

AGENDA

JUNE 15, 2011 | 4 - 8 P.M.
KANE HALL ROOM 120
UNIVERSITY OF WASHINGTON



THE 2011 GREAT EAST JAPAN (TOHOKU) EARTHQUAKE
LESSONS LEARNED FOR THE PACIFIC NORTHWEST

INTRODUCTION	4:00 – 4:05
David Swanson, P.E., S.E., Reid Middleton	
OVERVIEW OF IMPACTS	4:05 – 4:15
David Swanson, P.E., S.E., Reid Middleton	
SEISMOLOGY & GROUND MOTIONS	4:15 – 4:40
King Chin, P.E., GeoEngineers, Inc.	
BUILDING CODE COMPARISON	4:40 – 4:50
Andy Taylor, PhD, P.E., S.E., KPFF Consulting Engineers	
GEOTECHNICAL EFFECTS & TSUNAMI INUNDATION	4:50 – 5:20
Doug Lindquist, P.E., G.E., Hart Crowser, Inc.	
DINNER BREAK	5:20 – 5:50
BUILDING EARTHQUAKE DAMAGE	5:50 – 6:05
Jon Siu, P.E., S.E., Building Official, City of Seattle	
HIGH RISE BUILDINGS	6:05 – 6:15
Andy Taylor, PhD, P.E., S.E., KPFF Consulting Engineers	
HIGH PERFORMANCE BUILDINGS	6:15 – 6:25
Andy Taylor, PhD, P.E., S.E., KPFF Consulting Engineers	
COASTAL TOWNS TSUNAMI DAMAGE	6:25 – 6:45
Mark Pierepiekarz, P.E., S.E., MRP Engineering, LLC	
SNACK BREAK	6:45 – 6:55
ROAD & BRIDGE PERFORMANCE	6:55 – 7:05
Paul Brallier, P.E., S.E., HNTB Corporation	
PORT FACILITIES PERFORMANCE	7:05 – 7:15
Paul Brallier, P.E., S.E., HNTB Corporation	
LIFELINES & INDUSTRIAL FACILITIES	7:15 – 7:30
Mark Pierepiekarz, P.E., S.E., MRP Engineering, LLC	
RESPONSE & RECOVERY	7:30 – 7:50
Jon Siu, P.E., S.E., Building Official, City of Seattle	
LESSONS LEARNED SUMMARY	7:50 – 8:00
David Swanson, P.E., S.E., Reid Middleton	
END	8:00

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PARTICIPATING ORGANIZATIONS



Paul Brallier, P.E., S.E.

Paul Brallier is a licensed SE and has practiced structural engineering in the state of Washington for 30 years. He has been the Design Manager for the I-405/Bellevue Braids Project for the last 5 years. He is currently working for HNTB Corporation and is the chairman of the SEAW Disaster Preparedness and Response Committee.

King Chin, P.E.

King Chin is an associate geotechnical engineer with Geo-Engineers in Seattle. He has been providing geotechnical engineering services throughout the Pacific Northwest, California, Alaska, South Carolina and Panama since 1998. His primary focus has been on earthquake engineering, performance based engineering and geotechnical numerical modeling. King's experience include site specific seismic risk and hazard assessments, liquefaction and ground failure evaluations, and recommendations for mitigating seismic hazards for buildings, bridges, waterfront facilities, dams and levees. King is a member of the Structural Engineer Association of Washington, Earthquake Engineering Committee (SEAW-EEC). King also served on National Science Foundation – Network for Earthquake Engineering Simulation Research (NEESR) review panel that evaluated proposals in the area of geotechnical earthquake engineering. King received his BSCE and MSCE from the Washington State University.

Doug Lindquist, P.E., G.E.

Doug Lindquist is a geotechnical engineer at Hart Crowser with 14 years of professional experience. He earned his BS and MS in Civil (Geotechnical) Engineering from the University of Washington. His interest in earthquake engineering grew in graduate school studying under Dr. Steven L. Kramer. Doug has been the lead seismic designer on a number of high-profile projects including embankments, waterfront structures, and peer reviewed performance-based designs for high-rise structures. Doug is a Past-President of the ASCE Seattle Section Geotechnical Group and is a member of the SEAW Earthquake Engineering Committee.

Mark Pierepiekarz, P.E., S.E.

Mark Pierepiekarz has over 25 years of professional experience focusing on structural and natural hazard engineering. He has performed structural analysis, pro-active retrofit and upgrade design, and repair of impacted commercial, industrial, and public buildings and other facilities throughout the U.S. and abroad. His structural engineering experience also includes wind and earthquake analysis and upgrade design and analysis of bridges, reservoirs, and lifeline systems. Mr.

Pierepiekarz has personally performed post-earthquake damage investigations and has written reconnaissance reports following the Chile (2010), Haiti (2010), Nisqually (2001), Northridge (1994), Landers/Big Bear (1992), Upland (1990), Loma Prieta (1989), Whittier Narrows (1987), Superstition Hills (1987), and Satsop, Washington (1999) earthquakes. He has performed damage investigations following 2005 Katrina and Rita hurricanes.

Jon Siu, P.E., S.E.

Jon Siu is the Principal Engineer and Building Official for the City of Seattle Department of Planning and Development, as well as DPD's Emergency Response Director. Jon is a past Director of SEAW, a current Director with the Washington Association Building Officials, a member of the SEAW Professional Practices Committee and the WABO/SEAW Liaison Committee, and a member of the ASCE 7 Main Committee and Seismic Subcommittee. In addition to having served on numerous ICBO and ICC Code Development Committees, Jon performed ATC-20 evaluations after the Northridge Earthquake in 1994 and has been an ATC-20 instructor since the early 1990's.

David Swanson, P.E., S.E.

Dave Swanson is the director of the structural engineering group at Reid Middleton, Inc. Dave is a structural engineer with more than 20 years experience in the design of a wide variety of projects throughout the Pacific Northwest, California, and Alaska. Dave's experience includes the design of new facilities, expansions, remodels, retrofits, condition surveys, seismic evaluations and upgrades, and on-site investigations of structures. Dave has participated on multiple SEAW earthquake reconnaissance teams investigating the 1995 Kobe Earthquake, 1999 Chi Chi Earthquake, 2001 Nisqually Earthquake, 2008 Wenchuan Earthquake, and the 2010 Chile Earthquake.

Andrew W. Taylor, Ph.D., P.E., S.E., FACI

Dr. Taylor has 24 years of experience in structural engineering, including seven years as a member of the Earthquake Engineering Group of the National Institute of Standards and Technology. He has extensive research experience in experimental and theoretical investigations of reinforced concrete structures. His specialties include performance-based seismic design of concrete structures, seismic base isolation, and seismic damping systems, particularly when applied to the design of critical facilities that require enhanced levels of seismic performance.