

SUPERELEVATION RATE TABLES

RADIUS OF CURVE	e max. = 6.0%																																																																																							
	LOW SPEED (km / h)										HIGH SPEED (km / h)																																																																													
	V=30		V=40		V=50		V=60		V=70		V=80		V=90		V=100		V=110		V=120																																																																					
m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m																																																																				
5000	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0																																																																				
4750	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	15*																																																																				
4500	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	15*																																																																				
4250	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	15*																																																																				
4000	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	14*	RC	15*																																																																				
3750	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	14*	RC	15*																																																																				
3500	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	13*	RC	14*	2.0	19*																																																																				
3250	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	13*	RC	14*	2.1	20*																																																																				
3000	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	13*	RC	14*	2.3	22*																																																																				
2750	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	12*	RC	13*	2.1	19*	2.5	24*																																																																				
2500	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	12*	2.0	17*	2.3	21*	2.7	26*																																																																				
2250	NC	0	NC	0	NC	0	NC	0	NC	0	RC	11*	RC	12*	2.2	19*	2.6	24*	3.0	29*																																																																				
2000	NC	0	NC	0	NC	0	NC	0	NC	0	RC	11*	2.1	17*	2.5	21*	2.8	26*	3.3	32*																																																																				
1900	NC	0	NC	0	NC	0	NC	0	RC	10*	RC	11*	2.2	18*	2.6	22*	3.0	27*	3.4	33*																																																																				
1800	NC	0	NC	0	NC	0	NC	0	RC	10*	RC	11*	2.3	19*	2.7	23*	3.1	28*	3.6	35*																																																																				
1700	NC	0	NC	0	NC	0	NC	0	RC	10*	2.0	15*	2.4	19*	2.8	24*	3.2	29*	3.8	36*																																																																				
1600	NC	0	NC	0	NC	0	NC	0	RC	10*	2.1	16*	2.5	20*	3.0	26*	3.4	31*	4.0	38*																																																																				
1500	NC	0	NC	0	NC	0	NC	0	RC	10*	2.2	16*	2.7	22*	3.1	27*	3.6	33*	4.2	40*																																																																				
1400	NC	0	NC	0	NC	0	RC	10*	RC	10*	2.4	18*	2.8	22*	3.3	28*	3.8	35*	4.4	42*																																																																				
1300	NC	0	NC	0	NC	0	RC	10*	2.1	14*	2.5	18*	3.0	24*	3.5	30*	4.0	36*	4.7	45*																																																																				
1200	NC	0	NC	0	NC	0	RC	10*	2.2	15*	2.7	20*	3.2	26*	3.7	32*	4.2	38*	5.0	48*																																																																				
1100	NC	0	NC	0	NC	0	RC	10*	2.4	16*	2.9	21*	3.4	27*	4.0	34*	4.5	41*	5.3	51*																																																																				
1000	NC	0	NC	0	RC	9*	2.1	13*	2.6	18*	3.1	23*	3.6	29*	4.2	36*	4.8	44*	5.6	54*																																																																				
950	NC	0	NC	0	RC	9*	2.2	14*	2.7	18*	3.2	24*	3.8	30*	4.4	37*	5.0	45*	5.7	54*																																																																				
900	NC	0	NC	0	RC	9*	2.3	14*	2.8	19*	3.4	25*	3.9	31*	4.5	38*	5.1	46*	5.8	55*																																																																				
850	NC	0	NC	0	RC	9*	2.4	15*	3.0	20*	3.5	26*	4.1	33*	4.7	40*	5.3	48*	5.9	56*																																																																				
800	NC	0	NC	0	RC	9*	2.5	16*	3.1	21*	3.6	26*	4.2	33*	4.9	42*	5.4	49*	6.0	57*																																																																				
750	NC	0	RC	8*	2.0	11*	2.6	16*	3.3	22*	3.8	28*	4.4	35*	5.0	42*	5.6	51*	R _{Min.} =755 m																																																																					
700	NC	0	RC	8*	2.1	12*	2.8	17*	3.4	23*	4.0	29*	4.6	37*	5.2	44*	5.8	53*	R _{Min.} =559 m																																																																					
650	NC	0	RC	8*	2.3	13*	2.9	18*	3.6	24*	4.1	30*	4.8	38*	5.4	46*	5.9	54*																																																																						
600	NC	0	RC	8*	2.4	14*	3.1	19*	3.8	25*	4.3	31*	5.0	40*	5.6	47*	6.0	54*																																																																						
550	NC	0	RC	8*	2.6	15*	3.3	20*	4.0	27*	4.5	33*	5.2	41*	5.8	49*	R _{Min.} =436 m																																																																							
500	NC	0	2.1	11*	2.8	16*	3.5	22*	4.2	28*	4.8	35*	5.4	43*	5.9	50*	R _{Min.} =335 m																																																																							
450	NC	0	2.3	12*	3.0	17*	3.7	23*	4.4	29*	5.0	36*	5.7	45*	6.0	51*																																																																								
400	RC	8*	2.5	13*	3.3	19*	4.0	25*	4.7	31*	5.3	39*	5.9	47*	R _{Min.} =251 m																																																																									
380	RC	8*	2.6	14*	3.4	19*	4.1	25*	4.8	32*	5.4	39*	5.9	47*																																																																										
360	RC	8*	2.7	14*	3.5	20*	4.2	26*	5.0	33*	5.6	41*	6.0	48*							R _{Min.} =192 m																																																																			
340	RC	8*	2.9	15*	3.6	20*	4.3	26*	5.1	34*	5.7	42*	6.0	48*																																																																										
320	RC	8*	3.0	16*	3.7	21*	4.5	28*	5.2	35*	5.8	42*	R _{Min.} =134 m																																																																											
300	2.0	10*	3.1	16*	3.9	22*	4.6	28*	5.4	36*	5.9	43*																																																																												
280	2.1	10*	3.3	17*	4.0	22*	4.8	29*	5.5	37*	5.9	43*																	R _{Min.} =89 m																																																											
260	2.3	11*	3.4	18*	4.1	23*	4.9	30*	5.7	38*	6.0	44*																																																																												
250	2.3	11*	3.5	18*	4.2	23*	5.0	30*	5.7	38*	R _{Min.} =54 m																																																																													
240	2.4	12*	3.6	19*	4.3	24*	5.1	31*	5.8	39*																																																																														
220	2.6	13*	3.7	19*	4.5	25*	5.3	32*	5.9	39*																															R _{Min.} =30 m																																															
200	2.8	14*	3.9	20*	4.7	26*	5.5	34*	6.0	40																																																																														
190	2.9	14*	3.9	20*	4.8	27*	5.6	34*	R _{Min.} =21 m																																																																															
180	3.0	15*	4.0	21*	4.9	27*	5.7	35																																																																																
175	3.0	15*	4.1	21*	5.0	28*	5.8	35																																											R _{Min.} =12 m																																					
170	3.1	15*	4.1	21*	5.0	28*	5.8	35																																																																																
160	3.2	16*	4.2	22*	5.2	29*	5.9	36																																																																																
150	3.3	16*	4.4	23*	5.3	30	6.0	37																																																																																
140	3.5	17*	4.5	23*	5.4	30	6.0	37																																											R _{Min.} =8 m																																					
130	3.6	17*	4.6	24*	5.6	31																																																																																		
120	3.8	18*	4.8	25	5.7	32																																																																																		
110	3.9	19*	5.0	26	5.8	32																																																																																		
100	4.1	20	5.2	27	6.0	33	R _{Min.} =4 m																																																																																	
90	4.2	20	5.4	28	6.0	33																																																																																		
80	4.5	22	5.6	29																																																																																				
70	4.7	23	5.8	30																																																																																				
60	5.0	24	6.0	31	R _{Min.} =2 m																																																																																			
50	5.4	26																																																																																						
40	5.8	28																																																																																						
30	6.0	29																																																																																						

RADIUS OF CURVE	e max. = 8.0%																					
	LOW SPEED (km/h)										HIGH SPEED (km/h)											
	V=30		V=40		V=50		V=60		V=70		V=80		V=90		V=100		V=110		V=120			
m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m	S %	L2 m
5000	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0
4750	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	15*
4500	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	15*
4250	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	15*
4000	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	14*	RC	15*
3750	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	14*	RC	15*
3500	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	13*	RC	14*	2.1	20*
3250	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	13*	RC	14*	2.2	21*
3000	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	13*	2.1	19*	2.4	23*
2750	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	12*	RC	13*	2.2	20*	2.6	25*	28*	
2500	NC	0	NC	0	NC	0	NC	0	NC	0	NC	0	RC	12*	2.1	18*	2.4	22*	2.9	28*	30*	
2250	NC	0	NC	0	NC	0	NC	0	NC	0	RC	11*	RC	12*	2.3	20*	2.7	25*	3.1	30*		
2000	NC	0	NC	0	NC	0	NC	0	NC	0	RC	11*	2.2	18*	2.6	22*	3.0	27*	3.5	34*		
1900	NC	0	NC	0	NC	0	NC	0	RC	10*	2.3	19*	2.7	23*	3.1	28*	3.7	36*				
1800	NC	0	NC	0	NC	0	NC	0	RC	10*	RC	11*	2.4	19*	2.9	25*	3.3	30*	3.9	37*		
1700	NC	0	NC	0	NC	0	NC	0	RC	10*	2.1	16*	2.5	20*	3.0	26*	3.5	32*				
1600	NC	0	NC	0	NC	0	NC	0	RC	10*	2.2	16*	2.7	22*	3.2	27*	3.7	34*	4.3	41*		
1500	NC	0	NC	0	NC	0	NC	0	RC	10*	2.4	18*	2.8	22*	3.4	29*	3.9	36*	4.6	44*		
1400	NC	0	NC	0	NC	0	RC	10*	2.1	14*	2.5	18*	3.0	24*	3.6	31*	4.1	37*	4.9	47*		
1300	NC	0	NC	0	NC	0	RC	10*	2.2	15*	2.7	20*	3.2	26*	3.8	32*	4.4	40*	5.2	50*		
1200	NC	0	NC	0	NC	0	RC	10*	2.4	16*	2.9	21*	3.4	27*	4.1	35*	4.7	43*	5.6	54*		
1100	NC	0	NC	0	NC	0	RC	10*	2.6	18*	3.1	23*	3.7	30*	4.4	37*	5.1	46*	6.0	57*		
1000	NC	0	NC	0	RC	9*	2.2	14*	2.8	19*	3.4	25*	4.0	32*	4.8	41*	5.5	50*	6.5	62*		
950	NC	0	NC	0	RC	9*	2.3	14*	2.9	20*	3.5	26*	4.2	33*	5.0	42*	5.7	52*	6.8	65*		
900	NC	0	NC	0	RC	9*	2.4	15*	3.1	21*	3.7	27*	4.4	35*	5.2	44*	6.0	54*	7.1	68*		
850	NC	0	NC	0	RC	9*	2.5	16*	3.2	21*	3.9	29*	4.6	37*	5.4	46*	6.3	57*	7.4	71		
800	NC	0	NC	0	RC	9*	2.7	17*	3.4	23*	4.1	30*	4.8	38*	5.7	48*	6.5	59*	7.6	72		
750	NC	0	RC	8*	2.1	12*	2.8	17*	3.6	24*	4.3	31*	5.1	41*	6.0	51*	6.9	63*	7.8	74		
700	NC	0	RC	8*	2.2	13*	3.0	19*	3.8	25*	4.5	33*	5.3	42*	6.3	53*	7.2	65	8.0	76		
650	NC	0	RC	8*	2.4	14*	3.2	20*	4.0	27*	4.8	35*	5.6	44*	6.6	56*	7.5	68	R _{Min.} =666 m			
600	NC	0	RC	8*	2.6	15*	3.4	21*	4.3	29*	5.1	37*	6.0	48*	6.9	58*	7.7	70				
550	NC	0	2.1	11*	2.8	16*	3.6	22*	4.6	31*	5.4	39*	6.3	50	7.3	62	7.9	72				
500	NC	0	2.2	12*	3.0	17*	3.9	24*	4.9	33*	5.8	42*	6.7	53	7.6	64	8.0	74	R _{Min.} =500 m			
450	NC	0	2.5	13*	3.3	19*	4.3	26*	5.3	35*	6.2	45	7.1	56	7.9	67						
400	RC	8*	2.7	14*	3.6	20*	4.7	29*	5.7	38*	6.6	48	7.5	59	8.0	68						
380	RC	8*	2.8	15*	3.8	21*	4.8	29*	5.9	39*	6.8	49	7.7	61								
360	RC	8*	3.0	16*	3.9	22*	5.0	31*	6.1	40	7.0	51	7.8	62	R _{Min.} =393 m							
340	RC	8*	3.1	16*	4.1	23*	5.2	32*	6.3	42	7.2	52	7.9	62								
320	2.0	10*	3.3	17*	4.3	24*	5.4	33*	6.5	43	7.4	54	8.0	63								
300	2.1	10*	3.4	18*	4.5	25*	5.6	34*	6.7	44	7.6	55										
280	2.3	11*	3.6	19*	4.7	26*	5.9	36	7.0	46	7.7	56	R _{Min.} =303 m									
260	2.4	12*	3.8	20*	4.9	27*	6.1	37	7.2	48	7.9	57										
250	2.5	13*	4.0	21*	5.1	28*	6.2	38	7.3	49	7.9	57										
240	2.6	13*	4.1	21*	5.2	29*	6.4	39	7.5	50	8.0	58										
220	2.8	14*	4.3	22*	5.5	31	6.7	41	7.7	51	R _{Min.} =228 m											
200	3.0	15*	4.6	24*	5.8	32	7.0	43	7.9	52												
190	3.1	15*	4.8	25	5.9	33	7.2	44	8.0	53												
180	3.3	16*	4.9	25	6.1	34	7.3	44	8.0	53												
175	3.4	16*	5.0	26	6.2	34	7.4	45	R _{Min.} =175 m	8.0	53											
170	3.4	17*	5.1	26	6.3	35	7.5	46														
160	3.6	17*	5.2	27	6.5	36	7.6	46														
150	3.8	18*	5.4	28	6.7	37	7.8	47														
140	4.0	19*	5.6	29	6.9	38	7.9	48	R _{Min.} =123 m	8.0	49											
130	4.2	20	5.8	30	7.1	39																
120	4.4	21	6.0	31	7.4	41																
110	4.7	23	6.3	32	7.6	42																
100	4.9	24	6.5	33	7.8	43	R _{Min.} =81 m															
90	5.2	25	6.9	36	7.9	44																
80	5.5	26	7.2	37																		
70	5.9	28	7.5	39																		
60	6.4	31	7.8	40	R _{Min.} =50 m																	
50	6.9	33	8.0	41																		
40	7.5	36																				
30	8.0	38																				
R _{Min.} =28 m																						