Promoting Seismic Safety in Oregon’s Schools & Emergency Facilities

CASE HISTORY ON THE OREGON GO BOND TASK FORCE

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Problem Statement

Hazard + Exposure = Risk

- Oregon Requires Students to be in Unsafe Buildings
- Oregon Education System Suffers Economic Hardship
- Opportunity for Partnership Project

The Hazard

- New knowledge on Cascadia & local faults
- Oregon: Big increase on USGS seismic maps

Exposure: Vulnerable Buildings

<table>
<thead>
<tr>
<th>Year</th>
<th>Buildings Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>No Building Code</td>
</tr>
<tr>
<td>1993</td>
<td>First Statewide Building Code</td>
</tr>
<tr>
<td>Post-1993</td>
<td>Cascadia Added to Building Code</td>
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</tbody>
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Pilot Project: Clackamas County, Oregon
¾ of Schools Were Built before 1974

Timeline

1993 - Oregon’s First Seismic Building Code
2001 - Statute 455.400 requires “life-safety” in schools & emergency facilities
2006 - 1) Statewide Needs Assessment for schools & emergency facilities
2) Establish a grant program
3) Issue State Bonds in 2007

2000 - Statewide Needs Assessment for schools & emergency facilities
2002 - Issue State Bonds in 2007
2006 - Establish a grant program
2007 - Issue State Bonds
2032 - Schools Fixed

2022 - Emergency Facilities Fixed

Time is Running Out!

- Oregon Revised Statute 455.400:
  1. Seismic surveys are to be completed by 2007
  2. Seismic rehabilitations to emergency facilities completed before 2022 and schools completed before 2032.

- In 2004 funding from FEMA’s Pre Disaster Mitigation Grant Program to Department of Geology & Mineral Industries (DOGAMI), Funding supported a temporary GO Bond Task Force (Fall 2004 at State Capitol)
2005-06 GO Bond Task Force

GO Bond Task Force Meetings

- Concise meetings: three 2-hr meetings at Capitol with objectives
- Informed guest speakers & round table discussion
- Meeting summaries & action items shaped next meeting’s agendas

Craig Weaver: USGS technical background
Arrietta Chakos: Berkeley’s grass-roots campaign
Dennis Bellet: CA State Architects rebuild/retrofit school program

FEMA Funded Schools Project

Champion: “Q9 The Earthquake Kid”
Oregon Senate President: Peter Courtney

Legislative Concepts

1) Statewide Needs Assessment: determine high risk schools and emergency buildings with a preliminary findings report completed by Jan. 2007 (ORS 455.400 deadline) for $1.3 million
2) Grant Program: Appropriate GO Bond funds for earthquake rehabilitation in schools and emergency facilities for $200,000
3) Authorize & Appropriate GO Bonds in 2005-07 Session: Provide stable, long term state funds to help meet ORS 455.400. Dept. of Administrative Services to determine the allowable state debt capacity & repayment terms. Dept. of Treasury would issue $1.2 B in bonds

Continued Support

- Public support briefing sheet
- How to testify before a legislative committee information
- Written testimony examples
Top Ten Reasons to Fix Vulnerable Schools

1) **Life Safety of Students and Staff**
2) Keeping Schools Functional
3) Ensuring that Every Day Life Can Go On
4) Cheaper to Fix before Damage
5) Reduce Liability
6) Safer Communities
7) Schools Sometimes Serve as Shelters
8) Loss of Valuable Research and Projects
9) Peace of Mind
10) Education and Awareness

Disaster Strikes in Asia
(Sumatra 2004 Earthquake/Tsunami)

- Sumatra quake demonstrated the Oregon's need for pre-disaster mitigation!
- OSSPAC repeats recommendations to Senate President Peter Courtney for Legislation, iterating similarities between Sumatra and Cascadia scenarios

Senate Committee on General Government
Public Hearing – Oral & Written Testimony
Supporting Bills

- SB2 - DOGAMI to perform needs assessment
- SB3 - OEM to setup grant program
- SB4 - Begin distribution of GO Bonds for schools
- SB5 - Begin distribution of GO Bonds for emergency facilities

Current Timeline

- 2004 Statewide needs assessment, for schools & emergency facilities
- 2007 Issue GO Bonds $1.2 Bil
- 2008 Emergency Facilities Final
- 2022 Emergency Facilities Final
- 2023 Schools Final

Equation for Success

\[ PP = \left[ \ln(A + B) + C \sum \left( \frac{E + F + G + H}{D} \right) \right]^{J \times K \times L} \]

A = Define Problem
B = Define Solution
C = Smart Timing and Location
D = Involve Diverse Stakeholders
E = Make Keys for People to Help
F = Encourage Ownership
G = Target the Information
H = Repeat message
I = Embrace Window of Opportunities
J = Persistence
K = Champions
L = LUCK
Conclusions

- Scientists & policy makers worked together to provide a long term solution for achieving better seismic safety in communities.

- New laws for Oregon’s schools & emergency facilities are a leap from pre-disaster planning/policy-making phase to actual mitigation.

- Even if Bills failed, the effort in promoting seismic safety was very successful—awareness & public policies ready when time ripe.

- Developed “Equation For Success”—can be used in Communities & States.

- Questions.