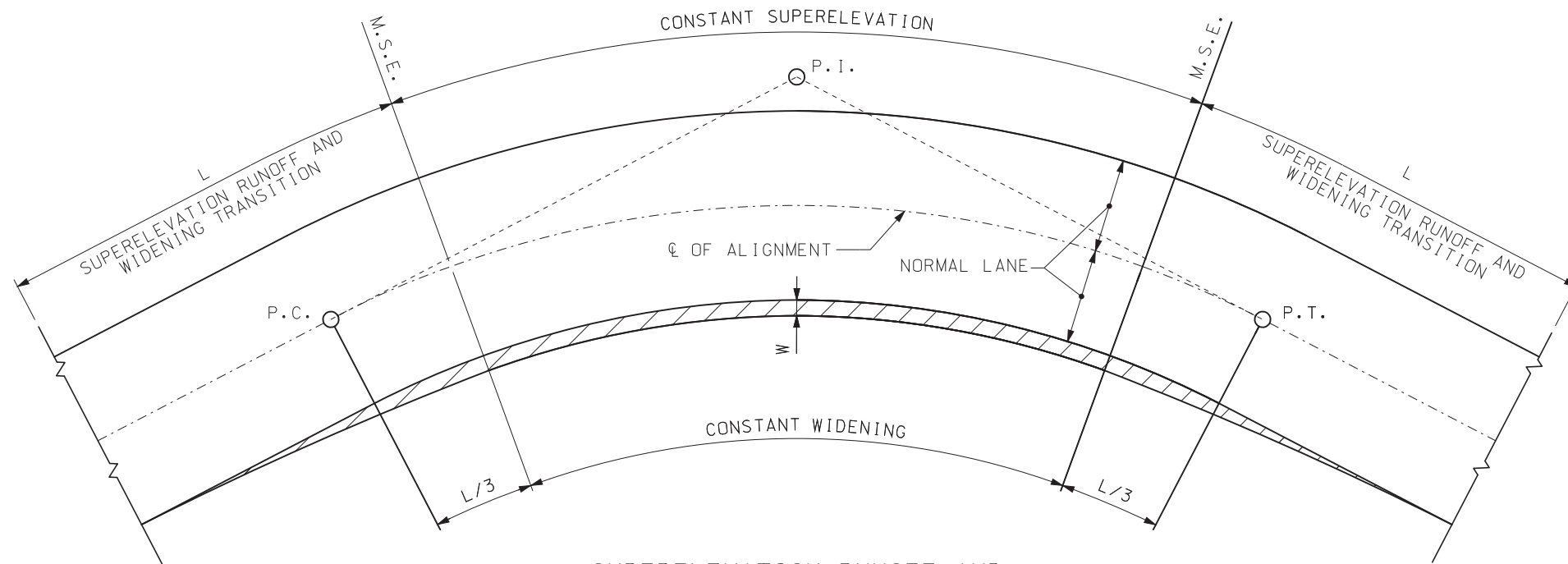


SPIRALED CURVE AND WIDENING TRANSITIONS

MULTILANE FACTORS FOR "L"	
1.0 LANE ROTATED (2 LANE ROADBED)	= 1.00
1.5 LANE ROTATED (3 LANE ROADBED)	= 1.25
2.0 LANE ROTATED (4 LANE ROADBED)	= 1.50
2.5 LANE ROTATED (5 LANE ROADBED)	= 1.75
3.0 LANE ROTATED (6 LANE ROADBED)	= 2.00
3.5 LANE ROTATED (7 LANE ROADBED)	= 2.25

MAXIMUM RADIUS FOR USE OF A SPIRAL CURVE TRANSITION	
DESIGN SPEED	MAXIMUM RADIUS (FT)
30	456
35	620
40	810
45	1025
50	1265
55	1531
60	1822
65	2138
70	2479

TABLE NOTE: THE EFFECT OF SPIRAL CURVE TRANSITION ON LATERAL ACCELERATION IS LIKELY TO BE NEGLIGIBLE FOR LARGER RADII.



SUPERELEVATION RUNOFF AND WIDENING TRANSITIONS WITHOUT SPIRALS

GENERAL NOTES:

A PRACTICAL CONTROL FOR THE LENGTH OF SPIRAL "Ls" IS CONSIDERED TO BE THE SUPERELEVATION RUNOFF "L", SEE STANDARD PLANS 203.22 SHEET 1 OF 2.

"W" THE WIDENING FOR SURFACING AT INSIDE SHOULDERS, SEE STANDARD PLANS 203.22 SHEET 2 OF 2.

WIDENING TRANSITION VARIES IN DIRECT PROPORTION TO DISTANCE.

SPIRAL CURVES ARE USED ON ALL ROADWAYS THAT HAVE DESIGN TRAFFIC GREATER THAN 400 VEHICLES PER DAY, AND HAVE A RADIUS LESS THAN THE VALUES LISTED IN THE "MAXIMUM RADIUS FOR USE OF A SPIRAL CURVE TRANSITION" TABLE.

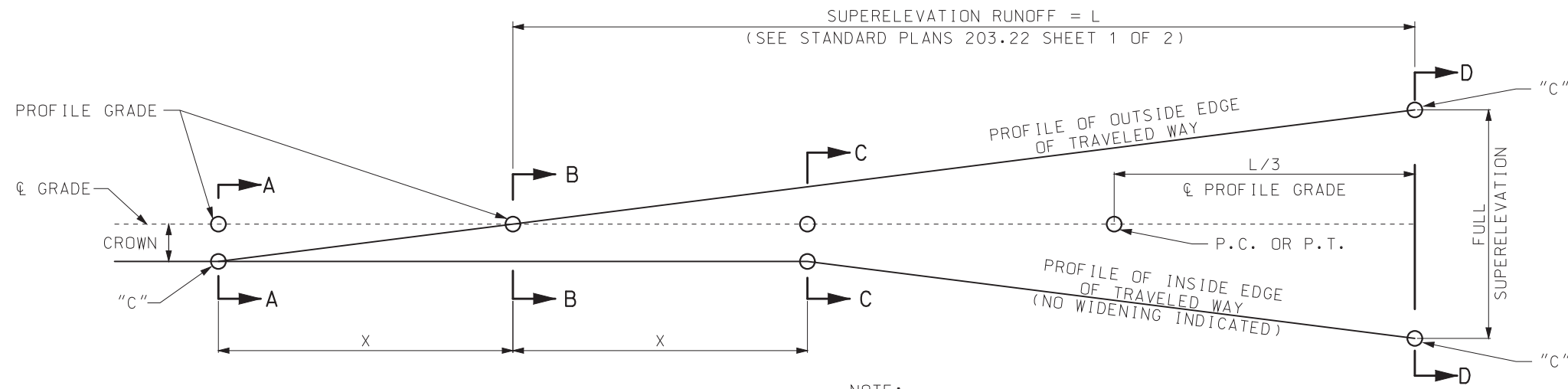
MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
 ERIC E. SCHROETER
 NUMBER PE-28411
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

SUPERELEVATION SPIRALS AND WIDENING UNDIVIDED HIGHWAYS

DATE EFFECTIVE: 07/01/2017	203.20G	SHEET NO. 1 OF 4
DATE PREPARED: 5/1/2017		

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

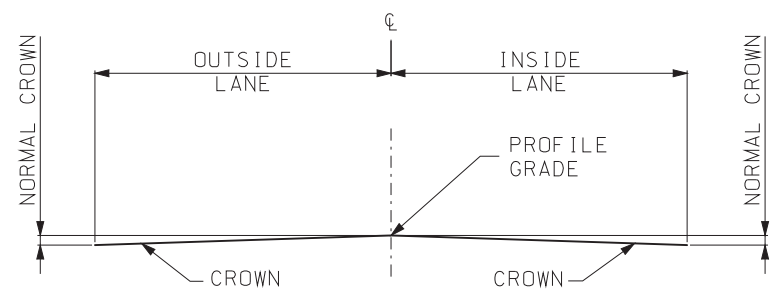


SUPERELEVATION RUNOFF = L
(SEE STANDARD PLANS 203.22 SHEET 1 OF 2)

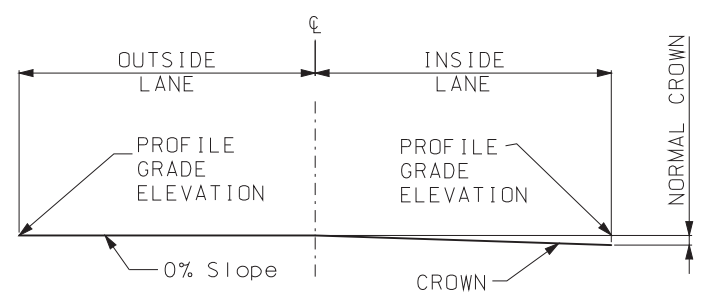
A-A TO B-B IS THE TANGENT RUNOUT.

$$x = \frac{L \times NC(\%)}{e(\%)}$$

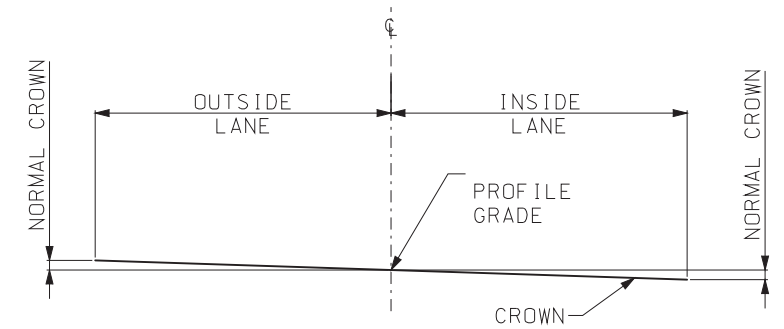
NOTE:
SHORT VERTICAL CURVES MAY BE INSERTED AT POINTS "C" BY EYE ADJUSTMENTS OF STAKES OR FORMS IN THE FIELD.



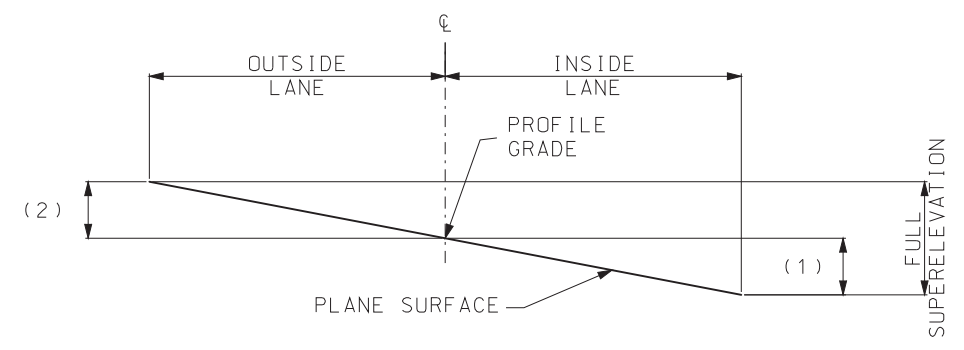
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

- (1) FULL S.E. FOR 1/2 PAVEMENT WIDTH IF GREATER THAN CROWN SLOPE.
- (2) FULL S.E. FOR 1/2 PAVEMENT WIDTH.

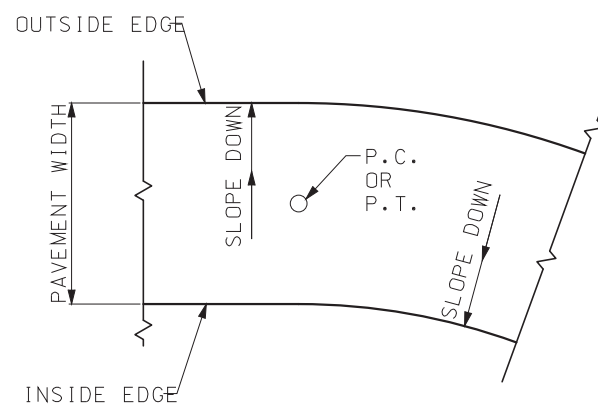
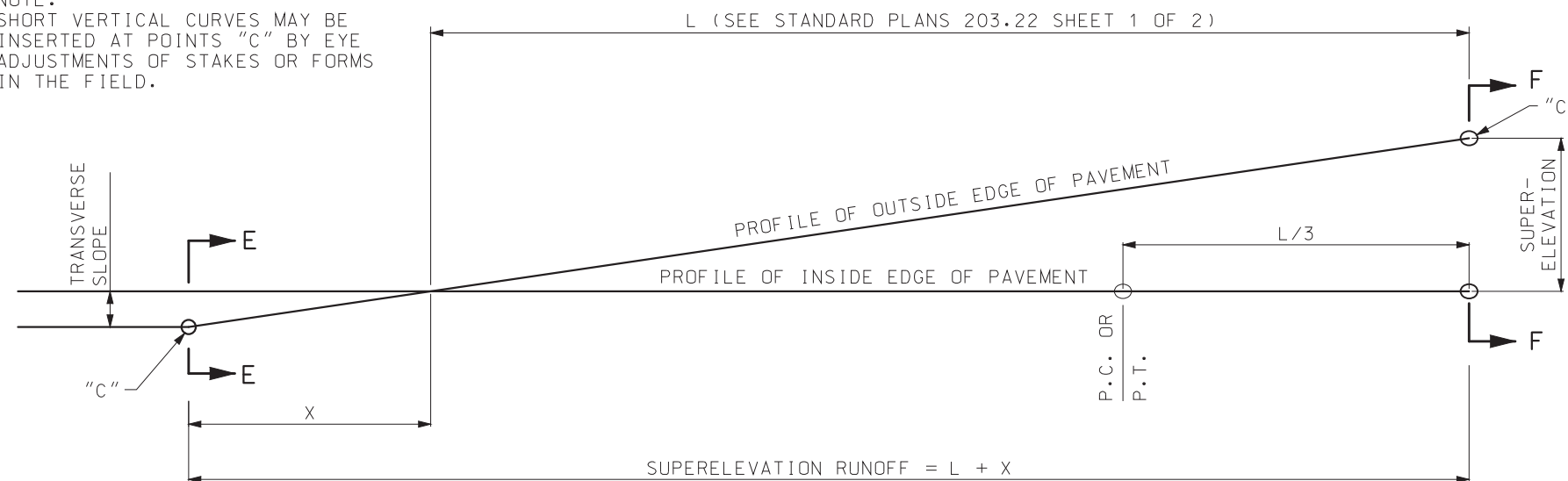
CASE NUMBER 1

(WHERE HIGH POINT OF TRAVELED WAY IS AT CENTERLINE ON TANGENT SECTION)
NOTE: USE FOR 2 LANE TRAFFIC ROADS ONLY. PAVEMENT REVOLVED ABOUT ITS C.

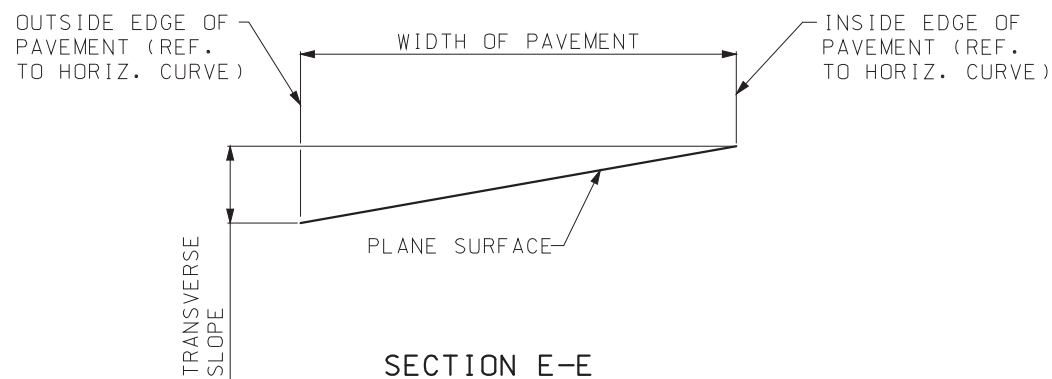
	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		<p align="center">SUPERELEVATION SPIRALS AND WIDENING UNDIVIDED HIGHWAYS</p>
DATE EFFECTIVE: 07/01/2017 DATE PREPARED: 5/1/2017	<p align="center">203.20G</p>	SHEET NO. <p align="center">2 OF 4</p>

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

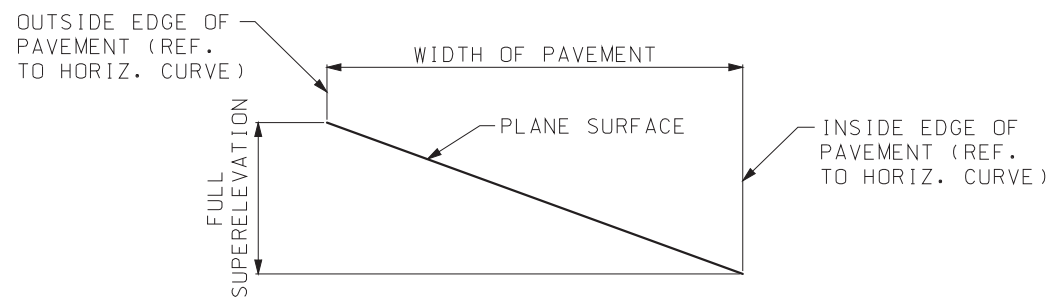
NOTE:
SHORT VERTICAL CURVES MAY BE
INSERTED AT POINTS "C" BY EYE
ADJUSTMENTS OF STAKES OR FORMS
IN THE FIELD.



PLAN OF ALIGNMENT
FOR CASE NUMBER 2



SECTION E-E



SECTION F-F

CASE NUMBER 2

(WHERE TRANSVERSE SLOPE ON TANGENT SECTION IS OPPOSITE TO SLOPE OF SUPERELEVATION)
NOTE: PAVEMENT REVOLVED ABOUT ITS INSIDE EDGE WITH REFERENCE TO THE HORIZONTAL CURVE WHICH IS BEING APPROACHED.

STRAIGHT LINE METHODS OF ATTAINING SUPERELEVATION

MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
ERIC E. SCHROETER
NUMBER PE-28411
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

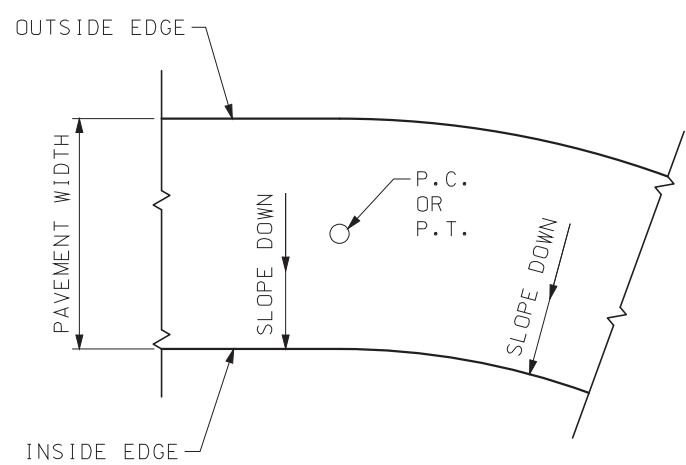
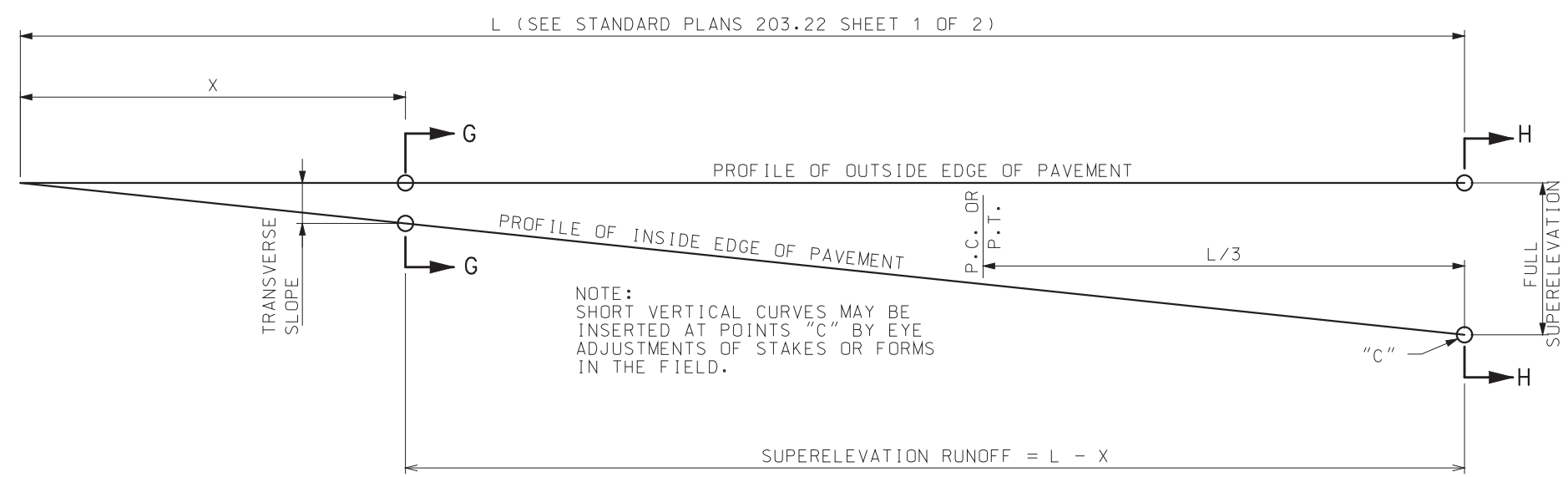
SUPERELEVATION
SPIRALS AND WIDENING
UNDIVIDED HIGHWAYS

DATE EFFECTIVE: 07/01/2017
DATE PREPARED: 5/1/2017

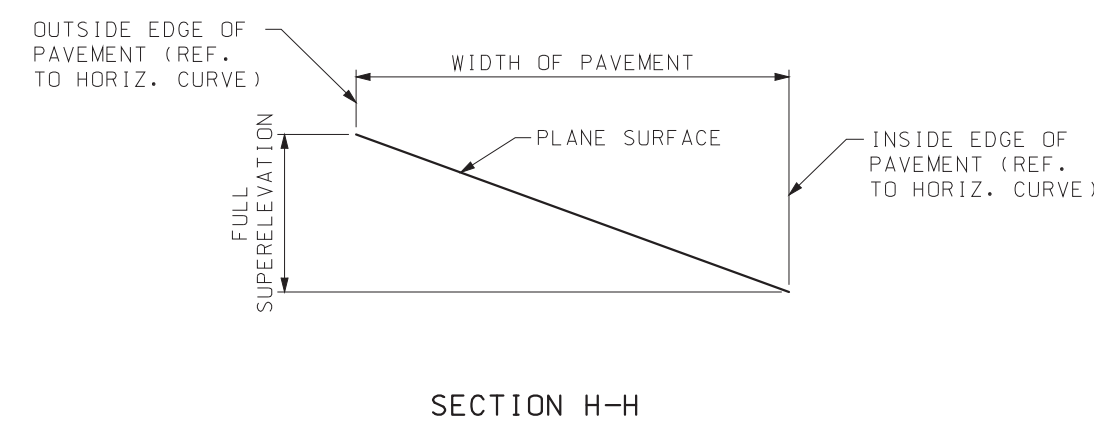
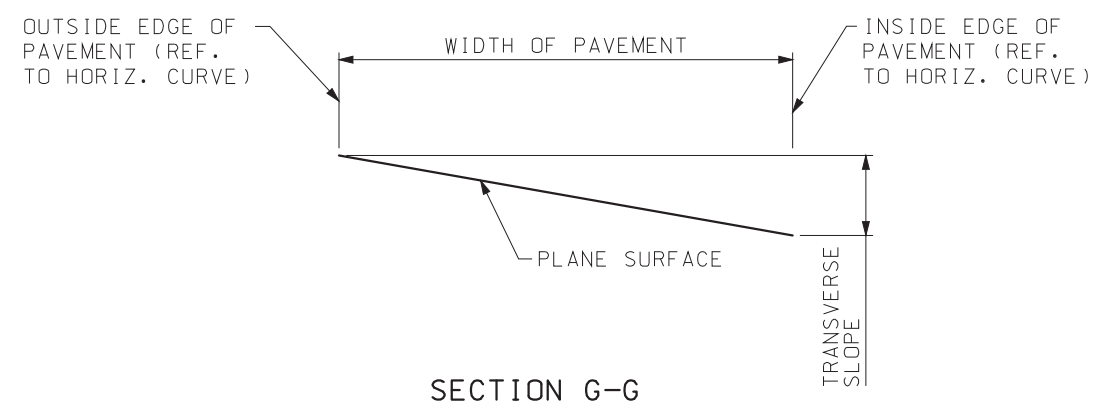
203.20G

SHEET NO.
3 OF 4

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



PLAN OF ALIGNMENT FOR CASE NUMBER 3



CASE NUMBER 3

(WHERE TRANSVERSE SLOPE ON TANGENT SECTION IS SAME DIRECTION AS SLOPE OF SUPERELEVATION)
NOTE: PAVEMENT REVOLVED ABOUT ITS OUTSIDE EDGE WITH REFERENCE TO THE HORIZONTAL CURVE WHICH IS BEING APPROACHED.

STRAIGHT LINE METHOD OF ATTAINING SUPERELEVATION

	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)
	SUPERELEVATION SPIRALS AND WIDENING UNDIVIDED HIGHWAYS
DATE EFFECTIVE: 07/01/2017 DATE PREPARED: 5/1/2017	203.20G
	SHEET NO. 4 OF 4