

L := 50in Balustrade horizontal length

S_{Max} := 4in Maximum allowed spacing

W := 2in Baluster pitch

P_{Max} := S_{Max} + W Maximum pitch

P := Round $\left(\frac{L}{\text{ceil}\left(\frac{L}{P_{\text{Max}}}\right)}, \frac{1}{100}\text{in}\right) = 5.56 \cdot \text{in}$

N := $\text{ceil}\left(\frac{L + W}{P_{\text{Max}}}\right) - 1 = 8$ Number of Balusters

θ := 30deg Stairs angle

P_{Slant} := $\frac{P}{\cos(30\text{deg})} = 6.42 \cdot \text{in}$ Slant pitch of the balusters