Governor's Transportation Vision Panel
Innovation and Seismic Subcommittee

I&S SUBCOMMITTEE MEETING #3 MINUTES

February 25th, 2015
9:00 am – 11:00 am

ODOT Headquarters, Room 240
355 Capitol St. NE,
Salem OR 97301

MEETING MINUTES, February 25th

Subcommittee Chair:
☒ Sean O'Hollaren

Subcommittee Members:
☒ Theresa Carr
☒ Stuart Foster (by phone)
☒ Aron Faegre (by phone)
☐ Mark Frohnmayer *(unavailable)*
☐ Gary Cardwell

Panel Co-Chairs:
☐ Gregg Kantor
☒ Larry Campbell

Panel Sponsor:
☒ Karmen Fore

Facilitator:
☒ Cheralynn Abbott

Resources and Support:
☒ Sam Haffner
☐ Michael Bufalino
☐ Bruce Johnson
☐ Scott Ashford (Dean of Engineering, OSU)

Topic 1: Introductions and Review of Minutes and Agenda

- Minutes were approved as written
- Focus of this meeting is a deeper focus on seismic threats to transportation, and answering questions on how these issues fit in to ODOT's plans

Topic 2: Presentation on Cascadia seismic risk and Governor's Seismic Task Force, with Scott Ashford

For a copy of Scott's presentation, click here.

- Scott was Chair of the Governor's Task Force (TF) which developed the Resilience Plan
- TF came up with 140 recommendations, most important recommendations were submitted to the legislature in October
- We will not accomplish everything in the plan- it is a 50 year effort that needs to start now
- The last Cascadia subduction was 315 years ago
- No awareness of Cascadia before the '80s when bulk of our transportation infrastructure was built.
- A community cannot survive the estimated time for restoration of services. There will also be permanent loss of business in a prolonged recovery scenario
- A key Task Force recommendation was to name a resilience policy expert who reports directly to the governor.
- Funding for seismic upgrades needs to be robust and ongoing, we cannot solve this solely through bonding
- We need to look at a multi-modal approach to disaster response.
- TF recommended that state establish matching funds for research initiatives to improve resilience
- Our seismic codes are generally designed for California earthquakes- much shorter than a Cascadia subduction. Codes are also designed largely for occupant survival, but structures may be permanently damaged.

Discussion:

- Paul: we may not have all the info we need from local jurisdiction. An example is Portland where there is a blend of bridge ownership. Sean: important to flag that whatever plan we develop needs to have a state, county and local component
- Have businesses chosen not to establish themselves here because of risk? We have not seen this, but across globe we see that relocation of businesses as a result of disasters usually becomes permanent, particularly with small businesses
- Has the TF looked at impact to airports Redmond as a disaster response base? Port of Portland has looked to the Troutdale airport which is on higher and more stable ground. Scott suspects that the towers were built to modern seismic codes.
- Did the TF recommendations include education? Yes they include K-12 education, Office of Emergency Management preparedness education, etc. Scott would like to see population educated and prepared for self-reliance.
- Paul: There is a lack of knowledge even among people who are familiar with the issue. Local plans need to be developed that meet needs of the immediate community. ODOT has a systematic plan that focuses on the interstates, but we need to be able to connect and integrate with community plans. Karmen sees this as a next step to identify
- Are codes solving problems or digging the hole deeper if it below preferred standard? Scott sees biggest thread from structures that were built before modern seismic codes.
- Should we be concerned with Columbia and Willamette River dams? There is a higher level of oversight here, and Scott is less concerned with dams than other infrastructure. Larger dams are further east, posing less risk.

Topic 3: Seismic Resiliency Plan, ODOT, with Bruce Johnson

Bruce Johnson discussed ODOT's work implementing the Seismic PLUS Program. For a copy of the original presentation, click here.

- Starting in 2004, Oregon went beyond AASHTO seismic standard (design to prevent collapse) and implemented "design for

serviceability" (design to keep bridge functional).

- We are the only state with these criteria for all bridge projects, but it has only been applied to new bridges and retrofitted bridges. The criterial applies to ODOT, as well as all local agencies and WFL projects in Oregon.
- The cost increase of 'design for serviceability' is about a 4% to 5%. It may be higher where we face liquefaction at bridge foundation.
- Retrofit for life safety has not been applied strategically along corridors due to lack of a dedicated revenue stream. It has been applied to existing projects and retrofits
- The Seismic PLUS Program is split into five phases, each costing about $1 billion. Meaningful progress can be made within 10 years with a dedication of $100 million per year.

Discussion:

- Is bridge vulnerability the biggest earthquake-related cost issue?
  - Yes, it is probably 80% of the funding need ODOT has. Landslide issues are major too.
- Are there a certain number of bridges that cannot be retrofitted and must be replaced?
  - Anything bridge can be retrofitted with enough investment, but it often makes more economic sense to replace, particularly if there are foundation issues. Plan identifies where retrofit vs replacement is appropriate.
- Are we looking at just bridges or overpasses as well?
  - Overpasses are identified but have been prioritized last. Collapsed overpasses can be cleared with bulldozers quickly whereas major bridge crossings would sever routes for a long time
- Are there federal funds dedicated to retrofitting?
  - No. Federal funds are allocated by formula and state prioritizes based on policy guidelines. We don't have a policy guideline to focus on seismic as maintenance, capacity needs, and bonding has taken more money than available.
- Is there a federal match for local dollars in the bridge program? It seems you should be able to leverage this showing need.
  - There has never been federal program dedicated to seismic. ODOT Bridge Program submitted a TIGER grant application for seismic funding, but it did not match criterial closely and was not selected.
  - It seems that this is something we should be pushing with our Oregon federal delegation. The federal case could be made stronger with a state dedication to seismic.
- The $5B cost is broken down by phases, but do we have costs broken down by corridor?
  - Bruce can share a summary sheet that identifies cost by segment. This will show that HWY 97 and 58 are extremely low cost and would be the first part of Phase 1.
- How far into California will Cascadia event impact?
  - Impact may extend to Crescent City or Eureka. It would be good to get info on California landslide preparedness

Topic 4: Wrap-up and Next Steps

- We should stay focused on the seismic side, committee members should develop further questions between meetings
- Sean would like to get a deeper level breakdown of the phases identified in the Seismic PLUS Plan. This should help the group make recommendations on an annualized basis. Breaking down by individual routes can provide a roadmap for our legislators.
- Theresa would like to look in to further detail on how we are positioned to respond, recover, and reconstruct; 72 hours after, 1 week after, 1 month after.
- Scott added that a connection should be made to the populations served; 97 is a low population area, but its impact for an individual in the Willamette Valley is paramount
- Local human needs don't always match up with system needs, Community level engagement is a missing piece.
- Howe do we sell this to the general public. It may be helpful to bring in key people from the Public Relations world. We may need to recommend funding a robust education campaign.

Action items:

Item:	Person(s) responsible:	Deadline:
Give a deeper level breakdown of individual route costs associated with Seismic PLUS phases. Find further info on California's management of landslide issues	Bruce Johnson	Before next meeting