

# PROKON Support Portal

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## Passive Pressure Calculation Considering Seepage

Michael - 2020-06-25 - 0 Comments - in C14:Concrete retaining wall design

PROKON's Retaining Wall Design module uses a simplified method in calculating the passive pressure when seepage is incorporated in the analysis of a retaining wall. PROKON's simplified method used in the module calculates:

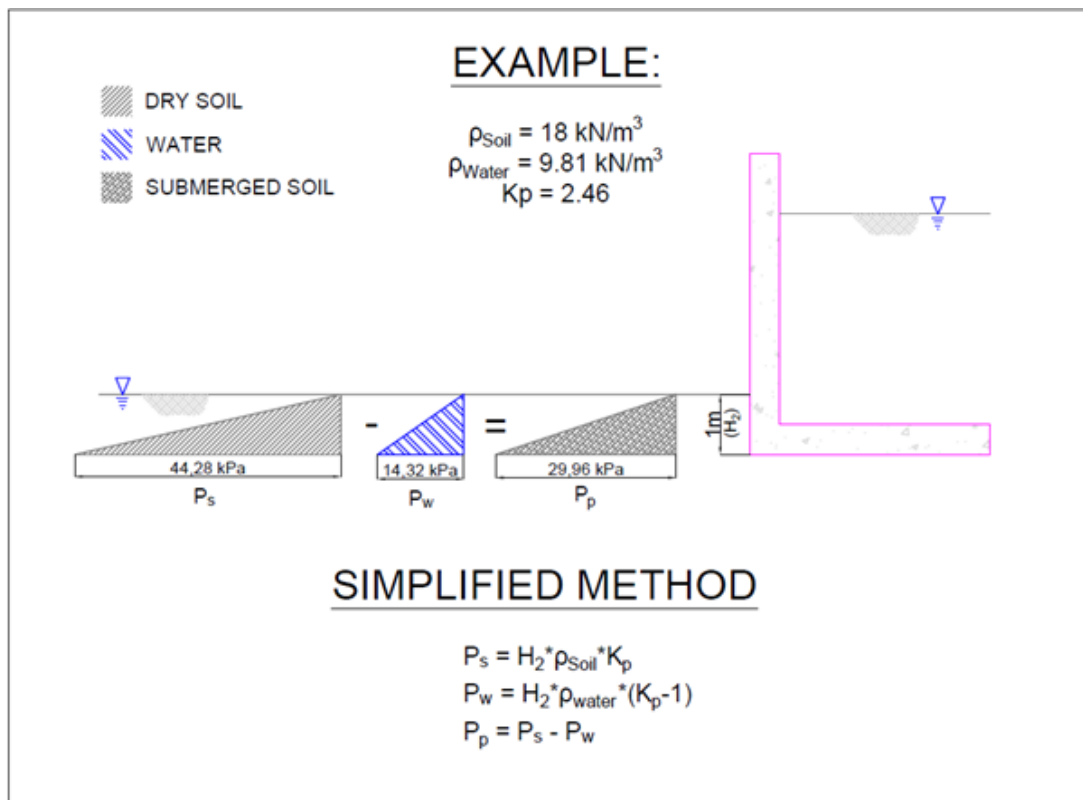
1. The dry soil pressure for the height of the soil ( $H_2$ ) in front of the wall,
2. Calculates an 'effective' hydrostatic pressure. Instead of adjusting the soil pressure below the water table, the hydrostatic pressure is adjusted.

The above-mentioned is visually explained in the sketch below. For this example, the following values were assumed:

$$\rho_{\text{soil}} = 18 \text{ kN/m}^3$$

$$\rho_{\text{water}} = 9.81 \text{ kN/m}^3$$

$$K_p = 2.46$$



For more information on the perceived difference in the hydrostatic pressure calculation, refer to the following [Knowledgebase article](#).