DESIGN FACTORS FOR A DESIGN SPEED OF 75 MPH (RURAL) USING E= 8% MAX.

DESIGN VELOCITY =75		WIDTH= 18 FT			WIDTH=20 FT			WIDTH=22 FT			WIDTH=24 FT			WIDTH=48 FT			WIDTH=72 FT			INTERCHANGE RAMPS WIDTH			
		DESIGN SOFTWARE EQUIVALENTS (NUMBER OF LANES AT LANE WIDTH)																					
		1 @ 9'			1 @ 10'			1 @ 11'			1 @ 12'			2 @ 12'			3 @ 12'			16 FT		18 FT	
RADIUS(FT)	E(%)	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	w	Lt	Lr	Lt	Lr
16100	NC	0	0	2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12200	2	55	55	2.9	53	53	0	58	58	0	64	64	0	95	95	0	127	127	0	75	75	79	79
11805	2.1	55	58	2.9	53	56	0	58	61	0	64	67	0	95	100	0	127	134	0	75	79	79	83
10920	2.2	55	61	2.9	53	58	0	58	64	0	64	70	0	95	105	0	127	140	0	75	82	79	87
10483	2.3	56	64	3	58	67	2	58	67	0	64	73	0	95	109	0	127	146	0	75	86	79	90
10001	2.4	56	67	3	58	70	2	58	70	0	64	76	0	95	114	0	127	153	0	75	90	79	94
9559	2.5	56	70	3	58	73	2	58	73	0	64	79	0	95	119	0	127	159	0	75	94	79	98
9152	2.6	56	72	3	58	76	2	58	76	0	64	83	0	95	124	0	127	166	0	75	97	79	102
8777	2.7	56	75	3.1	59	79	2.1	58	79	0	64	86	0	95	128	0	127	172	0	75	101	79	106
8507	2.8	56	78	3.1	59	82	2.1	58	82	0	64	89	0	95	133	0	127	178	0	75	105	79	110
8181	2.9	56	81	3.1	59	85	2.1	58	84	0	64	92	0	95	138	0	127	185	0	75	108	79	114
7950	3	56	84	3.1	59	88	2.1	58	87	0	64	95	0	95	143	0	127	191	0	75	112	79	118
7664	3.1	56	87	3.2	59	91	2.2	58	90	0	64	98	0	95	147	0	127	197	0	75	116	79	122
7397	3.2	56	90	3.2	59	94	2.2	58	93	0	64	102	0	95	152	0	127	204	0	75	120	79	126
7275	3.3	56	93	3.2	59	97	2.2	58	96	0	64	105	0	95	157	0	127	210	0	75	123	79	130
7034	3.4	56	95	3.2	59	100	2.2	58	99	0	64	108	0	95	162	0	127	216	0	75	127	79	134
6809	3.5	56	98	3.2	59	103	2.2	58	102	0	64	111	0	95	166	0	127	223	0	75	131	79	137
6477	3.6	57	101	3.3	59	106	2.3	58	105	0	64	114	0	95	171	0	127	229	0	75	134	79	141
6279	3.7	57	104	3.3	59	109	2.3	58	108	0	64	117	0	95	176	0	127	235	0	75	138	79	145
6091	3.8	57	107	3.3	59	112	2.3	58	110	0	64	120	0	95	180	0	127	242	0	75	142	79	149
5967	3.9	57	110	3.3	59	115	2.3	58	113	0	64	124	0	95	185	0	127	248	0	75	146	79	153
5797	4	57	113	3.4	59	118	2.4	58	116	0	64	127	0	95	190	0	127	254	0	75	149	79	157
5635	4.1	57	116	3.4	59	121	2.4	58	119	0	64	130	0	95	195	0	127	261	0	75	153	79	161
5579	4.2	57	119	3.4	59	124	2.4	58	122	0	64	133	0	95	199	0	127	267	0	75	157	79	165
5430	4.3	57	122	3.4	59	127	2.4	58	125	0	64	136	0	95	204	0	127	273	0	75	160	79	169
5287	4.4	57	124	3.4	59	130	2.4	58	128	0	64	139	0	95	209	0	127	280	0	75	164	79	173
5151	4.5	57	128	3.5	60	134	2.5	58	131	0	64	143	0	95	214	0	127	286	0	75	168	79	177
5020	4.6	57	131	3.5	60	137	2.5	58	134	0	64	146	0	95	218	0	127	292	0	75	172	79	180
4881	4.7	57	133	3.5	60	140	2.5	58	137	0	64	149	0	95	223	0	127	299	0	75	175	79	184
4762	4.8	57	136	3.5	60	143	2.5	58	139	0	64	152	0	95	228	0	127	305	0	75	179	79	188
4647	4.9	57	140	3.6	60	146	2.6	58	142	0	64	155	0	95	233	0	127	312	0	75	183	79	192
4537	5	57	143	3.6	60	149	2.6	58	145	0	64	158	0	95	237	0	127	318	0	75	187	79	196
4464	5.1	57	145	3.6	60	152	2.6	58	148	0	64	162	0	95	242	0	127	324	0	75	190	79	200
4362	5.2	57	148	3.6	60	155	2.6	58	151	0	64	165	0	95	247	0	127	331	0	75	194	79	204
4263	5.3	58	152	3.7	60	159	2.7	58	154	0	64	168	0	95	252	0	127	337	0	75	198	79	208
4169	5.4	58	155	3.7	60	162	2.7	58	157	0	64	171	0	95	256	0	127	343	0	75	201	79	212
4023	5.5	58	158	3.7	60	165	2.7	58	160	0	64	174	0	95	261	0	127	350	0	75	205	79	216
3980	5.6	58	160	3.7	60	168	2.7	58	163	0	64	177	0	95	266	0	127	356	0	75	209	79	220
3938	5.7	58	163	3.7	60	171	2.7	58	165	0	64	180	0	95	270	0	127	362	0	75	213	79	224
3804	5.8	58	167	3.8	60	174	2.8	58	168	0	64	184	0	95	275	0	127	369	0	75	216	79	227
3725	5.9	58	170	3.8	60	177	2.8	58	171	0	64	187	0	95	280	0	127	375	0	75	220	79	231
3648	6	58	173	3.8	60	180	2.8	58	174	0	64	190	0	95	285	0	127	381	0	75	224	79	235
3574	6.1	58	175	3.8	60	183	2.8	58	177	0	64	193	0	95	289	0	127	388	0	75	227	79	239
3533	6.2	58	179	3.9	61	187	2.9	58	180	0	64	196	0	95	294	0	127	394	0	75	231	79	243
3462	6.3	58	182	3.9	61	190	2.9	58	183	0	64	199	0	95	299	0	127	400	0	75	235	79	247
3394	6.4	58	185	3.9	61	193	2.9	58	186	0	64	203	0	95	304	0	127	407	0	75	239	79	251
3328	6.5	58	188	3.9	61	196	2.9	58	189	0	64	206	0	95	308	0	127	413	0	75	242	79	255
3268	6.6	59	192	4	61	200	3	64	209	2	64	209	0	95	313	0	127	419	0	75	246	79	259
3209	6.7	58	194	4	61	203	3	64	212	2	64	212	0	95	318	0	127	426	0	75	250	79	263
3149	6.8	58	197	4	61	206	3	64	215	2	64	215	0	95	323	0	127	432	0	75	254	79	267
3088	6.9	58	200	4	61	209	3	64	218	2	64	218	0	95	327	0	127	438	0	75	257	79	270
3029	7	59	204	4.1	61	213	3.1	64	222	2.1	64	222	0	95	332	0	127	445	0	75	261	79	274
3010	7.1	59	207	4.1	61	216	3.1	64	226	2.1	64	225	0	95	337	0	127	451	0	75	265	79	278
2942	7.2	59	210	4.1	61	219	3.1	64	229	2.1	64	228	0	95	342	0	127	458	0	75	268	79	282
2856	7.3	61	220	4.1	61	222	3.1	64	232	2.1	64	231	0	95	346	0	127	464	0	75	272	79	286
2796	7.4	60	220	4.2	62	226	3.2	64	236	2.2	64	234	0	95	351	0	127	470	0	75	276	79	290
2781	7.5	59	220	4.2	62	229	3.2	64	239	2.2	64	237	0	95	356	0	127	477	0	75	280	79	294
2704	7.6	59	222	4.2	62	232	3.2	64	242	2.2	64	240	0	95	360	0	127	483	0	75	283	79	298
2615	7.7	59	226	4.3	62	237	3.3	64	247	2.3	64	244	0	95	365	0	127	489	0	75	287	79	302
2520	7.8	59	229	4.3	62	240	3.3	64	250	2.3	64	247	0	95	370	0	127	496	0	75	291	79	306
2480	7.9	59	232	4.3	62	243	3.3	64	253	2.3	64	250	0	95	375	0	127	502	0	75	294	79	310
2215	8	60	237	4.5	62	248	3.5	65	258	2.5	64	253	0	95	379	0	127	508	0	75	298	79	314

NOTE:
Lt, Lr & w VALUES IN FEET. LISTED RADIUS IS THE MINIMUM ALLOWABLE RADIUS FOR THE CORRESPONDING E, Lt, Lr, AND w VALUES.
WIDENING SHOWN IS BASED ON A WB-62 DESIGN VEHICLE.

SPECIFICATION REFERENCE

TRANSITION CURVES - RURAL
75 MPH DESIGN SPEED

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT
ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 1 OF 1

803.43

TC-5.11