

S.C. STATE HIGHWAY DEPT.  
COLUMBIA

## NOTES

All curves are to be superelevated to the nearest thirty (30') minutes according to table. In any case where conditions do not permit an approach as long as shown on this sheet, the Resident Engineer is to adjust same to meet the conditions. Where unusual conditions make it desirable, super-elevation may be obtained by revolving the surface about the centerline instead of the inside edge, the amount of super-elevation to be the same as shown in the table. For all types of surfacing the roadway crown shall decrease gradually from the point where super-elevation begins, reaching a flat section 80 ft. from the beginning S.E. toward the curve. The crown in subgrade shall be eliminated to conform to the finished surfacing.

**SUPERELEVATION FORMULA:**

$$E = 0.067 \frac{S^2}{R}$$

E = SUPERELEVATION IN FEET

S = SPEED IN MILES PER HOUR

R = RADIUS OF CURVE IN FEET

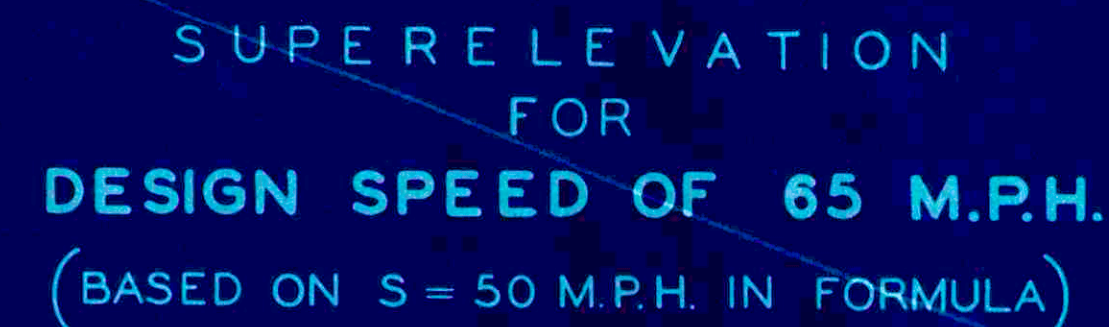


TABLE SHOWING AMOUNT OF SUPERELEVATION AT ANY POINT ON APPROACH TO CURVE	
DISTANCE FROM BEGINNING OF SUPERELEVATION IN DIRECTION OF CURVE - FEET	

21 FT. WIDTH DEGREE OF CURVE		SUPERELEVATION IN FEET																																															
		10	20	30	40	50	60	70	80	90	98	100	110	120	130	140	150	160	162	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	402					
0°-30'	.01	.03	.06	.10	.15	.20	.23	.26	.28	.29	—	.40	.45	.50	.54	.58	.60	.61	.61	—	.75	.80	.84	.87	.89	.90	—	.85	.90	.95	1.00	1.05	1.10	1.14	1.17	1.19	1.20	—	1.15	1.20	1.25	1.30	1.35	1.40	1.44	1.48	1.50	1.51	1.51
1°-30'	.01	.03	.06	.10	.15	.20	.23	.26	.28	.29	—	.40	.45	.50	.54	.58	.60	.65	.70	—	.75	.80	.84	.87	.89	.90	—	.85	.90	.95	1.00	1.05	1.10	1.14	1.17	1.19	1.20	—	1.15	1.20	1.25	1.30	1.35	1.40	1.44	1.48	1.50	1.51	1.51
2°-30'	.01	.03	.06	.10	.15	.20	.23	.26	.28	.29	—	.40	.45	.50	.54	.58	.60	.65	.70	—	.75	.80	.84	.87	.89	.90	—	.85	.90	.95	1.00	1.05	1.10	1.14	1.17	1.19	1.20	—	1.15	1.20	1.25	1.30	1.35	1.40	1.44	1.48	1.50	1.51	1.51
2°-30'	.01	.03	.06	.10	.15	.20	.23	.26	.28	.29	—	.40	.45	.50	.54	.58	.60	.65	.70	—	.75	.80	.84	.87	.89	.90	—	.85	.90	.95	1.00	1.05	1.10	1.14	1.17	1.19	1.20	—	1.15	1.20	1.25	1.30	1.35	1.40	1.44	1.48	1.50	1.51	1.51
3°-00'	.01	.03	.06	.10	.15	.20	.23	.26	.28	.29	—	.40	.45	.50	.54	.58	.60	.65	.70	—	.75	.80	.84	.87	.89	.90	—	.85	.90	.95	1.00	1.05	1.10	1.14	1.17	1.19	1.20	—	1.15	1.20	1.25	1.30	1.35	1.40	1.44	1.48	1.50	1.51	1.51

23 FT. WIDTH DEGREE OF CURVE		SUPERELEVATION IN FEET																																																
		10	20	30	40	50	60	70	80	90	100	104	110	120	130	140	150	160	170	174	180	190	200	210	220	230	238	240	250	260	270	280	290	300	302	310	320	330	340	350	360	370	372	380	390	400	410	420	430	436
0°-30'	.01	.03	.06	.10	.15	.20	.24	.27	.29	.31	.32	—	.45	.50	.55	.59	.62	.65	.66	.67	—	.80	.85	.90	.93	.96	.98	.99	—	.95	1.00	1.05	—	1.10	1.15	1.20	1.25	1.28	1.30	1.31	1.31	—	1.45	1.50	1.55	1.60	1.63	1.65	1.66	1.66
1°-30'	.01	.03	.06	.10	.15	.20	.24	.27	.29	.31	.32	—	.45	.50	.55	.59	.62	.65	.66	.67	—	.80	.85	.90	.93	.96	.98	.99	—	.95	1.00	1.05	—	1.10	1.15	1.20	1.25	1.28	1.30	1.31	1.31	—	1.45	1.50	1.55	1.60	1.63	1.65	1.66	1.66
2°-30'	.01	.03	.06	.10	.15	.20	.24	.27	.29	.31	.32	—	.45	.50	.55	.59	.62	.65	.66	.67	—	.80	.85	.90	.93	.96	.98	.99	—	.95	1.00	1.05	—	1.10	1.15	1.20	1.25	1.28	1.30	1.31	1.31	—	1.45	1.50	1.55	1.60	1.63	1.65	1.66	1.66
2°-30'	.01	.03	.06	.10	.15	.20	.24	.27	.29	.31	.32	—	.45	.50	.55	.59	.62	.65	.66	.67	—	.80	.85	.90	.93	.96	.98	.99	—	.95	1.00	1.05	—	1.10	1.15	1.20	1.25	1.28	1.30	1.31	1.31	—	1.45	1.50	1.55	1.60	1.63	1.65	1.66	1.66
3°-00'	.01	.03	.06	.10	.15	.20	.24	.27	.29	.31	.32	—	.45	.50	.55	.59	.62	.65	.66	.67	—	.80	.85	.90	.93	.96	.98	.99	—	.95	1.00	1.05	—	1.10	1.15	1.20	1.25	1.28	1.30	1.31	1.31	—	1.45	1.50	1.55	1.60	1.63	1.65	1.66	1.66

SUPERELEVATION  
FOR  
DESIGN SPEED OF 45 M.P.H.  
(BASED ON  $S = 35$  M.P.H. IN FORMULA)

[illegible]

TABLE SHOWING AMOUNT OF SUPERELEVATION AT ANY POINT ON APPROACH TO CURVE  
DISTANCE FROM BEGINNING OF SUPERELEVATION IN DIRECTION OF CURVE - 555T

[illegible]

REVISED	BY: T.J. HENDRIX	4 - 1946
REDRAWN	BY: C.W. METZ	4 - 1946
RETRACED	BY: CONNIE VALIS	3 - 1958