

Fig. 1

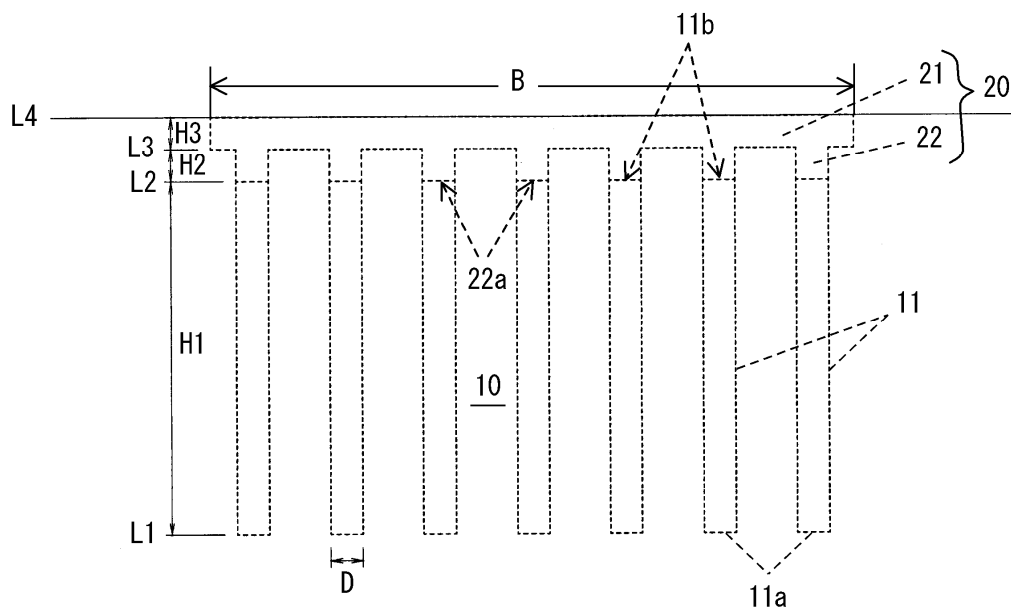


Fig. 2

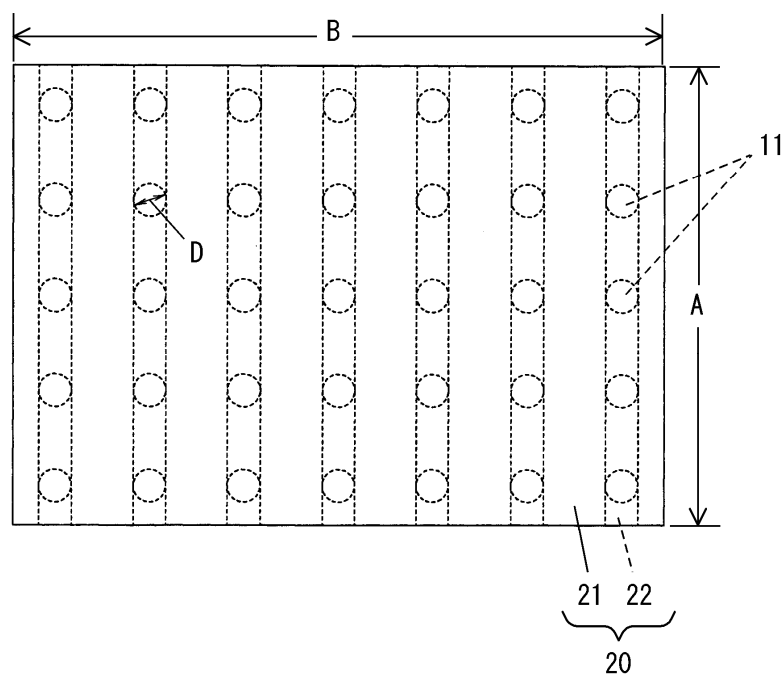


Fig. 3

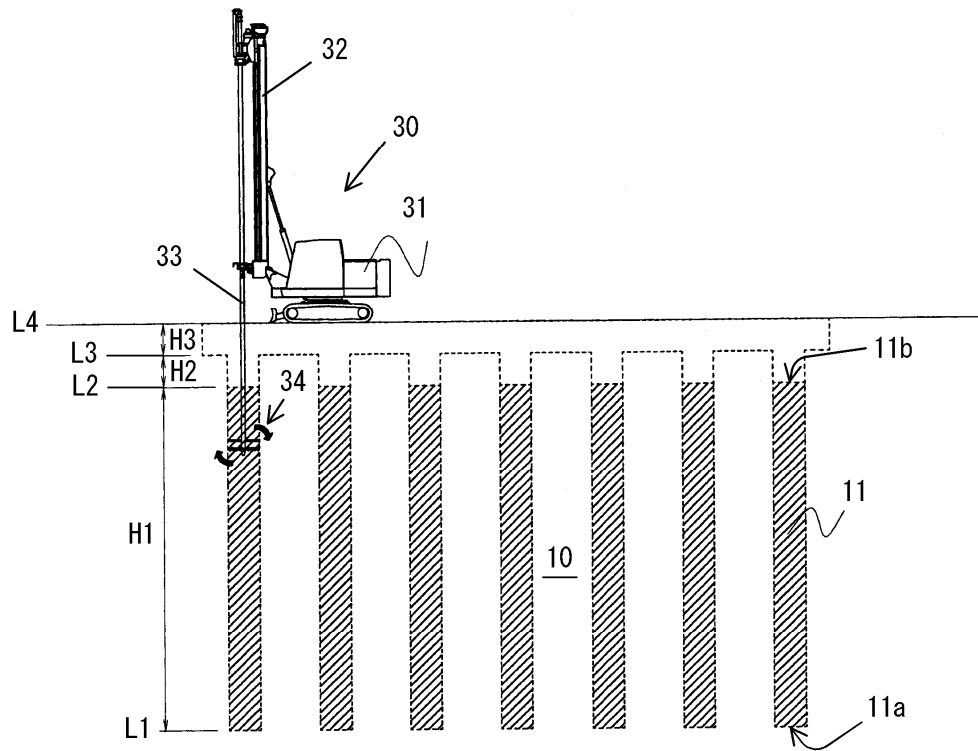


Fig. 4

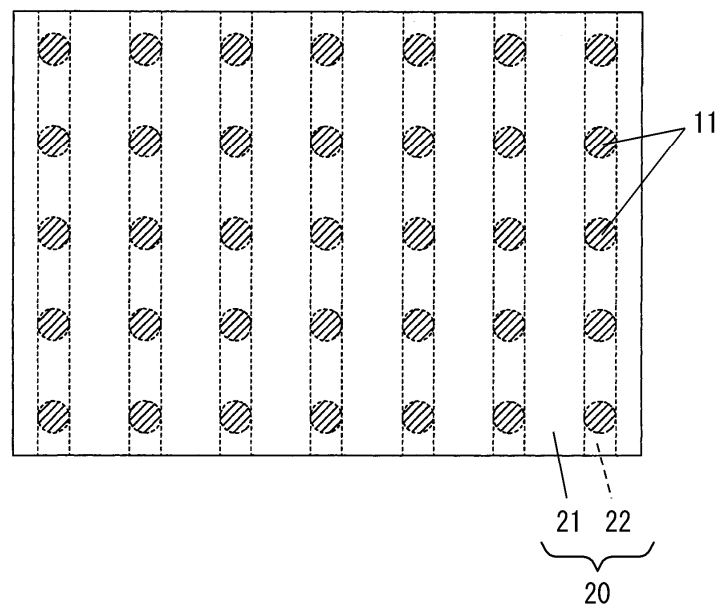


Fig. 5

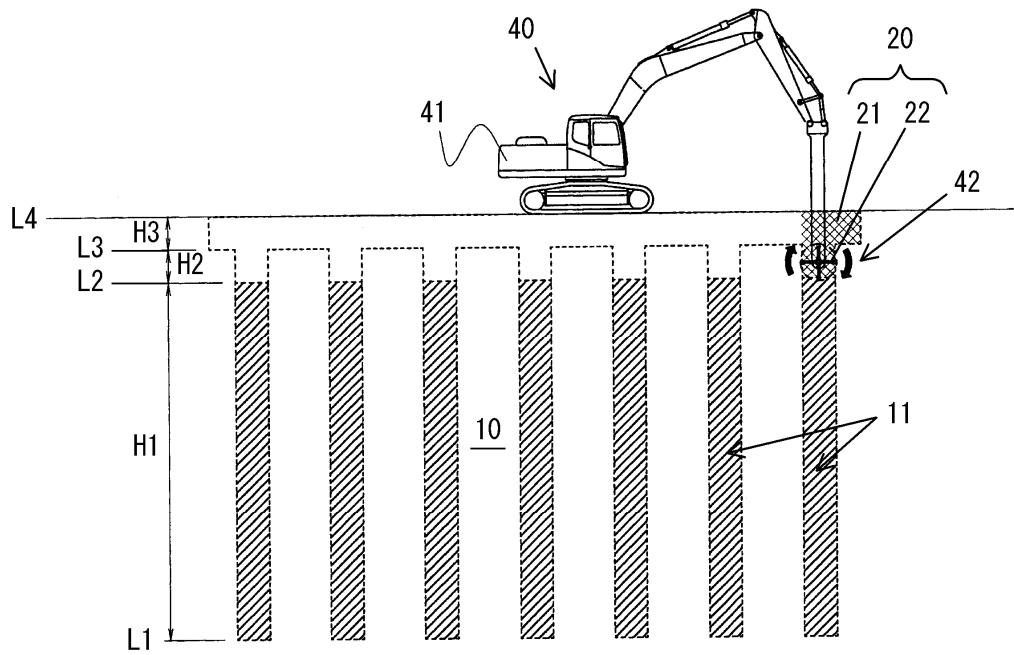


Fig. 6

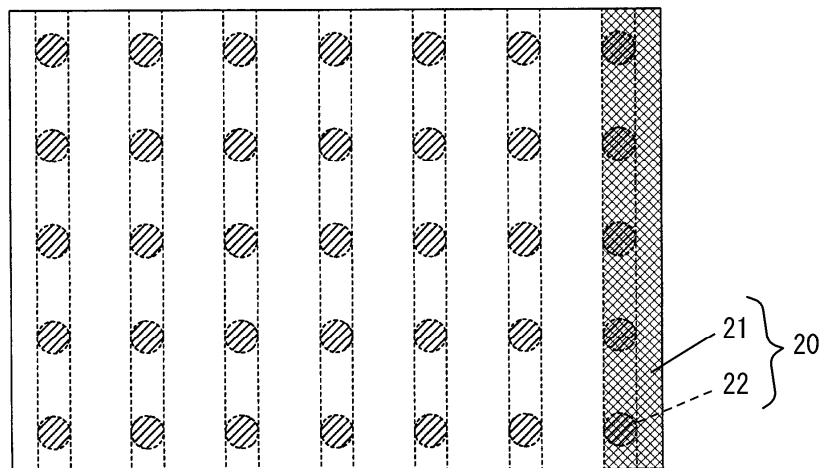


Fig. 7

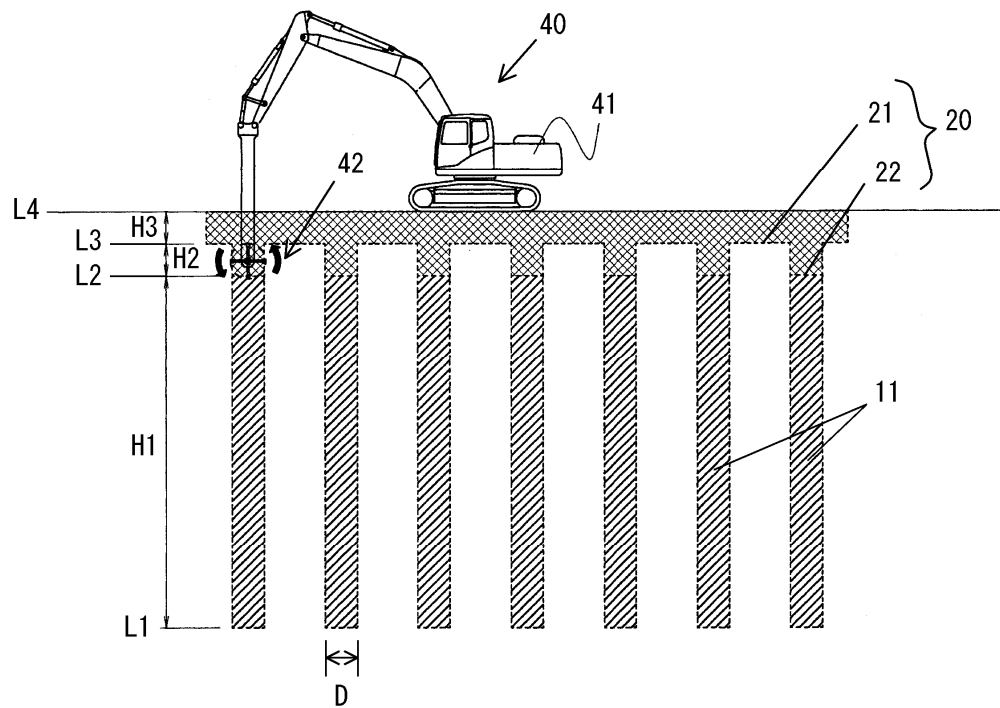


Fig. 8

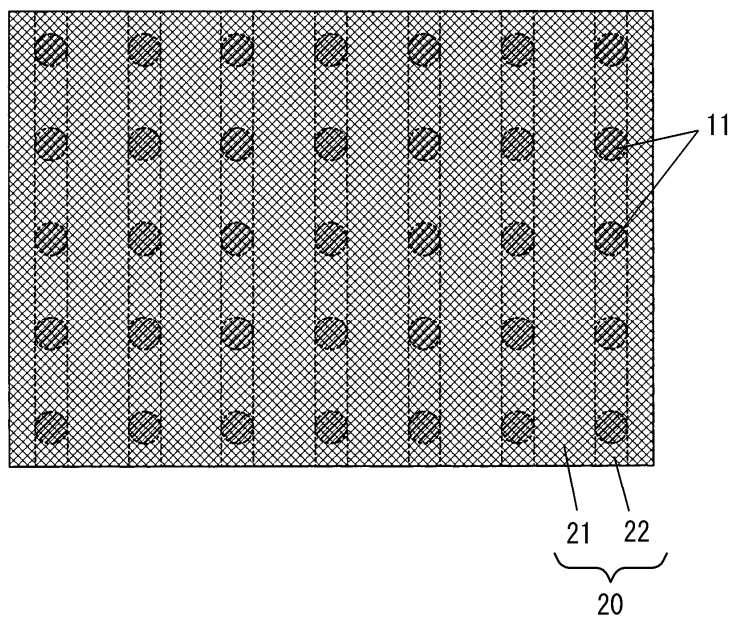


Fig. 9

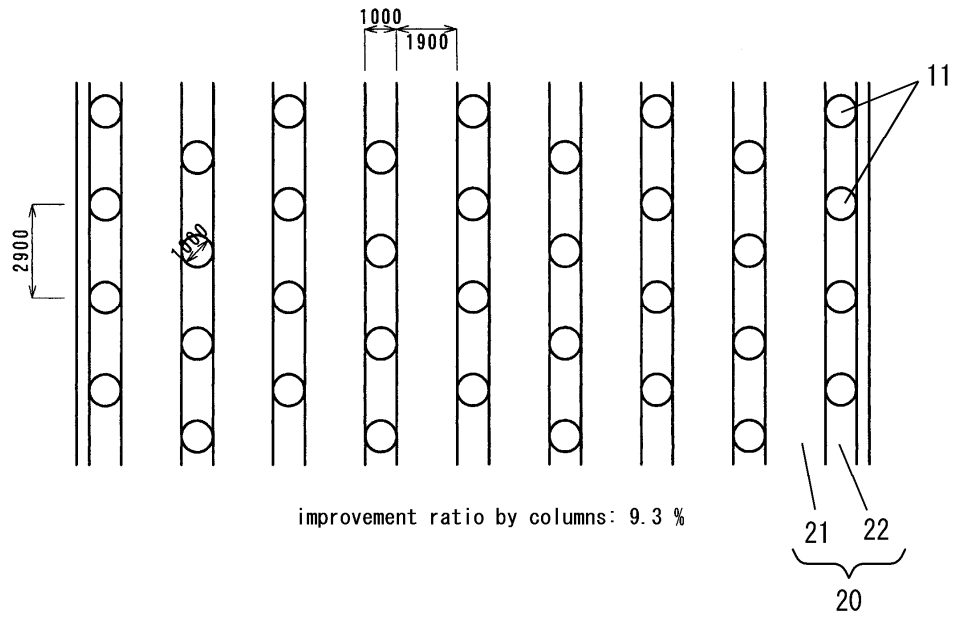


Fig. 10

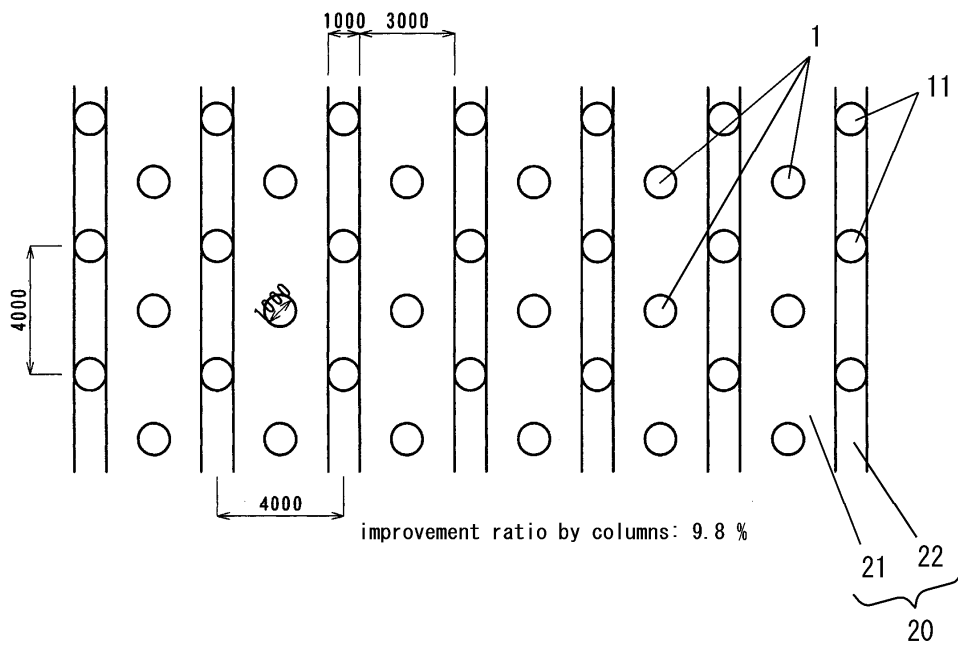


Fig. 11

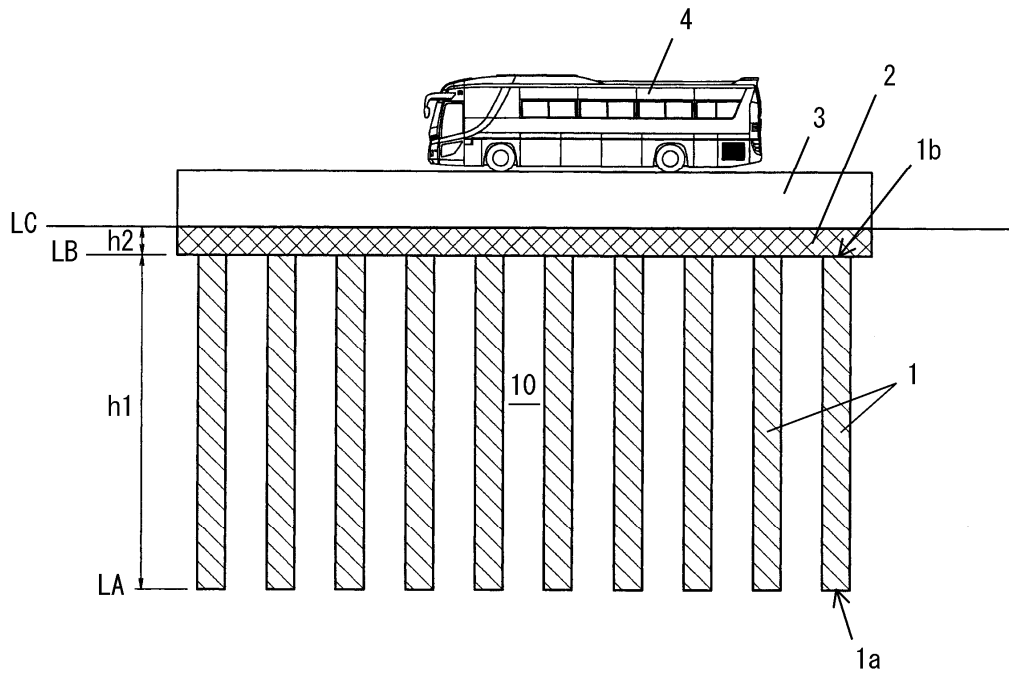


Fig. 12

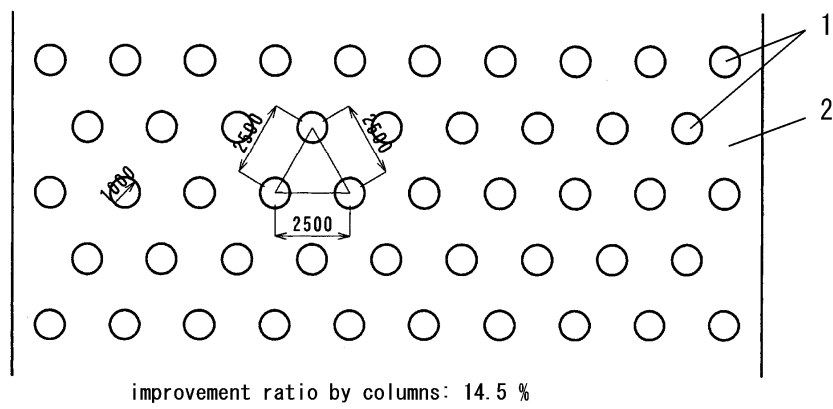
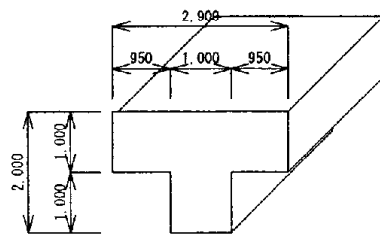
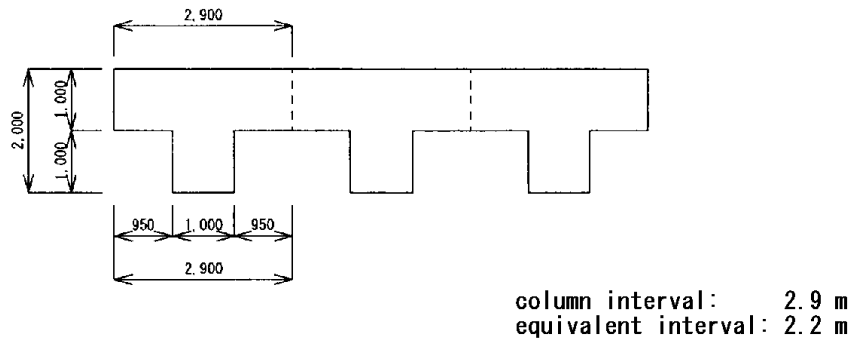


Fig. 13



$$Z = 1.413 \text{ m}^3$$

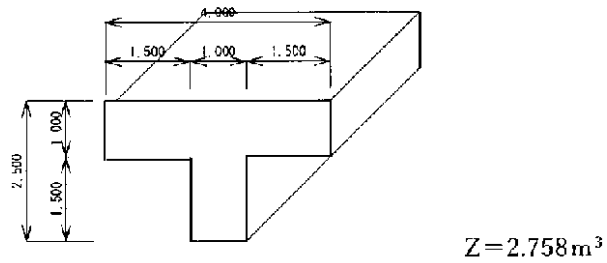
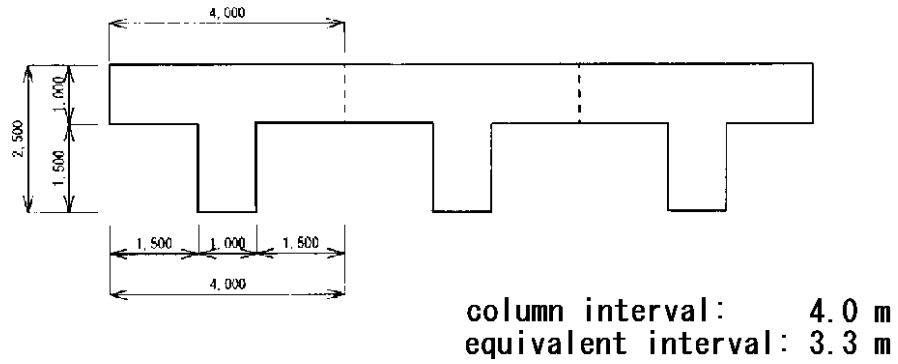
vertical load

$$40 \text{ kN/m}^2 \times 2.2 \text{ m} = 88 \text{ kN/m}$$

$$M = 88 \times 2.2^2 / 8 = 53.24 \text{ kN} \cdot \text{m}$$

$$\sigma = M/Z = 53.24 / 1.413 \approx 38 \text{ kN/m}^2 \leq 80 \text{ kN/m}^2 \dots \text{OK}$$

Fig. 14

**vertical load**

$$40 \text{ kN/m}^2 \times 3.3 \text{ m} = 132 \text{ kN/m}$$

$$M = 132 \times 3.3^2 / 8 = 179.69 \text{ kN} \cdot \text{m}$$

$$\sigma = M/Z = 179.69 / 2.758 \approx 65 \text{ kN/m}^2 \leq 80 \text{ kN/m}^2 \dots \text{OK}$$