PARTNERING WITH STRUCTURAL ENGINEERS FOR SAFER BUILDINGS

Structural Engineers Association of Southern California
Presented by Annie Kao, P.E., Simpson Strong-Tie
What do structural engineers do?
INNOVATIVE BUILDING DESIGN
Preparing for the Big One

A plan released by Eric Garcetti, the mayor of Los Angeles, recommends ways to make the city’s buildings, water infrastructure, and telecommunications systems more resilient to a significant seismic event. The goal is to help the city quickly recover from a massive earthquake along the San Andreas Fault, which could affect Los Angeles today in much the same way that it did San Francisco in 1906.

By Catherine A. Cardon, Ph.D.
HOW TO FIND A STRUCTURAL ENGINEER?

- Google
- LinkedIn
- Yelp
- Angie's List
Structural Engineers Association
OF SOUTHERN CALIFORNIA

Find An Engineer

FIND AN ENGINEER

Home > Find an Engineer

Find an Engineer

Read our brochure here: WHAT YOU SHOULD KNOW ABOUT STRUCTURAL ENGINEERING

How Do I Select a Structural Engineer?

Determine the size and scope of your project; you may wish to consult an architect or contractor first to discuss cost, feasibility and design coordination.

Compile a list of prospects.

Search the Member Services Search for firms.

Ask your friends and contractors for recommendations.

Refer to your local telephone directory (check in the white pages, the "Yellow Pages," or in large metropolitan areas, the "Business Yellow Pages"), or

Contact professional engineering and professional land surveying societies, such as SEAOSC, SEAOIC, SEAOSD, SEAOC, SEAOC, ASCE.

Confirm their State Registration.

http://seaosc.org/find-an-engineer
Member Services Search Page

Check the appropriate specialty and click on the Search button. If you check more than one box, results will return members in any of the categories selected.

- Commercial Buildings
- Facilities: Education
- Facilities: Laboratory
- Foundations
- Legal Consultation/Expert Witness
- Post-Earthquake Evaluation
- Residential: Multi-Unit
- Retrofit: Historic Rehabilitation
- Retrofit: Nonresidential Building Rehabilitation
- Retrofit: Wood-frame Soft Story
- Seismic Evaluation & Reports
- Seismicity
- Seismic Design
- Seismic Design & Engineering
- Seismic Design & Testing
- Solar Photovoltaic Applications
- Excavation Shoring & Underpinning
- Facilities: Healthcare
- Facilities: Public
- Geotechnical Investigation & Reports
- Material Testing and/or Testing
- Residential: Hillside Homes
- Residential: Single Family Homes
- Retrofit: Non-Ductile Concrete Building
- Retrofit: Residential
- Seismic Bracing of Non-Structural Elements
- Solar Photovoltaic Applications
- Solar Photovoltaic Systems

HTTP://SEAOSC.ORG/REFERRAL-SEARCH
http://www.bpelsg.ca.gov/consumers/lic_lookup.shtml
Who is the right fit for your building project?

• Ask for project references for similar jobs
• Verify expertise in project type and ability to complete projects on time and on budget
• Request a site visit, written proposal, anticipated schedule, and fee estimate
• Ask questions!
Why bother asking your structural engineer any questions?

- Your building is a valuable asset
- You want it to perform during an earthquake
- You want it to exist after an earthquake
- You want your occupants to be safe

- Structural Engineers are a valuable resource!
Questions Your Structural Engineer Can Help Answer

1. What are my site’s soil conditions?
2. What is my site’s level of seismicity?
3. Are there potential hazards from neighboring structures?
4. What performance level meets my needs?
5. What kind of nonstructural damage is my building vulnerable to?
Christchurch 2011 Earthquake

$35B and 50-100 years to fully recover

Structural Engineers Association of Southern California
ECONOMIC REPERCUSSIONS

NEW ORLEANS VS NASHVILLE
ECONOMIC GROWTH

Source: Dr. Lucy Jones, USGS
• M7.8 Earthquake
• 1800 Deaths
  – 700 from 1500 soft story & concrete building collapses
• $213 billion of economic loss throughout SoCal
  – $47.7 billion from shaking damage
  – $65 billion from fire damage
  – $96.2 billion from business interruption costs
  – $4.3 billion from traffic delays
RESILIENCE BY DESIGN

- Protect the lives of our residents
- Improve the capacity of the City to respond to earthquakes
- Prepare the City to recover quickly from earthquakes
- Protect the economy of the City and all of Southern California
LET’S WORK TOGETHER TO BUILD A SAFER LOS ANGELES

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