

## Use of In Situ Tests for Foundation Design on Clay

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**Abstract:**

Years of evaluated experience with the field vane test in soft clays have resulted in empirical correction factors well suited for design practice. An extension of L. Bjerrum's correction curve is presented. Results show that the field vane test interpreted with the results from a triaxial compression test can predict the in situ coefficient of earth pressure at rest,  $K_0$ . The piezocone test combines wide applicability and cost-effectiveness and is excellent to investigate soil variability. Correlations of the corrected cone resistance to undrained shear strength indicate that the cone factor depends on plasticity index, soil anisotropy and strain rate effects. The paper stresses the importance of correlating the cone factor to a well defined and relevant reference undrained shear strength.

**Subject Headings:** [Field tests](#) | [Foundation design](#) | [Penetration tests](#) | [Shear strength](#) | [Compression tests](#) | [Triaxial tests](#) | [Soil strength](#) | [Soil tests](#)

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