

NOTE: L, Lr, & w VALUES IN FEET. LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, Lt, Lr, AND w VALUES.

DESIGN FACTORS FOR A DESIGN SPEED OF 50 MPH (RURAL) USING E = 8% MAX.

DESIGN VELOCITY -50 RADIUS(FT)	DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)								INTERCHANGE RAMPS							
	1 e 9'		1 e 10'		1 e 11'		1 e 12'		2 e 12'		3 e 12'		16 FT		18 FT	
	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	Lt	Lr
	E(%)	NC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
8000	NC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	
6013	2.0	36	36	0.0	40	44	0.0	44	48	48	0.0	72	72	0.0	96	96
5703	2.1	36	38	0.0	40	44	0.0	44	47	0.0	48	51	0.0	72	76	0.0
5420	2.2	36	40	0.0	40	44	0.0	44	49	0.0	48	53	0.0	72	80	0.0
5162	2.3	36	42	0.0	40	46	0.0	44	51	0.0	48	56	0.0	72	83	0.0
4926	2.4	36	44	0.0	40	48	0.0	44	53	0.0	48	58	0.0	72	87	0.0
4708	2.5	36	45	0.0	40	50	0.0	44	55	0.0	48	60	0.0	72	90	0.0
4507	2.6	36	47	0.0	40	52	0.0	44	58	0.0	48	63	0.0	72	94	0.0
4320	2.7	36	49	0.0	40	54	0.0	44	60	0.0	48	65	0.0	72	98	0.0
4146	2.8	36	51	0.0	40	56	0.0	44	62	0.0	48	68	0.0	72	101	0.0
3985	2.9	36	53	0.0	40	58	0.0	44	64	0.0	48	70	0.0	72	105	0.0
3834	3.0	36	54	0.0	40	60	0.0	44	66	0.0	48	72	0.0	72	108	0.0
3692	3.1	36	56	0.0	40	62	0.0	44	69	0.0	48	75	0.0	72	112	0.0
3560	3.2	36	58	0.0	40	64	0.0	44	71	0.0	48	77	0.0	72	116	0.0
3434	3.3	36	60	0.0	40	66	0.0	44	73	0.0	48	80	0.0	72	119	0.0
3316	3.4	36	62	0.0	40	68	0.0	44	75	0.0	48	82	0.0	72	123	0.0
3205	3.5	36	63	0.0	40	70	0.0	44	77	0.0	48	84	0.0	72	126	0.0
3099	3.6	36	65	0.0	40	72	0.0	44	80	0.0	48	87	0.0	72	130	0.0
2999	3.7	36	67	0.0	40	74	0.0	44	82	0.0	48	89	0.0	72	134	0.0
2904	3.8	36	69	0.0	40	76	0.0	44	84	0.0	48	92	0.0	72	137	0.0
2866	3.9	36	71	0.0	40	78	0.0	44	86	0.0	48	94	0.0	72	141	0.0
2865	3.9	76	147	2.2	40	78	0.0	44	86	0.0	48	94	0.0	72	141	0.0
2814	3.9	76	147	2.2	40	78	0.0	44	86	0.0	48	94	0.0	72	141	0.0
2728	4.0	74	147	2.2	40	80	0.0	44	88	0.0	48	96	0.0	72	144	0.0
2646	4.1	72	147	2.2	40	82	0.0	44	91	0.0	48	99	0.0	72	148	0.0
2568	4.2	70	147	2.2	40	84	0.0	44	93	0.0	48	101	0.0	72	152	0.0
2493	4.3	69	147	2.2	40	86	0.0	44	95	0.0	48	104	0.0	72	155	0.0
2422	4.4	67	147	2.3	40	88	0.0	44	97	0.0	48	106	0.0	72	159	0.0
2353	4.5	66	147	2.3	40	90	0.0	44	99	0.0	48	108	0.0	72	162	0.0
2287	4.6	64	147	2.3	40	92	0.0	44	102	0.0	48	111	0.0	72	166	0.0
2224	4.7	63	147	2.3	40	94	0.0	44	104	0.0	48	113	0.0	72	170	0.0
2163	4.8	62	147	2.4	40	96	0.0	44	106	0.0	48	116	0.0	72	173	0.0
2104	4.9	60	147	2.4	40	98	0.0	44	108	0.0	48	118	0.0	72	177	0.0
2047	5.0	59	147	2.4	40	100	0.0	44	110	0.0	48	120	0.0	72	180	0.0
1992	5.1	58	147	2.4	40	102	0.0	44	113	0.0	48	123	0.0	72	184	0.0
1939	5.2	57	147	2.4	40	104	0.0	44	115	0.0	48	125	0.0	72	188	0.0
1888	5.3	56	147	2.5	40	106	0.0	44	117	0.0	48	128	0.0	72	191	0.0
1838	5.4	55	147	2.5	40	108	0.0	44	119	0.0	48	130	0.0	72	195	0.0
1790	5.5	54	147	2.5	40	110	0.0	44	121	0.0	48	132	0.0	72	198	0.0
1743	5.6	53	147	2.5	40	112	0.0	44	124	0.0	48	135	0.0	72	202	0.0
1698	5.7	52	147	2.6	40	114	0.0	44	126	0.0	48	137	0.0	72	206	0.0
1653	5.8	51	147	2.6	40	116	0.0	44	128	0.0	48	140	0.0	72	209	0.0
1610	5.9	50	147	2.6	40	118	0.0	44	130	0.0	48	142	0.0	72	213	0.0
1568	6.0	49	147	2.6	40	120	0.0	44	132	0.0	48	144	0.0	72	216	0.0
1527	6.1	49	147	2.6	40	122	0.0	44	135	0.0	48	147	0.0	72	220	0.0
1487	6.2	48	147	2.7	40	124	0.0	44	137	0.0	48	149	0.0	72	224	0.0
1448	6.3	47	147	2.7	40	126	0.0	44	139	0.0	48	152	0.0	72	227	0.0
1410	6.4	46	147	2.7	40	128	0.0	44	141	0.0	48	154	0.0	72	231	0.0
1372	6.5	46	147	2.8	40	130	0.0	44	143	0.0	48	156	0.0	72	234	0.0
1336	6.6	45	147	2.8	40	132	0.0	44	146	0.0	48	159	0.0	72	238	0.0
1300	6.7	44	147	2.8	40	134	0.0	44	148	0.0	48	161	0.0	72	242	0.0
1265	6.8	44	147	2.8	40	136	0.0	44	150	0.0	48	164	0.0	72	245	0.0
1230	6.9	43	147	2.9	40	138	0.0	44	152	0.0	48	166	0.0	72	249	0.0
1196	7.0	42	147	2.9	40	140	0.0	44	154	0.0	48	168	0.0	72	252	0.0
1162	7.1	42	149	2.9	40	142	0.0	44	157	0.0	48	171	0.0	72	256	0.0
1128	7.2	43	152	3.0	45	159	2.0	44	159	0.0	48	173	0.0	72	260	0.0
1094	7.3	43	154	3.0	45	161	2.0	44	161	0.0	48	176	0.0	72	263	0.0
1059	7.4	43	156	3.0	45	163	2.0	44	163	0.0	48	178	0.0	72	267	0.0
1024	7.5	43	159	3.1	45	166	2.1	44	165	0.0	48	180	0.0	72	270	0.0
988	7.6	43	161	3.1	45	168	2.1	44	168	0.0	48	183	0.0	72	274	0.0
950	7.7	43	164	3.2	45	171	2.2	44	170	0.0	48	185	0.0	72	278	0.0
908	7.8	43	166	3.2	45	174	2.2	44	172	0.0	48	188	0.0	72	281	0.0
860	7.9	43	169	3.3	45	177	2.3	44	174	0.0	48	190	0.0	72	285	0.0
760	8.0	43	172	3.5	45	180	2.5	44	176	0.0	48	192	0.0	72	288	0.0

SPECIFICATION REFERENCE



ROAD AND BRIDGE STANDARDS

TRANSITION CURVES - RURAL
50 MPH DESIGN SPEED

VIRGINIA DEPARTMENT OF TRANSPORTATION