

Evaluation and Retrofit of Lightly Reinforced Concrete Buildings

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Abstract

One of the major areas of research in the buildings project has been the evaluation of the performance and study of the rehabilitation of existing concrete buildings. Most of these structures were designed only for gravity loads, without any consideration of seismic forces. The seismic behavior of typical gravity-load designed (GLD) buildings has been studied through a coordinated

Collaboration

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program of full-scale component tests, reduced-scale shake table model tests, and analytical simulation. Guidelines have been developed and a monograph has been drafted to assist engineers in evaluating gravity-load designed buildings. The rehabilitation study has concentrated on simple techniques especially suited to regions of moderate seismicity.