

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

DESIGN VELOCITY -50	DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)										WIDTH-72 FT						INTERCHANGE RAMPS					
	WIDTH- 18 FT		WIDTH-20 FT		WIDTH-22 FT		WIDTH-24 FT		WIDTH-48 FT		3 e 12'		16 FT		18 FT							
	DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)							
	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w	CR	LS	w				
8000	NC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
6013	2.0	36	0.0	40	0.0	44	0.0	48	0.0	48	48	0.0	48	48	0.0	96	0.0					
5703	2.1	36	38	0.0	40	42	0.0	44	47	0.0	48	51	0.0	72	76	0.0	96	101				
5420	2.2	36	40	0.0	40	44	0.0	44	49	0.0	48	53	0.0	72	80	0.0	96	106				
5162	2.3	36	42	0.0	40	46	0.0	44	51	0.0	48	56	0.0	72	83	0.0	96	111				
4926	2.4	36	44	0.0	40	48	0.0	44	53	0.0	48	58	0.0	72	87	0.0	96	116				
4708	2.5	36	45	0.0	40	50	0.0	44	55	0.0	48	60	0.0	72	90	0.0	96	120				
4507	2.6	36	47	0.0	40	52	0.0	44	58	0.0	48	63	0.0	72	94	0.0	96	125				
4320	2.7	36	49	0.0	40	54	0.0	44	60	0.0	48	65	0.0	72	98	0.0	96	130				
4146	2.8	36	51	0.0	40	56	0.0	44	62	0.0	48	68	0.0	72	101	0.0	96	135				
3985	2.9	36	53	0.0	40	58	0.0	44	64	0.0	48	70	0.0	72	105	0.0	96	140				
3834	3.0	36	54	0.0	40	60	0.0	44	66	0.0	48	72	0.0	72	108	0.0	96	144				
3692	3.1	36	56	0.0	40	62	0.0	44	69	0.0	48	75	0.0	72	112	0.0	96	149				
3560	3.2	36	58	0.0	40	64	0.0	44	71	0.0	48	77	0.0	72	116	0.0	96	154				
3434	3.3	36	60	0.0	40	66	0.0	44	73	0.0	48	80	0.0	72	119	0.0	96	159				
3316	3.4	36	62	0.0	40	68	0.0	44	75	0.0	48	82	0.0	72	123	0.0	96	164				
3205	3.5	36	63	0.0	40	70	0.0	44	77	0.0	48	84	0.0	72	126	0.0	96	168				
3099	3.6	36	65	0.0	40	72	0.0	44	80	0.0	48	87	0.0	72	130	0.0	96	173				
2999	3.7	36	67	0.0	40	74	0.0	44	82	0.0	48	89	0.0	72	134	0.0	96	178				
2904	3.8	36	69	0.0	40	76	0.0	44	84	0.0	48	92	0.0	72	137	0.0	96	183				
2866	3.9	36	71	0.0	40	78	0.0	44	86	0.0	48	94	0.0	72	141	0.0	96	188				
2865	3.9	76	147	2.2	40	78	0.0	44	86	0.0	48	94	0.0	72	141	0.0	96	188				
2814	3.9	76	147	2.2	40	78	0.0	44	86	0.0	48	94	0.0	72	141	0.0	96	188				
2728	4.0	74	147	2.2	40	80	0.0	44	88	0.0	48	96	0.0	72	144	0.0	96	192				
2646	4.1	72	147	2.2	40	82	0.0	44	91	0.0	48	99	0.0	72	148	0.0	96	197				
2568	4.2	70	147	2.2	40	84	0.0	44	93	0.0	48	101	0.0	72	152	0.0	96	202				
2493	4.3	69	147	2.2	40	86	0.0	44	95	0.0	48	104	0.0	72	155	0.0	96	207				
2422	4.4	67	147	2.3	40	88	0.0	44	97	0.0	48	106	0.0	72	159	0.0	96	212				
2353	4.5	66	147	2.3	40	90	0.0	44	99	0.0	48	108	0.0	72	162	0.0	96	216				
2287	4.6	64	147	2.3	40	92	0.0	44	102	0.0	48	111	0.0	72	166	0.0	96	221				
2224	4.7	63	147	2.3	40	94	0.0	44	104	0.0	48	113	0.0	72	170	0.0	96	226				
2163	4.8	62	147	2.4	40	96	0.0	44	106	0.0	48	116	0.0	72	173	0.0	96	231				
2104	4.9	60	147	2.4	40	98	0.0	44	108	0.0	48	118	0.0	72	177	0.0	96	236				
2047	5.0	59	147	2.4	40	100	0.0	44	110	0.0	48	120	0.0	72	180	0.0	96	240				
1992	5.1	58	147	2.4	40	102	0.0	44	113	0.0	48	123	0.0	72	184	0.0	96	245				
1939	5.2	57	147	2.4	40	104	0.0	44	115	0.0	48	125	0.0	72	188	0.0	96	250				
1888	5.3	56	147	2.5	40	106	0.0	44	117	0.0	48	128	0.0	72	191	0.0	96	255				
1838	5.4	55	147	2.5	40	108	0.0	44	119	0.0	48	130	0.0	72	195	0.0	96	260				
1790	5.5	54	147	2.5	40	110	0.0	44	121	0.0	48	132	0.0	72	198	0.0	96	264				
1743	5.6	53	147	2.5	40	112	0.0	44	124	0.0	48	135	0.0	72	202	0.0	96	269				
1698	5.7	52	147	2.6	40	114	0.0	44	126	0.0	48	137	0.0	72	206	0.0	96	274				
1653	5.8	51	147	2.6	40	116	0.0	44	128	0.0	48	140	0.0	72	209	0.0	96	279				
1610	5.9	50	147	2.6	40	118	0.0	44	130	0.0	48	142	0.0	72	213	0.0	96	284				
1568	6.0	49	147	2.6	40	120	0.0	44	132	0.0	48	144	0.0	72	216	0.0	96	288				
1527	6.1	49	147	2.6	40	122	0.0	44	135	0.0	48	147	0.0	72	220	0.0	96	293				
1487	6.2	48	147	2.7	40	124	0.0	44	137	0.0	48	149	0.0	72	224	0.0	96	298				
1448	6.3	47	147	2.7	40	126	0.0	44	139	0.0	48	152	0.0	72	227	0.0	96	303				
1410	6.4	46	147	2.7	40	128	0.0	44	141	0.0	48	154	0.0	72	231	0.0	96	308				
1372	6.5	46	147	2.8	40	130	0.0	44	143	0.0	48	156	0.0	72	234	0.0	96	312				
1336	6.6	45	147	2.8	40	132	0.0	44	146	0.0	48	159	0.0	72	238	0.0	96	317				
1300	6.7	44	147	2.8	40	134	0.0	44	148	0.0	48	161	0.0	72	242	0.0	96	322				
1265	6.8	44	147	2.8	40	136	0.0	44	150	0.0	48	164	0.0	72	245	0.0	96	327				
1230	6.9	43	147	2.9	40	138	0.0	44	152	0.0	48	166	0.0	72	249	0.0	96	332				
1196	7.0	42	147	2.9	40	140	0.0	44	154	0.0	48	168	0.0	72	252	0.0	96	336				
1162	7.1	42	149	2.9	40	142	0.0	44	157	0.0	48	171	0.0	72	256	0.0	96	341				
1128	7.2	43	152	3.0	45	159	2.0	44	159	0.0	48	173	0.0	72	260	0.0	96	346				
1094	7.3	43	154	3.0	45	161	2.0	44	161	0.0	48	176	0.0	72	263	0.0	96	351				
1059	7.4	43	156	3.0	45	163	2.0	44	163	0.0	48	178	0.0	72	267	0.0	96	356				
1024	7.5	43	159	3.1	45	166	2.1	44	165	0.0	48	180	0.0	72	270	0.0	96	360				
988	7.6	43	161	3.1	45	168	2.1	44	168	0.0	48	183	0.0	72	274	0.0	96	365				
950	7.7	43	164	3.2	45	171	2.2	44	170	0.0	48	185	0.0	72	278	0.0	96	370				
908	7.8	43	166	3.2	45	174	2.2	44	172	0.0	48	188	0.0	72	281	0.0	96	375				
860	7.9	43	169	3.3	45	177	2.3	44	174	0.0	48	190	0.0	72	285	0.0	96	380				
760	8.0	43	172	3.5	45	180	2.5	44	176	0.0	48	192	0.0	72	288	0.0	96	384				

NOTE: CR, LS & w VALUES IN FEET. LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, CR, LS, AND w VALUES.

SPECIFICATION REFERENCE

**TRANSITION CURVES - RURAL  
50 MPH DESIGN SPEED**

VIRGINIA DEPARTMENT OF TRANSPORTATION