

## عنوان مقاله:

A study of precast concrete connections and methods for improving their performance

## محل انتشار:

دومین کنفرانس بین المللی معماری، عمران، شهرسازی، محیط زیست و افق های هنر اسلامی در بیانیه گام دوم انقلاب (سال: 1401)

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## خلاصه مقاله:

As the precast beam-to-column connection suffers the most damage after an earthquake, several methods have been developed to improve its performance. In this study, several studies on the precast beam-to-column connection are examined, for investigating the newest method for enhancing its performance. The comparison between the result of experimental analyses in different studies showed that using steel plates and dampers or a combination of different types of dampers are very helpful in increasing energy dissipation, ductility, stiffness, relocation of the plastic hinge, and preventing concrete beams from damage. There are, however, some problems with pinching in the hysteresis response, and forthcoming analyses can be conducted on this topic. In addition, welding causes some uncertainty in the connection and is hard to perform, however, it increases ductility in the structure. Considering that and the fact that using bolts is much easier in installation, one should consider using both in combination to achieve more reliable results.

## کلمات کلیدی:

Precast beam to column joint, damper, earthquake, connection

## لینک ثابت مقاله در پایگاه سیویلیکا:

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