

DESIGN FACTORS FOR A DESIGN SPEED OF 45 MPH (RURAL) USING E = 8% MAX.

DESIGN VELOCITY -45	WIDTH- 18 FT		WIDTH-20 FT		WIDTH-22 FT		WIDTH-24 FT		WIDTH-24 FT		WIDTH-48 FT		WIDTH-72 FT		INTERCHANGE RAMPS				
	DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)														WIDTH				
	1 @ 9'		1 @ 10'		1 @ 11'		1 @ 12'		1 @ 12'		2 @ 12'		3 @ 12'		16 FT		18 FT		
	LT	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	Lt	Lr
8000	NC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4957	2.0	34	34	0.0	38	38	0.0	41	41	0.0	45	45	0.0	47	67	67	0.0	89	89
4702	2.1	34	35	0.0	38	39	0.0	41	43	0.0	45	47	0.0	67	70	70	0.0	89	94
4467	2.2	34	37	0.0	38	41	0.0	41	45	0.0	45	49	0.0	67	74	74	0.0	89	98
4254	2.3	34	39	0.0	38	43	0.0	41	47	0.0	45	52	0.0	67	77	77	0.0	89	103
4057	2.4	34	40	0.0	38	45	0.0	41	49	0.0	45	54	0.0	67	80	80	0.0	89	107
3876	2.5	34	42	0.0	38	47	0.0	41	51	0.0	45	56	0.0	67	84	84	0.0	89	112
3710	2.6	34	44	0.0	38	49	0.0	41	53	0.0	45	58	0.0	67	87	87	0.0	89	116
3554	2.7	34	45	0.0	38	50	0.0	41	55	0.0	45	60	0.0	67	90	90	0.0	89	120
3412	2.8	34	47	0.0	38	52	0.0	41	58	0.0	45	63	0.0	67	94	94	0.0	89	125
3278	2.9	34	49	0.0	38	54	0.0	41	60	0.0	45	65	0.0	67	97	97	0.0	89	129
3152	3.0	34	50	0.0	38	56	0.0	41	62	0.0	45	67	0.0	67	100	100	0.0	89	134
3035	3.1	34	52	0.0	38	58	0.0	41	64	0.0	45	69	0.0	67	104	104	0.0	89	138
2925	3.2	34	54	0.0	38	60	0.0	41	66	0.0	45	72	0.0	67	107	107	0.0	89	143
2866	3.3	34	55	0.0	38	62	0.0	41	68	0.0	45	74	0.0	67	110	110	0.0	89	147
2865	3.3	80	132	2.1	38	62	0.0	41	68	0.0	45	74	0.0	67	110	110	0.0	89	147
2822	3.3	80	132	2.1	38	62	0.0	41	68	0.0	45	74	0.0	67	110	110	0.0	89	147
2724	3.4	78	132	2.1	38	63	0.0	41	70	0.0	45	76	0.0	67	114	114	0.0	89	152
2631	3.5	76	132	2.1	38	65	0.0	41	72	0.0	45	78	0.0	67	117	117	0.0	89	156
2544	3.6	74	132	2.1	38	67	0.0	41	74	0.0	45	80	0.0	67	120	120	0.0	89	160
2461	3.7	72	132	2.2	38	69	0.0	41	76	0.0	45	83	0.0	67	124	124	0.0	89	165
2383	3.8	70	132	2.2	38	71	0.0	41	78	0.0	45	85	0.0	67	127	127	0.0	89	169
2308	3.9	68	132	2.2	38	73	0.0	41	80	0.0	45	87	0.0	67	130	130	0.0	89	174
2237	4.0	66	132	2.2	38	75	0.0	41	82	0.0	45	89	0.0	67	134	134	0.0	89	178
2169	4.1	65	132	2.2	38	76	0.0	41	84	0.0	45	92	0.0	67	137	137	0.0	89	183
2104	4.2	63	132	2.3	38	78	0.0	41	86	0.0	45	94	0.0	67	140	140	0.0	89	187
2041	4.3	62	132	2.3	38	80	0.0	41	88	0.0	45	96	0.0	67	144	144	0.0	89	192
1982	4.4	60	132	2.3	38	82	0.0	41	90	0.0	45	98	0.0	67	147	147	0.0	89	196
1924	4.5	59	132	2.3	38	84	0.0	41	92	0.0	45	100	0.0	67	150	150	0.0	89	200
1870	4.6	58	132	2.4	38	86	0.0	41	94	0.0	45	103	0.0	67	154	154	0.0	89	205
1817	4.7	57	132	2.4	38	88	0.0	41	96	0.0	45	105	0.0	67	157	157	0.0	89	209
1766	4.8	55	132	2.4	38	89	0.0	41	98	0.0	45	107	0.0	67	160	160	0.0	89	214
1717	4.9	54	132	2.4	38	91	0.0	41	100	0.0	45	109	0.0	67	164	164	0.0	89	218
1669	5.0	53	132	2.4	38	93	0.0	41	102	0.0	45	112	0.0	67	167	167	0.0	89	223
1624	5.1	52	132	2.5	38	95	0.0	41	104	0.0	45	114	0.0	67	170	170	0.0	89	227
1579	5.2	51	132	2.5	38	97	0.0	41	106	0.0	45	116	0.0	67	174	174	0.0	89	232
1536	5.3	50	132	2.5	38	99	0.0	41	108	0.0	45	118	0.0	67	177	177	0.0	89	236
1495	5.4	49	132	2.5	38	100	0.0	41	110	0.0	45	120	0.0	67	180	180	0.0	89	240
1454	5.5	48	132	2.6	38	102	0.0	41	113	0.0	45	123	0.0	67	184	184	0.0	89	245
1415	5.6	48	132	2.6	38	104	0.0	41	115	0.0	45	125	0.0	67	187	187	0.0	89	249
1376	5.7	47	132	2.6	38	106	0.0	41	117	0.0	45	127	0.0	67	190	190	0.0	89	254
1339	5.8	46	132	2.6	38	108	0.0	41	119	0.0	45	129	0.0	67	194	194	0.0	89	258
1302	5.9	45	132	2.7	38	110	0.0	41	121	0.0	45	132	0.0	67	197	197	0.0	89	263
1266	6.0	44	132	2.7	38	112	0.0	41	123	0.0	45	134	0.0	67	200	200	0.0	89	267
1232	6.1	44	132	2.7	38	113	0.0	41	125	0.0	45	136	0.0	67	204	204	0.0	89	272
1199	6.2	43	132	2.8	38	115	0.0	41	127	0.0	45	138	0.0	67	207	207	0.0	89	276
1166	6.3	42	132	2.8	38	117	0.0	41	129	0.0	45	140	0.0	67	210	210	0.0	89	280
1135	6.4	42	132	2.8	38	119	0.0	41	131	0.0	45	143	0.0	67	214	214	0.0	89	285
1104	6.5	41	132	2.8	38	121	0.0	41	133	0.0	45	145	0.0	67	217	217	0.0	89	289
1073	6.6	40	132	2.9	38	123	0.0	41	135	0.0	45	147	0.0	67	220	220	0.0	89	294
1044	6.7	40	132	2.9	38	125	0.0	41	137	0.0	45	149	0.0	67	224	224	0.0	89	298
1015	6.8	39	132	2.9	38	126	0.0	41	139	0.0	45	152	0.0	67	227	227	0.0	89	303
986	6.9	40	135	3.0	41	141	2.0	41	141	0.0	45	154	0.0	67	230	230	0.0	89	307
957	7.0	40	137	3.0	41	143	2.0	41	143	0.0	45	156	0.0	67	234	234	0.0	89	312
929	7.1	40	139	3.1	42	146	2.1	41	145	0.0	45	158	0.0	67	237	237	0.0	89	316
902	7.2	40	141	3.1	42	148	2.1	41	147	0.0	45	160	0.0	67	240	240	0.0	89	320
874	7.3	40	143	3.1	42	150	2.1	41	149	0.0	45	163	0.0	67	244	244	0.0	89	325
845	7.4	40	146	3.2	42	153	2.2	41	151	0.0	45	165	0.0	67	247	247	0.0	89	329
817	7.5	40	148	3.2	42	155	2.2	41	153	0.0	45	167	0.0	67	250	250	0.0	89	334
787	7.6	40	150	3.3	42	157	2.3	41	155	0.0	45	169	0.0	67	254	254	0.0	89	338
756	7.7	40	152	3.3	42	159	2.3	41	157	0.0	45	172	0.0	67	257	257	0.0	89	343
723	7.8	40	155	3.4	42	162	2.4	41	159	0.0	45	174	0.0	67	260	260	0.0	89	347
683	7.9	40	158	3.5	42	165	2.5	41	161	0.0	45	176	0.0	67	264	264	0.0	89	352
602	8.0	41	161	3.7	43	169	2.7	41	163	0.0	45	178	0.0	67	267	267	0.0	95	377

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

SPECIFICATION REFERENCE

TRANSITION CURVES - RURAL

45 MPH DESIGN SPEED

VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

REVISION DATE SHEET 1 OF 1

802.37