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Ground Deformation Module for the New Laboratory Methods

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Abstract : For calculation of foundations one of the important characteristics is the module of deformation (E0). As we all know, the main goal of calculation of the foundations of buildings on deformation is to arrange the base settling and difference in settlings in such limits that do not cause origination of cracks and changes in design levels that will be dangerous to standard operation in the buildings and their individual structures. As is known from the literature and the practical application, the modulus of deformation is determined by two basic methods: laboratory method, soil test on compression (without the side widening) and soil test in field conditions. As we know, the deformation modulus of soil determined by field method is closer to the actual modulus deformation of soil, but the complexity of the tests to be carried out and the financial concerns did not allow determination of ground deformation modulus by field method. Therefore, we determine the ground modulus of deformation by compression method without side widening. Concerning this, we introduce a new way for determination of ground modulus of deformation by laboratory order that occurs by side widening and more accurately reflects the ground modulus of deformation and more accurately reflects the actual modulus of deformation and closer to the modulus of deformation determined by the field method. In this regard, we bring a new approach on the ground deformation detection laboratory module, which is done by widening sides. The tests and the results showed that the proposed method of ground deformation modulus is closer to the results that are obtained in the field, which reflects the foundation's work in real terms more accurately than the compression of the ground deformation module.

Keywords : build, deformation modulus, foundations, ground, laboratory research
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