

Community Resilience Panel: Transportation Committee Meeting

MEETING DATE: April 4, 2016
TIME: 1:30 pm PDT to 4:30 pm PDT
ISSUE DATE: April 27, 2016

ATTENDEES:

Attendee	Affiliation
Susanne DesRoches (Chair)	NYC Mayor's Office of Resilience and Recovery
Steve Ernst (Vice-Chair)	FHWA
Tom Wall (Secretary)	Argonne National Laboratory
Heather Catron	HDR, Inc.
Megan Neill	Multnomah County
Sarah Hubbard	Purdue University
Terri McAllister	NIST
Nicole Boothman Shepard	AECOM
Beth Rodehorst	ICF International
Kayla Slater	Hagerty Consulting
Chris Baglin	PPC
Joe Englot	NIST
Eliot Evans	USAF and Air National Guard

DISTRIBUTION: Attendees and Transportation Standing Committee

NOTES BY: Tom Wall, Transportation Committee Secretary

1. Welcome and Introductions

Steve Ernst welcomed everyone to the committee meeting and introduced Paul Mather and Bruce Johnson from the Oregon Department of Transportation to present on the Oregon Bridge Resilience Plan. Mr. Ernst deferred committee introductions until after the ODOT presentation.

2. Oregon DOT – Oregon Bridge Resilience Plan

Paul Mather (ODOT Highway Division Administrator) and Bruce Johnson (ODOT State Bridge Engineer) presented the approach and selected outcomes of the Oregon Bridge Resilience Plan. The analysis primarily focused on a Cascadia Subduction Zone Earthquake. The presentation covered how corridors were identified and prioritized for seismic upgrade investments. Mr. Mather and Mr. Johnson discussed an economic ROI method to aid decision-makers in assessing the impact of the investment. They also reported outcomes of a system-level analysis of individual bridges that included potential failure characterizations.

3. Committee Introductions

Committee leadership led introductions, followed by brief introductions around the table, including company, background, and interest in transportation resilience.

4. Project Plan Development – What should be the goal of this committee?

The committee's main discussion focused on the underlying question of determining the goal of the committee, and began by asking, "How do we define the transportation system?" To motivate discussion, the committee reviewed the results of the email survey that was previously distributed to the committee. The survey asked committee members to name assets and transportation systems that were most familiar to them, the primary hazards that most concerned them in relation to those systems, and common measures that could be taken to increase their resilience.

A participant suggested that we should provide a broad definition of a transportation system for resilience planning, but then identify a specific piece or sub-sector (e.g., roadways) that is a starting place for this committee. The committee members generally agreed that this approach is appropriate. The committee suggested that the insurance industry has sector-specific branches that define those components of which the broader transportation system is composed more broadly and holistically. The committee also noted that Chapter 5 of the Oregon Resilience Plan, as well as the NIST Community Resilience Planning Guide broadly define what should fall under transportation.

Bruce Johnson (ODOT) suggested that the geographical area of the system should also be considered when discussing resilience. Impacts to Oregon from a Cascadia subduction zone earthquake could also affect nearby states or regions (e.g., CA, OR, WA, AK), which affects the response and recovery aspects of resilience.

Discussion then turned toward what the committee should focus on as reasonable outcomes or initial products. A gap analysis of existing standards and frameworks – this would include an analysis of existing frameworks and resilience standards/approaches, a synthesis of commonalities and key differences, and any gaps that these resources do not address. The committee discussed the example of a performance-based design standard for retrofitting existing bridges and systems. Specifically, FEMA gives an indication of what can be reimbursed when retrofitting bridges, which may be a reasonable indication of what currently needs to be addressed in design standards. TRB/NCHRP Report 750 Series, *Strategic Issues Facing Transportation, Volumes 1-6*, should also be considered. Although it may pay to over-design and incorporate performance based design, the committee believed there must be a risk-based component to the design so user impacts and risk-reduction are also considered in a cost-effective manner.

5. Develop Plan as to How Standing Committee Will Develop Work Products Selected

Following a 15 minute break the committee discussion focused on generating content for the report-out slides. The content defines the immediate direction and objectives to be completed by the committee based upon earlier conversations. The primary thrust of this work is on the analysis, synthesis and gap identification of existing standards and frameworks. Specifically:

- Review resilience plans that include transportation infrastructure
 - Definition – What should be considered in a definition of the “transportation system?”
 - Synthesis – What are commonalities, differences, geographical scales, hazards (scale and magnitude), recovery (resources/adaptation) in approaches to resilience planning in existing plans/frameworks?
 - Gap-Analysis – What are current plans/frameworks not addressing that could be a focus of this committee?
- Incorporated considerations for coordinating investment strategies
 - Benefit-Cost
 - Governance Structure
 - Public Outreach (both political, and general public)

The committee agreed on these objectives, which were consistent with the discussion from earlier in the day. The incorporation of coordinating investment strategies was motivated largely by the compelling presentation from ODOT, which introduced an effective way to present investment returns to state decision makers, at the start of the meeting. The above objectives were then broken into immediate tasks to be completed:

1. Identify frameworks/plans/resources relevant to the synthesis effort, in coordination with TRB resilience initiatives
2. Collect these resources in CRPanel website committee file and share
3. Develop rubric/standard for the evaluation, synthesis, gap analysis of these resources
4. Develop matrix of resilience planning resources and the dimensions specific to each – Special attention to be paid to performance-based action and plans

The committee identified these tasks to begin work on the framework/standards analysis, synthesis, and gap identification. The committee generally agreed that these task are a good first step, but did not discuss a timeline or task assignments.

6. Adjournment

There was no other business. The meeting adjourned at approximately 4:30 PDT.