



Photos, top cover: View of downtown San Francisco looking north from One Rincon Hill (credit: Thomas Hawk).
 Bottom cover: Twilight view of the San Francisco-Oakland Bay Bridge looking east. One Rincon Hill, the tallest residential tower west of the Mississippi, completed in 2008, is at the far right (courtesy of Chase Communications).

62nd Annual Meeting
2010 EERI ANNUAL MEETING

February 3-6, 2010 • San Francisco, California

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 THEME: BACK FROM THE FUTURE



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 Parc 55 Hotel
 San Francisco, California



**Earthquake Engineering
 Research Institute**

62nd Annual Meeting
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THEME: BACK FROM THE FUTURE

Wednesday, February 3, 2010

5:00–7:30 pm REGISTRATION OPENS

THE 7th ANNUAL UNDERGRADUATE SEISMIC DESIGN COMPETITION will be held throughout the meeting, organized by EERI's Student Leadership Council (SLC) and sponsored by EERI, FEMA, Computers & Structures, PEER, and Kinematics. The competition is an opportunity for undergraduate teams to design, analyze, fabricate (with balsa wood), and subject to earthquake motions a scale model of a high-rise office building. The Awards Ceremony will take place at 1:30 p.m. on Saturday. For competition rules, details, and entry information, visit: <http://slc.eeri.org/seismic.htm>

5:30–7:00 pm **MEET THE MENTORS HOSTED ICEBREAKER:** New and student members are invited to join longstanding members for an informal get-acquainted icebreaker with complimentary snacks and a hosted bar.

Thursday, February 4, 2010

7:30 am ON-SITE REGISTRATION CONTINUES

8:30–10:30 am Opening Session

8:30–8:40 am **WELCOME AND OPENING STATEMENT**
 Farzad Naeim, *President, EERI*

8:40–9:00 am **WHY NOT A BEST CASE SCENARIO?**
 David Friedman, *Local Organizing Committee Chair*

9:00–10:00 am **Keynote Address: EARTHQUAKES FROM A FUTURIST'S PERSPECTIVE**
Moderator: Keith Knudsen, *URS Corporation*
Speaker: Jamais Cascio, *Institute for the Future*

10:00–10:30 am BREAK (All breaks provide an opportunity to view Student Design Competition in adjacent atrium.)

10:30–12:00 pm **THE NOT-SO-GREAT EARTHQUAKE OF 2056**
Moderator: Christopher Arnold, *BSD Associates*
Speakers: David Bonowitz, *Structural Engineer, 2056 LFE Reconnaissance Team Leader*
 Dave Wald, *U.S. Geological Survey*
 Steve Heminger, *Metropolitan Transportation Commission*
 Ross Boulanger, *University of California Davis*
 Laurie Johnson, *Laurie Johnson Consulting*

12:00–2:00 pm **AWARDS LUNCHEON AND 2010 DISTINGUISHED LECTURE:**
 Sharon Wood, *University of Texas, Austin*

2:00–3:30 pm **BUILDINGS AND INFRASTRUCTURE**
 Which three or four significant engineering breakthroughs are necessary in order to achieve the comparatively minimal damage seen in the 2056 quake?
Moderator: Howard Zee, *City & County of San Francisco*
Speakers: Thomas O'Rourke, *Cornell University*
 Laurence Kornfield, *City & County of San Francisco*
 Janiele Maffei, *Consultant*
 R. K. Stewart, *Perkins+Will*

3:30–5:30 pm **TECHNICAL AND ADMINISTRATIVE COMMITTEE MEETINGS**

5:30–7:00 pm **GENERAL RECEPTION AND POSTER SESSION***

6:30–8:00 pm **SUBSCRIBING MEMBERS' & MAJOR DONORS' RECEPTION**

*See <http://www.eeri.org> for poster requirements



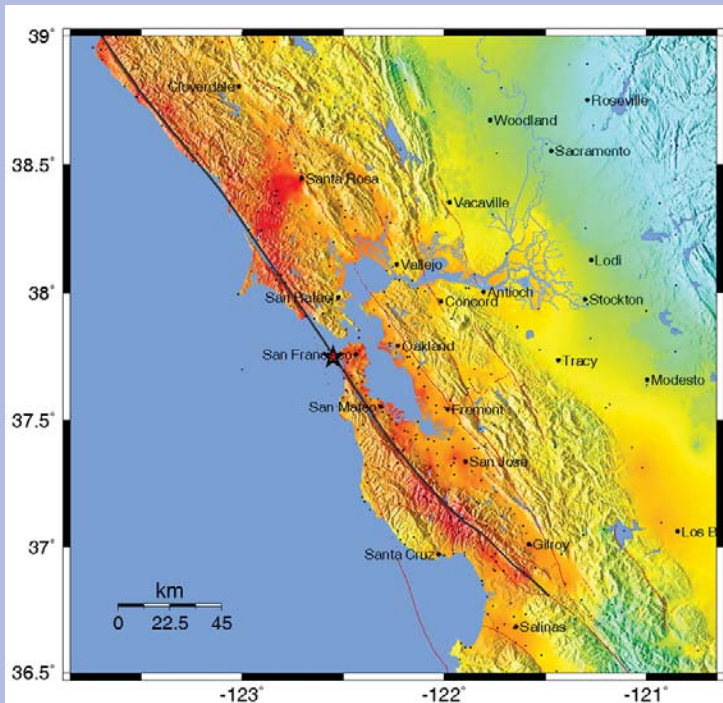
Closed in 1995 after suffering structural damage in the 1989 Loma Prieta earthquake, San Francisco City Hall was renovated, base-isolated, and reopened in 1999 (SFCVB photo by Tom Bross).



Ruins of San Francisco City Hall dome after 1906 earthquake.

Friday, February 5, 2010

- 7:00 am CONTINENTAL BREAKFAST FOR COMMITTEE MEETING PARTICIPANTS
- 7:30–9:30 am TECHNICAL AND ADMINISTRATIVE COMMITTEE MEETINGS
- 9:30–10:00 am EERI/FEMA NEHRP GRADUATE FELLOW: David Saftner, *University of Michigan*
- 10:00–10:30 am Mayor Gavin Newsom (*invited*)
- 10:30–12:00 pm **LEGISLATION AND POLICY CHALLENGES**
Which three or four significant legislative and public policy breakthroughs are necessary in order to achieve the comparatively minimal damage seen in the 2056 quake?
Moderator: Jeanne Perkins, *Consultant*
Speakers:
Lucy Arendt, *University of Wisconsin Green Bay*
Arrietta Chakos, *Harvard University*
Tom Tobin, *Tobin & Associates*
The Hon. Ellen Corbett, *California State Senate (invited)*
- 12:00–2:00 pm **ANNUAL BUSINESS MEETING LUNCHEON**



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC. (%)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL. (cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

1906 Earthquake, M7.8, Depth 10 km, Epicenter N37.75 W122.55



Artist's rendering of the single-tower self-anchored suspension span, the signature architectural feature of the new east span of the San Francisco-Oakland Bay Bridge, to be completed in 2013 (source: Caltrans).

- 2:00–3:30 pm **ABSOLUTELY ESSENTIAL RESEARCH & EDUCATION**
Which three or four significant breakthroughs in research and education are necessary in order to achieve the comparatively minimal damage seen in the 2056 quake?
Moderator: Ivan Wong, *URS Corporation*
Speakers:
Jack Moehle, *University of California Berkeley*
Ross Stein, *U.S. Geological Survey*
David Frost, *Georgia Institute of Technology*
Thalia Anagnos, *San Jose State University*
Lori Dengler, *Humboldt State University*
- 3:30–5:00 pm **IF YOU DESTROY IT, THEY WILL COME: Undergraduate Seismic Design Competition finals**

- 5:00–7:00 pm **GENERAL RECEPTION & POSTER SESSION***
- 7:00–9:00 pm **BANQUET & MUSICAL THEATRE**

Saturday, February 6, 2010

- 8:00–10:00 am COMMITTEE CHAIRS MEET WITH EERI BOARD OF DIRECTORS
- 10:00–10:30 am WINNER 2010 EERI GRADUATE STUDENT PAPER COMPETITION—*TBA*
- 10:30–12:00 pm **Special Panel Session: CAN WE GET TO THIS OPTIMAL EARTHQUAKE SCENARIO? WHAT ARE THE TRADE-OFFS?**
Moderator: David Friedman, *Forell/Elsesser Engineers*
Speakers:
William Holmes, *Rutherford & Chekene*
Chris Poland, *Degenkolb Engineers*
Mary Comerio, *University of California Berkeley*
Ellen Rathje, *University of Texas*

*See <http://www.eeri.org> for poster requirements

- 12:00–1:30 pm **LUNCHEON: 7th ANNUAL SSA/EERI WILLIAM B. JOYNER MEMORIAL LECTURE: Progress and Controversy in Seismic Hazard Mapping:** Arthur Frankel, *U.S. Geological Survey*
- 1:30–1:45 pm **UNDERGRADUATE SEISMIC DESIGN COMPETITION AWARDS CEREMONY**
- 1:45 pm Technical Program Adjourns
- 2:00 pm **OPTIONAL FIELD TRIP TO NEW EASTERN SPAN OF BAY BRIDGE:** Details to be determined. Information forthcoming soon at www.eeri.org.

HOTEL INFORMATION

Parc 55 Hotel San Francisco, 55 Cyril Magnin Street, San Francisco, CA 94102. Hotel reservations can be made from a link on EERI's home page, www.eeri.org, using the code EERI. To make a reservation by phone, call 1-800-595-0507.

IN ORDER FOR EERI TO FILL ITS ROOM BLOCK, YOU MUST MAKE YOUR RESERVATION BY **JANUARY 13, 2010**. The EERI group rate for single and double rooms is \$159.00; triple and quad: add \$20.00 per person. The hotel room tax is 14%.

Check-in time is 3:00 p.m.; Check-out time is 12 noon. Self parking is available for \$44 + 15.5% tax per night. The Parc 55 is located in the heart of downtown San Francisco, 14 miles from the San Francisco International Airport (SFO). Super Shuttle is available for \$15.00 one way. The shuttle drops off and picks up in front of the hotel every 15 minutes from 5 a.m. until 4 p.m. Guests may board BART at the airport; the hotel is located just steps from the Powell Street BART station.

Replacement Bay Division pipelines 1 and 2 installed across the Hayward fault as part of the seismic retrofit of the Hetch-Hetchy aqueduct (photo: John Eidinger, 2003).



EERI ANNUAL MEETING REGISTRATION

(Clip and mail or fax to EERI, or register online at www.eeri.org)

Name (first to last) _____ EERI Membership ID Number _____

Business Name/Affiliation (for name tag) _____

Street Address/PO Box _____

City/State/Zip/Country _____

Daytime Telephone/Daytime Fax _____

e-mail address _____

- Optional Field Trip to New Eastern Span of Bay Bridge:** Visit www.eeri.org for forthcoming information and cost. Add to reg. fee below, if you wish to participate.

Registration fee includes 3 lunches, one Friday banquet ticket (additional banquet tickets \$100 ___) and a notebook.

EERI Member \$450 ___ **Non-Member** \$650* ___

Circle one:
Student** / **Young Professional** / **Retired EERI Member** \$250 ___

Undergraduate Student \$25 ___ (includes 1-year EERI E-Student Membership. DOES NOT INCLUDE ANY LUNCHEONS OR BANQUETS.)

***NEW MEMBERS: JOIN EERI TODAY**—Pay only \$225 for 2010 EERI Membership (regular dues are \$250) and save \$200 on registration:

- I wish to join (enclose total of \$675).

****STUDENTS: JOIN EERI TODAY**—Pay only \$50 for Student Membership (or \$25 for E-Student Membership) and save \$400 on registration:

- I wish to join (enclose total of \$300 or \$275). (If this option is chosen, you will receive a form requiring the signature of a professor or officer certifying student status.)

TOTAL Amount Enclosed _____ (Add \$50 after January 13, 2010)

PRE-REGISTRATION DEADLINE: January 13, 2010.
LATE AND ON-SITE REGISTRATION, ADD \$50.

CANCELLATIONS: If received in writing on or before January 22, 2010, refund less \$25; after January 22, 50% will be refunded.

Make check payable to: EERI, 499 14th Street, Suite 320, Oakland, CA 94612-1934. For more information, phone (510) 451-0905, fax (510) 451-5411, e-mail: eeeri@eeri.org.

Please do not fax registration form unless you are paying with a credit card (VISA or MasterCard).

VISA/MasterCard No. _____ Expiration Date _____

Authorized Signature _____



EERI ANNUAL MEETING
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A cable car climbs Hyde Street (SFCVB photo by Lewis Sommer).