

April 24, 2009

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Dear Professional Engineers in California Government,

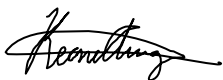
My name is Keoni Aricayos, the proud recipient of the James E. Roberts Award. I am 14 years old and in the 9th grade. I attend the Ribét Academy College Preparatory School in Los Angeles.

My project is Optimal Foundation Design for Model Houses Undergoing an Earthquake. The purpose of my project is to test whether my cement, rubber caulking and coil spring foundation will absorb high intensity earthquakes. To analyze this I used a water displacement test and a rolling movement measuring device placed in a ¼" = 1'-0" scale model house that I built. I then put the house on an earthquake simulator and gathered my results. Because I am going to the California State Science Fair, I plan to use an accelerometer and a makeshift seismograph. I will also test other foundations using ball bearings, a recycled rubber tire and steel layered foundation and possibly a magnetic foundation.

I decided to do this project because I was always fascinated by the structural designs of bridges, high rise buildings and freeway overpasses and how they could withstand large earthquakes. How did all that concrete not crumble and fall apart? Another factor that peaks my interests is that we in California live on a fault line that will one day cause a major earthquake. So, I wonder are we safe? Even though earthquakes are hard to predict, if we could be ready, there would be less to worry about.

In the future, I plan to commit myself to the Sciences and become an Engineer. I know it's never too early so I plan to continue my research to develop seismic safe solutions that will help to save lives and make a ground shaking impact on this world. Winning the James E. Roberts Award has been a big step for me in realizing that my dream is possible. Thank you to the Professional Engineers in California Government for the great honor. I will never forget it!

Sincerely,



Keoni Aricayos