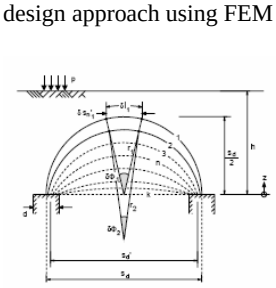
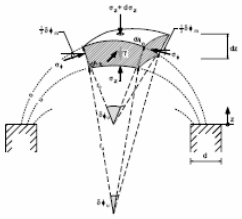
A comparative study on the design of LTP systems

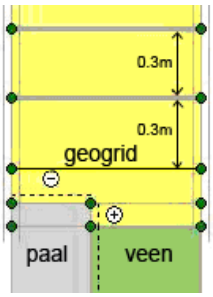
Prof. dr. ir. A.E.C. van der Stoel* (CRUX Engineering BV / Royal Military Academy)
ir. J.W. Dijkstra; ing. A.T. Balder; ing. J. Klaver (CRUX Engineering BV)

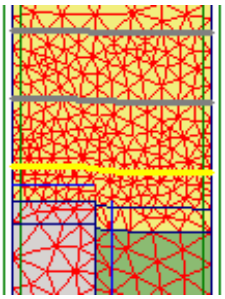
Proposed Discussion Session = 5.3

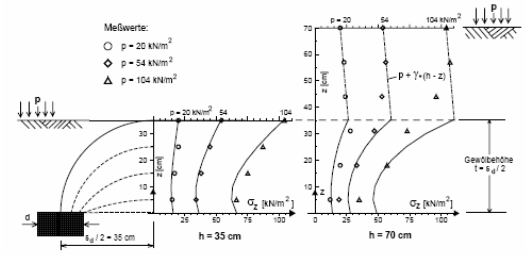
For the design of load transfer platforms (LTPs), different design approaches are available. The internationally best known design approaches/methods are the Bush-Jenner method, the British Standard (BS8006), the German Empfehlungen für Bewehrungen aus Geokunststoffen (EBGEO) and the Finite Element Method (FEM) approach using for instance ABAQUS or PLAXIS.
The authors of this paper have made a comprehensive study of the different parameters used in the predictions and of the approaches that are used in these methods. For some standard cases, the results of the methods are compared and differences in results are explained. Using the results of measurements in field test and from available international literature concerning projects and tests, some conclusions are drawn on the validity and applicability of the methods. Moreover, a proposition is made for a more general design approach using FEM / PLAXIS.

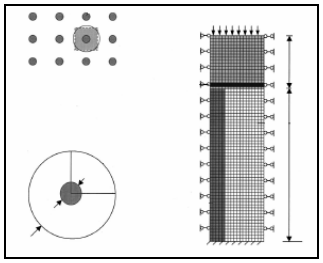


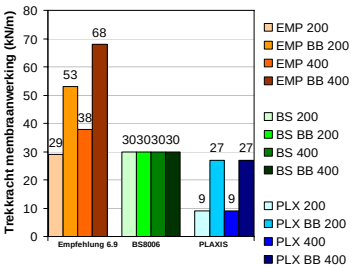


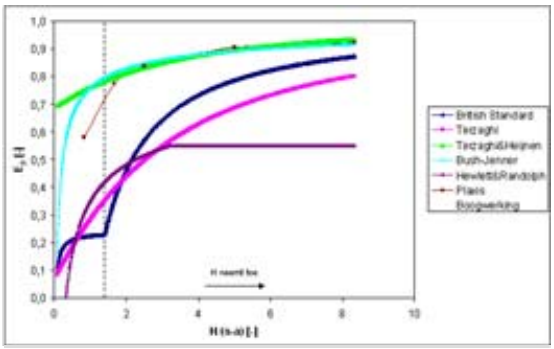


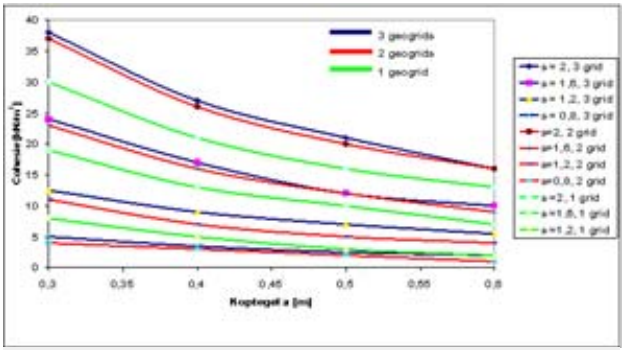












Author's address for correspondence
Author's Name: prof. dr. ir. ing. Almer E.C. van der Stoel
Company: CRUX Engineering BV / Royal Military Academy
Street: Asterweg 20 L1
City: NL 1031 HN Amsterdam
Country: Netherlands
Tel: +31 (0)20 494.3070 Fax: +31 (0)20 494.3071
Email: vanderstoel@cruxbv.nl