

Birzeit University
Faculty of Engineering
Department of Civil and Environmental Engineering

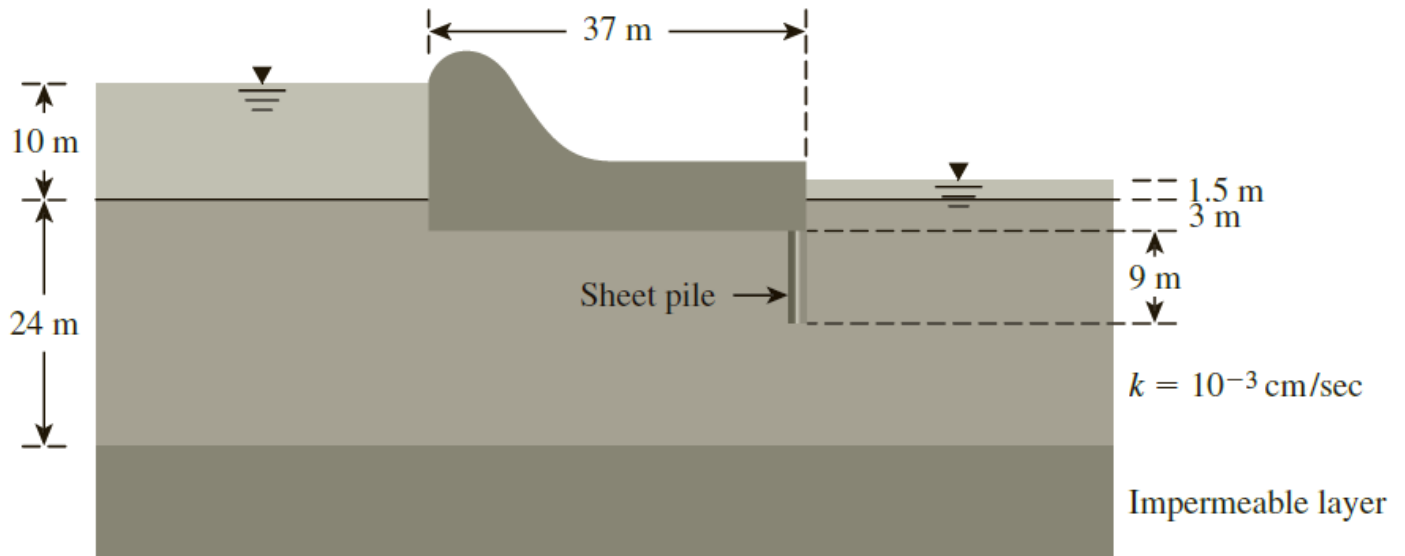
ENCE 331, Soil Mechanics

Homework assignment #7
Due on Thursday Dec. 10th, 2020

Problem 1:

The weir shown below is 50 m long

- Draw a flow net for the flow under the weir
- Calculate the rate of seepage for the entire weir.
- Calculate the total uplift force acting on the weir base.
- Calculate the exit hydraulic gradient near the toe of the weir



Problem 2:

Refer to the cross section of the earth dam shown below. Calculate the rate of seepage through the dam (q in $\text{m}^3/\text{min}/\text{m}$) using Schaffernak's and Casagrande's solutions.

