

Preps for Disaster

continued ▲ from front



PHOTO BY CARI HACHMANN/THE PORTLAND OBSERVER
Michael Wieber, owner of NW Seismic, shows what works and what doesn't when it comes to seismically retrofitting homes to withstand damages from a major earthquake, such as bolting a home to its foundation to resist lateral shifting.

With more time to focus on his house, Moro did some homework before investing. He researched seismic retrofitting companies in California, where earthquakes are more prominent, to compare technique and equipment standards with those in Oregon.

He chose NW Seismic, a seismic retrofitting company based in Portland that bolts steel side plates or UFP10's between a home's concrete foundation and the floor or wall framing to resist lateral shifting during an earthquake.

NW Seismic Owner Michael Wieber said many older homes, which are a majority in Portland, are not bolted to their homes adequately and floor systems aren't attached to the walls beneath them securely enough.

And some contractors, he said, have been installing the wrong hardware for years including the Simpson FJA, which are panel supports designed to resist uplift, but aren't strong enough to handle the load an earthquake will produce.

"While the hardware is great in the event of a hurricane—it is essentially useless in an earthquake," said Wieber, who established NW Seismic in 2009.

The shift plates are able to resist up to 1,340 pounds of lateral shifting, he said, while panel supports used for uplift only resist 185 pounds.

Wieber said Moro's house is "a typical Portland house" meaning its foundation has full-height concrete walls. With an unfinished basement, it is easier and less costly for his crew to install the retrofit hardware, which costs around \$2,000.

Drilling 32 steel shift plates, eight on each basement wall, they finished Moro's home in one full day.

For an additional cost, the company also installed a gas shut-off valve system, the Northridge M75, which activates and turns the gas off when there is a certain amount of ground shaking.

Moro, who remodeled his kitchen and dining room before going through with the seismic retrofit, said he has put a lot of time and money in his home. He called the seismic retrofit a cost effective fix that should have been done when the house was built in 1913.

The emergency bureau and the Portland Bureau of Development Services will continue a series of classes on seismically upgrading homes at 7:30 p.m. on Thursday, March 21 at the Multnomah County Arts Center, 7688 S.W. Capitol Hwy.

Monster Quake Would be Devastating

10,000 deaths and billions in economic damage possible

(AP)—More than 10,000 people could die when—not if—a monster earthquake and tsunami occur just off the Pacific Northwest coast, researchers told Oregon legislators Thursday.

Coastal towns would be inundated. Schools, buildings and bridges would collapse, and economic damage could hit \$32

billion.

These findings were published in a chilling new report by the Oregon Seismic Safety Policy Advisory Commission, a group of more than 150 volunteer experts.

In 2011, the Legislature authorized the study of what would happen if a quake and tsunami such as the one that devastated Japan hit the Pacific Northwest.

The Cascadia Subduction Zone, just off the regional coastline, produced a mega-quake in the year 1700. Seismic experts say another monster quake and tsunami are overdue.

"This earthquake will hit us again," Kent Yu, an engineer and chairman of the commission, told lawmakers. "It's just a matter of how soon."

When it hits, the report says, there will be devastation and death from Northern California to British Columbia.

Many Oregon communities will be left without water, power, heat and telephone service. Gasoline supplies will be disrupted.

The 2011 Japan quake and tsunami were a wakeup call for the Pacific Northwest. Governments have been taking a closer

look at whether the region is prepared for something similar and discovering it is not.

Oregon legislators requested the study so they could better inform themselves about what needs to be done to prepare and recover from such a giant natural disaster.

The report says that geologically, Oregon and Japan are mirror images. Despite the devastation in Japan, that country was more prepared than Oregon because it had spent billions on technology to reduce the damage, the report says.