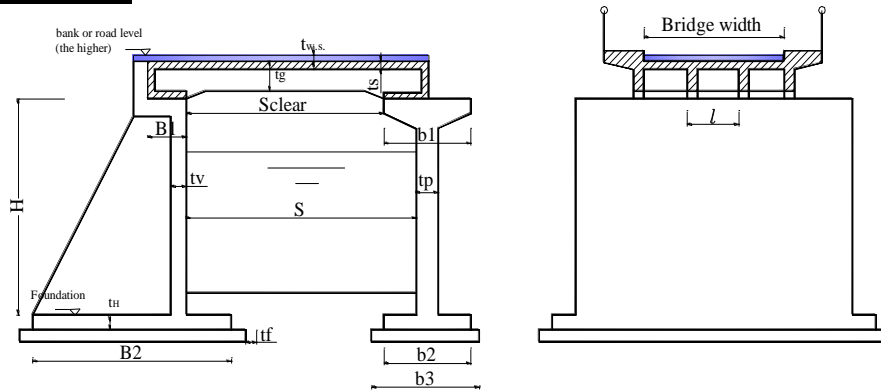


Empirical dimensions



Piers:

$$t_p = S/6 \rightarrow 12$$

$$b_1 = 0.1S + 0.85$$

$$b_2 = b_1$$

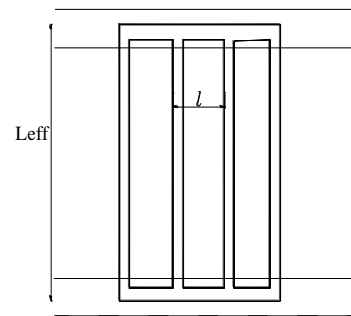
Girders:

$$S_{\text{clear}} = S \quad (\text{one vent})$$

$$S_{\text{clear}} = S - (b_1 - t_p)/2 \quad (\text{multiple vents})$$

$$L_{\text{eff}} = 1.05 S_{\text{clear}}$$

$$t_G = L_{\text{eff}}/7 \rightarrow 10$$



Abutments:

$$B_1 = S/10 \quad (\text{one vent})$$

$$B_1 = b_1/2 \quad (\text{multiple vents})$$

$$H = \text{Road level or bank level (the higher)} - \text{foundation level} - (t_{w.s.} + t_G + t_{\text{haunch}})$$

$$t_v = t_H = H/12 \rightarrow 14$$

$$B_2 = 2/3 H \rightarrow H$$

Slab:

Choose № of girders

$$l = \frac{\text{bridge width}}{\text{№ of girders} - 1} \quad (l = 1 \rightarrow 3\text{m})$$

$$\text{Check } L_{\text{eff}}/l \geq 2$$

$$t_s = l/8 \rightarrow 10$$