
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index
(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: January 27, 2021

Originator: Ben Gerrell

Phone: (850) 414-4318

Email: benjamin.gerrell@dot.state.fl.us

Standard Plans:

Index Number: 000-511

Sheet Number (s): 1 and 2

Index Title: Superelevation Transitions - Low Speed
Roadways

Summary of the changes:

Sheet 1: Updated Note 4 to match values in FDM; added ONE Lane option to the Facilities to be consistent with FDM.

Sheet 2: Update table to match FDM; Changed ratio in the PROFILE views for clarity.

Commentary / Background:

These revisions to the Superelevation Transition Indexes are proposed to make the Standard Plans more consistent with the FDOT Design Manual and Table 210.9.3.

Other Affected Offices / Documents: (Provide name of person contacted)

Yes	No	
☒	☐	Other Standard Plans – Rick Jenkins
☒	☐	FDOT Design Manual – Ben Gerrell
☐	☒	Basis of Estimates Manual –
☐	☒	Standard Specifications –
☐	☒	Approved Product List –
☐	☒	Construction –
☐	☒	Maintenance –

Origination Package Includes:

(Email or hand deliver package to Rick Jenkins)

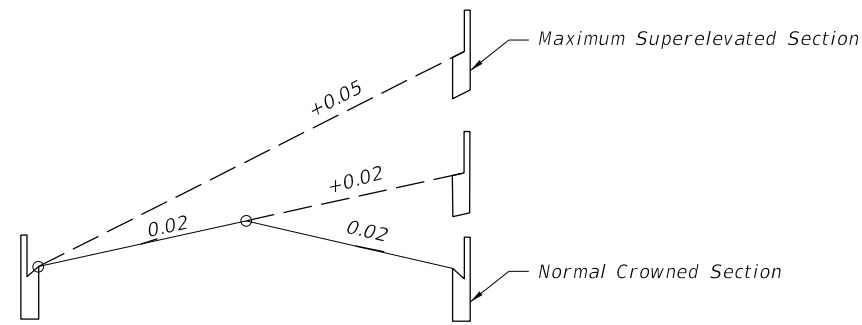
Yes	N/A	
☒	☐	Redline Mark-ups
☐	☐	Proposed Standard Plan Instruction (SPI)
☐	☐	Revised SPI
☐	☐	Other Support Documents

Implementation:

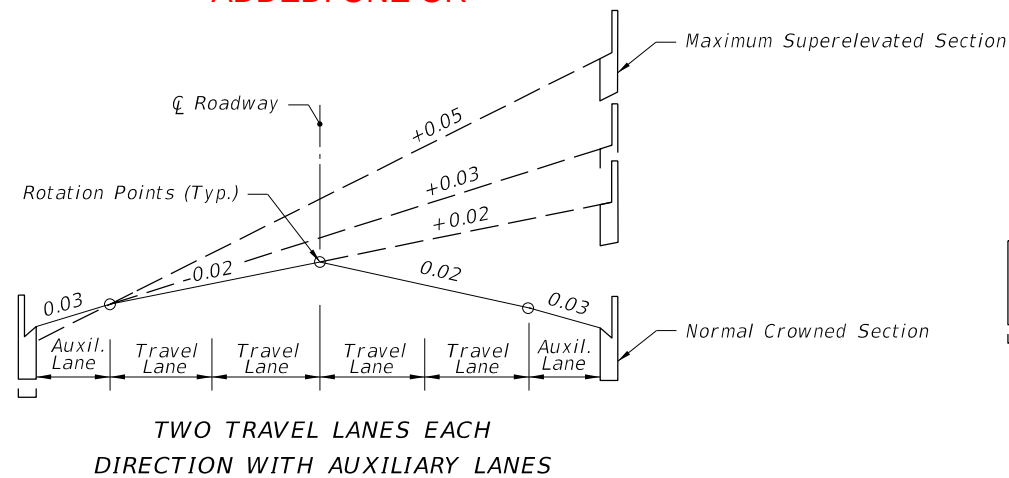
☐	Design Bulletin (Interim)
☐	DCE Memo
☐	Program Mgmt. Bulletin
☒	FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form

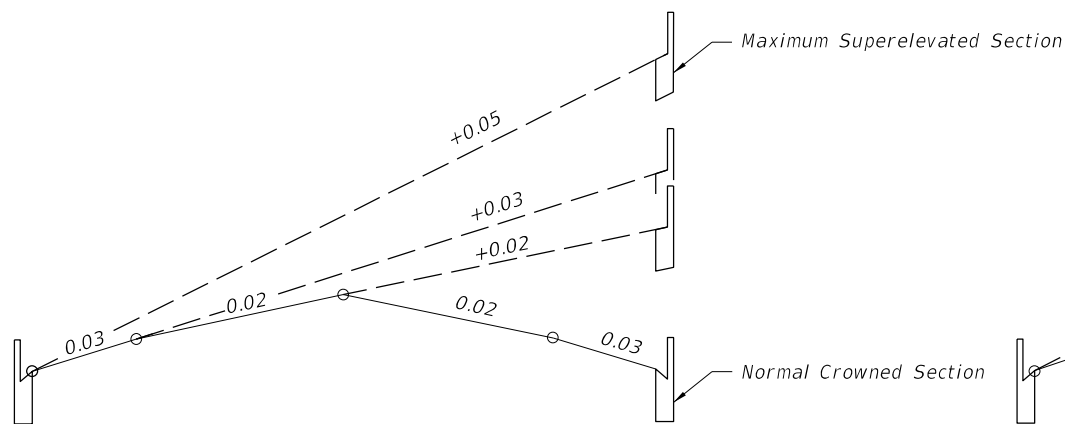
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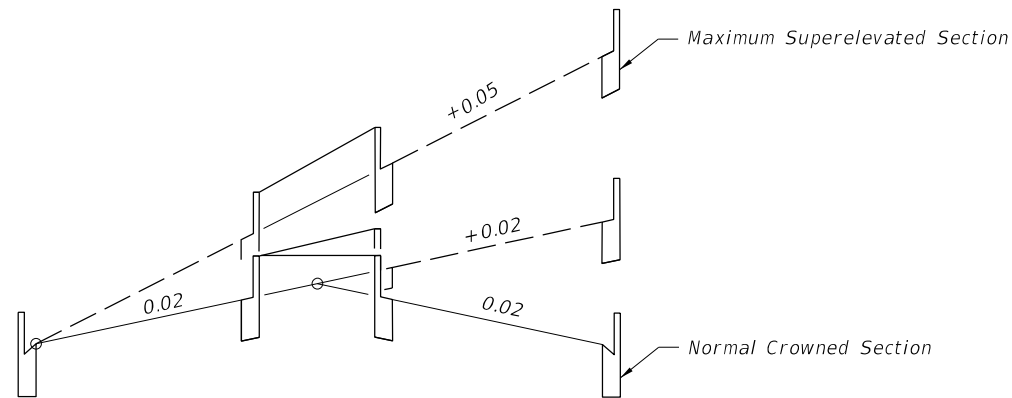
TWO TRAVEL LANES EACH DIRECTION
ADDED: ONE OR



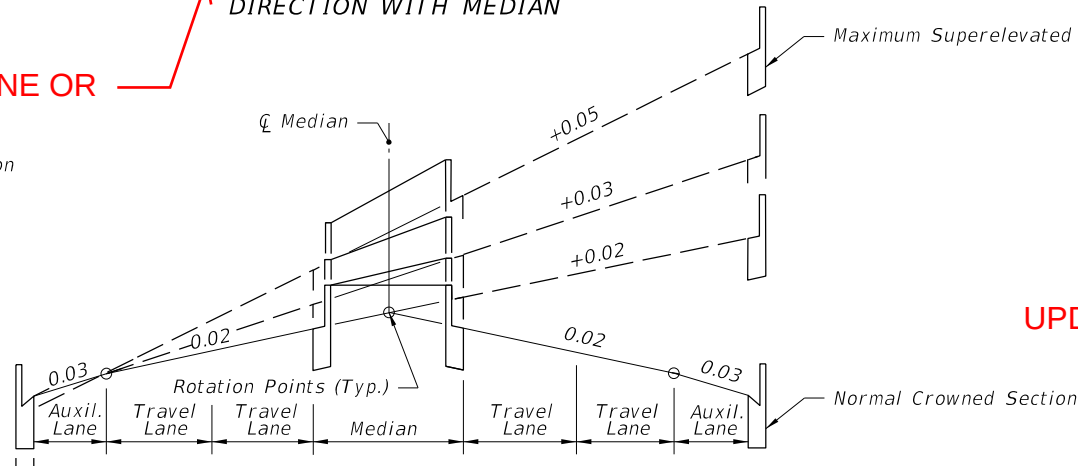
TWO TRAVEL LANES EACH DIRECTION WITH AUXILIARY LANES



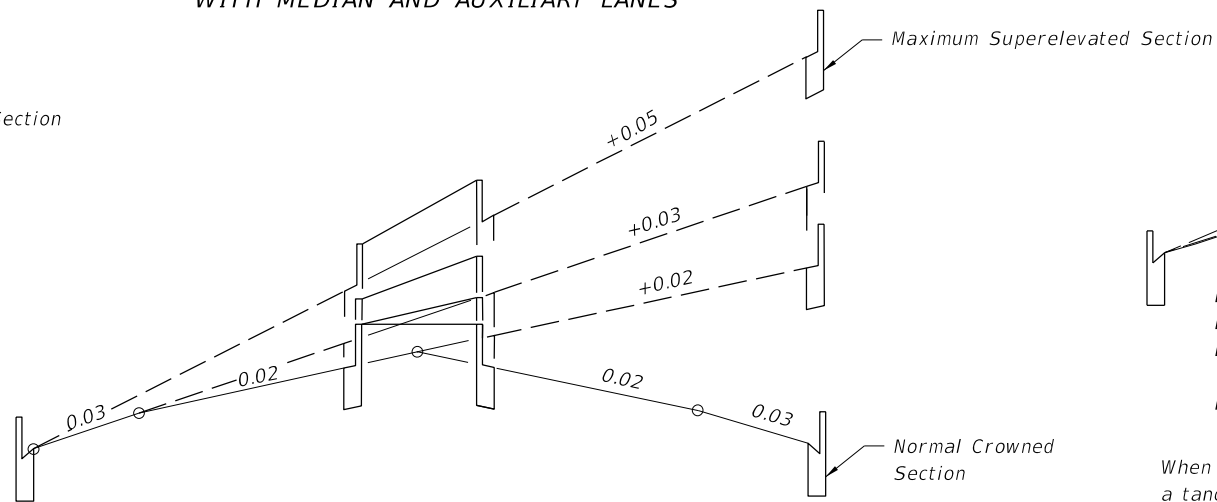
UNDIVIDED FACILITIES



TWO TRAVEL LANES EACH DIRECTION WITH MEDIAN



TWO TRAVEL LANES EACH DIRECTION WITH MEDIAN AND AUXILIARY LANES

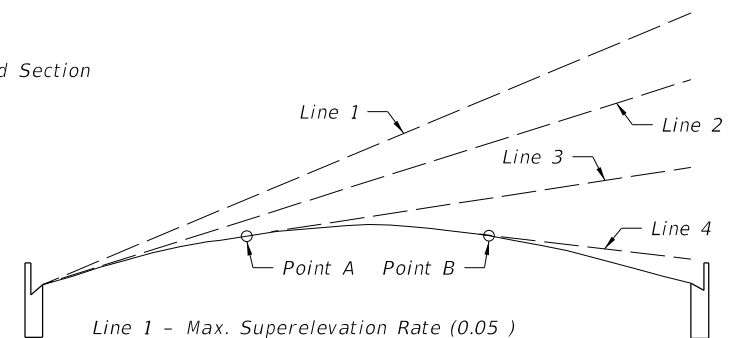


THREE TRAVEL LANES EACH DIRECTION WITH MEDIAN

DIVIDED FACILITIES

- GENERAL NOTES:**
1. Obtain Superelevation by rotating the plane successively about the break points of the section until the plane has attained a slope equal to that required by the Plans. Should the rotation traverse the entire section and further superelevation be required, the remaining rotation of the plane shall be about the low edge of the inside travel lane. Crown is to be removed in the auxiliary lane to the outside of the curve only when the adjoining travel lanes require positive superelevation.
 2. When positive superelevation is required, continue the slope of the pavement across the gutter on the high side.
 3. **UPDATED TO: 25-30 MPH** ~~all angular profile breaks elevation transition.~~
 4. The variable superelevation transition length "L" has a minimum value of 50 feet for design speeds under 40 MPH and 75 feet for design speeds of ~~40 MPH or greater.~~
 5. Roadway sections having lane arrangements different from those shown, but composed of a series of planes, are superelevation in a similar manner.

UPDATED TO: 40-45 MPH



- Line 1 - Max. Superelevation Rate (0.05)
Line 2 - Slope Of Parabola At Inside Edge Of Pavt.
Line 3 - Positive Superelevation Rate Less Than Max. Slope Of Parabola.
Line 4 - Adverse Superelevation.

When this section is used, superelevation is established by rotating a tangent about the arc of the parabolic crown until the desired slope is attained (points A & B on sketch). The normal parabolic crown will be maintained outside the limits of the plane thus formed.

PARABOLIC SECTION

SUPERELEVATION TRANSITION SECTIONS FOR LOW SPEED HIGHWAYS



FY 2021-22
STANDARD PLANS

SUPERELEVATION TRANSITIONS -
LOW SPEED HIGHWAYS

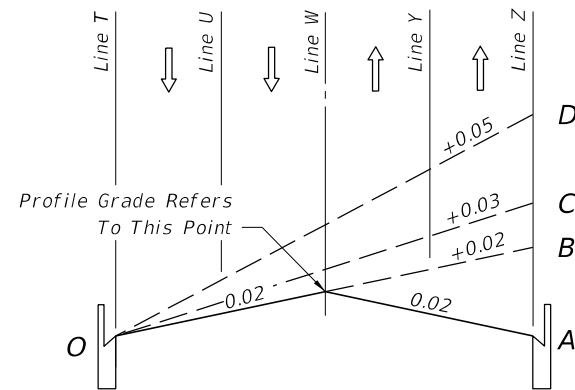
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LAST REVISION
11/01/18

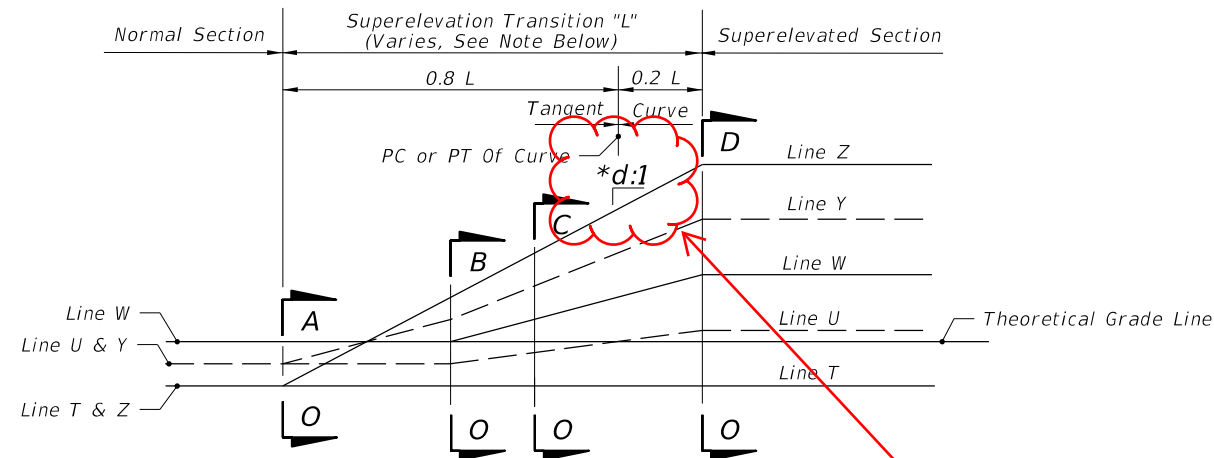
DESCRIPTION:

11/01/21



SECTION 0-A to 0-D

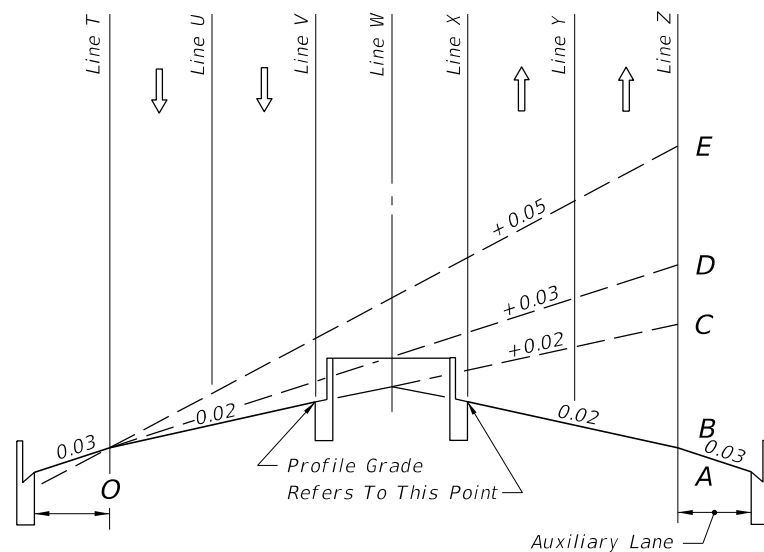
TWO LANES EACH DIRECTION



PROFILE

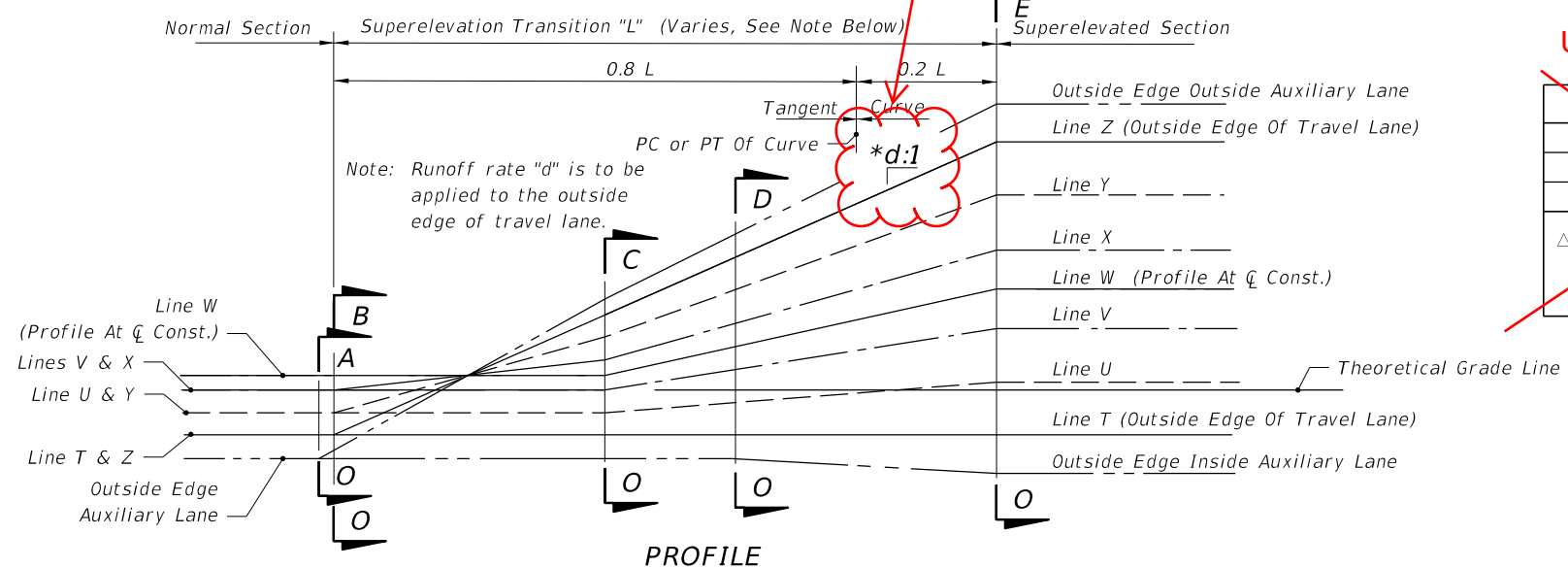
CHANGED TO: 1 ^d

LINE	DESCRIPTION
T	Inside Travel Lane
U	Inside Lane Line
V	Inside Median Edge Pavement
W	CL Construction
X	Outside Median Edge Pavement
Y	Outside Lane Line
Z	Outside Travel Lane
Inside And Outside Are Relative To Curve Center	



SECTION 0-A to 0-E

TWO LANES EACH DIRECTION WITH MEDIAN AND AUXILIARY LANE



PROFILE

UPDATED TABLE

*d (Slope Ratio)	
30 MPH	1: 100
40 MPH	1: 125
45 MPH Δ	1: 150
Δ 1: 125 May Be Used For 45 MPH Under Restricted Conditions.	

Note: The sections and profiles shown are examples of superelevation transitions. Similar schemes should be used for roadways having other sections.

EXAMPLE SUPERELEVATION SECTIONS AND PROFILES FOR LOW SPEED HIGHWAYS

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LAST REVISION	DESCRIPTION:
11/01/20	11/01/21



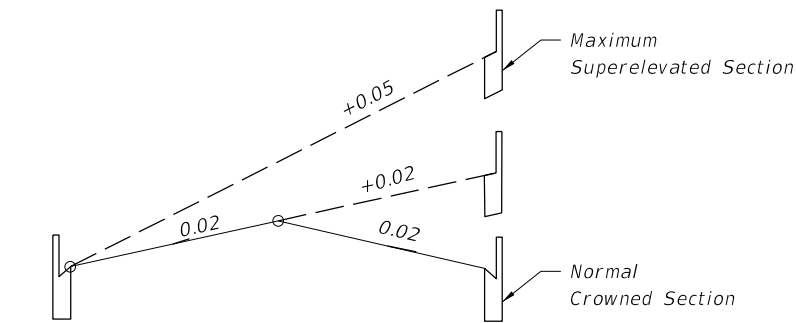
FY 2021-22
STANDARD PLANS

SUPERELEVATION TRANSITIONS -
LOW SPEED HIGHWAYS

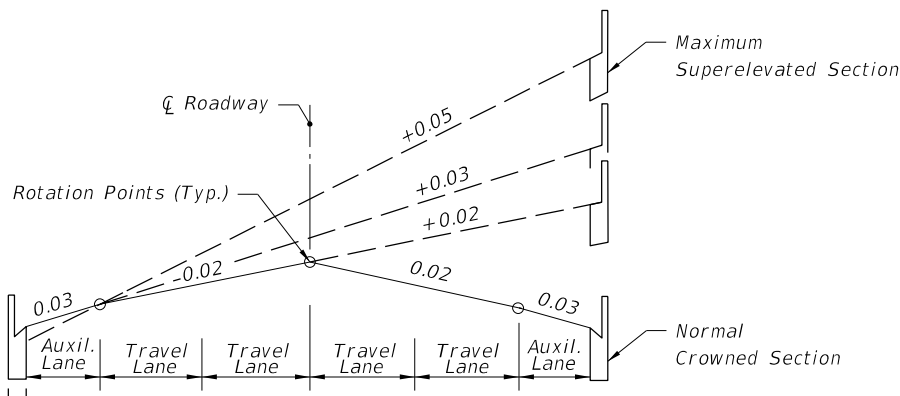
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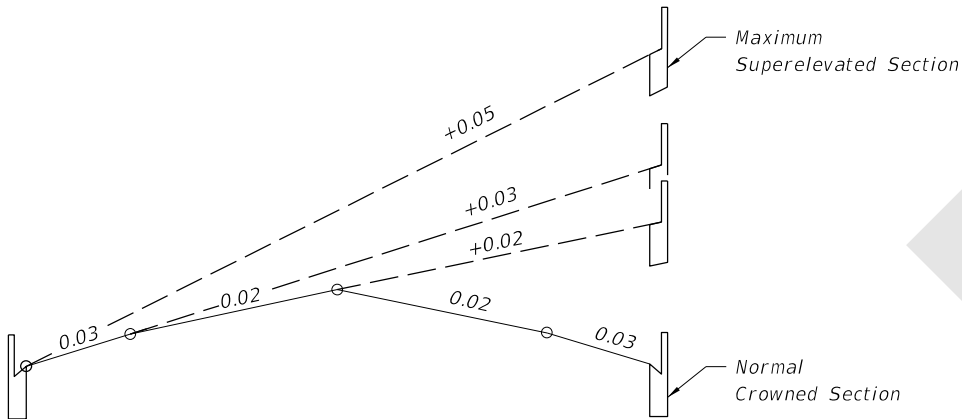
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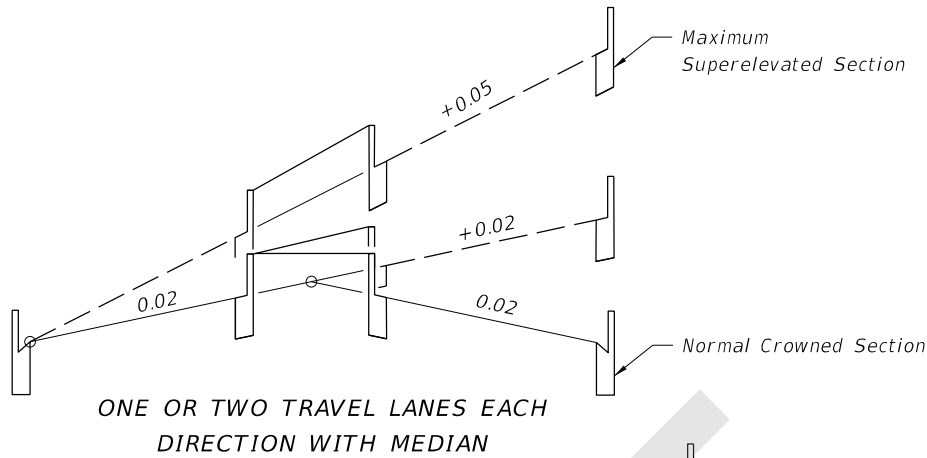
ONE OR TWO TRAVEL LANES EACH DIRECTION



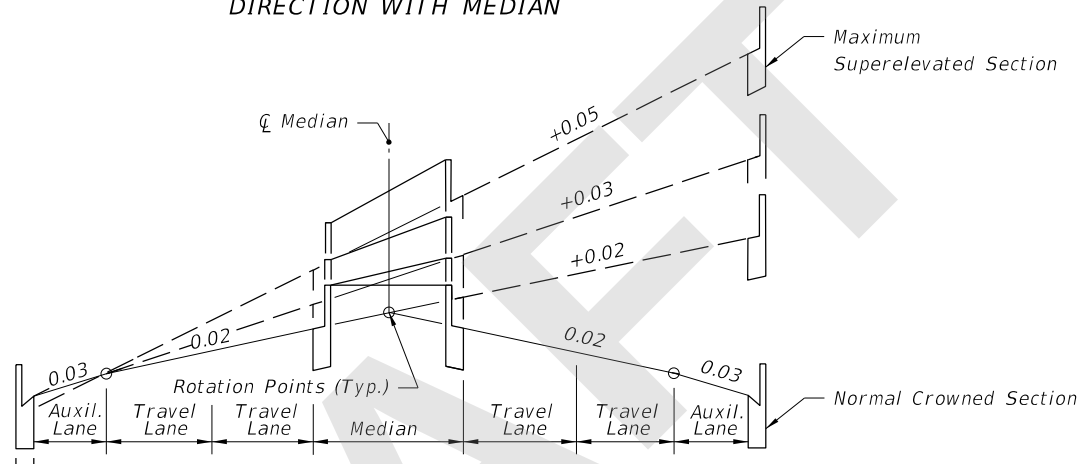
TWO TRAVEL LANES EACH DIRECTION WITH AUXILIARY LANES



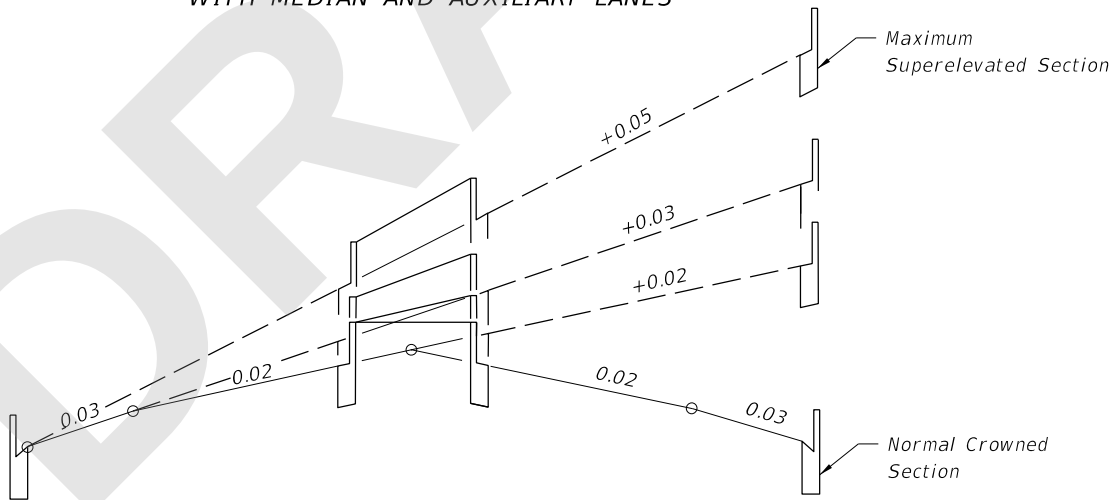
UNDIVIDED FACILITIES



ONE OR TWO TRAVEL LANES EACH DIRECTION WITH MEDIAN

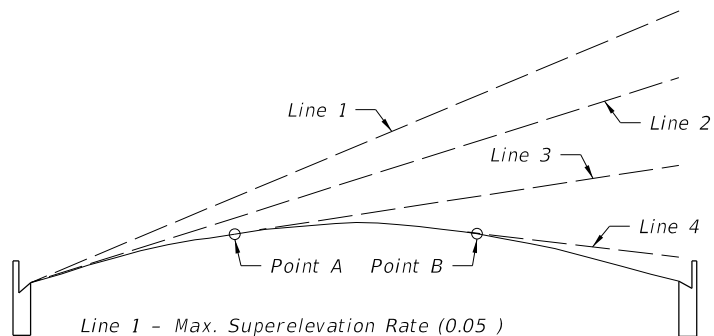


TWO TRAVEL LANES EACH DIRECTION WITH MEDIAN AND AUXILIARY LANES



THREE TRAVEL LANES EACH DIRECTION WITH MEDIAN

DIVIDED FACILITIES



Line 1 - Max. Superelevation Rate (0.05)
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PARABOLIC SECTION

SUPERELEVATION TRANSITION SECTIONS FOR LOW SPEED HIGHWAYS



FY 2022-23
STANDARD PLANS

SUPERELEVATION TRANSITIONS -
LOW SPEED HIGHWAYS

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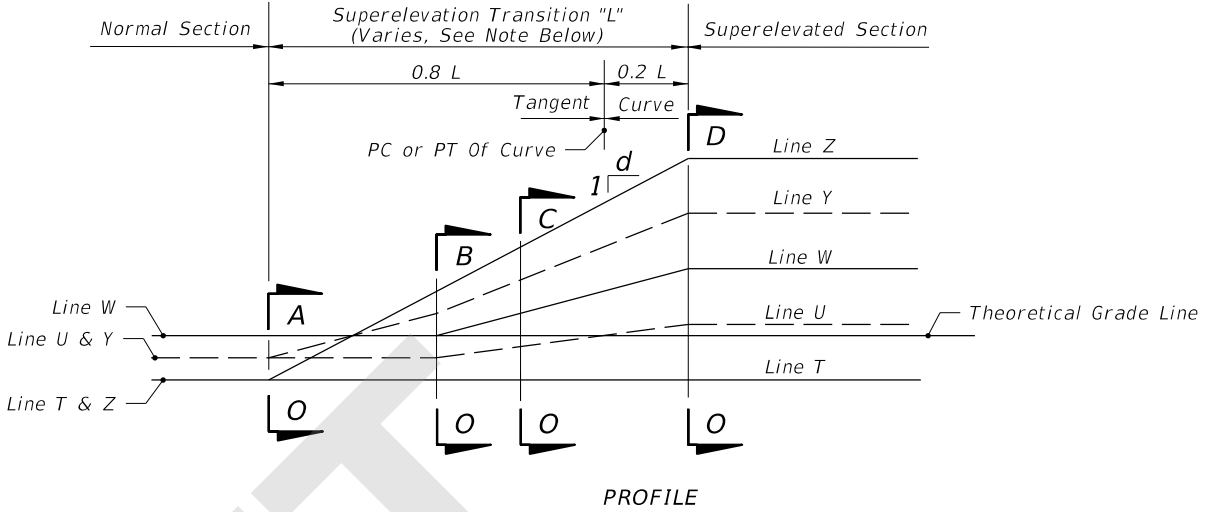
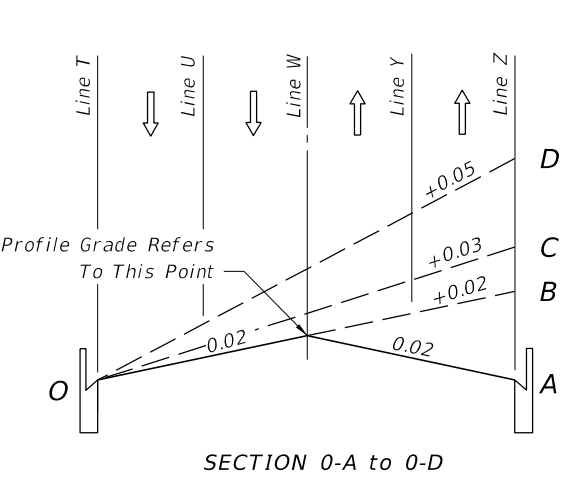
LAST
REVISION
11/01/21

REVISION

DESCRIPTION:

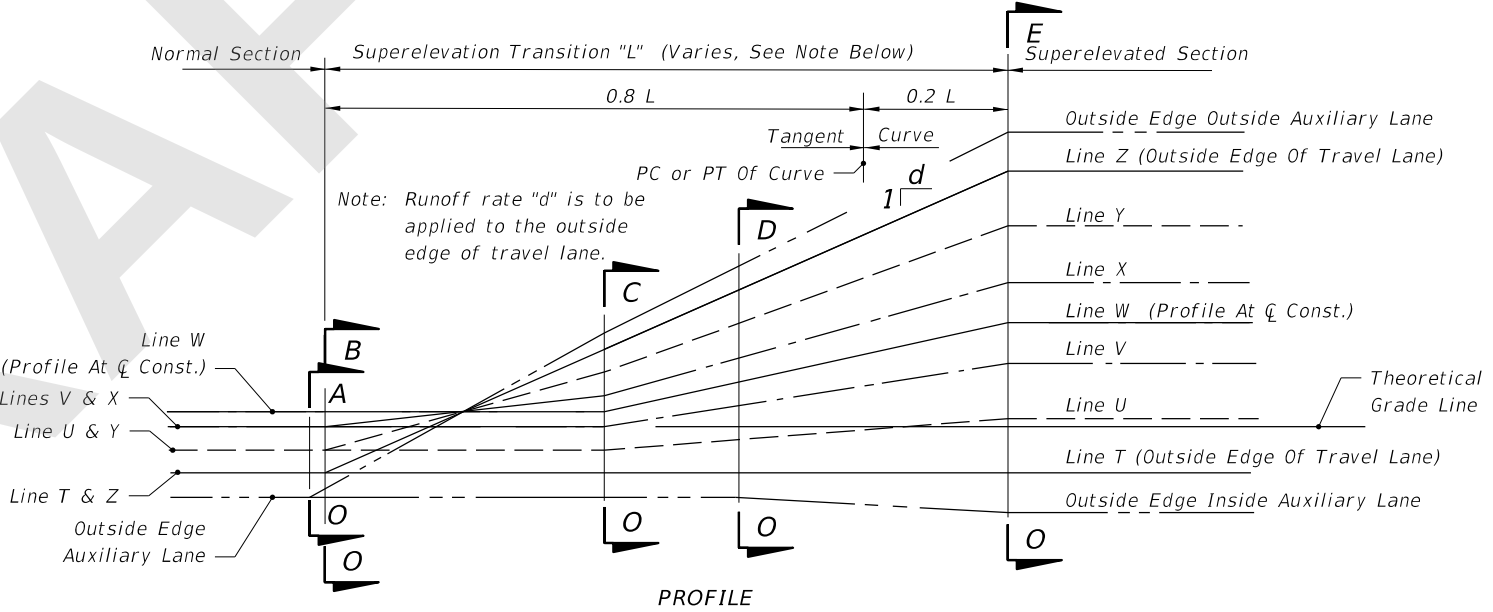
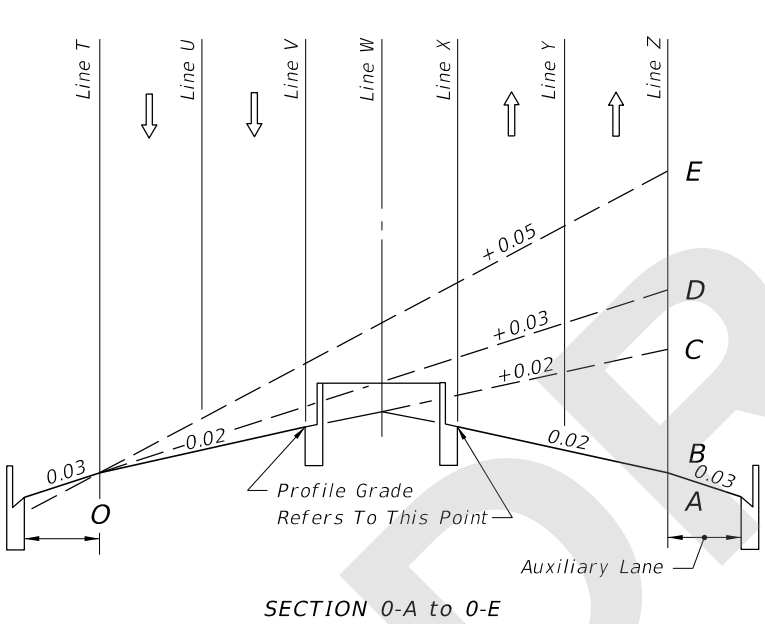
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LINE	DESCRIPTION
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U	Inside Lane Line
V	Inside Median Edge Pavement
W	℄ Construction
X	Outside Median Edge Pavement
Y	Outside Lane Line
Z	Outside Travel Lane
Inside And Outside Are Relative To Curve Center	



TWO LANES EACH DIRECTION

SLOPE RATIOS FOR SUPERELEVATION TRANSITIONS	
DESIGN SPEED MPH	1:d
25-35	1:100
40	1:125
45	1:150
1:125 May Be Used For 45 mph Under Restricted Conditions.	



TWO LANES EACH DIRECTION WITH MEDIAN AND AUXILIARY LANE

EXAMPLE SUPERELEVATION SECTIONS AND PROFILES FOR LOW SPEED HIGHWAYS

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LAST REVISION 11/01/21	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	SUPERELEVATION TRANSITIONS - LOW SPEED HIGHWAYS	INDEX 000-511	SHEET 2 of 2
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