

Point name	Height (mm)	Height (ft)	Height (in)
P-01	0.000	0.000	0.000
P-02	-2.300	-0.008	-0.091
P-03	-3.130	-0.010	-0.123
P-04	-6.910	-0.023	-0.272
P-05	-10.440	-0.034	-0.411
P-06	-14.140	-0.046	-0.557
P-07	-17.540	-0.058	-0.691
P-08	-18.560	-0.061	-0.731
P-09	-20.790	-0.068	-0.819
P-10	-20.920	-0.069	-0.824
P-11	-20.200	-0.066	-0.795
P-12	-17.270	-0.057	-0.680
P-13	-13.040	-0.043	-0.513
P-14	-5.660	-0.019	-0.223
P-15	-0.280	-0.001	-0.011
P-16	6.020	0.020	0.237
P-17	12.120	0.040	0.477
P-18	15.750	0.052	0.620
P-19	17.940	0.059	0.706
P-20	17.910	0.059	0.705
P-21	17.410	0.057	0.685
P-22	14.360	0.047	0.565
P-23	10.780	0.035	0.424
P-24	4.600	0.015	0.181

Tank parameters:

D (Tank diameter)	88.632 ft	
H (tank height)	52.493 ft	
K	3.9	
Y (yield strength)	36000 Lbf/in ²	
E (Young's modulus)	29000000 Lbf/in ²	
L (arc length between measurement points)	3.547 m	= 11.63714 (ft)
Θ (Theta)	15° (deg)	

$$R^2 = \frac{S_{yy} - SSE}{S_{yy}}$$

$$S_{yy} = ?, \text{ SSE} = ?$$

$$Elev_{pred} \text{ (PE)} = a + b \times \cos(\theta + c) \quad a, b, c = ?$$

Drawing graph of Cosine curve (incl measurement data and PE)?

