

Experimental Study of Reinforced Masonry Using Slop-Molded Bricks

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Abstract:

The paper outlines an experimental study to assess the use of low-strength high-absorption slop-molded bricks for reinforced masonry beam and lintel construction. Results for mode of failure, ultimate moment and load-deflection response are presented for ten beam tests. Performance of three composite lintel tests are also discussed. Experimental results are compared with conventional theoretical predictions for section capacity and deflection. Existing theory is shown to be generally adequate when applied to the sections using low strength units. A reinforced brickwork beam section, suitable for lightly-loaded lintel applications, is proposed. Some general implications of using low-grade bricks in reinforced masonry construction are also outlined.

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