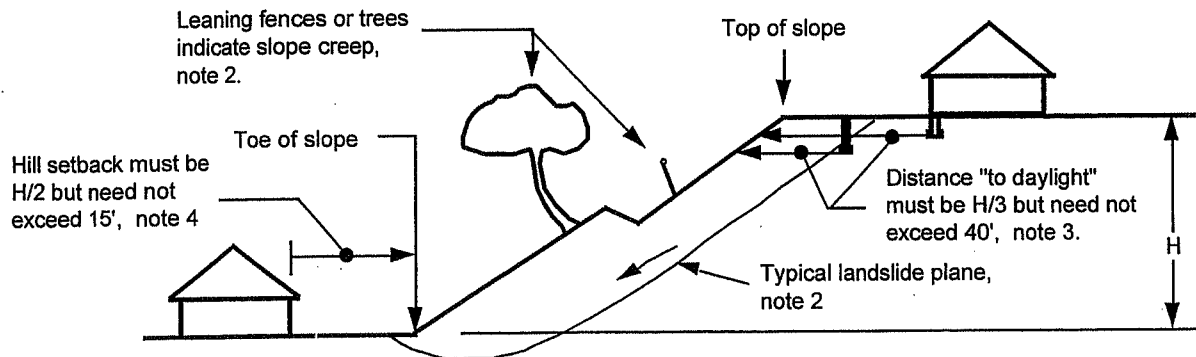




# Hillside Construction

1. **Purpose:** The purpose of this information is to provide general guidance on minimum code requirements related to hillside construction. It summarizes but does not replace the *California Building Code*™ (C.B.C.). Building codes may be reviewed at many libraries and at your Building and Safety office.

2. **General:** Hillside slopes are often subject to landsliding and downhill creep of surface soil layers. Either can undermine the foundation of your house causing unsightly cracking in the least case or causing the complete and sudden loss of the entire structure with loss of life in the worst case. For this reason the C.B.C. requires that foundations near the top of slopes be deepened to increase their distance from the slope face. Landslides and mudflows have obliterated structures that have been built at the base of hillsides without due regard for these hazards. For these reasons the code requires that buildings be built a distance away from the base of hillsides (toe of slope). Hillside slopes can be in a state of constant movement and there may be no apparent indication of movement to the untrained eye. They can begin moving suddenly after many years of stability. Where there is any question an engineering geologist and/or soil engineer should be consulted.



3. **Setback from top of slope:** The bottom of the foundation must be set back from the face of the slope (measured horizontally) a minimum of one third the vertical height of the hillside with a maximum required setback of 40 feet. Note that the location of property lines, fences, etc. does not matter. The height of the hill matters.

4. **Setback from the toe of slope:** The face of structures must be set back from the toe of the slope a minimum of one half of the height of the slope with a maximum required setback of 15'. Note that the location of property lines, fences, etc. does not matter. The height of the hill matters.

5. **Alternatives:** Alternative setbacks may be approved where a report by a registered engineering geologist and/or soil engineer indicates that the structure will be stable.

6. **Protection:** Setbacks from the toe of slopes can often be reduced by installing a protective retaining wall either as a part of the structure or separate from it. Such walls must be designed by an engineer to withstand the impact of mudslides.

7. **Foundations:** Foundations must be stepped where the ground slopes greater than 1' vertical in 10' horizontal.

8. **Cripple Walls:** Cripple walls supporting more than one floor above must be 3 x 4 or 2 x 6 where they are greater than 4' high. Cripple walls whose studs would be less than 14" long are not allowed. Such short walls must be framed with solid blocking or sheared with plywood. Cripple walls must be braced like any other wall.

