

عنوان مقاله:

All-steel buckling-restrained braces for seismic upgrading

محل انتشار:

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خلاصه مقاله:

Buckling-Restrained Braces (BRBs) constitute a significant advancement over traditional seismic-resistant bracing systems. Multiple applications are possible, from seismic protection of new and modern steel buildings to their utilization as hysteretic energy dissipaters for existing structures. This paper is focused on applications in the field of seismic upgrading/retrofitting. Firstly, the paper describes results of full-scale experimental tests on existing RC frame buildings equipped with novel all-steel BRBs. The all-steel BRBs were designed for being placed inside the air gap between two panels for cladding, so that the appearance of the original building is not affected by insertion of braces. Secondly, the paper presents an application of all-steel BRBs implemented to upgrade the seismic capacity of an existing historic steel building in Naples. The design criteria for both the BRBs and structural application are described.

کلمات کلیدی:

Buckling-restrained braces, RC structures, seismic upgrading, steel structures

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