The Southern California Story
No Longer Just Waiting

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Friday, June 29
Strengthening Our Cities

SAFER CITIES
ADVISORY PROGRAM

About The Event
The 2017 Strengthening Our Cities Summit brings together a specific sector of the SoCal community to get resources and tools to better understand the risks of earthquakes to our buildings and how to mitigate losses.

November 7 - 8, 2017 at
The Center at Cathedral Plaza, located at
555 W. Temple Street
Los Angeles, CA

Who Should Attend?
The 2017 SEAOSC Summit is designed for
- Engineers
- Building Owners and Managers
- Insurance Professionals
- CPAs & Financial Advisors
- Financial and Real Estate Professionals
- REIT Fund Managers

Why Should You Attend?
Every year, the Strengthening Our Cities Summit brings together a specific sector of the SoCal community to get resources and tools to better understand the risks of earthquakes to our buildings and how to mitigate losses.

Goals
Convene the financial, real estate, and insurance sectors with technical experts to move forward together to address the community’s need to be able to prevent losses and recover from an earthquake. Educate attendees on the value of buildings and how they are designed to perform. Highlight trends and best practices for building owners, developers, and investors to address existing buildings and assess their value.
100 Resilient Cities: Los Angeles

“What is “resilience”?

100 Resilient Cities defines resilience as the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow, no matter what kinds of chronic stresses and acute shocks they experience. Shocks are typically considered single event disasters, such as fires, earthquakes, and floods. Stresses are factors that pressure a city on a daily or reoccurring basis, such as chronic food and water shortages, an overtaxed transportation system, endemic violence or high unemployment. City resilience is about making a city better, in both good times and bad, for the benefit of all its citizens, particularly the poor and vulnerable.”
Resilience Los Angeles

- Bring earthquake early warning technology to all Angelenos by the end of 2018.
- Work with all Neighborhood Councils to develop resilience and preparedness plans by 2019.
- Prepare Angelenos to be self-sufficient for at least seven to 14 days after an emergency by 2022.
- Build a culture of preparedness by training all City departments and employees on disaster preparedness and recovery on an annual basis by 2022.
- Develop post-disaster service restoration targets for critical infrastructure by 2028.
ADOPT EMERGENCY LAND-USE TOOLS TO ADDRESS DISPLACEMENT AND REDEVELOPMENT IN ADVANCE OF A MAJOR EARTHQUAKE OR OTHER CATASTROPHIC EVENT

The City will develop a plan for implementing emergency land-use tools that allow for flexible reuse of properties severely damaged in a disaster. This framework will shorten the recovery period, while creating opportunities to provide community amenities.

Prompt remediation or repurposing of properties damaged in a catastrophic event will allow Angelenos to recover without the additional economic and social stresses that often follow prolonged disuse of damaged buildings, including economic decline, blight, and crime.

The City will develop a plan to implement emergency land-use tools that can be used in the wake of a major disaster to allow for flexible reuse of private properties that have been severely damaged. The City will also study how tools such as the voluntary transfer of development rights would enable the City to limit future development in an area while replacing any lost development rights in other areas that are deemed able to accommodate development.

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ESTABLISH POST-DISASTER RESTORATION TARGETS FOR CRITICAL INFRASTRUCTURE

The City will establish performance goals and recovery targets for critical infrastructure, including water, sewer, electricity, gas, communications, and transportation systems.

The Mayor’s Sustainable City pLAN, which was released in 2015, recommended the development of measurable targets for post-disaster recovery. The creation of this framework, including recovery performance goals, will establish a process to assess service restoration that considers vulnerable populations and uses, critical infrastructure interdependencies and supply chains. Performance goals will be established for our water, sewer, electricity, gas, communications, and transportation systems. These targets will be incorporated into the City’s Continuity of Operations Plans, which ensure that City agencies are able to continue to perform essential functions. The framework will allow for the established targets to be revised periodically to account for changes in infrastructure, technology, systems management, and interdependencies.

SHOCKS/STRESSES

TIMEFRAME

Short Term

PARTNERS
EMD / LADWP / DPW / DOT / SCG / Telecom firms / Other private-sector partners
57 INCREASE PARTICIPATION IN CITY AND STATE PROGRAMS THAT PROMOTE SAFER HOUSING BY REDUCING EARTHQUAKE RISK

The City will work with partners to encourage voluntary and mandatory participation in seismic retrofits to improve the seismic safety of all housing, while ensuring that structural improvements do not lead to displacement.

The passage of a historic and robust mandatory retrofit policy, led by Mayor Garcetti, will strengthen our most vulnerable soft-story and non-ductile concrete buildings to prevent loss of life in the event of a major earthquake. These mandatory retrofits will need to be completed by 2024 for soft-story buildings and 2043 for non-ductile concrete buildings. However, these timeframes are maximums, not minimums. Currently hundreds of building owners have retrofitted their buildings. In order to reach a 100% compliance rate, the City will advance our outreach and education programs and continue to partner to advance financing tools for building owners and tenants experiencing financial hardships.

Furthermore, while not mandatory, all building owners should be aware of the seismic retrofit opportunities, like bracing and bolting of single-family homes and voluntary retrofits for soft-story multi-family buildings with fewer than four units.

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<td>LADBS / HCID / HACLA / LAHSA / Nonprofit partners / State partners / Building owners and tenants / Professional associations / Contractors</td>
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Advance Seismic Safety

1. Re-Establish Mayor’s Seismic Safety Task Force
2. Evaluate Seismic Risk of City Assets and Management Programs
3. Explore financing strategies and incentives for seismic retrofits of privately owned buildings
4. Recommendations for mandatory retrofits for additional building typologies
5. Private school seismic evaluation program
6. Advance immediate occupancy building codes for new buildings

The City will work with earthquake experts to share and implement best practices across city agencies to fortify the built environment and improve the City’s capacity to prepare for and respond to earthquakes.

FORTIFY OUR WATER SYSTEM
Expand Seismic Resistant Pipe Network
The City will expand development of the seismic-resistant pipe network to include the myriad geohazard sites located throughout Los Angeles. It will also work to improve coordination among the Bureau of Engineering, the Bureau of Street Service, Southern California Gas Company, and other agencies that own buried pipe networks and deal with assorted hazards. Resilient pipeline planning, design, construction, and operation requires the development of new informational tools and mapping of geohazards that could impact the under- ground pipe, including seismic activity such as ground movement and deformation, liquefaction, fault lines, and landslides.

Develop mitigation alternatives for the L.A. Aqueduct and Elizabeth Tunnel
To ensure a safer and more resilient water system, the City will conduct studies to identify and develop mitigation alternatives for the Elizabeth Tunnel to address the maximum San Andreas Fault rupture. The Los Angeles Aqueduct provides approximately one-third of the City’s water supply. However, the aqueduct crosses the San Andreas Fault in the five-mile-long, nine-foot-wide Elizabeth Tunnel, making it vulnerable to severe damage and complete loss of flow in the event of a large fault movement. Mitigation alternatives will assess seismic vulnerabilities from San Andreas Fault events for the California Aqueduct and the Colorado River Aqueduct, two other sources of water for the City of Los Angeles.
COLLABORATE WITH CALIFORNIA CITIES TO ADVANCE REGIONAL SEISMIC SAFETY

The City will share knowledge and research with other California cities that are mandating retrofits for seismically vulnerable buildings and infrastructure in the region.

The 2016 Safer Cities Survey identifies vulnerable building types based on previous seismic events and identifies regional jurisdictions that are taking action to implement mandatory and voluntary retrofit programs for the most vulnerable buildings. As additional cities in Southern California join Los Angeles in mandating retrofitting for seismically vulnerable buildings and investing in more resilient infrastructure, these efforts will be shared with others and the total impact of these collective actions evaluated for the region.

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INNOVATE MORE RESILIENT AND SUSTAINABLE BUILDINGS BY ADVANCING BUILDING FORWARD L.A.

Continuing the efforts of Building Forward L.A., the City will work with key stakeholders and experts to develop recommendations that provide strategies for better facilitating high-design, high-performance buildings capable of withstanding multiple hazards and that address goals for sustainability around renewable energy, efficiency, and water.

Building Forward L.A. is a participatory research and design process launched in March 2017 by the Mayor’s Office, Rebuild by Design, and core partners A+D Museum, the Los Angeles Chapter of the American Institute of Architects (AIA-LA), the Now Institute, the Structural Engineers Association of Southern California (SEAOSC), and the Los Angeles Chapter of the U.S. Green Building Council (USGBC-LA). The Building Forward L.A. initiative aims to improve how we design and build our city by integrating advancements and innovations in design, engineering, and construction into more sustainable and resilient buildings. Through a collaborative process, Building Forward L.A. is gathering input from stakeholders and experts to help identify and prioritize policy, process, and design recommendations. This set of recommendations will address L.A.’s unique challenges, including threats from shocks such as earthquakes and long-term stresses such as drought, damaging heat, and flooding, and prioritize the efficient and sustainable use of resources.

SHOCKS/STRESSES

TIMEFRAME

PARTNERS
Rebuild By Design / LADBS / A+D Museum /
AIA-LA / the NOW Institute / SEAOSC /
USGBC-LA / BOE / DCP / BOS /
LADWP / LAFD
Building Forward LA

A place to have a conversation.
Opportunity for collaboration.
Engagement with the public and AEC industry.
A key step to realizing change.
The Program

- 5 Outreach Events
- Questions & comments shared via our Google Form
- One-on-one interviews
- Focus groups with interested organizations
IN THE FUTURE, I WANT BUILDINGS TO

BUILDING FORWARD LA
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<th>Equity</th>
<th>Transparency</th>
<th>Collaborative</th>
<th>Forward Thinking</th>
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<td>Increase participation in performance based review and alternative design.</td>
<td>Establish teams to expedite review of projects that incorporate new/innovative technology.</td>
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<td>Increase training opportunities for industry professionals on best practices and how to navigate the permit process for innovative projects.</td>
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<td>Establish opportunities for sustained engagement with the private sector to continue Building Forward LA</td>
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<td>Elevate usage of seismic and climate data in order to better inform project design and resilience.</td>
<td>Expand partnerships to facilitate evaluation and approval of emerging technologies</td>
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<td>Develop a publically accessible database of projects that exemplify usage of new technologies.</td>
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<td>Explore incentives to encourage projects to built beyond basic life-safety requirements.</td>
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<td>Encourage the City to lead by example through a Building Forward LA Pilot Project.</td>
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<td>Increase training opportunities for city staff on best practices related to sustainability and resilience</td>
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Select Future Goals for the City of LA

Increase participation in **performance based** review and alternative design.

Elevate usage of **seismic** and climate data in order to better **inform project design and resilience**.

Explore **incentives** to encourage projects to built **beyond basic life-safety** requirements.

Establish teams to **expedite review** of projects that incorporate new/innovative technology.
What is Next

Finishing touches!
And then the real work begins making it all happen.