

**January 4<sup>th</sup> 2024**  
**Utah Seismic Safety Commission**  
**Quarterly Meeting Minutes (Hybrid), Kletting Room at Utah State Capitol**

On January 4, 2024, a regularly scheduled quarterly meeting of the Utah Seismic Safety Commission (USSC) was a hybrid meeting. The USSC Chair, Robert Grow, called the meeting to order at 9:00 a.m.

**Members Present:**

Robert Grow, Chair	Founding Chair Emeritus, Envision Utah
Steve Bowman, Vice-Chair	Utah Geological Survey
Jessica Chappell, Vice-Chair	Structural Engineers Association of Utah
Leon Berrett	American Public Works Association
Steven Bruemmer	American Institute of Architects, Utah Disaster Assistance
Kris Hamlet (Proxy Judy Watanabe)	Utah Division of Emergency Management
Patrick Tomasino	Utah Division of Facilities and Construction Management
Peter McDonough	American Society of Civil Engineers
Dean Dykstra	Utah State Board of Education
Divya Chandrasekhar	University of Utah
Evan Curtis	Utah Governor’s Office Planning and Budget
Orion Goff	Utah League of Cities and Towns
Emily Morton	University of Utah Seismograph Stations
Ari Bruening	Envision Utah (Ex-Officio)
Joaquin Mixco	Utah Department of Transportation
Kyle Becker	Utah Insurance Department
Chris DuRoss	U.S. Geological Survey (Ex-Officio)

**USSC Staff Present:**

John Crofts	Utah Division of Emergency Management
Debbie Worthen	Utah Division of Emergency Management

**Guests Present:**

Brandon Webb	FEMA FIT
Brady Cox	Utah State University, Director Earthquake Engineering Center
Mohsen Esteghamati	Utah State University
Brandon Webb	FEMA Region VIII - FIT
Jim Pechman	University of Utah
Brent Maxfield	The Church of Jesus Christ of Latter-day Saints
George Deneris	Utah Division of Risk Management
Glen Palmer	Palmer Engineering
Judy Watanabe	Division of Emergency Management
Janell Woodward	State of Nevada, Earthquake Program Manager
Kathy Holder	Utah Division of Emergency Management
Kelsey Schill	FEMA Region VIII
Matt Cassell	

**Members/Staff Not Present (excused):**

Sean McGowan	Federal Emergency Management Agency (Ex-Officio)
Adam Hiscock	Utah Geological Survey (Staff)

## **Welcome and Introduction of Members and Visitors/Approval of Minutes**

**Robert Grow** asked for introductions and invited attendees to introduce themselves. He asked for a review of the minutes.

**Robert** asked for a motion to approve the minutes from October 26, 2023, USSC meeting:

**Patrick Tomasino** made a motion to approve the minutes.

**Steve Bowman** seconded the motion to approve the minutes.

The motion was unanimously carried.

## **Discussion on 2024 USSC Recommendations and Next Steps for the Commission in 2024**

**Robert** led an extended and active discussion of the **Commission Members** on goals and steps for next year, with next year's recommendations to the governor and legislature as the focus. He began by setting the stage that Utah earthquake mitigation should focus on the twin objectives of: (1) reducing the number of deaths and casualties caused largely through building collapse, and (2) damage to infrastructure that interrupts the delivery of utilities and other essential services with the risk of badly damaging Utah's economy. The Commissioners discussed and agreed upon several goals for 2024 relating to infrastructure, including getting a better grasp on, and reporting to the legislature and governor concerning, the preparedness of Utah's water (including potentially, dams), sewer, natural gas, electricity, communications, transportation, and other infrastructure to withstand a large seismic event, and helping set priorities for improved resilience of these critical systems. With respect to building resilience, the Commission concluded to investigate the seismic risk posed by under-reinforced masonry (nonductile concrete) buildings, that next to URM's, pose the greatest risk for loss of life in a Utah earthquake. The commission also concluded to attempt to prepare to advise the governor and legislature this year concerning the risk posed by the current codes for new buildings that are based on the ground shaking of a probabilistic, not deterministic (actual), earthquake.

## **Discussion on USSC Strategic Seismic Planning and Reporting**

**Steve Bowman and John Crofts** briefly discussed the USSC Strategic Seismic Planning and Reporting requirements that were listed in the Legislative requirements for the commission and the State Hazard Mitigation Plan and other documents.

## **Discussion on Construction Methods for 7 and 8 story Apartment Buildings**

**Ari Bruening** discussed having obtained a commitment for engineering help to determine the cost of increasing the resilience of large 7-8 story apartment buildings as had been done for single family homes.

## **Discussion on the West Lake Junior High School and Repair Funding with an Overview of Public Assistance**

**John Crofts** provided a recap of Public Assistance and briefly discussed the West Lake Jr High Public Assistance project. Typical Public Assistance consists of a 75% Federal match and 25% local match. The Public Assistance program is designed to aid public entities to help recover from Presidentially declared disasters. Westlake was replaced largely with federal funding.

## **Report on 2024 Governor's Cabinet Earthquake Workshop**

**Robert** provided the Commission with a review of Governor Cox’s Cabinet Earthquake Workshop. All the Governor’s cabinet was present. The State Emergency Operations Center was full. Robert set the stage for “how bad can it be” in a 10–12-minute presentation. He also provided the Governor and those present with copies of the USSC’s recommendations. He thanked Judy Watanabe for her gracious invitation to include him. He said the exercise was not particularly focused on a “Utah Earthquake.” He made note that FEMA said Utah is an “island” and basically far away from any help, and that it would be very difficult to get help into Utah following a large earthquake event. The Navel Post Graduate School provided the exercise.

**Judy Watanabe** added that the Governor is very interested in following up with future earthquake exercises and would most likely include others from the Commission.

### **Update on State Earthquake Insurance and the impact of Unreinforced Masonry Buildings by the Utah Division of Risk Management.**

**George Deniris** presented on the dramatically increasing costs for the State of Utah to insure URM buildings. He said after the Magna Earthquake the premiums doubled. The upcoming session will determine how state buildings will be insured, and they are working to determine if they save insurance premiums and replace URM buildings with those saved insurance premiums. Increased costs have created a significant challenge to keep URM state buildings insured. Increased premiums may direct the State towards 100% self-insurance. He described the secondary costs to earthquake loss as significant and often overlooked, and the public may not be aware of these losses.

### **Update on the USSC Deterministic versus Probabilistic Ground Motions Subcommittee**

**Brent Maxfield** provided a presentation on the Deterministic versus Probabilistic subcommittee meetings. He provided examples of earthquakes in Japan and New Zealand. Japan’s higher building codes allowed them to recover quicker. His message was that we need to **focus on the “shaking” not the Richter magnitude**. He reviewed the concerns and discussed the committee’s progress. The current building code is building below the actual earthquake risk. This subcommittee will continue to meet and prepare recommendations for the Commission. There is a 76% chance in Utah that an earthquake will exceed the modern building code design standards. He mentioned that overall there may be a 20% chance of collapse to new buildings. Increasing the building code would reduce that overall risk to 5%. He added that this is a challenging and significant topic, because with current building design codes, there is a significant risk to Utahns and the Utah economy.

### **Discussion on Outreach to the Utah Legislature and Elected Officials: How can the USSC Better Connect?**

**Jessica Chappell** mentioned that we made our recommendations to the Legislature. She reported there was less money available this year. The Governor’s budget did make some recommendations for aqueduct funding. She reported that Ari was working with Senator Buxton to sponsor a request for \$4 million for studies of the URM schools.

**In Conclusion to the meeting, Robert** said that in 50 years, half of what will exist (in Utah) will be brand new and we need to focus on the brand-new buildings and infrastructure. If we get new buildings right, Utah will be a model of what should happen to resiliency. **Robert** said

one thing that makes us different in Utah is that we have a coalition of people who care. Let's at least make sure our future buildings are better.

**Jessica** added the Commission's efforts are a decades-long effort to preserve our economy and our state. She said we need to continue building a technical base of information concerning Utah's seismic risk, and that she is excited for the opportunity of taking this year to evaluate additional issues.

The next Commission meeting will be arranged at a later date.

By Acclamation the meeting was adjourned.

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## ACTION ITEMS

### **Completed Action Items**

- Invite Water Districts to bring the Commission up to speed on their efforts and discuss next steps.
- Orion Goff help us set up discussions with the League of Cities and Towns and discussion of building codes.
- John Crofts will draft a letter of appreciation for all the Commissioners and Staff for the Utah Seismic Safety Commission. Robert may ask the Governor to sign these letters of appreciation.
- George Deniris will forward John Crofts insurance risk information.
- Place the non-ductile concrete issue on the next agenda. Jessica will talk to Oakland Construction to arrange a tour of the Base Isolation system of the new North Capitol building.
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### **Action Items Pending**

- Invite the Division of Water Resources to present and participate.
- Invite Sewer Districts or treatment plants to present and participate.
- Invite the power company to present and participate.
- Invite the natural gas company to present and participate.
- Invite the refineries to present and participate. Jessica will talk to Oakland Construction to arrange a tour of the Base Isolation system of the new North Capitol building.
- Build a coalition with the Utah League of Cities and Towns—Orion to help set up discussions with the League of Cities and Towns.

- Have a SME discuss brand-new types of buildings in SLC that we've never had before. Are these new buildings designed for higher risk?
- Invite guests to educate the Commission about the cost and availability of homeowner earthquake insurance.
- Invite Patrick Tomasino to highlight some of the buildings the State operates and some recognition for funding for seismic. resilience

*Please note, that this meeting was hybrid. Efforts were made to document the attendees. Some guests may not have been captured. Please contact John Crofts if there are attendees who were not recognized. The presentation time slots from the published agenda were modified to accommodate the speaker's request.*