Paper Title: Numerical Simulation of Soil–Structure Interaction of RC frame

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An Attempt has been made to study the effect of soil media on the response of RC frame structure. Therefore, the present work focuses on the implementation of a two dimensional finite element model of reinforced concrete frame and pile foundation system which explicitly incorporates the soil response. The superstructure members have been represented by means of three-node isoperimetric beam elements with three degrees of freedom per node. The soil mass is idealized by the eight-node isoperimetric quadrilateral element at the near field and five nodes isoperimetric infinite element to simulate the far-field behavior of the soil media. The applicability of this model was demonstrated by analyzing a multi-story building. The results have shown that the influence of the soil behavior on the overall response of the structure.