

3
SC219

SUPERELEVATION CHECK SHEET (ENGLISH VERSION)

This spreadsheet can be used to check superelevation calculations. It is divided into 3 parts.

Part I is the parameters area where the pertinent data used to calculate the superelevation is entered.

Part II is the Shapemaker table area where the data relating to generating a shapemaker is held.

Part III is the area where a particular cross slope or edge of pavement info for a particular xs can be obtained.

Use the yellow blocks to enter the known data & the blue blocks are the calculated results.

THIS SPREADSHEET CAN NOW HANDLE REMOVE CROWN!!!

PART I CALCULATION PARAMETERS

INPUT	OUTPUT	Cross slope
	(STATION)	(%)
Travel lane width: 31.5 ft	BEGIN se HIGHSIDE: 161+21.83	-2.08
	END se HIGHSIDE: 178+12.07	-2.08
MAX se Rate: 0.038 (ft/ft) FROM TABLE	BEGIN se LOWSIDE: 163+84.33	-2.08
	END se LOWSIDE: 175+49.57	-2.08
PC Sta: 164+12.68 SEE NOTE	BEGIN MAX se: 164+92.48	3.80
	END MAX se: 174+41.42	3.80
PT Sta: 175+21.22 SEE NOTE		
	PC/PT se: 0.80	2.53 (-/+)
	MAX se rate: 1.20 (ft)	
	e Norm: -0.66 (ft)	

NOTE: DO NOT KEY IN THE + SIGN !!!

Example station 10+00 should be keyed-in as 1000

PART II**SHAPEMAKER TABLE****LOWSIDE**

FROM STATION	cross slope (%)	TO STATION	cross slope (%)	TRANS or NON-TRANS	COMMENTS
Beg Constr.	-2.08	163+84.33	-2.08	NT	Normal Crown
163+84.33	-2.08	164+92.48	-3.80	T	Beg Super to Max Super
164+92.48	-3.80	174+41.42	-3.80	NT	Beg Max Super to End Max Super
174+41.42	-3.80	175+49.57	-2.08	T	End Max Super to Normal
175+49.57	-2.08	End Constr.	-2.08	NT	Normal Crown

HIGHSIDE

FROM STATION	cross slope (%)	TO STATION	cross slope (%)	TRANS or NON-TRANS	COMMENTS
Beg Constr.	-2.08	161+21.83	-2.08	NT	Normal Crown
161+21.83	-2.08	164+92.48	3.80	T	Beg Super to Max Super
164+92.48	3.80	174+41.42	3.80	NT	Beg Max Super to End Max Super
174+41.42	3.80	178+12.07	-2.08	T	End Max Super to Normal
178+12.07	-2.08	End Constr.	-2.08	NT	Normal Crown

PART III INDIVIDUAL STA. CALCULATIONS

USE THIS TABLE TO DETERMINE A CROSS SLOPE OR EOP CHANGE IN ELEV (z)

LOWSIDE		HIGHSIDE	
cross slope (%)	change in z (ft)	change in z (%)	cross slope (ft)
-176.68	-55.65	55.65	176.68
-177.47	-55.90	55.90	177.47
-178.27	-56.15	56.15	178.27
-179.06	-56.40	56.40	179.06
-179.85	-56.65	56.65	179.85
-2.53	-0.80	0.80	2.53
-257.99	-81.27	-81.27	-257.99
-257.99	-81.27	-81.27	-257.99
-257.99	-81.27	-81.27	-257.99
-257.99	-81.27	-81.27	-257.99
-157.99	-49.77	-49.77	-157.99
-158.78	-50.02	-50.02	-158.78
-159.57	-50.27	-50.27	-159.57
-160.37	-50.52	-50.52	-160.37
-161.16	-50.77	-50.77	-161.16
-161.95	-51.02	-51.02	-161.95
-2.53	-0.80	0.80	2.53
-2.08	-0.66	-0.66	-2.08
-2.08	-0.66	-0.66	-2.08
-2.08	-0.656	-0.66	-2.08
-2.08	-0.656	-0.66	-2.08
-2.08	-0.656	-0.66	-2.08

STA	
65+50.00	
65+00.00	
64+50.00	
64+00.00	
63+50.00	
PT Sta 17521.220 PT Sta	
63+00.00	
62+50.00	
62+00.00	
61+50.00	
61+00.00	
60+50.00	
PC Sta 16412.680 PC Sta	
60+00.00	
59+50.00	
59+00.00	
58+50.00	
58+00.00	