



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

MIKE DEW
SECRETARY

ROADWAY DESIGN BULLETIN 18-04

(FHWA Approved: 4/18/18)

DATE: April 20, 2018

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Maintenance Engineers, District Consultant Project Manager Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Program Management Engineers, District Materials Engineers

FROM: Michael Shepard, P.E., State Roadway Design Engineer DocuSigned by:
Michael Shepard
E6B6BEAEB9A54B0...

COPIES: Brian Blanchard, Tom Byron, Courtney Drummond, Tim Lattner, Rudy Powell, David Sadler, Trey Tillander, Amy Tootle, Dan Scheer, Vern Danforth, Gregory Schiess, Stefanie Maxwell, Dan Hurtado, Robert Robertson, Lora Hollingsworth, Kevin Burgess (FHWA), Nick Finch (FHWA), Chad Thompson (FHWA), Bren George (FHWA)

SUBJECT: **Pavement Maximum Cross Slope**

This bulletin clarifies the Department's policy on maximum allowable cross slope for high-speed roadways, including Limited Access (LA) Facilities.

REQUIREMENTS

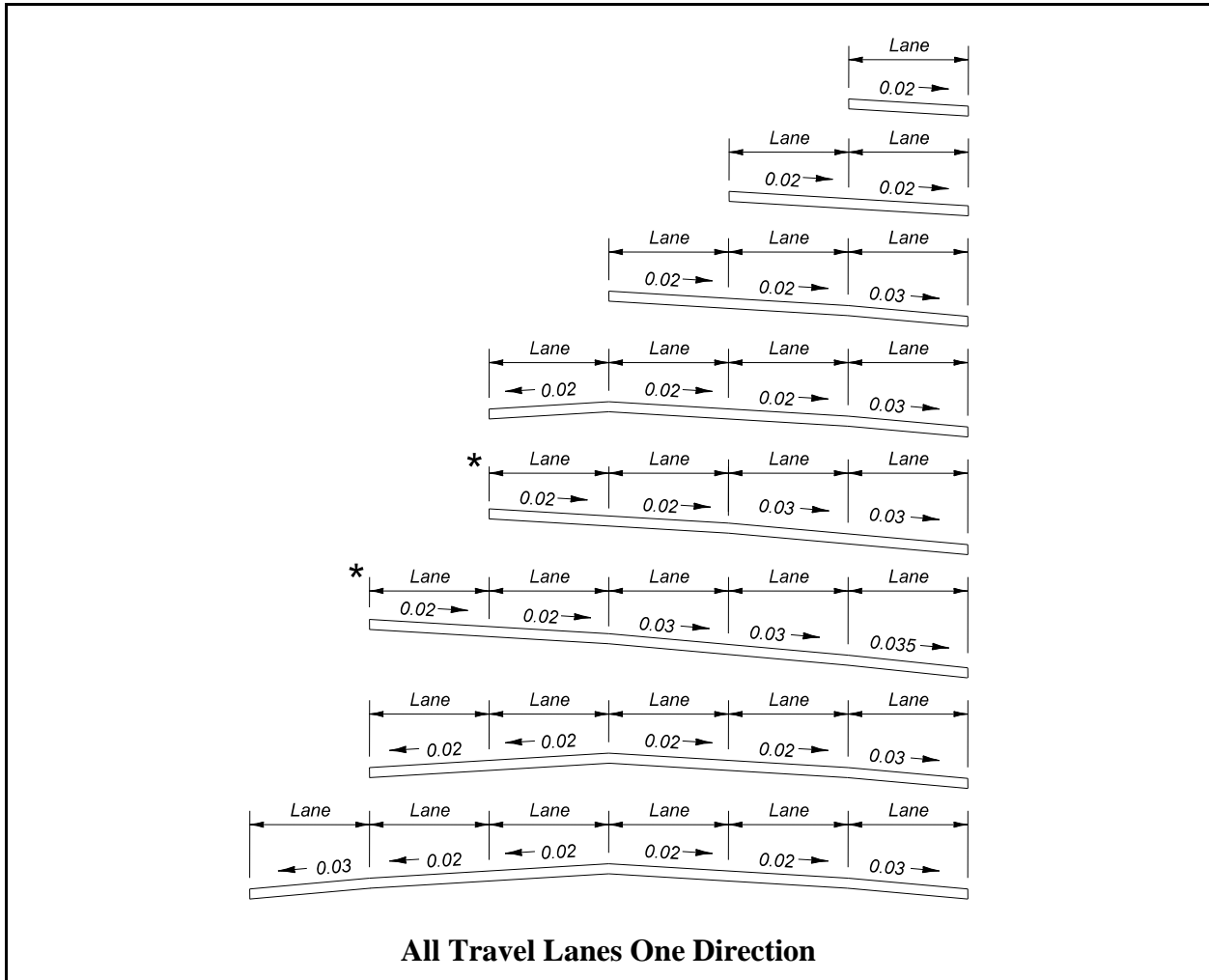
Replace *Figure 2.1.1* from *Plans Preparation Manual (PPM) Volume 1, Chapter 2* with the figure shown on page 2 of this bulletin.

COMMENTARY

The maximum allowable cross slope shown in *Figure 2.1.1* in the *2014 PPM* was 4% for design speed ≤ 45 mph and 3% for > 45 mph. The hydroplaning bulletin released in May 2014 changed the note in *Figure 2.1.1* to indicate that the maximum allowable cross slope is 4% for all design speeds. This note change was carried forward into the 2015, 2016, and 2017 editions of the *PPM*.

This bulletin corrects the note in *Figure 2.1.1* to conform to the maximum allowable cross slopes on LA facilities; this criteria is currently reflected in the *FDOT Design Manual (FDM)*.

Figure 2.1.1 Standard Pavement Cross Slopes



- (1) These sections show only the standard slopes for adjoining travel lanes; they do not prescribe needed lanes, lane usage or typical section requirements other than lane slope. These slopes are not applicable to parabolic crowns.
- (2) Maximum pavement cross slopes for tangent sections are:
 - (a) 0.04 for design speeds of 45 mph or less
 - (b) 0.03 for design speeds greater than 45 mph; .035 may be used only for a 5-lane section sloped in one direction as shown above.
- (3) The maximum change in cross slope between adjacent through lanes is 0.04.
- (4) Slopes on multi-purpose lanes may be 0.03 to 0.05. Portions of multi-purpose lanes that are reserved for parking and access aisles for the physically disabled are to have cross slopes not exceeding 1:50 (0.02) in all directions.
- (5) 4 or more lanes sloped in one direction (*) may be used with design speed 65 mph or less and longitudinal grades not exceeding 5%.

Roadway Design Bulletin 18-04
Pavement Maximum Cross Slope
Page 3 of 3

IMPLEMENTATION

The requirements of this bulletin are effective immediately.

CONTACT

Paul Hiers, P.E.
Roadway Design Criteria Administrator
Paul.Hiers@dot.state.fl.us

MS/ph/mjh