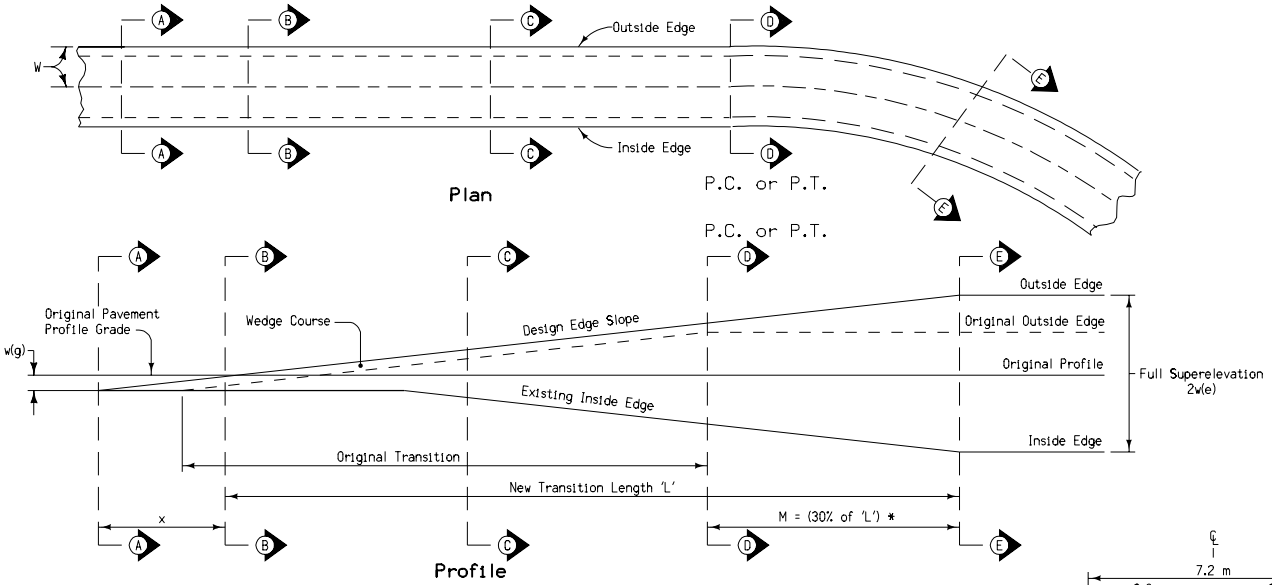


Transition lengths for a given design speed should never be less than the minimums indicated in the table, regardless of pavement width. The "x" dimensions given in the tables are based on normal crown cross slope of 2%.

Tabulation: 101-8

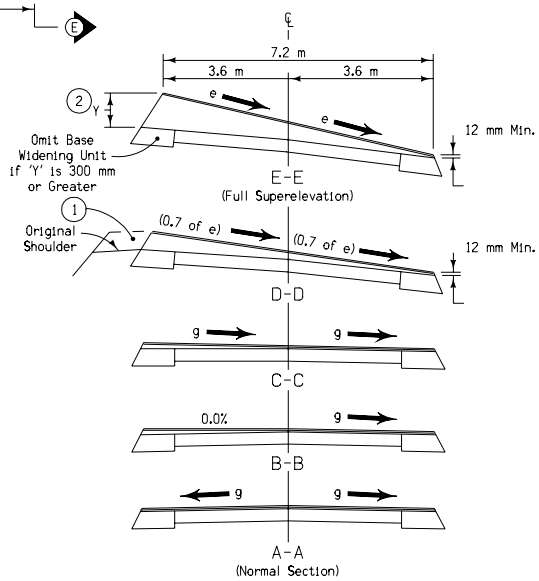
* If the existing cross slope at the PC/PT exceeds 70% of the proposed "e", the value of "M" shall be determined by the following formula:

$$M = L - \left[\frac{(L)\ (E)}{(e)}\right]$$

E = Existing Cross Slope at PC/PT (%)
e = Full superelevation (%)
L = Transition length

Radius (m)	Design Speed (km/h) 30			40			50			60			70			80			90			100			110			120		
	e	L	x	e	L	x	e	L	x	e	L	x	e	L	x	e	L	x	e	L	x	e	L	x	e	L	x	e	L	x
5000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0
3500	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	60	60	RC	65	65	2.1	70	68
3000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	60	60	2.1	65	63	2.4	70	58
2500	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	55	55	2.1	60	56	2.4	65	53	2.9	70	49
2000	NC	0	0	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	50	50	2.2	55	51	2.6	60	46	3.0	65	43	3.5	70	40
1500	NC	0	0	NC	0	0	NC	0	0	NC	0	0	RC	40	40	2.4	50	42	2.8	55	39	3.4	60	35	3.9	65	33	4.6	70	31
1400	NC	0	0	NC	0	0	NC	0	0	RC	35	35	2.1	40	39	2.5	50	40	3.0	55	37	3.6	60	33	4.1	65	31	4.9	70	29
1300	NC	0	0	NC	0	0	NC	0	0	RC	35	35	2.2	40	36	2.7	50	37	3.2	55	34	3.8	60	31	4.4	65	29	5.2	70	27
1200	NC	0	0	NC	0	0	NC	0	0	RC	35	35	2.4	40	34	2.9	50	35	3.4	55	32	4.1	60	29	4.7	65	28	5.6	70	25
1100	NC	0	0	NC	0	0	NC	0	0	RC	35	35	2.6	40	31	3.1	50	32	3.7	55	30	4.4	60	27	5.1	65	26	6.0	70	23
1000	NC	0	0	NC	0	0	RC	30	30	2.2	35	32	2.8	40	29	3.4	50	30	4.0	55	27	4.8	60	25	5.5	65	24	6.5	70	22
900	NC	0	0	NC	0	0	RC	30	30	2.4	35	29	3.1	40	26	3.7	50	27	4.4	55	25	5.2	60	23	6.0	65	22	7.1	70	20
800	NC	0	0	NC	0	0	RC	30	30	2.7	35	26	3.4	40	24	4.1	50	25	4.8	55	23	5.7	60	21	6.5	65	20	7.6	70	18
700	NC	0	0	RC	25	25	2.2	30	27	3.0	35	24	3.8	40	21	4.5	50	22	5.3	55	21	6.3	60	19	7.2	65	18.	8.0	72	18
665	NC	0	0	RC	25	25	2.3	30	26	3.1	35	23	3.9	40	20	4.7	50	21	5.5	55	20	6.5	60	18	7.4	65	18	8.0	72	18
600	NC	0	0	RC	25	25	2.6	30	23	3.4	35	21	4.3	40	19	5.1	50	20	6.0	55	18	6.9	60	17	7.7	66	17	R min. = 665 m		
500	NC	0	0	2.2	25	22	3.0	30	20	3.9	35	18	4.9	40	16	5.8	50	17	6.7	55	16	7.6	61	16	8.0	69	17			
400	RC	20	20	2.7	25	18	3.6	30	17	4.7	35	15	5.7	40	14	6.6	50	15	7.5	57	15	8.0	64	16	R min. = 500 m					
305	2.1	20	19	3.4	25	15	4.4	30	14	5.6	35	13	6.7	44	13	7.5	54	14	8.0	60	15	R min. = 400 m								
300	2.1	20	19	3.4	25	14	4.5	30	13	5.6	35	12	6.7	44	13	7.6	55	14	R min. = 305 m											
250	2.5	20	16	4.0	25	13	5.1	30	12	6.2	38	12	7.4	48	13	7.9	57	14												
230	2.7	20	15	4.2	25	12	5.3	30	11	6.5	39	12	7.6	50	13	8.0	57	14												
200	3.0	20	13	4.6	25	11	5.8	31	11	7.0	42	12	7.9	52	13	R min. = 230 m														
175	3.3	20	12	5.0	26	10	6.2	33	11	7.4	44	12	8.0	52	13															
150	3.7	20	11	5.4	28	10	6.7	36	11	7.8	47	12	R min. = 175 m																	
140	3.9	20	10	5.6	29	10	6.9	37	11	7.9	48	12																		
130	4.1	20	10	5.8	30	10	7.1	38	11	8.0	48	12																		
125	4.2	20	10	5.9	30	10	7.2	39	11	8.0	48	12																		
110	4.6	22	10	6.3	32	10	7.6	41	11	R min. = 125 m																				
100	4.8	23	10	6.6	34	10	7.8	42	11																					
90	5.1	24	10	6.9	35	10	7.9	43	11																					
80	5.4	26	10	7.2	37	10	8.0	43	11																					
70	5.8	28	10	7.5	39	10	R min. = 80 m																							
60	6.3	30	10	7.8	40	10																								
50	6.8	33	10	8.0	41	10																								
40	7.5	36	10	R min. = 50 m																										
30	8.0	38	10																											
	R min. = 30 m																													

NC = Normal Crown
RC = Remove Crown
'L' and 'x' are given in meters



Typical Sections
Through Transition Area

g = Normal cross-slope
e = Full superelevation (%)

1 See other drawings for shoulder details

2 'Y' = Total Thickness of Wedge and Surface Mat.

All dimensions given in millimeters unless noted.

M

METRIC VERSION

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN | **RR-25**

REVISION: NEW. Replaces Road Design Detail Sheet 530-6.

REVISION NO.	REVISION DATE
NEW	10-18-05

William J. Stein
APPROVED BY DESIGN METHODS ENGINEER

HMA WEDGE
FOR SUPERELEVATION