

SPIRAL WORKSHEET

By _____ DATE _____
 Chk. By _____ DATE _____
 $E_{max} =$ _____

* CURVE NO. _____ DESIGN SPEED _____ OFFSET _____
 * P.I. AT STA _____
 & AZIMUTH BACK = _____
 & AZIMUTH AHEAD = _____

* $\Delta =$ _____
 * $D_c =$ _____
 * $L_s =$ _____
 * $R_c =$ _____
 * $\theta_s = \frac{L_s D_c}{200} =$ _____ = _____
 $\Delta_c = \Delta - 2\theta_s =$ _____ = _____
 * $L_c = \frac{100 \Delta_c}{D_c} =$ _____ = _____

FOLLOWING VALUES = COEF. (from Table Below) $\times L_s$

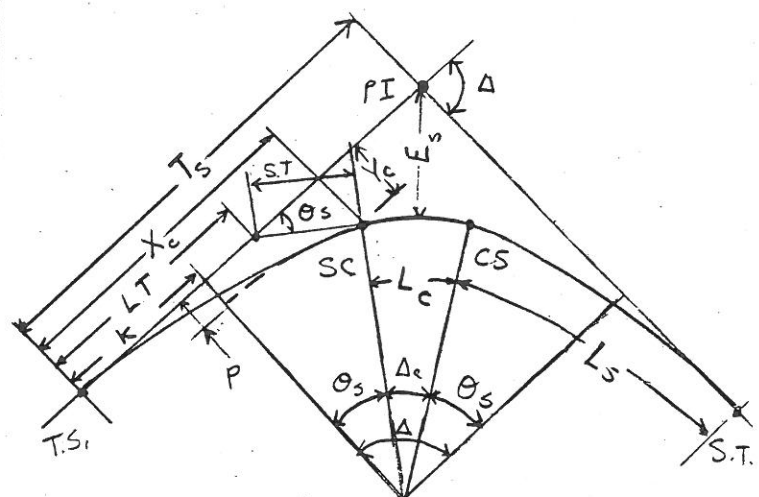
$P =$ _____ \times _____ = _____
 $K =$ _____ \times _____ = _____
 * $X_c =$ _____ \times _____ = _____
 * $Y_c =$ _____ \times _____ = _____
 * L.T. = _____ \times _____ = _____
 * S.T. = _____ \times _____ = _____

* - ALL ITEMS ARE TO BE SHOWN ON THE CONTRACT PLANS

$\cos \frac{\Delta}{2} =$ _____ $\tan \frac{\Delta}{2} =$ _____

* $E_s = \frac{R_c + P}{\cos \frac{\Delta}{2}} - R_c =$ _____
 * $T_s = (R_c + P) \tan \frac{\Delta}{2} + K =$ _____ = _____
 * T.S. & STA = _____ at & STA _____ Offset _____
 * S.C. & STA = _____ at & STA _____ Offset _____
 * C.S. & STA = _____ at & STA _____ Offset _____
 * S.T. & STA = _____ at & STA _____ Offset _____

θ_s	P	K	X_c	Y_c	L.T.	S.T.
0°	.00000	.50000	1.00000	.00000	.66667	.33333
1°	.00146	.49999	.99997	.00582	.66668	.33334
2°	.00291	.49998	.99988	.01163	.66671	.33337
3°	.00435	.49995	.99973	.01745	.66676	.33342
4°	.00581	.49992	.99951	.02326	.66684	.33349
5°	.00727	.49987	.99924	.02907	.66693	.33358
6°	.00872	.49982	.99890	.03488	.66705	.33368
7°	.01018	.49975	.99851	.04068	.66719	.33381
8°	.01163	.49967	.99805	.04648	.66735	.33395
9°	.01308	.49959	.99754	.05227	.66753	.33412
10°	.01453	.49949	.99696	.05805	.66773	.33430
11°	.01598	.49939	.99632	.06383	.66796	.33451
12°	.01743	.49927	.99562	.06959	.66821	.33473
3'	.01887	.49914	.99486	.07535	.66847	.33498
14°	.02032	.49901	.99405	.08110	.66877	.33524
15°	.02176	.49886	.99317	.08684	.66908	.33553
16°	.02320	.49870	.99223	.09257	.66941	.33583



$$T_s = (R_c + P) \tan \frac{\Delta}{2} + K$$

$$L_c = \frac{100 \Delta_c}{D_c}$$

$$E_s = \frac{R_c + P}{\cos \frac{\Delta}{2}} - R_c$$

$$\Delta_c = \Delta - \frac{L_s D_c}{100}$$

$$\theta_s = \frac{L_s D_c}{200}$$

$$\Delta_c = \Delta - 2\theta_s$$