

A Case Study of Building Behavior Damaged during 26th Oct, 2015 Earthquake in Northern Areas of Pakistan

Authors : Rahmat Ali, Amjad Naseer, Abid A. Shah

Abstract : This paper is an attempt to presents the performance of building observed during 26th Oct, 2015 earthquake in District Swat and Shangla region. Most of the buildings in the earthquake hit areas were built with Rubble stone masonry, dress Stone Masonry, brick masonry with and without RC column, Brick masonry with RC beams and column, Block Masonry with and without RC column. It was found that most of the buildings were built without proper supervision and without following any codes. A majority of load bearing masonry walls were highly affected during the earthquake. The load bearing walls built with rubble stone masonry were collapsed resulting huge damages and loss of property and life. Load bearing bricks masonry walls were also affected in most of the region. In some residential buildings the bricks were crushed in a single brick walls. Severe cracks were also found in double brick masonry walls. In RC frame structure beams and columns were also seriously affected. A majority of building structures were non-engineered. Some buildings designed by unskilled local consultants were also affected during the earthquake. Several architectural and structural mistakes were also found in various buildings designed by local consultant. It was found that the structures were collapsed prematurely either because of unskillful labor and using substandard materials or avoiding delicate repair, maintenance, and health monitoring activities because of lack of available sophisticated technology in our country.

Keywords : cracks, collapse, earthquake, masonry, repair

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