

CAISSON – WELL FOUNDATION – Stability Analysis for Horizontal Load

Input

Data

Enter the file name in which you want to store the output: cai1

Enter total vertical load(MN): 15.0

Enter breadth of well foundation(m): 4.0

Enter length of well foundation(m): 10.0

Enter depth of embedment(m): 12.0

Enter height of pier from M.Sc.L(m): 9.0

Enter submerged unit weight of soil(kN/m³): 10.0

Enter angle of internal friction of soil(degrees): 30.0

Enter coefficient of base friction: 0.4

Enter kv(B,D)(MN/m³): 179.67

Enter mh(L)(MN/m⁴): 1.59

Output

Design

Total vertical load(MN): 15.00

Breadth of foundation(m): 4.00

Length of foundation(m): 10.00

Depth of embedment(m): 12.00

Height of pier from M.Sc.L(m): 9.00

Submerged unit weight of soil(kN/m³): 10.00

Angle of internal friction of soil(degrees): 30.00

Coefficient of base friction: 0.40

kv(B,D)(MN/m³): 179.67

mh(MN/m⁴): 1.59

ptmax(kN/m²): 814.13

ptmin(kN/m²): -192.39

Maximum horizontal load(MN): 2.72

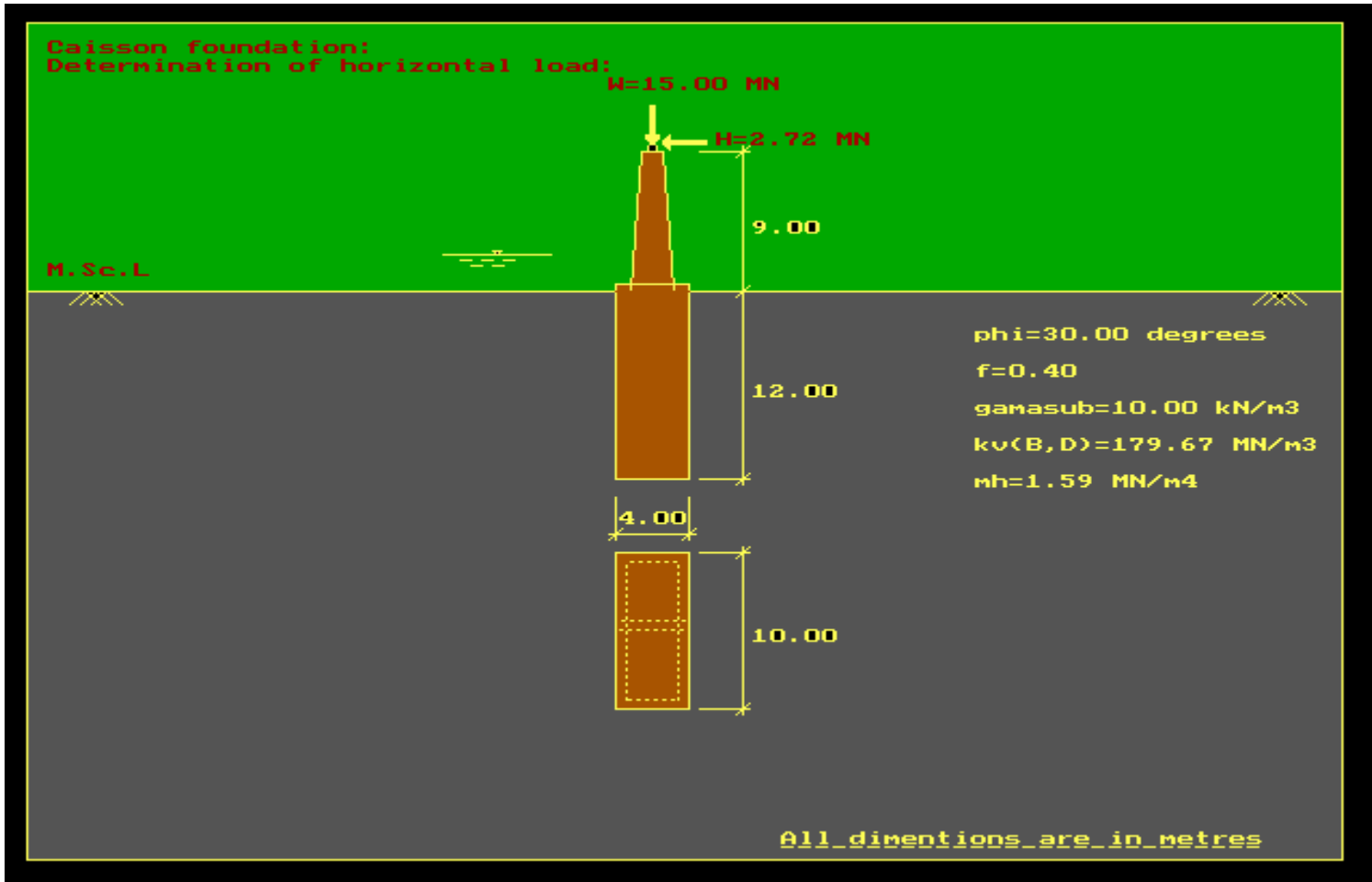


Fig.5.10

