

Model Test on Dip Slip Fault Displacement affected by Railway Structure Foundations

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When planning to construct structures, it is desirable to select an area not to be affected by fault-induced permanent ground deformation. But there are inevitable cases as far as railway structures are concerned, so it is necessary to consider the effect of fault induced permanent ground deformation on the structural behavior. Therefore, in this paper, the difference in the growing process of the shear zone with and without foundations was investigated through scaled static experiment. In the test, the bottom of the layered sand was partially dislocated using a hydraulic jack to simulate a dip slip fault. As a result, it was found that the shear zone tends to grow up to the ground surface while avoiding the foundation.