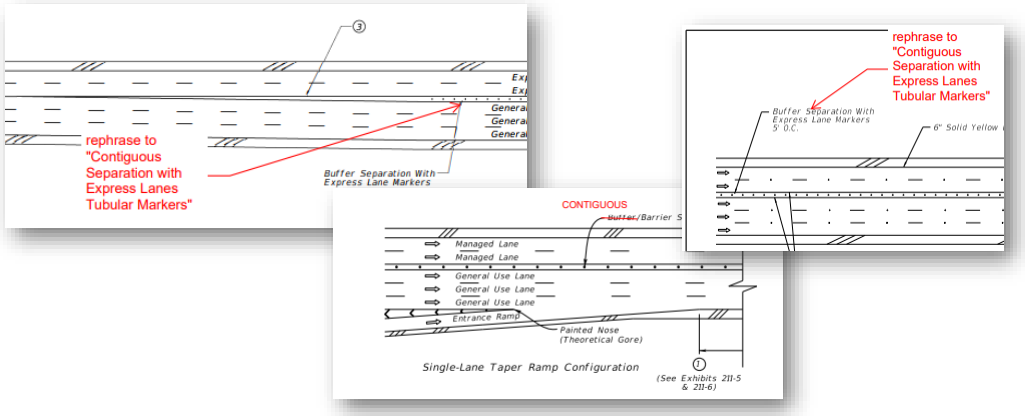
MUTCD

TRANSPORTATION SYMPOSIUM

26

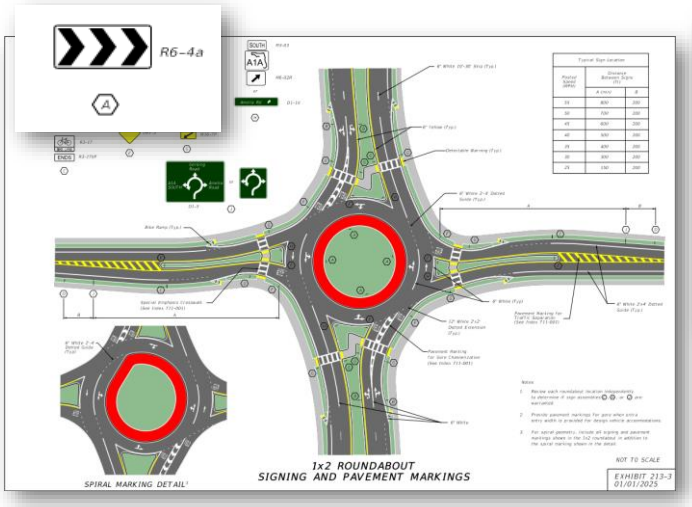
26

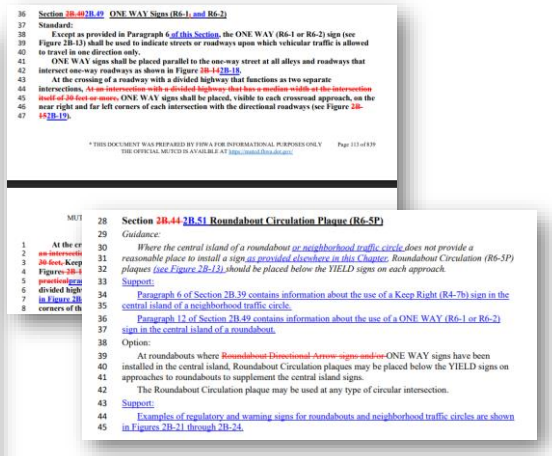
FDM 211



TRANSPORTATION SYMPOSIUM

FDM 213





TRANSPORTATION SYMPOSIUM

FDM 223

FDM

Bicycle lanes may be provided on flush shoulder roadways ~~Mark paved shoulders as bicycle lanes~~ when all the following are met:

(1) Design speed ≤ 45 mph,

(2) Shoulder width ≥ 5-foot (≥ 4-foot on RRR projects),

(3) Within C2T, C4, C5, C6, C3C context classification, or within C3R when demand is demonstrated, and

(4) Shared use path or separated bicycle lanes are not present along corridor.

MUTCD

Standard:

The bicycle symbol or BIKE LANE pavement word marking and the pavement marking arrow shall not be used in a shoulder.

A portion of the roadway shall not be established as both a shoulder and a bicycle lane.

Support:

Where a shoulder is provided or is of sufficient width to meet the expectation of a highway user in that it can function as a space for emergency, enforcement or maintenance activities, avoidance or recovery maneuvers, Section 9B.16 contains information regarding the Bicycles Use Shoulder Only sign that can be used to denote locations on a freeway or expressway where bicycles are permitted on an available and usable shoulder.

TRANSPORTATION SYMPOSIUM

29

29

FDM 223

FDM

~~Projects using green-colored pavement markings, the EOR must submit either a GIS (a.k.a., shapefile or geodatabase) or CADD (e.g., dsgnsp.dgn, dsgnsp.dwg) file(s) depicting the location(s) of these markings. Submit the required files via email to CO-CIMGIS@dot.state.fl.us and copy the State Bicycle Pedestrian Coordinator.~~

Additional details on tracking~~he file format~~ can be found in the ***CADD Manual*** and at the following website: ***https://www.fdot.gov/gis/bim/green-pavement***

MUTCD

Section 3H.06 Green-Colored Pavement for Bicycle Facilities

Support:

01 Green-colored pavement is used to enhance the conspicuity of locations where bicyclists are expected to operate, and areas where bicyclists and other traffic might have potentially conflicting, weaving, or crossing movements. Green-colored pavement is also used to enhance the conspicuity of word, symbol, and/or arrow pavement markings when these markings are used in certain bicycle facilities.

Standard:

02 **If used, green-colored pavement shall be limited to:**

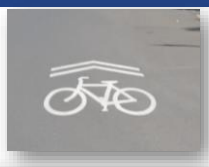
- **A. Bicycle lanes (see Sections 9E.01, 9E.06, 9E.07, and 9E.08),**
- **B. Extensions of bicycle lanes through intersections (see Section 9E.03),**
- **C. Extensions of bicycle lanes through areas where motor vehicles enter a mandatory turn lane in which motor vehicles must weave across bicyclists in bicycle lanes (see Section 9E.02),**
- **D. Two-stage bicycle turn boxes (see Section 9E.11),**
- **E. Bicycle Boxes (see Section 9E.12), and**
- **F. As a background for bicycle detector symbols (see Section 9E.15).**

TRANSPORTATION SYMPOSIUM

30

30

FDM 223



FDM

223.3 Shared Lane Markings (Sharrows)

Shared lane markings, or "Sharrows", are optional pavement markings used to indicate a shared environment for bicycles and motor vehicles. Sharrows are used where it is not practical to provide a bicycle facility, and any of the following conditions exist:

(1) With on-street parallel parking in order to reduce the chance of a bicyclist impacting the open door of a parked vehicle.

(2) To fill a gap in an otherwise continuous bicycle facility, generally for a short distance.

(3) As part of an approved temporary traffic control plan, see ***FDM 240***.

Streets with low traffic volumes and low traffic speeds are better suited to ~~a travel environment where~~ support mixed bicycle and motor vehicle traffic ~~are mixed~~. Do not use Sharrows on roadways with a posted speed greater than 35 mph or on shared use paths. ~~in the following conditions:~~

~~Roadways with a posted speed greater than 35 mph~~

~~On shared use paths~~

~~Within a right turn lane~~

Place Sharrows in the center of the travel lane. This placement provides guidance to bicyclists to "command the lane", which discourages motorists from passing too closely. This placement also informs drivers that cyclists are entitled to ride in the center of the lane for their safety. To effectively convey this message, place Sharrows immediately after intersections and at a maximum spacing of 250 feet. Refer to ***MUTCD*** Section 9E.02 when considering the use of sharrows within a right-turn lane.

MUTCD

Section ~~9C.07~~9E.09 Shared-Lane Marking

Support:

The "Standard Highway Signs" publication (see Section 1A.05) contains details on the shared-lane marking symbol.

Option:

The ~~S~~shared-~~L~~lane ~~M~~marking shown in Figure ~~9C-9~~9E-9 may be used to:

A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist~~'s~~ impacting the open door of a parked vehicle,

B. Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side-~~by-~~side within the same traffic lane,

C. Alert road users of the lateral location ~~bicyclist~~bicycles are likely to occupy within the traveled way,

D. Encourage safe passing of ~~bicyclist~~bicycles by ~~motorist~~motor vehicles, ~~and~~

E. Reduce the incidence of wrong-way bicycling in the roadway~~-~~, and

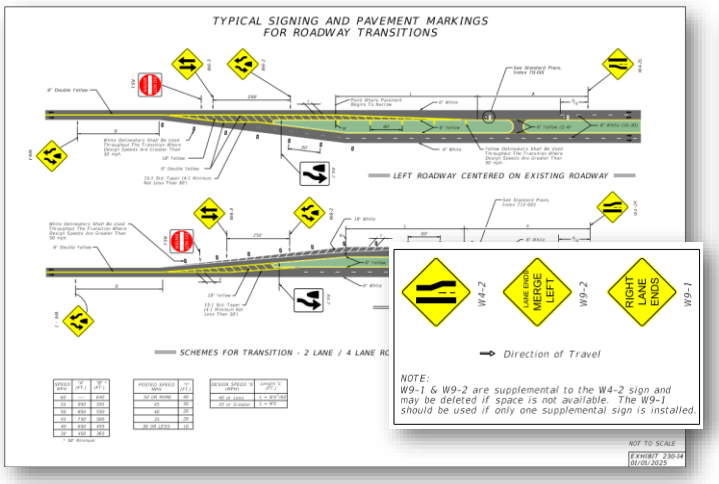
F. Assist bicyclists with lateral positioning in mixing zones.

Guidance:

The ~~S~~shared-~~L~~lane ~~M~~marking should not be placed on roadways that have a speed limit ~~above 35 mph~~ of 40 mph or greater.

TRANSPORTATION SYMPOSIUM

FDM 230



Section ~~2C.42~~ 2C.47 Lane Ends Signs (W4-2, and W9-1, ~~W9-2~~)

~~Guidance:~~ Support:

The ~~L~~LANE ENDS MERGE LEFT (RIGHT) (W9-2) sign or the Lane Ends (W4-2) and RIGHT (LEFT) LANE ENDS (W9-1) signs (see Figure 2C-11) ~~should be~~ are used to warn of the reduction in the number of traffic lanes in the direction of travel ~~on a multi-lane highway~~.

The sequence of the W4-2 and W9-1 signs is illustrated in Figure 2C-13.

Guidance:

The Lane Ends (W4-2) sign should be installed at the advance placement distance in accordance with Table 2C-3.

Option:

~~The~~ A RIGHT (LEFT) LANE ENDS (W9-1) sign ~~(see Figure 2C-8)~~ may be ~~used~~installed in advance of the ~~LANE ENDS (W4-2)~~ Lane Ends sign ~~or the LANE ENDS MERGE LEFT (RIGHT) (W9-2) sign as additional warning or to emphasize~~ to provide additional warning that ~~the traffic~~ a lane is ending and that a merging maneuver will be required.

Guidance:

~~If used, the RIGHT (LEFT) LANE ENDS (W9-1) sign should be installed adjacent to the Lane-Reduction Arrow pavement markings.~~

If a W9-1 sign is installed, a Distance (W16-2P series or W16-3P series) plaque (see Figure 2C-16) should be installed below the W9-1 sign.

~~Option:~~

On one-way streets or on divided highways where the left-hand lane is ending and the width of the median will permit, ~~two~~ the ~~Lane Ends~~ W9-1 and W4-2 signs ~~may~~ should be placed facing approaching traffic~~, one on the right-hand side and the other~~ on the left-hand side or median.

Option:

Where a lane ends a distance beyond the intersection that is less than the advance placement distance indicated in Table 2C-3, the W4-2 sign may be located at the far side of the intersection (see Sheet 4 of Figure 2C-13).

Guidance:

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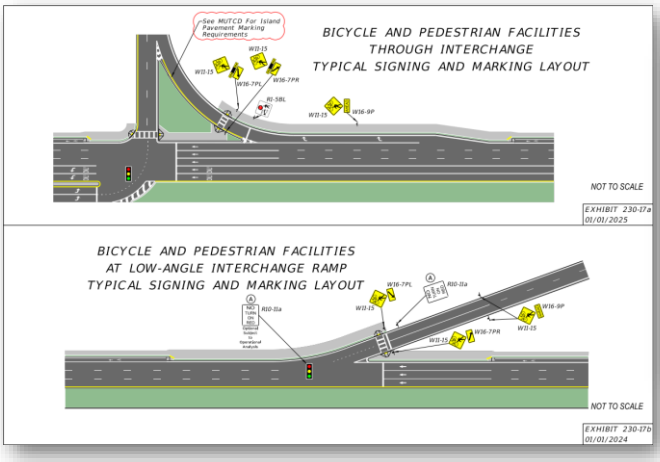
FDM 230



Standard:

Solid lines shall not be used to extend edge lines into or through intersections ~~or major driveways~~ except through that part of an intersection with no intersecting approach (such as at the far side of a T-intersection).

Guidance:

Edge line markings should be discontinued across intersecting approaches at intersections or interchanges.

Driveways that do not meet the definition of an intersection (see Section 1C.02) should have edge line markings maintained across the intersecting approach of the driveway.

Option:

Dotted edge line extensions may be placed through intersections ~~or major driveways.~~

Support:

Section 3B.31 contains information about edge lines through diverging diamond interchanges with a transposed alignment crossroad.

Section 3D.03 provides information for edge lines through roundabouts.

Section 5B.02 contains information on edge line extensions for driving automation system considerations.

Section 8C.05 contains information about the extension of edge lines through grade crossing areas.

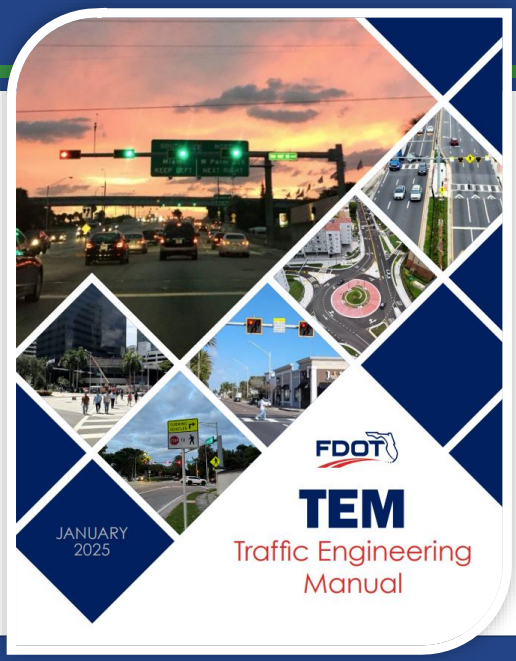
Section 9E.03 contains information for the extensions of bicycle lanes through intersections.

TRANSPORTATION SYMPOSIUM

33

33

34



What is TEM?

- Provides guidance to Designers and Traffic Engineers
- Defines Traffic Engineering standards and guidelines used on State Highway System (SHS)
- Supplements Manual on Uniform Traffic Control Device (MUTCD) guidelines
- Annually Updated on November 1st

TRANSPORTATION SYMPOSIUM

35

35

Target Users of TEM

Traffic Engineers and Designers

Consultants and Contractors

Local Agencies

Academia and Researchers

Compliance

Consistency

Safety and Efficiency

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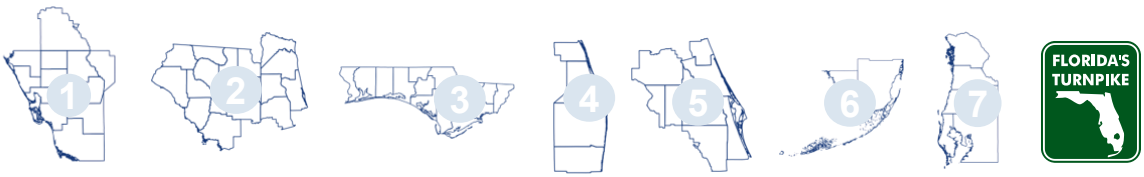
36

36

Department/Industry Players and Roles

Traffic Engineering and Operations Office

- Office of Maintenance
- Office of Construction
- Systems Implementation Office
- State Safety Office
- Office of Design



TRANSPORTATION SYMPOSIUM

37

37

TEM Procedure

TEM Adoption

Sections 20.23(4)(a) and 334.048(3), Florida Statutes (F.S.)

Purpose

Provide traffic engineering standards and guidelines to be used on the State Highway System (SHS)

Manual Review Committee

DTOE, STOE, District Traffic Service Engineers

TRANSPORTATION SYMPOSIUM

38

38

June 19 - 20, 2025
Hollywood, FL

TRANSPORTATION SYMPOSIUM

Why TEM?

Transportation Symposium Website

SCAN ME

39

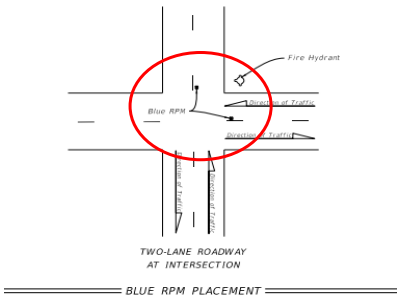
MUTCD & TEM: Essential References for Traffic Control

MUTCD
National standard for traffic control devices.

Provides Uniform guidelines for signs, signals, and road markings.

TEM
State-specific supplement to MUTCD.

Standard Plans Index 706-001



Section 4.3
Exceeds national requirements for safety and operational guidance. Ensures consistency and enhanced safety tailored to Florida's needs.

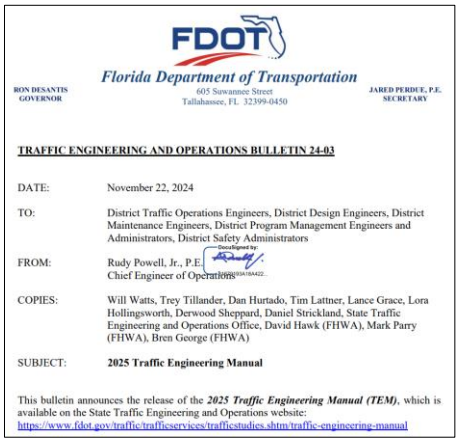
TRANSPORTATION SYMPOSIUM

40

40

TEM Bulletin: General Updates

- Updated language and hyperlink references consistent with the MUTCD 11th Edition, dated December 2023.
- Updated references to match the 700 Series of the 2025 Standard Plans for Florida Transportation Plans (FTP) sign numbering.
- Standardized the section structure across all chapters, rewritten content in plain language, and added cross-references for tables and figures.



FDOT

Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED PERDUE, P.E.
SECRETARY

TRAFFIC ENGINEERING AND OPERATIONS BULLETIN 24-03

DATE: November 22, 2024

TO: District Traffic Operations Engineers, District Design Engineers, District Maintenance Engineers, District Program Management Engineers and Administrators, District Safety Administrators

FROM: Rudy Powell, Jr., P.E.
Chief Engineer of Operations

COPIES: Will Watts, Trey Tillander, Dan Hurtado, Tim Lattner, Lance Grace, Lora Hollingsworth, Derwood Sheppard, Daniel Strickland, State Traffic Engineering and Operations Office, David Hawk (FHWA), Mark Parry (FHWA), Bren George (FHWA)

SUBJECT: **2025 Traffic Engineering Manual**

This bulletin announces the release of the ***2025 Traffic Engineering Manual (TEM)***, which is available on the State Traffic Engineering and Operations website:
https://www.fdot.gov/traffic/trafficservices/trafficstudies.shtm/traffic-engineering-manual

TRANSPORTATION SYMPOSIUM

41

41

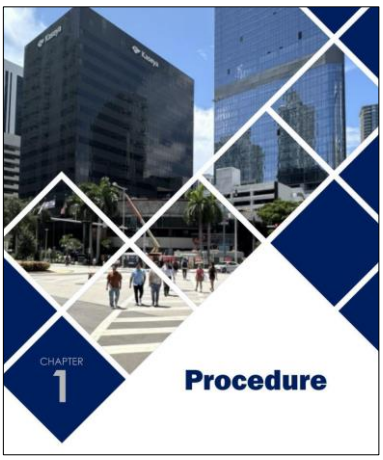
Chapter 1 – Adoption Procedure

Background

- Outlines the purpose, authority, scope, and revision process of the TEM.
- Includes registration details for updates, reference statutes, and where to access related forms and resources.
- Covers how to request a Traffic Engineering Variation.

TEM Bulletin Updates

- Removed reference to Topic No. 025-020-002, Standard Operating System.
- Updated Variation Documentation Process for clarity.



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42

42

Chapter 2 – Signs

Background

- A guide for the use of highway signs on the Florida SHS.
- Includes purpose, conditions for use, physical characteristics, standards, and installation of diversified highway signs.

TEM Bulletin Updates

- Added/clarified guidance for Intersection Lane Control Sign, Bridge Signs, Move Vehicles from Travel Lane Sign, Rest Area Plaques, Bicycle Passing Clearance Sign, and Turning Vehicles Stop for Pedestrians Sign.

TRANSPORTATION SYMPOSIUM

43

43

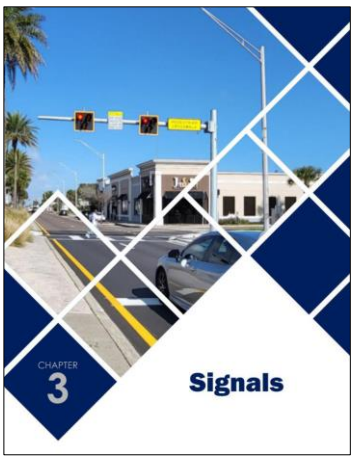
Chapter 3 – Signals

Background

- A guide for specific signal treatments to improve safety and mobility.
- Provides guidance on Left Turn Treatment, Emergency Traffic Control Signals, Yellow Change and Red Clearance Intervals, Accessible Pedestrian Signals, and many more.

TEM Bulletin Updates

- Updated references to the Safe Mobility for Life educational materials.



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44

44

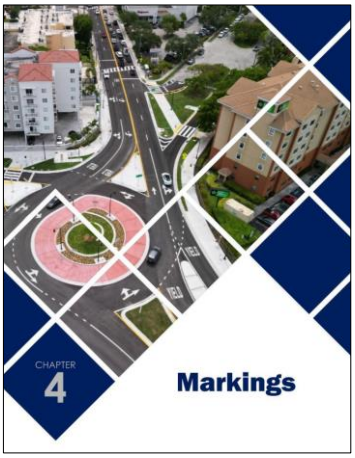
Chapter 4 – Markings

Background

- A guide for the use of pavement markings on the Florida SHS.
- Provides guidance on Heavy Pedestrian Area, Word, Arrow and Symbols, Blue Raised Pavement Markings, Express Lane, and Internally Illuminated Raised Pavement Markings.

TEM Bulletin Updates

- Added guidance on the application of Route Shield Pavement Markings.
- Consolidated guidance on the application of Internally-Illuminated Raised Pavement Markers (IIRPMs).
- Updated definition and schematic for Managed Lanes Markings.



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45

45

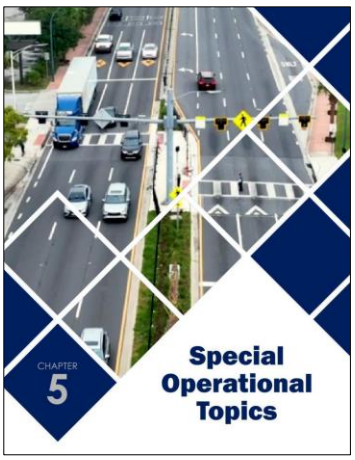
Chapter 5 – Special Operational Topics

Background

- A guide for when to use specific specialized operational topics.
- Includes design criteria for Marked Crosswalks, Beacons and Signals, Pedestrian Hybrid Beacons (PHB), Midblock Traffic Control Signals, and Movable Bridges.

TEM Bulletin Updates

- Expanded signage guidance for golf cart operation.
- Clarified language on Crosswalk Treatments at Midblock and Unsignalized Locations and extended crash history review requirement to 5 years.
- Added guidance on Midblock Pedestrian Signals.



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46

46

Resources

TEM (Traffic Engineering Manual)

ICE (Manual on Intersection Control Evaluation)

MUTS (Manual on Uniform Traffic Studies)

SZM (Speed Zoning Manual)

MUTCD (Manual on Uniform Traffic Control Devices)

FDOT Website

TRANSPORTATION SYMPOSIUM

Resources

FDM (FDOT Design Manual)

Managed Lanes Guidebook

PD&E (Project Development and Environment Manual)

Florida Greenbook

FDOT Standard Plans for Road and Bridge Construction

FDOT Standard Specifications for Road and Bridge Construction

TRANSPORTATION SYMPOSIUM

Contact Us

TRAFFIC OPERATIONS OFFICE

would like to recognize/thank:

Roadway Design Construction Legal

Safety Systems Implementation

Specifications Maintenance

AND OUR CONSULTANTS!

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49

49

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FDOT-StateTrafficServicesSection@dot.state.fl.us

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50

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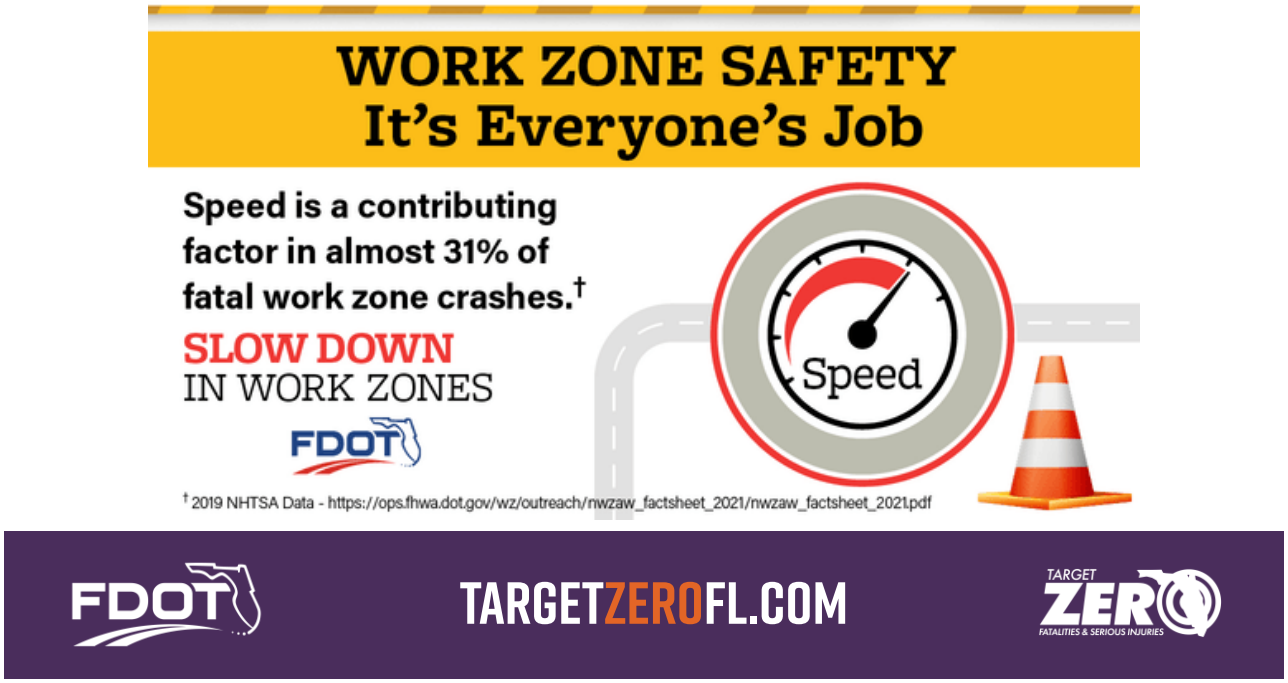
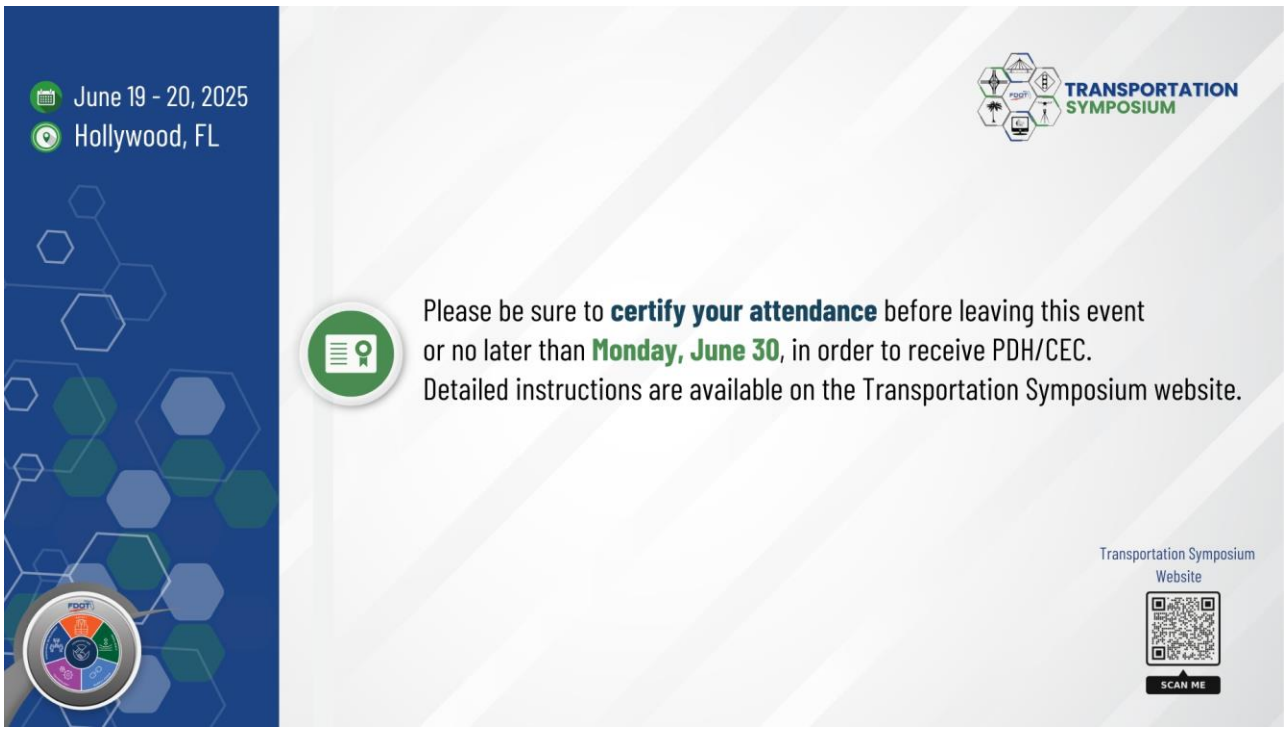

WORK ZONE SAFETY
It's Everyone's Job
Speed is a contributing factor in almost 31% of fatal work zone crashes.†
SLOW DOWN
IN WORK ZONES
FDOT
Speed
† 2019 NHTSA Data - https://ops.fhwa.dot.gov/wz/outreach/nwzaw_factsheet_2021/nwzaw_factsheet_2021.pdf
FDOT
TARGETZEROFL.COM
TARGET ZERO
FATALITIES & SERIOUS INJURIES

51


June 19 - 20, 2025
Hollywood, FL
TRANSPORTATION SYMPOSIUM
Please be sure to certify your attendance before leaving this event or no later than Monday, June 30, in order to receive PDH/CEC.
Detailed instructions are available on the Transportation Symposium website.
Transportation Symposium Website
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52