Evaluation of the Flatjack Test of Brick Masonry

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Abstract:

Five flatjack test were conducted on the outer wythe of load bearing walls of a building constructed in about 1890. Cracking stress, ultimate stress, and elastic moduli were recorded. Fifteen comparison prisms were removed from the walls, were gauged, and were tested. The ultimate stress found from the flatjack test averaged 3 percent less than that of the prisms: the elastic modulus averaged 5 percent less than that of the prisms. In-situ shear test were compared with Cored Bed-Joint shear tests: the former were found to be far superior. The authors concluded that the flatjack test provided an accurate and far less destructive method of determining f'_m and E_m of an existing structure than prism tests.

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