SB 707

Testimony, Senate Veterans and Emergency Preparedness Committee, 3/28/201

My name is Jane Cease. I'm a former state representative and former state Senator, so I've spent a few years in this building. My history goes back further, to serving on the 1973-75 Legislative Improvement Committee, appointed by President Boe and Speaker Lang. We recommended improvements in staffing, in public access and information, and in office spaces—so these wings were a result of that work. Then in 2005-2006 on the Public Commission on the Legislature, I supported recommendations to overhaul the office space in these wings.

Today I'm here as a current member of the Oregon State Capitol Foundation board. One of our statutorily-directed responsibilities is to recommend to you needed renovations, repairs and additions to the State Capitol (ORS 173.500 [2]).

I've attached to this testimony a description of what is likely to happen to the building, and to its most vulnerable part, the 1938 part, in a major Cascadia subduction zone earthquake. There are some inevitabilities about living on this earth, and, of course, uncertainties about the timing of them. But for sure the big earthquake will happen and not too long off from today. This building needs to be able to deal with that, to avoid inevitable human injury and death, and loss of the public's historic premier state building.

In addition to those who work here, each year over 200,000 people visit the Capitol building. During the school year, there can be over 200 school kids each day. Last Thursday, there were over 260 school kids visiting the building. If those kids, and any other visitors or workers, are in the rotunda, they can be crushed. If they try to run out the State Street doors, the marble slabs outside are likely to fall on them because the walls behind those slabs are brick and mortar and won't hold up. Interior walls are of unreinforced brick or hollow clay tiles and can detach and collapse on top of people near them who will be crushed. Stairs may be blocked when the stair walls fall, preventing exit that way.

The Legislature has already paid for a good design for how to save those lives and save the building. This bill can do that.

Thanks for listening.

Jane Cease, 2625 NE Hancock Street, Portland, OR 97212, 503-282-7931 (land), 971-998-6528 (cell)

Oregon State Capitol Foundation, *March 28, 2017*

What could happen to the State Capitol Building in the expected Cascadia Subduction Zone earthquake?

In response to this question, here is a brief summary of the relevant pages of Chapter 5 ("Building Assessment") of the "Oregon State Capitol Master Plan Report."

In January of 1700, 315 years ago, a major Cascadia subduction zone earthquake rocked the Pacific Northwest. It sent a tsunami to Japan, recorded by historians there. Geological evidence shows a history of repeated Cascadia earthquakes regularly over many thousands of years, averaging 240 years apart. When they happen, they produce major energy releases in the 8 or 9 magnitude. We are now within the window for another quake on this zone, where the Pacific tectonic plate shoves under the North American plate.

The 1993 Oregon Scott's Mill earthquake, which damaged many Capitol building walls and the dome, was "significantly less than . . a potential subduction zone earthquake . . [or] approximately 1/900th of a magnitude 8 -9 subduction zone event." 1

The seismic experts said in their evaluation of our Capitol building that in a coastal subduction zone magnitude 8 or a valley crustal magnitude 7 earthquake, "the existing un-renovated Capitol is a collapse hazard." 2

Here is a lay person's summary of what the seismic experts say is a likely scenario in our un-renovated Capitol building: 3

Old 1938 Building. *Columns may partially fail. Floors could slant and may partly fall. Interior walls are made of unreinforced brick or hollow clay tiles and could detach and collapse; so could plaster ceilings, including the Rotunda ceiling. They could collapse on people near or below them and may trap them or block stairs or exit doors. Some of the hollow clay tile walls were damaged in the 1993 earthquake. Exterior brick walls may crack, letting exterior marble slabs fall on people trying to leave the old building.*

The 1977 Buildings. *The seismic experts expect a smaller amount of damage in these wings. However, shaking at different rates in the connector passages between the 1938 and 1977 buildings may cause damage at those sites. People should be able to leave the wings safely.*

In either building, shaking could cause tall cases and shelves, TV monitors or other furnishings to fall, reminding us to use "duck and cover" safety actions.

Other public historic buildings which have undergone seismic base isolation include the San Francisco City Hall, Portland's Pioneer Federal Courthouse and the Utah State Capitol, which OSCF Master Plan Committee members visited to learn about their process.

The Oregon State Capitol Foundation agrees with the seismic experts that it is wise and prudent to continue with Master Plan implementation now, to protect Oregon's seat of government, where

legislators, the governor and other state officials will need to survive in order to lead the response to a seismic disaster of great magnitude. Visiting school children and other visitors and capitol workers need protection from harm. The proposed base isolation renovation can protect the building and inhabitants' lives and allow post-earthquake occupation, enabling a coordinated state government disaster response to help save Oregon lives and property.

References:

1 Pp. 5-27, "Oregon State Capitol Master Plan Report," SRG Partnership, Inc., June 2009.
2 Pp. 5-28, "Oregon State Capitol Master Plan Report,."
3 Pp. 5-35, "Oregon State Capitol Master Plan Report."

Miller-Gardner, Inc. "Earthquake Evaluation of the 1975 Portion of the Oregon State Capitol Building House and Senate Wings, May 14, 1993."

Miller-Gardner, Inc. "Earthquake Damage Evaluation of the Oregon State Capitol Building, February 8, 1994."

Miller-Gardner, Inc. "Complete Seismic Upgrade of the 1937 Portion of the Oregon State Capitol Building, Salem, Oregon, June 14, 1994."

Contacts: Oregon State Capitol Foundation: Joan Plank, Chair, 503-309-3302

Jane Cease, 971-998-6528

Gary Wilhelms, 503-730-0154