

The Problem

Houses built on the sides of steep hills are often set on exposed posts or columns, as shown in the Figures 18 and 19.

The potentially hazardous conditions that are unique to homes on steep hillsides are:

- Stilt-type posts with or without diagonal bracing
- Walls with very different heights or that are stepped or sloped down the hillsides.

If these posts or walls are not properly braced, they may collapse during an earthquake.

Sometimes, the supports on the downhill side will be hidden behind a tall wall that encloses a large unfinished space. (This is similar to, but taller than, a crawl space under a typical house built on flat ground.)

How to Identify

- ✓ Is the house located on a slope?
- ✓ Are the columns or walls supporting the home braced?
- ✓ If you are not sure if there is bracing or if the bracing is adequate, consult a licensed engineer.

Remember

- It is very expensive to lift a house, repair the posts, and put it back.



Office of Emergency Services

Figure 18 - This hillside home was built on an unbraced tall wall that failed.



Office of Emergency Services

Figure 19 - This photograph shows an interior detail of a home similar to the one above, with substantial damage to a building with an unbraced tall wall.

The Solution

Consult a licensed architect or engineer, and a licensed contractor, to fix this problem.

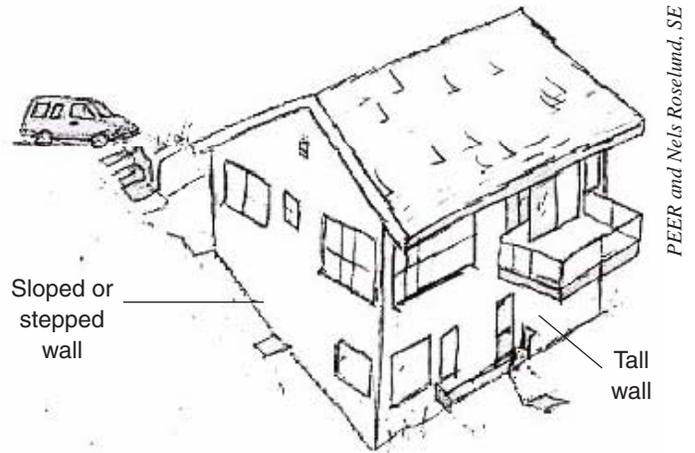


Figure 20 - Hillside homes with sloped and tall walls or posts require special engineering.

How-to Resources

- Detailed information can be found in the [International Existing Building Code](#), published by the International Code Council.

Comparison of Cost: Preventing vs. Repairing Earthquake Damage

Project Cost	Cost to Repair After an Earthquake
\$1,000 to \$50,000	\$10,000 to total value of home (if completely destroyed)