

The Use of Confinement Steel to Increase the Ductility in Reinforced Concrete Masonry Shear Walls

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Abstract:

Concrete masonry shear walls which are subjected to design level earthquake loading can be expected to experience reversals of the strains in the wall at large strain magnitudes. Confinement steel can restrain the concrete masonry and the vertical steel under these compressive strains and thus reduce the spalling of the masonry and minimize or inhibit the buckling of the vertical flexure steel. This paper presents the results of Phase I of an experimental and analytical study of confinement in concrete masonry shear walls funded by the National Science Foundation as part of its Small Business Innovative Research Program by the Concrete Masonry Association of California and Nevada.

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DOI: 10.70803/001c.142853

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