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ROADWAY DESIGN BULLETIN 23-01 FHWA Approved: 2/15/23

DATE: February 28, 2023

TO: District Directors of Transportation Operations, District Directors of

Transportation Development, District Design Engineers, District Construction Engineers, District Pavement Engineers, District Consultant Project Management Engineers, District Structures Design Engineers, District Maintenance Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Program Management Engineers, District Drainage Engineers, District Materials

Engineers, District Safety Engineers, District Safety Administrators

FROM: Derwood Sheppard, P.E., State Roadway Design Engineer

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SUBJECT: Revised FDM Table 210.4.1 Standard Shoulder Widths

This bulletin revises the 2023 FDOT Design Manual (FDM) standard shoulder widths for paved shoulders on RRR projects.

REQUIREMENTS

Replace *FDM Table 210.4.1 Standard Shoulder Widths* with the revised *FDM Table 210.4.1* shown in **Attachment 'A'**. The revision allows existing unpaved median or left shoulders to remain on RRR projects, with consideration given to providing 4 foot paved shoulders on RRR projects where there is a documented safety or maintenance concern.

COMMENTARY

The **2022 FDM** revised FDOT's design criteria to require a 4 foot median or left paved shoulder on new construction divided flush shoulder roadways, consistent with the AASHTO Greenbook.

The revised criteria in *FDM Table 210.4.1* will provide greater flexibility for the districts to program the most effective design options on a project-by-project basis for RRR projects. The inside paved shoulders may be provided or not, depending on the scope and need of the RRR project.

IMPLEMENTATION

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The requirements of this bulletin are effective immediately on all design-bid-build projects for which the Phase II submittal has not yet been completed. Implementation of this bulletin for design-bid-build projects after completion of the Phase II submittal is at the discretion of the districts.

The requirements of this bulletin are effective immediately on all design-build projects for which the final Request for Proposal (RFP) has not yet been released. Implementation of this bulletin for design-build projects after the final RFP has been released is at the discretion of the districts.

CONTACTS

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DCS/ddc

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Attachment 'A'

Table 210.4.1 Standard Shoulder Widths

Lane Type	# Lanes (One Direction)	Without Shoulder Gutter				With Shoulder Gutter			
		Outside		Median Or Left		Outside		Median Or Left	
		Full Width (feet)	Paved Width (feet)	Full Width (feet)	Paved Width (feet)	Full Width (feet)	Paved Width (feet)	Full Width (feet)	Paved Width (feet)
Travel Lanes	4-Lanes or more	10	5	10	4	15.5	8	15.5	8
	3-Lanes	10	5	10	4	15.5	8	15.5	8
	1-Lane & 2-Lanes	10	5	8	4	15.5	8	13.5	6
Aux. Lanes	ALL	10	5	8	4	11.5	4	11.5	4

Notes:

Without shoulder gutter:

- (1) Consider 12-foot outside full width shoulder adjacent to travel lanes with high AADT or greater than 10% trucks.
- (2) Consider providing a minimum 10-foot median shoulder where continuous barrier or guardrail is present.
- (3) Outside shoulder widths for auxiliary lanes typically match those of the adjacent roadway; however, width may be reduced to 6-foot shoulder with 2-foot paved for right turn lanes when a bicycle keyhole is present.
- (4) Pave the entire width of shoulders adjacent to concrete barriers. See FDM 215.4.6.1.
- (5) For RRR Projects:
 - (a) an existing full width shoulder of 6-foot or greater may be retained
 - (b) the following minimum existing outside paved shoulder widths may also be retained:
 - i. 4-foot adjacent to travel lane
 - ii. 2-foot adjacent to auxiliary lane
 - (c) an existing unpaved median or left shoulder may be retained. Consider providing a 4-foot median or left paved shoulder adjacent to travel and auxiliary lanes where there are documented safety or maintenance concerns.

With shoulder gutter:

- (1) Paved shoulders less than 6 feet in width with adjoining shoulder gutter must be the same type, depth, and cross slope as the roadway pavement.
- (2) Shoulders must extend 4 feet beyond the back of shoulder gutter and have a 0.06 cross slope back toward the gutter.
- (3) Required shoulder widths for auxiliary lanes typically match those of the adjacent roadway.