



ESTIMATION OF SHAKING TABLE TEST OF TIMBER FRAME AND ANALYTICAL EXAMINATION

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ABSTRACT: This study presents comparison of the results calculated from time history analysis and shaking table test of wood houses. Wood houses consist of timber frame with moment resisting joint, post and beam construction with shear walls and their composite structure. As the result, maximum displacement calculated by numerical model corresponds to that of the result of shaking table test. Using the numerical model, some analytical parametric studies were conducted. Main result obtained from the studies is that timber frame with moment resisting joint should be evaluated using horizontal load-carrying capacity method in addition to allowable stress design to confirm the safety during severe earthquakes..

Key Words: Timber frame, Composite structure, Shaking table test, Time history response analysis