

عنوان مقاله:

EXPERIMENTAL INVESTIGATIONS OF STEEL-BRACED REINFORCED CONCRETE FRAMES

محل انتشار:

دومین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1374)

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نویسندگان:

m.r maheri - Assistant Professor, Shiraz University, Shiraz, Iran

a sahebi - Chief Engineer, Iranian Telecommunication centre

خلاصه مقاله:

To investigate the effectiveness of steel bracing in R.C. frames, a series of experimental investigations are carried out on a number of 1/4 size model frames. Four different model frames were tested under in-plane cyclic, shear loading. The frames were either braced with i) tension and compression diagonal cross-bracing, ii) tension diagonal bracing only, iii) compression diagonal bracing only, or without bracing. On the behaviour of the braces under loading, it was observed that the tension brace dominates the behaviour of the frame and carries a larger portion of the load. In all the relevant cases the ultimate failure was associated with the failure of the tension brace followed by the failure of the compression brace. On the effectiveness of the steel bracing in was noted that the use of cross-bracing caused a substantial, three fold increase in the shear strength of the frame. Using only one brace (tension or compression) also .increased the shear resisting capacity of the frame by more than ۱۰۰%

کلمات کلیدی:

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