

**DESIGN FACTORS FOR A DESIGN SPEED OF 45 MPH  
(URBAN) USING E= 4% MAX.**

RADIUS (FEET)	E (%)	PAVEMENT WIDTH											
		24 FT		36 FT		48 FT		60 FT		66 FT		72 FT	
		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)											
		1 @ 12'		1.5 @ 12'		2 @ 12'		3 @ 10'		3 @ 11'		3 @ 12'	
Lt	Lr	Lt	Lr	Lt	Lr	Lt	Lr	Lt	Lr	Lt	Lr		
5930	NC	0	0	0	0	0	0	0	0	0	0	0	
4058	2.0	45	45	56	56	67	67	75	75	82	82	89	89
3771	2.1	45	47	56	59	67	70	75	78	82	86	89	94
3502	2.2	45	49	56	62	67	74	75	82	82	90	89	98
3248	2.3	45	52	56	64	67	77	75	86	82	94	89	103
3002	2.4	45	54	56	67	67	80	75	89	82	98	89	107
2758	2.5	45	56	56	70	67	84	75	93	82	102	89	112
2516	2.6	45	58	56	73	67	87	75	97	82	106	89	116
2304	2.7	45	60	56	75	67	90	75	100	82	110	89	120
2119	2.8	45	63	56	78	67	94	75	104	82	115	89	125
1955	2.9	45	65	56	81	67	97	75	108	82	119	89	129
1808	3.0	45	67	56	84	67	100	75	112	82	123	89	134
1676	3.1	45	69	56	87	67	104	75	115	82	127	89	138
1556	3.2	45	72	56	89	67	107	75	119	82	131	89	143
1446	3.3	45	74	56	92	67	110	75	123	82	135	89	147
1343	3.4	45	76	56	95	67	114	75	126	82	139	89	152
1247	3.5	45	78	56	98	67	117	75	130	82	143	89	156
1156	3.6	45	80	56	100	67	120	75	134	82	147	89	160
1067	3.7	45	83	56	103	67	124	75	138	82	151	89	165
978	3.8	45	85	56	106	67	127	75	141	82	155	89	169
883	3.9	45	87	56	109	67	130	75	145	82	159	89	174
713	4.0	45	89	56	112	67	134	75	149	82	163	89	178

NOTE:

Lt AND Lr VALUES IN FEET.

FOR PAVEMENT WIDTHS GREATER THAN 72 FEET USE Lr VALUES DEVELOPED BY THE DESIGN SOFTWARE.

LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, Lt, AND Lr VALUES.

SPECIFICATION REFERENCE

**TRANSITION CURVES - URBAN  
45 MPH DESIGN SPEED**

VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 1 OF 1

803.29