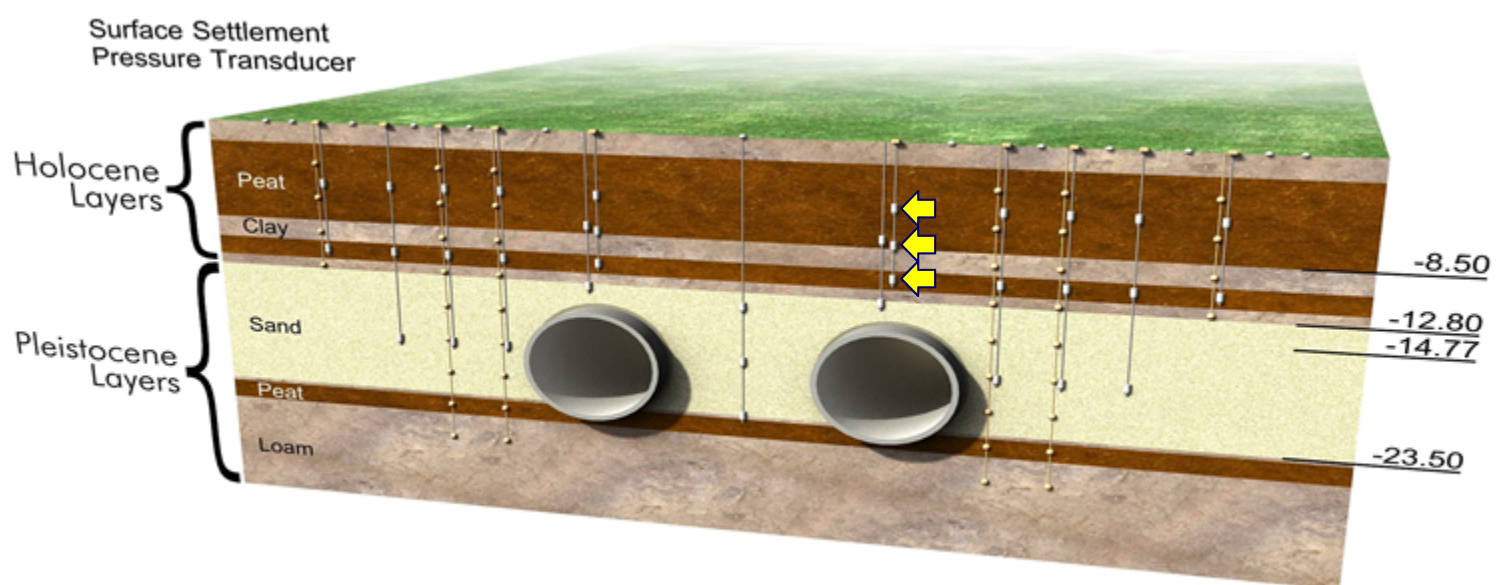


TBM Drilling in Saturated Sand, Pressures and Soil Movements

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WEDNESDAY, September 10th at NOON in BB W210
 - Lunch Provided -



The presentation starts with a short introduction in TBM tunneling, types of TBM and the ring building process. Then it focusses on two aspects of TBM tunneling: The pore pressures in front of a tunnel face when drilling in saturated sand. Measurements will be shown for both a slurry shield and an EBP shield. Consequences for the stability of the tunnel face, both for the minimum allowable pressure as the maximum allowable pressure will be discussed. The last part will be on tail void grouting. The pressures measured on the lining during tail void grouting will be shown and discussed. During drilling the pressures are different than during ring building. The measured soil deformations caused by the grouting will be discussed and compared with the grout pressures. The presentation will end with some conclusions.



Adam Bezuijen is professor in soil mechanics and geotechnics at Ghent University in Belgium. Part time he is also senior specialist at Deltares, Delft, the Netherlands. He is chairman of the ISSMGE technical committee TC204 "Underground construction in Soft ground".

He was involved in the extensive monitoring program that was executed when the first TBM tunnels were constructed in the soft Dutch soil. This monitoring program revealed important aspects of soil-tunnel interaction. Contributions of Adam Bezuijen were on the stability of the tunnel face, the application of foam and grout pressure distribution.

He is co-editor of the book: Tunnelling a decade of progress, (co-)author of more than 100 journal or conference papers.

Apart from underground construction he has publications in the fields of physical modeling, geosynthetics, piled embankments, dredging, coastal protection and backward erosion piping.

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