

YOU CAN KEEP YOUR FAMILY SAFE FROM EARTHQUAKES!

Follow these important rules to build an earthquake resistant permanent house!



Why do some permanent houses collapse while others resist the earthquake? Learn the 3 Cs:

Configuration: Build a simple, symmetric shape, a square is the best!

Connections: Connect beams and columns together using steel overlap detail. Connect masonry to tie columns using steel reinforcement bar.

Construction Quality: Buy good quality materials and follow these important techniques...

PROBLEM

SOLUTION



Problem: No sloof beam, ring beam or tie columns



Use tie columns and bond beams to tie the walls together. Cast the column and ring beam concrete after you build the wall.



Problem: No overlap in steel connection



Make strong connections between confining elements (like columns and beams) by overlapping bars at least 40 cm



Problem: Collapsed masonry gable wall



Do not use masonry in the gable wall. It is heavy and can easily tip over and collapse. Use timber or build a hipped roof.



Problem: Walls with large windows and doors can collapse easily



For all walls with windows and doors, use a lintel beam or horizontal steel reinforcement, tied into the columns



Problem: Bricks laid dry, joints not filled completely with mortar



Build a strong wall by soaking the bricks in water before laying and filling joints completely with mortar



Problem: No connection between the walls and tie column



For all walls without openings, use besi stick to connect the bricks and column



For more information, please contact Build Change at build.indonesia@gmail.com or through CRS office: Hotel Permata Bunda, Jl. Gajah Mada No. 316, Agam-Lubuk Basung. For 24-hour help-line please contact CRS at: 0751-9071370