CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY

Name(s)
Nicholas L. Matta

Project Number
J0217

Project Title
How Shear Walls Work to Limit Earthquake Damage

Abstract

Objectives/Goals
To test the effects of a horizontal movement applied to a normal wall and compare it to a more resistant shear wall.

Methods/Materials
Two walls built out of wood; one shear wall and one normal wall. The pieces were held together with glue and pins. I put a string between both walls which hooked to a paper clip that held quarters in a small bag. In order to see the movement of the two walls, a paper ruler was attached to measure the movement.

Results
The experiment showed that the hypothesis was correct.

Conclusions/Discussion
The shear wall is stronger than the regular wall, and furthermore, the normal wall deformed permanetly with repetitive loads.

Summary Statement
My project is about testing how shear walls are stronger to horizontal movement than regular walls.

Help Received
Mom helped with graphs. A friend (Pete) helped me plan and build the walls. Dad helped me test the experiment.