PLANNING EARTHQUAKE RESISTANT BUILDINGS

Earthquake Force

During normal time:
- Gravity force only
- Force applies downward only

During earthquake:
- Not Gravity force only
- Forces apply in random direction
- Most Buildings can resist vertical forces
- Most Buildings can not resist horizontal forces

F = m x a
Force = Mass x Earthquake Acceleration
- Heavier building generates stronger force

Height matters:
- Ground shakes at the base of the building
- Higher building generates stronger force

Disaster Risk Reduction (DRR) Requirements

Anchorage:
- Anchor firmly to the ground

Bracing:
- Brace buildings against lateral forces
- Braced or filled

Connections:
- Connect and tie all around
- Just like basket edge ring

Location

Do not build near hills
Do not build near big trees
Do not build on land fill

Configuration

Do not build long buildings
Do not build narrow building
Do not build with soft stories

Create a Strong Room

Create a Strong Room within a Shelter

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