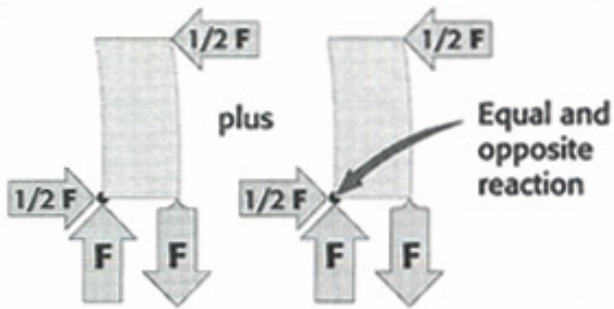
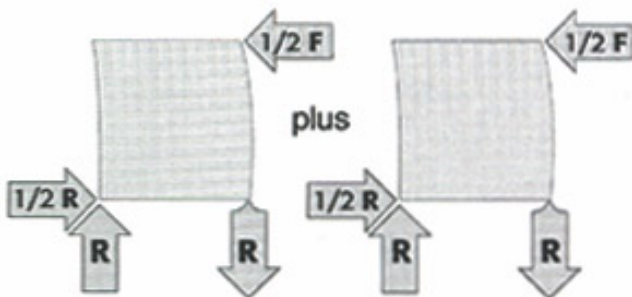


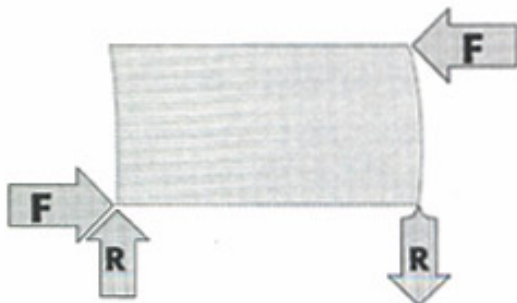
# Wider Shear Walls May Not Need Hold-down Anchors



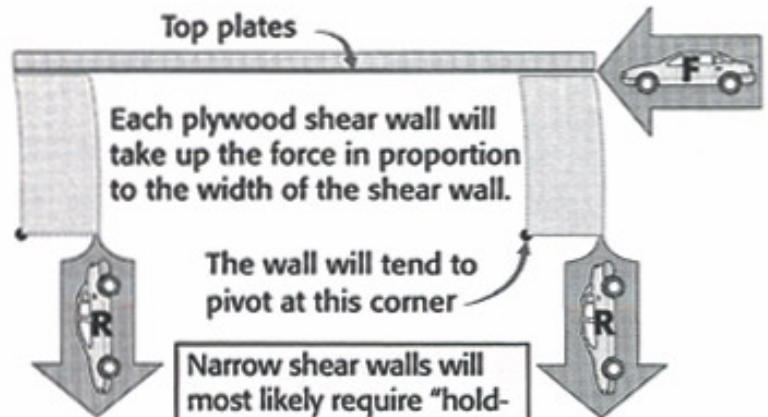
The Northridge earthquake vertical forces ranged up to about 1/2 the force of gravity at some locations [N 9]. So it would be wise to use about 2/3rds (or less) the weight of the house in calculations when considering vertical and horizontal earthquake motions working together.



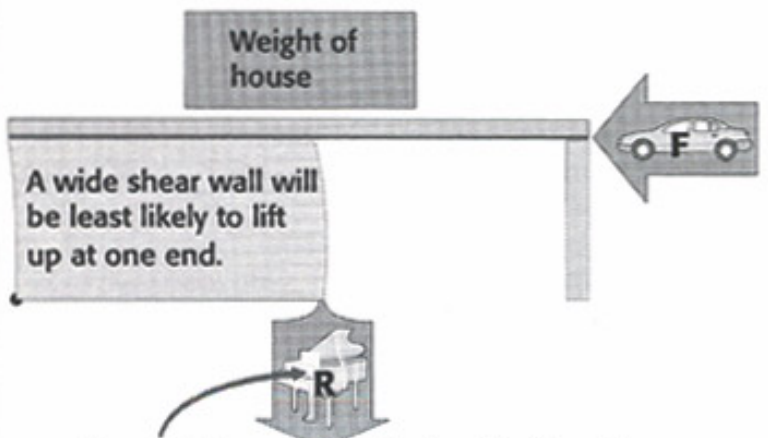
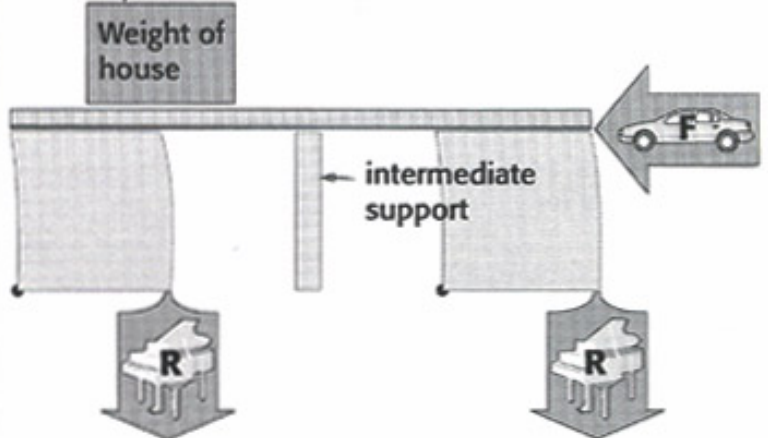
The resisting force "R" will decrease as the shear walls get wider.



**Individual wall reactions**



The weight of the house that helps keep the wall from up-lifting depends on the direction of the floor and roof joists and on the location of adjacent support walls.



The wall plywood nailed to the sill plate will probably be enough to hold down the end of a long wall. In fact the weight of the house above a long wall often exceeds the "R" reaction.