



Florida Department of Transportation

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ROADWAY DESIGN BULLETIN 26-01

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DATE: July 20, 2026

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Maintenance Engineers, District Pavement Engineers, District Consultant Project Management Engineers, District Structures Design Engineers, District Roadway Design Engineers, District Geotechnical Engineers, District Traffic Operations Engineers, District Program Management Engineers, District Drainage Engineers, District Materials Engineers, District Specifications Engineers, District Estimates Engineers, District Safety Engineers, District Safety Administrators

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

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SUBJECT: ***Data Collection for Resurfacing Projects***

This bulletin announces revisions to ***FDM 210*** and ***FDM 211*** language related to collection of existing cross slope and superelevation information for Resurfacing projects.

REQUIREMENTS

1. Replace *FDM 210.2.4.1* with the following:

210.2.4.1 RRR Criteria for Cross Slopes

Evaluate the existing pavement and shoulder cross slopes for compliance with criteria. This assessment should include review of relevant documents from previous projects, such as as-built plans and approved Design Exceptions or Design Variations. Additionally, the review must include field verification of existing pavement and shoulder cross slopes.

The initial field verification can be accomplished using a Vehicle Mounted Scanner (e.g., Multi-Purpose Survey Vehicle (MPSV)). Using the data collected, determine

the limits where cross slope is out of allowable range by evaluating cross slopes at 100-foot intervals.

Ensure adequate cross slope data is obtained to provide an informed engineering judgement of the existing conditions. For example, if an MPSV is used to collect cross slope data, additional field data collection may be necessary since the MPSV does not obtain shoulder cross slope data.

For locations determined to warrant cross slope correction, request a full DTM for the roadway width. The DTM will contain data with the level of accuracy that is required to provide cross slope correction details and material quantity estimates in the plans.

Resurfaced pavement and shoulder cross slopes should meet new construction criteria. When cross slope correction is not practical, documentation in the design file is required. If existing conditions are within the allowable ranges shown in **Table 210.2.3**, the term “Match Existing” may be used on the Typical Section(s) to indicate that the existing cross slope is to remain. Superelevation requirements are covered in **FDM 210.9**.

When cross slope correction is necessary, work closely with the District Pavement Design Engineer and the District Pavement Materials Engineer to determine the appropriate method of correction. Tabulate existing cross slopes in the plans at 100-ft intervals within the limits of cross slope correction. Include cross slope correction details showing the method of correction in the plans (see examples in **FDM 913**). Do not show cross slope correction details on the roadway cross sections. Base cross slope correction material quantities on the method of correction shown in cross slope correction details.

Table 210.2.3 RRR Criteria for Existing Roadway Cross Slopes

Facility or Feature	Standard (ft/ft)	Allowable Range (ft/ft)
Two-Lane Roads	0.020	0.015 - 0.030
Multilane Roads	0.020	0.015 - 0.040
	0.030	0.025 - 0.040
	0.035	0.030 - 0.040
Outside Shoulders	0.060	Adjacent Lane Cross Slope - 0.080
Inside Shoulders	0.050	0.020 - 0.080
Parking Lanes	0.050	0.015 - 0.050
Notes: (1) Standard cross slope as designated in Figure 210.2.1. (2) Existing multilane curbed roadways may have outside travel or auxiliary lanes with a maximum cross slope of 0.05. (3) Outside auxiliary lanes on flush shoulder roadways must match or exceed the adjacent travel lane cross slopes with a maximum cross slope of 0.04. (4) The maximum algebraic difference between adjacent through lanes must not exceed 0.06. (5) When existing shoulders are to remain, the algebraic difference between the shoulder cross slope and adjoining roadway pavement cross slope must be ≤ 0.07. (6) Parking spaces and access aisles dedicated to serving persons with disabilities must have cross slopes no steeper than 0.02 (1:50) in any direction.		

Existing curbed roadways originally constructed with a parabolic crown section may be resurfaced using a series of tangents with a cross slope range from 0.015 to 0.05.

2. Add the following sentence to the beginning of *FDM 210.9.2*:

Refer to ***FDM 210.2.4.1*** (or ***FDM 211.2.2.1*** for Limited Access facilities) for evaluating existing pavement and shoulder cross slope in superelevation.

3. Replace *FDM 211.2.2.1* with the following:

211.2.2.1 Existing Pavement Cross Slopes

Evaluate the existing pavement and shoulder cross slopes for compliance with criteria. This assessment should include review of relevant documents from previous projects, such as as-built plans and approved Design Exceptions or Design Variations. Additionally, the review must include field verification of existing pavement and shoulder cross slopes.

The initial field verification can be accomplished using a Vehicle Mounted Scanner (e.g., Multi-Purpose Survey Vehicle (MPSV)). Using the data collected, determine the limits where cross slope is out of allowable range by evaluating cross slopes at 100-foot intervals.

Ensure adequate cross slope data is obtained to provide an informed engineering judgement of the existing conditions. For example, if an MPSV is used to collect cross slope data, additional field data collection may be necessary since the MPSV does not obtain shoulder cross slope data.

For locations determined to warrant cross slope correction, request a full DTM for the roadway width. The DTM will provide data with the level of accuracy that is required to provide cross slope correction details and material quantity estimates in the plans.

Resurfaced pavement and shoulder cross slopes should meet new construction criteria. When cross slope correction is not practical, documentation in the design file is required. If existing conditions are within the allowable range shown in **Table 211.2.3**, the term “Match Existing” may be used on the Typical Section(s) to indicate that the existing cross slope is to remain. Superelevation requirements are covered in **FDM 211.8**.

When cross slope correction is necessary, work closely with the District Pavement Design Engineer and the District Pavement Materials Engineer to determine the appropriate method of correction. Tabulate existing cross slopes in the plans at 100-ft intervals within the limits of cross slope correction. Include cross slope correction details showing the method of correction in the plans (see examples in **FDM 913**). Do not show cross slope correction details on the roadway cross sections. Base cross slope correction material quantities on the method of correction shown in cross slope correction details.

Table 211.2.3 Allowable Range for Existing Pavement Cross Slopes

Facility or Feature	Standard (ft./ft.)	Allowable Range (ft./ft.)
Travel Lanes	0.02	0.015 - 0.025
Travel Lanes	0.03	0.025 - 0.035
Outside Shoulder	0.06	Adjacent Lane Cross Slope - 0.080
Median (left) Shoulder	0.05	0.020 - 0.080
Notes: (1) Standard cross slope (0.02 or 0.03) as designated in Figure 211.2.1 . (2) The algebraic difference in cross slope between adjacent travel lanes must not exceed 0.04. The maximum algebraic difference in cross slope between a through lane and an auxiliary lane at a turning roadway terminal must meet Table 211.2.2 . (3) When existing shoulders are to remain, the algebraic difference between the shoulder cross slope and adjoining roadway pavement cross slope must be ≤ 0.07 . (4) Outside auxiliary lanes must match or exceed adjacent travel lane cross slopes with a maximum cross slope of 0.035.		

BACKGROUND

Resurfacing projects routinely obtain existing cross slope data by the Multi-Purpose Survey Vehicle (MPSV), which is only able to collect data for the travel lanes and does not include shoulder cross slope data. It is important that adequate data is collected to make informed engineering decisions about cross slope, superelevation, and algebraic difference.

The revisions make the following changes:

1. Provides guidance for evaluation of existing travel lane and shoulder cross slope and superelevation data.
2. Clarifies that DTM is required for areas of proposed cross slope correction.
3. Eliminates outdated guidance that listed 2 options for field verification of pavement and shoulder cross slope data.

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IMPLEMENTATION

The requirements of this bulletin are effective immediately on all projects where implementation will not adversely impact production schedules.

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