

2016 SEAOSC Golf Tournament

at Friendly Hills Country Club

SAVE THE DATE!

Registration Opening Soon.
Visit www.seaosc.org for more
information and updates.

Monday, August 29, 2016 • 10:00 am – 8:00 pm
8500 South Villaverde Drive, Whittier, CA 90605





Happy New Year: 2016-2017

The results of the 2016-2017 nominations for the SEAOSC Board of Directors were announced at the June 1st End-of-Year Awards & Presidents Dinner. We are happy to announce the following new board members:

Treasurer: Mehran Pourzanjani, SE

Directors:

Member SE: Matt Barnard, SE

Member SE: Sandra Biddulph, SE

Member SE: Josh Gebelein, SE

Member SE: Jackie Vinkler, SE

Officers for 2016-17, according to the Bylaws succession procedure, will be Jeff Ellis, S.E. President, and Robert Lyons, SE, President-Elect. Michelle Kam-Biron, SE will continue to serve on the board of directors as the Immediate Past President.

Also, continuing on the board of directors will be Lorena Arce, P.E., Todd Brown, S.E., Jeffrey Haight, S.E., Victoria Wigle, S.E. Thanks again to the Nominating Committee, chaired by Senior Past President, Doug Thompson whose charge was to appoint nominations for each office to be filled by the general election. Additional nominations for the Board were solicited in the March issue of SEAOSC NEWS, in accordance with the SEAOSC Bylaws. Per the Bylaws, if an office only has one nomination, the person nominated shall be deemed to be elected to the office.

Thank you to all the SEAOSC members who participated in the affirmation of the nominees.

2016-2017 membership renewals are due by August 31! Members will receive an electronic renewal message payable online.

See inside this issue to read the profiles of the 2016-2017 board members!

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SAVE THE DATE!

JULY

14 Webinar: *Designing with Post-Tensioned Concrete*

28 Webinar: *Designing with Post-Tensioned Concrete*

AUGUST

29 SEAOSC Golf Tournament
*Friendly Hills Country Club
Whittier, CA*

NOVEMBER

17 & 18 SEAOSC Summit
*Center at Cathedral Plaza
Los Angeles, CA*



Structural Engineers Association

OF SOUTHERN CALIFORNIA

Dear SEAOSC Member,

The SEAOSC Board continues to work hard for our Association to provide membership value and advocate for the structural engineering profession, while continuing our excellent technical tradition. After considerable thought, we determined that to best serve our membership, profession and communities a change in management was needed and this was done last year with BSC Management. BSC Management served our Association well this past year, but thought another management option would better serve our needs. After an intensive search, the SEAOSC Board is happy to inform the membership that we have engaged the services of Co-Pilots to be our full-service, multi-disciplinary association management firm. The Founder and President, Dianne Ochoa, will be our Executive Director. Co-Pilots is already familiar with the construction industry and has experience working for similar associations. As we work to continue to evolve and increase our impact, they will help provide a well organized administrative structure as well as provide experienced feedback on how we may better operate and reach out more efficiently and effectively.

Co-Pilots and BSC Management have started the association management transition. BSC will be the primary association management company through the end of July, helping make this transition as smooth as possible. Co-Pilots will take over fully on August 1st. We hope this is a seamless transition for our membership.

We are confident this will be a positive change for our Association and that our new management company will be our very effective "Co-Pilots", helping us to better fulfill our vision and mission and make an even greater impact together on our profession, industry and communities. Please help us welcome Co-Pilots and our new Executive Director, Dianne Ochoa, when you contact them or see them at one of our upcoming events.

Respectfully,

SEAOSC Board of Directors

Get to know the 2016-17 Board!



Jeff Ellis , S.E. , President - Simpson Strong-Tie Company Inc .

Jeff Ellis is the Director of Codes & Compliance for Simpson Strong-Tie Company Inc. He has more than 25 years of experience in the construction industry and manages the company codes and compliance efforts. Additionally, he is involved in research and development and provides support for existing product lines, including technical guidance for connectors, fastening systems, and lateral force resisting systems. He was a practicing design engineer for commercial, residential and forensic projects for more than 9 years prior to joining Simpson at the end of 2000. He also serves on the International Code Council Evaluation Service Board of Managers and on the CALBO Structural Safety Committee. He's chaired the SEAOSC Summit Committee and the AISI COFS Lateral Design Subcommittee and served as the President of the Cold-Formed Steel Engineers Institute (CFSEI).



Robert "Bob" Lyons, SE, President-Elect - Risha Engineering Group, Inc.

Bob is a principal at Risha Engineering, with over 36 years of structural design experience. He has served on various SEAOSC, SEAOC, AISC and other technical committees. He obtained his BS degree in civil engineering from UCLA in 1978.



Mehran Pourzanjani , SE, Treasurer - Saiful/Bouquet Structural Engineers

Mehran Pourzanjani is a Principal, of Saiful/Bouquet Structural Engineers. He has over 30 years of experience in designing buildings. His experience spans a wide spectrum of structures varying from institutional and public projects to healthcare, regional malls, high rise structures, and evaluation and strengthening of existing structures. Mr. Pourzanjani is the past president of the SEAOC Seismology Committee and continues to serve on that committee. Additionally he is currently serving on the SEAOC Standards, and the SEAOC Evaluation Services Committees as well as, ACI 318H, Seismic Provisions subcommittee. Mr. Pourzanjani has participated in university research through codification for the design and seismic performance of concrete elements and also served on the "PEER Tall Buildings Initiative" task group towards developing guidelines for the seismic analysis of tall buildings.



Michelle Kam-Biron, SE , Past-President - American Wood Council

Michelle Kam-Biron is a California licensed structural engineer and Director of Education for the American Wood Council (AWC) where she is expanding continuing education resources for architects, engineers, and building officials as well as coordinating the development of university level wood design course and has presented at multiple webinars, workshops, conferences throughout the nation on topics related to wood design and construction. Additionally, she was a Structural Engineering consultant and Executive V.P. of Harris Engineering, in California. She has over 20 years of experience managing and designing a wide range of projects of various structural materials as well as Division of State Architect contract plan review. Ms. Kam-Biron graduated from Cal Poly, San Luis Obispo with a BS in Architectural Engineering. She is a certified Earthquake Disaster Assessment volunteer and a member of the International Code Council. She serves on the NCSEA Basic Wood Education Committee as well as the ASCE-SEI Wood Education Committee.

Get to know the 2016-17 Board!



Lorena Arce, PE, Director - AISC

Lorena Arce is the Southwest Regional Engineer for the AISC. She represents Southern California, Arizona, Southern Nevada, New Mexico, Utah, Western Colorado, and Hawaii. She works with design professionals as an educational resource on the technical and economic aspects of building with structural steel.

Prior to joining AISC, Lorena worked for several years as a field engineer for Hilti, developing project and application solutions by working with local design and construction professionals in the Los Angeles area. She received a Bachelor of Science in civil engineering from California State University, Long Beach, with an emphasis in structural engineering. After graduating, Lorena began her career as a design engineer for VanDorpe Chou Associates, Inc. in Orange, California and obtained her California Professional Engineer license.



Matt Barnard, SE, Director - Degenkolb Engineers

Matt Barnard is a Principal in the Los Angeles office of Degenkolb Engineers. Matt has a M.S. in Structural Engineering from the University of Illinois, Urbana-Champaign and is a licensed Civil Engineer and Structural Engineer in California. His experience includes new design, alternations, tenant improvements and retrofits for healthcare, higher education, and civic facilities.

Matt is a Los Angeles Affiliate Board Member and active mentor of ACE Mentoring and was named an National Outstanding Mentor in 2015. Matt is also a member of the national Guidelines Committee for the Council of American Structural Engineers, a member of the Technical Advisory Committee for the US Resiliency Council, and a past subcommittee chair for SEAOSC Buildings at Risk Summit. He is a disaster service worker volunteer through the California OES Safety Assessment Program. Matt also serves as a member of the part-time faculty for California State University, Fullerton.



Sandra Biddulph, SE, Director, DCI Engineers, Irvine

A California native, Sandra has been practicing Structural Engineering for over 25 years on the west coast, and is a Principal at DCI Engineers' Irvine office. Since joining the company, Sandra has been an integral addition to the DCI team. She brings an abundance of knowledge on a wide array of building types, design techniques, and an impressive understanding of codes and regulations. Sandra appreciates the art of structural design; watching a project come together, from the initial project conception through construction administration, with a tangible finished product that becomes a part of our built environment. Sandra earned her Bachelor of Science in Architectural Engineering from Cal Poly, San Luis Obispo, has served on the Board of Directors for SEAOC, and is a Past-President of the Structural Engineers' Association of San Diego.



Todd Brown, SE, Director, DCSE

Todd Brown is a Senior Vice President with DCSE Associates (formerly Dale Christian Structural Engineer Inc.). He joined the SEAOSC Board of Directors on July 1, 2015. Todd graduated with a Bachelor's of Science Degree from California State University Fullerton in 1996, majoring in Civil Engineering, with an emphasis in Architectural Engineering. He worked briefly for a small architectural firm in Orange County, then joined Dale Christian Structural Engineer Inc. in early 1997. He has been with the company now for nineteen years, and has held positions from an Engineer-in-Training, to a Senior Vice President. He is a licensed Civil and Structural Engineer in the State of California. Todd has provided designs for a variety of different material and construction types, although his area of expertise is in single-family and multi-family residential design. He is responsible for the design of thousands of houses, apartment units, and townhomes in the Southern California Area. He has a particular interest in producing structural plans that are well detailed, easy to read and easy for the contractor to follow.

Get to know the 2016-17 Board!



Josh Gebelein, SE, Director - Brandow & Johnston, Inc.

Josh Gebelein has over 16 years of structural engineering experience and has distinguished himself as a versatile structural engineer on various iconic projects in the Southern California region. He is currently an Associate Principal at Brandow & Johnston and serves as Vice-Chair on the SEAOSC Seismology Committee. Josh is passionate about seismology and its effects on seismic building safety, along with the implementation of seismic research into engineering practice. His project experience runs the gamut from mundane improvements to high-performance designs, and also includes international projects, forensics and earthquake reconnaissance. Josh feels that seismic engineering is often more an art than science, and our social challenge is to continually strive to mitigate a risk which the general public does not fully appreciate. His personal goal is to make a positive difference within the structural engineering community both locally and globally, believing that even small differences can save lives.



Jeffrey Haight, SE, Director - Ehlen Spiess & Haight

Jeffrey Haight is a partner at Ehlen Spiess & Haight, Inc. in Santa Barbara, where he has worked since 1992. He earned a Bachelor of Science degree in Architectural Engineering from Cal Poly San Luis Obispo in 1988. He has been a member of SEAOC since 1986 and was the President of the Cal Poly SEAOC Chapter in 1987-1988. Jeff is a volunteer engineer with the California Office of Emergency Services and in October 2005 he was a member of the initial team of volunteers deployed to New Orleans to perform building assessments in St. Bernard Parish after Hurricane Katrina. He has served as a judge for the SEAOC Excellence in Structural Engineering Awards and is currently the vice-chair of the SEAOC Foundation. As both project engineer and principal engineer at Ehlen Spiess & Haight, Inc., Jeff has engineered school buildings, institutional facilities, seismic retrofits, and adaptive reuse projects throughout the central coast of California. He is most intrigued by historic preservation projects and recently completed a project to provide ADA access to the top of the historic Santa Barbara Courthouse tower.



Jackie Vinkler, SE, Director - John A. Martin & Associates

Jackie Vinkler is a Principal at John A. Martin & Associates. She maintains a diverse and highly visible portfolio of structural engineering projects and trusted, long-term relationships with clients. She has more than 25 years of structural engineering experience, having completed building design and architecturally sensitive seismic retrofits for complex structures and buildings in health-care, higher education, entertainment, hospitality, commercial, residential and cultural realms. She has also led teams of structural engineers to complete seismic evaluations of extensive building portfolios, as far reaching as the US State Department embassies and residential buildings overseas. Jackie is known for her levels of precision and a passion for meeting client deadlines and budgets. Her collaboration with high profile architectural counterparts has consistently produced creative structural design solutions which achieve the visions of project's diverse constituencies, including designers, owners, and stakeholders.



Victoria Wigle, SE, Director - Thornton Tomasetti

Victoria is a second-year board member and the board contact for the membership and summit committees. She has been a structural engineer with Thornton Tomasetti since 2008. Her project experience includes both new construction and adaptive reuse as well as existing building evaluation. She has worked on projects locally and abroad, including a year-long stint in Christchurch, New Zealand following the Canterbury Earthquakes. Victoria completed her undergraduate studies at the University of Kansas and her graduate work at the University of Illinois – Urbana-Champaign.



Welcome New Members - May 2016

Affiliate

Mr. Frank M. Bush, frank.bush@lacity.org, Los Angeles Department of Building and Safety, Los Angeles

Young Associate

Nickolas Ha, nickolasjha@gmail.com, Saiful Bouquet Structural Engineers, Pasadena

Chun-Han Lin, hlin@insight-se.com, Insight Structural Engineers, El Segundo

Member

Vartan Chilingaryan, Vartan.Chilingaryan@hdrinc.com, HDR, Pasadena

Mr. Arlen Eskandari, aeskandari@beverlyhills.org, City of Beverly Hills, Beverly Hills

Mr. Yongqing Chen, echen@cccecinc.com, C & C Engineering Consultants, Inc.

Ms. Adrienne Goetz, agoetz@wje.com, Wiss Janney Elstner Associates, Inc., Pasadena

Member SE

Mr. Phong Le, Peter.Le@vcastructural.com, VCA Consultants, Orange

Mr. Anwar Alam, aalam@transystems.com, Transystems, Santa Ana

Student

Cal Poly Pomona

California State University, Los Angeles

University of California, Irvine

University of Windsor



The Structural Engineers Association of Southern California (SEAOSC) is a professional organization of Civil and Structural Engineers which also includes affiliated construction industry members and students. The association provides its members with the educational opportunities and the challenge to meet high standards of engineering excellence, and ethical and professional conduct in the design of structures and facilities within the broader field of civil engineering.

<http://www.seaosc.org/join-seaosc>

MICHELLE KAM-BIRON
PRESIDENT

JEFF ELLIS
PRESIDENT-ELECT

ROBERT LYONS
TREASURER

LORENA ARCE
SECRETARY



**STRUCTURAL ENGINEERS ASSOCIATION
OF SOUTHERN CALIFORNIA**
A Non-Profit California Corporation

11300 W. Olympic Blvd., Suite 600
Los Angeles, CA 90064

**2015-2016
BOARD OF DIRECTORS**
LORENA ARCE
TODD BROWN
JEFF ELLIS
JEFFREY HAIGHT
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COLIN KUMABE
ROBERT LYONS
KEVIN O'CONNELL
EDGAR PLAZOLA
JOSEPH VALANCIUS
PAUL VAN BENSCHOTEN
VICTORIA WIGLE

LOIS EHRLICH
EXECUTIVE DIRECTOR

Tel: 562-908-6131
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PRESS RELEASE

The Structural Engineers Association of Southern California Announces 2016 Excellence in Structural Engineering Award Winners

Each year, SEAOSC recognizes members that have demonstrated outstanding achievement and excellence in structural engineering practice on their projects through its Excellence in Structural Engineering Awards program. The awarded projects are great examples of the impact structural engineers have on our communities. They not only provide safe places for people to work, live, entertain, heal, and teach, but also help to show the public the important impact the structural engineering profession has on the resilience of our communities.

The purpose of the SEAOSC Excellence in Structural Engineering Awards program is to publicly acknowledge outstanding achievements in the field. Additionally, it is the intent of the Awards program to educate Southern Californians on the contributions of their local Structural Engineers to the built environment and to public safety in the region and around the world, as SEAOSC is committed to advancing the art and science of structural engineering.

This year, the jury focused on certain criteria in their selection of the Excellence Award winners: design creativity, technical innovation, system efficiency and economy, constructability, complexity of problems solved, design integration, quality of execution, and significant contribution to the public and profession.

This year's winners in each category are as follows:

Special Use Structure – Award of Excellence

Structural Engineering Firm: Saiful Bouquet Structural Engineers
Project: The Broad Plaza, Los Angeles, California

Special Use Structure – Award of Merit

Structural Engineering Firm: Nishkian Chamberlain
Project: The Pacific Amphitheater Entrance Pavilion, Costa Mesa, California

Infrastructure – Award of Excellence

Structural Engineering Firm: IDS Group
Project: Seismic Evaluation and Retrofit of the MWD Santa Ana River Crossing, Riverside, California

Historic Preservation – Award of Excellence

Structural Engineering Firm: Structural Focus
Project: The Masonic Temple, Glendale, California

Retrofit/Alteration – Award of Excellence – Large Project

Structural Engineering Firm: Buehler & Buehler

Project: LAX Delta Airlines Terminal 5 Seismic Upgrade and Renovation, Los Angeles, CA

Retrofit/Alteration – Award of Merit – Large Project

Structural Engineering Firm: John A. Martin & Associates

Project: Bass Pro Shop at the Memphis Pyramid, Memphis, TN

Retrofit/Alteration – Award of Excellence – Small Project

Structural Engineering Firm: LPA

Project: Christ Cathedral Tower of Hope Seismic Retrofit, Garden Grove, CA

Retrofit/Alteration – Award of Merit – Small Project

Structural Engineering Firm: Risha Engineering

Project: Alliance Health Services Academy High School, Los Angeles, CA

New Construction – Award of Excellence

Structural Engineering Firm: LPA

Project: Cal Poly Pomona Student Recreation Center, Pomona, CA

New Construction – Award of Merit

Structural Engineering Firm: John A. Martin & Associates, Inc.

Project: University of Arizona Phoenix Biomedical Campus Health Science Education Building, Phoenix, AZ

Sustainable Design – Award of Merit

Structural Engineering Firm: John A. Martin & Associates

Project: San Diego International Airport Terminal Two West Expansion, San Diego, CA

Congratulations to all of the firms represented in the 2016 SEAOSC Excellence in Structural Engineering Awards, and to all the individual engineers whose passion, expertise, patience and diligence led to such inspiring and commendable engineering design. We are proud to call them our colleagues and applaud their excellent efforts!

2106 Annual End-of-Year Awards & Presidents Dinner

Each year SEAOSC honors the work of several of our members whose projects rise above the norm and achieve a level of Excellence in Structural Engineering. The projects we will be highlighting tonight are great examples of the impact structural engineers have on our communities. They not only provide places for people to work, entertain, heal, and teach, they help to show the public the important impact we as a profession have on the resiliency of our communities. On June 1, 2016, SEAOSC recognized some of these amazing projects. The EISE and people awards are mentioned in our Press Release and on our website.



 [Facebook.com/SEAOSC](https://www.facebook.com/SEAOSC)
 [@seaosc](https://twitter.com/seaosc)

Special Use Structure – Award of Excellence

Saiful Bouquet Structural Engineers

The Broad Plaza

Los Angeles, California



THE BROAD PLAZA

PLAZA | Owner: Broad Art Foundation Executive Architect: Adamson Design Architect: Diller, Scofidio & Renfro Contractor: MATT Construction
RESTAURANT | Owner: 222 S. Hope St. Executive Architect: House & Robertson Design Architect: Osvaldo Maiozzi Contractor: Howard CDM

Pocket Frames for a Pocket Park

Project Description
Broad Plaza is essentially a single story "box" for a heavily landscaped public park over a city street below, creating a front yard for the new Broad Art Museum on a bridge over "C" Street below. The Restaurant was added by a different design team. Both projects were the only contractors in common.
Sited between two active construction sites, the Broad Art Museum and the Theatrical Apartment Tower, the project was shown by site conditions. Pocket was designed to integrate, forward and allow the system to be used as a staging area. An innovative precast / cast-in-place moment frame solution was developed.
The project system provided schedule and cost advantages over a conventional cast-in-place system. As the structure was installed over a city street, we were able to minimize the street closure on-site. Our concept for the moment frame was easily brought back showing that would have been required with a conventional cast-in-place system to look safely over the street.

Design Challenges

- Use of precast for moment frames with lateral columns.
- Frames needed to span 120' to provide 120' clearspan required.
- Column height and setback clearance.
- Columns required to be placed in the center of the sidewalk to allow pedestrian traffic on either side.
- Cloning loads are heavy but significantly variable.
- Support of a cantilevered steel framed restaurant at the west end.

Structural Solutions

- Precast "T" beams utilized with CIP for moment frames with lateral columns.
- Top bar construction designed and after relieving gravity loads to steel.
- The foundation and grade beams used to fix base of columns.
- Multiple seismic connections to "transfer" lateral effects of restaurant restaurant.

Construction Sequence

SEAOSC 2016 EXCELLENCE IN STRUCTURAL ENGINEERING AWARDS

Sustainability Features

The steel strength for its ability to provide a green space in the heart of Downtown Los Angeles.

Rain water is stored in the structural concrete to water the lawn and the other green.

A roof garden grows herbs for the Open Restaurant.

Key Structural Sections & Details

Moment Frame Joint Model

Overall Structural Model

SECTION AT HINGE REGION

SECTION AT MARK SPOTS

KEY STRUCTURAL SECTIONS & DETAILS

Construction Sequence

1. Precast columns, beams, and plates are positioned using temporary steel bracing.

2. Temporary reinforcing cages are placed on the "beams" beams.

3. Longitudinal reinforcing cages are placed on the "beams" beams.

4. Concrete top bars are cast into beams, but not connected to beams.

5. Top bar structures are placed, with columns top bars and concrete, concrete panels cast off.

6. "Pocket" beams are cast with concrete between the precast steel moment frame beams and plates.

7. Steel columns are cast, top bars are cast, concrete panels cast off.

8. Steel columns are cast, top bars are cast, concrete panels cast off.

9. Precast "pocket" beams, plates, and cast bars.

10. Steel columns are cast, top bars are cast, concrete panels cast off.

11. Precast "pocket" beams, plates, and cast bars.

12. Steel columns are cast, top bars are cast, concrete panels cast off.

Special Use Structure – Award of Merit

Nishkian Chamberlain

The Pacific Amphitheater Entrance Pavilion

Costa Mesa, California

To create the entryway pavilion, a soil cut approximately 85-foot wide and up to 35-foot tall was made through the center of the soil berm.

Permanent tieback soldier piles were utilized for its speed of construction and limit of excavation. REVIT Structure was used to develop a 3-D model of the subsurface projection of the tiebacks below grade to ensure intersection of the tendons was prevented.

A redesigned 32,500-square-foot pedestrian plaza incorporated several cues to point visitors toward the entry space of the original stand-alone, Pacific Amphitheater venue. The project was enhanced by a series of rectangular illuminated beacons including: ticket booths, architectural lighting structures and new restroom facilities and, most spectacularly, a central entrance pavilion.

The entrance pavilion connects the 8,500 seat amphitheater with the redesigned plaza, and the structure also meets the site's sound-mitigation needs by creating an acoustical vestibule. The 30-foot high structure, independent from the retaining walls, utilized steel framing and CMU walls with a steel frame grid to support the architectural metal diagrid pattern façade.

PROJECT TEAM:
OWNER: O. C. FAIR AND EVENT CENTER
ARCH: MAKE ARCHITECTURE
STRUCT. ENGR: NISHKIAN CHAMBERLAIN
CONTRACTOR: AWI BUILDER'S INC.



NISHKIAN CHAMBERLAIN
SEAOSC 2016 EXCELLENCE IN STRUCTURAL ENGINEERING AWARDS

Retrofit/Alteration – Award of Excellence – Large Project

Buehler & Buehler

LAX Delta Airlines Terminal 5 Seismic Upgrade and Renovation

Los Angeles, CA



LOS ANGELES INTERNATIONAL AIRPORT DELTA AIRLINES TERMINAL 5 SEISMIC UPGRADE & RENOVATION

Structural Engineer: Buehler & Buehler Structural Engineers, Inc. Architect: Corgan Associates, Inc. Contractor: Swinerton Builders Owner: Los Angeles World Airports

The terminal required a new lateral force resisting system that is fully compliant with the current code while maintaining full occupancy during a phased retrofit including temporary horizontal bracing to maintain stability and force distribution throughout all phases of construction

New Ticketing Hall

High Value Customer Check-in

Structural Challenges

- Building remained fully operational during construction in the full range of uses, including ticketing, security and baggage, with each area requiring upgrades and retrofits
- Existing pre-Northridge WUF Moment Frames completely replaced with BRBFs
- Existing concrete shear walls strengthened with FRP
- Aggressively phased construction over 2 1/2 years

Facility Statistics

- Two Buildings
- 107,000 square feet
- \$75 million
- New Airline and LAWA offices, ticketing, baggage claim, and security checkpoint

State-of-the-art FRP replace a pre-Northridge moment frame lateral system

#18 Dywidags await installation into the center of the many 45' deep micropiles installed on the project

ETABS Analytical Model

REVIT Design Model

SEAOSC 2016 Excellence in Structural Engineering Awards

Retrofit/Alteration -Award of Merit – Large Project

John A. Martin & Associates

Bass Pro Shop at the Memphis Pyramid

Memphis, TN

BASS PRO SHOPS at the MEMPHIS PYRAMID

Retrofit / Alteration

Originally constructed in 1990 as a sports and concert venue, the Memphis Pyramid Arena has completed a voluntary seismic renovation and extensive tenant improvements to become a new immersive, destination experience for Bass Pro Shops.

The 535,000 square foot facility features multiple specialty themed retail structures constructed inside the pyramid including nearly 800,000 gallons of water features, a cypress swamp with 100-foot-tall trees, an 84,000 gallon alligator habitat, an underwater ecosystems display, restaurants, a 13-lane bowling alley, a Waterfowl Heritage Center, a high-end Gun Center, and indoor rifle and archery ranges.

With a peak 323 feet above grade, the pyramid's renovation required an extraordinary level of design integration, team collaboration and innovative thinking, but has become one of the city's most visited tourist destinations.

JOHN A. MARTIN & ASSOCIATES
STRUCTURAL ENGINEERS

STRUCTURAL ENGINEER: John A. Martin & Associates, Inc.

ARCHITECT: G.T. Marshall Architects

INSIGN DESIGN ARCHITECTS

CSB ARCHITECTS

CONTRACTOR: Yates Construction

MONTGOMERY MARSHALL

OWNER: Bass Pro Shops

COMPLETION DATE: 2015

SEAOSC 2016 EXCELLENCE IN STRUCTURAL ENGINEERING AWARDS



Retrofit/Alteration - Award of Excellence – Small Project

LPA

Christ Cathedral Tower of Hope Seismic Retrofit Garden Grove, CA





**CHRIST CATHEDRAL, TOWER OF HOPE
SEISMIC RETROFIT**
GARDEN GROVE, CA

Richard Neutra's iconic Tower of Hope on the Christ Cathedral campus in Garden Grove, CA has been an important Orange County landmark since it was built in 1968.

LPA's integrated seismic design team worked closely with the owner to preserve, revitalize and extend the life of the Tower of Hope while meeting an aggressive schedule as the critical path of the ongoing campus-wide renovation program.

The design team approached this unique challenge by using an innovative performance-based design strategy that combined fluid viscous dampers with fiber-reinforced polymer. The completed seismic and architectural rehabilitation preserves the original mid-century modernist design aesthetic, maximizes the amount of functional interior space and dramatically increases the seismic resiliency of the Tower.

Client: Catholic Diocese of Orange
LPA Structural Engineer: Bryan Seamer, S.E.
LPA Architect: Jim Wink, AIA
LPA Interior Designer: Maria Louis
Contractor: MATT Construction
Specialty Subcontractor: Saunders Commercial Seismic Retrofit



SEAOSC 2016 Excellence in Structural Engineering Awards

LPA

Retrofit/Alteration - Award of Merit – Small Project

Risha Engineering

Alliance Health Services Academy High School Los Angeles, CA



ALLIANCE HEALTH SERVICES ACADEMY HIGH SCHOOL 10616 S. Western Avenue, Los Angeles, CA 90047

PROJECT INFORMATION:

PROJECT TYPE: CHANGE OF OCCUPANCY / SEISMIC UPGRADE
Owner: Alliance College-Ready Public Schools, Los Angeles, CA
Developer: The Macklin Companies, Inc., Newport Beach, CA
Architect: Geniesy, Newport Beach, CA
Structural Engineer: Risha Engineering Group, Inc., Burbank, CA
General Contractor: Construction Resources, Inc., Van Nuys, CA
Micropile Contractor: Condon-Johnson & Associates, Inc., Ontario, CA

Completion Date: February 2015 Construction Cost: \$4,500,000 (estimated)

RETROFIT DESCRIPTION:

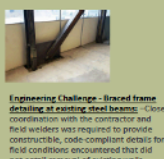
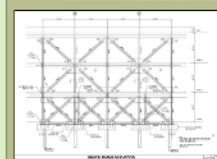
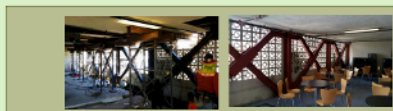
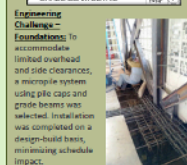
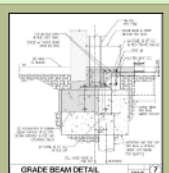
TRANSVERSE DIRECTION – Special Reinforced Concrete Shear Walls, placed using shotcrete, located at end walls and one interior wall.

LONGITUDINAL DIRECTION – Special Concentric Steel Braced Frames along exterior walls.

FOUNDATIONS – 8 inch diameter micropiles with pile caps and grade beams

ENGINEERING CHALLENGES:

See individual boxes for description and photos showcasing specific engineering challenges on the project. In addition to those, design of the seismic upgrade began in late May 2014 with a highly geotechnical schedule. Working closely with the Los Angeles County Building Department and the construction team allowed the seismic upgrade to span just 9 months from design initiation to occupancy of the school building, granting the charter school access to the building as soon as possible.



PROJECT OUTCOME:

Overall, the project team's closely integrated effort resulted in a beautiful and functional charter school space, allowing improved learning opportunities for countless children in years to come.

New Construction - Award of Excellence

LPA

Cal Poly Pomona Student Recreation Center
Pomona, CA



CAL POLY POMONA - STUDENT RECREATION CENTER



Client: Cal Poly Pomona
Structural Engineer: Daniel Wang, S.E.
Architect: Glenn Carls, FAIA
Landscape Architect: Rich Biemans, ASLA
Interior Designer: Wiroton Bao, CID
Contractor: CW Driver

Cal Poly Pomona Student Recreation Center is a 120,000 square foot facility. As the last piece to the campus life puzzle, the project was purposely located equally adjacent the three main components to the university: academics, athletics and student housing. Funded by student fees, the \$45.5 million Recreation Center's program includes an aquatic center and a three-story, 95,000-square-foot recreation center incorporating five fitness and multi-purpose studios, three basketball/volleyball courts, a multi-activity court, a one-quarter-mile running track, a 51-foot rock climbing wall, two racquetball courts, administration offices, locker rooms and shower facilities. The dramatic three-story steel structure seems to doly graity even more than the rock climbers inside, featuring several substantial cantilevered floor areas, the largest of which extends nearly 65 feet.

@deanoinla

SEAOSC 2016 Excellence in Structural Engineering Awards



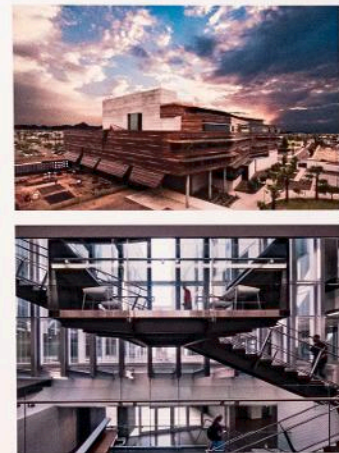
New Construction - Award of Merit

John A. Martin & Associates, Inc.

University of Arizona Phoenix Biomedical Campus Health Science Education Building
Phoenix, AZ

U of A Phoenix Biomedical Campus Health Science Education Building

New Construction



STRUCTURAL ENGINEER:
John A. Martin & Associates, Inc.

ARCHITECT:
CO Architects/Ayers Saint Gross

CONTRACTOR:
DPR/Sundt Joint Venture

OWNER:
Arizona Board of Regents

COMPLETION DATE:
2012



With the growing population in Arizona, the City of Phoenix and Arizona Boards of Regents established a 28-acre site located downtown known as the Phoenix Biomedical Campus, a major biosciences hub and premier academic health center. The Health Science Education Building (HSEB), developed by the U. of Arizona for their College of Medicine-Phoenix, is the anchor facility for the campus and facilitates an interdisciplinary approach to health science education and research in a highly complex architectural structure. Features include exposed architectural concrete and cantilevered stair pods to facilitate user interaction. The seven story, 268,000 square foot reinforced concrete shear-wall building is home to the University of Arizona's expanded medical school as well as smaller programs from Northern Arizona University. The construction of the building capped a long process of unprecedented cooperation between two architects, the design team and two general contractors as well as two of the state's universities, the State of AZ and the City of Phoenix.

SEAOSC 2016 EXCELLENCE IN STRUCTURAL ENGINEERING AWARDS

Sustainable Design – Award of Merit

John A. Martin & Associates
San Diego International Airport Terminal Two West
Expansion
San Diego, CA



SAN DIEGO INTERNATIONAL AIRPORT TERMINAL 2 WEST EXPANSION

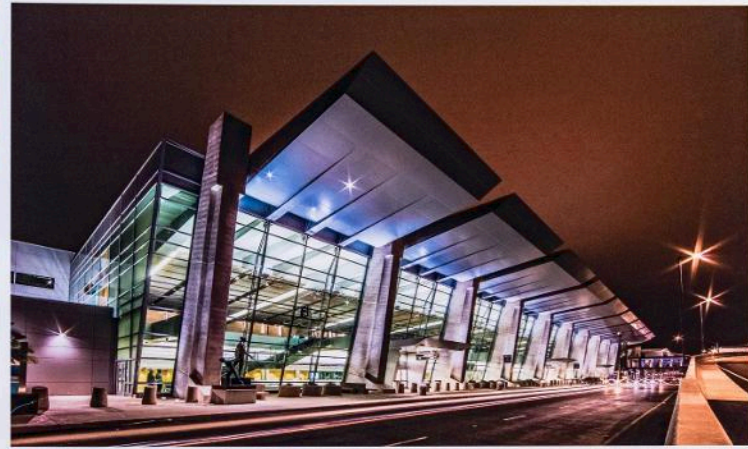
JOHN A. MARTIN
ASSOCIATES &
STRUCTURAL ENGINEERS



Terminal 2 West at San Diego International Airport is a 470,000 square-foot, three-story expansion of the existing terminal. A component of a larger renovation and expansion effort at the airport referred to as "The Greenbuild", the project is the first LEED Platinum certified commercial airport terminal in the world and serves as the facility's largest expansion in its 81-year history. With a focus on sustainable integration and increased user comforts, this highly challenging project added ten new gates, a dual-level roadway, enhanced curbside check-in, a ticketing lobby, additional security screening lanes, baggage handling, seating areas, concessions and support space.

The original terminal at San Diego Airport, Terminal 2 East, was designed and constructed during the early 1960's and overlapped the Northridge Earthquake of 1994. When the construction of the Western portion of Terminal 2 began it was originally assumed that the two wings would be separated via a longitudinal seismic separation joint and double row of columns throughout the passenger concourse area. Careful design and study of the codes enabled the structural design team to eliminate the joint and the second row of columns using lateral resistance systems that were strategically positioned and proportioned. Even with one additional story more than the original terminal component, the design avoided a code-mandated upgrade, enhanced the passenger experience, eliminated maintenance issues, and fulfilled the preferred architectural expression.

SEASC 2016 EXCELLENCE IN STRUCTURAL ENGINEERING AWARDS



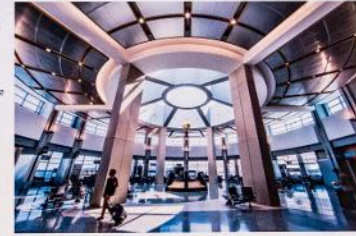
STRUCTURAL ENGINEER:
John A. Martin & Associates, Inc.

ARCHITECT:
HNTB Architects

CONTRACTOR:
Turner/PCL/Flat Iron Joint Venture

OWNER:
San Diego Airport Authority

COMPLETION DATE:
2013



Special thanks to the jury for this year's Awards

Bob Lyons – Risha Engineering

Diana Nishi – Englekirk

Kirsten Zeydel – ZO Consulting

Lorena Arce - AISC

Maria Mohammed – Structural Focus

Martin Johnson – retired structural engineer

Kevin O'Connell - Simpson Gumpertz & Heger

Annual End-of-Year Awards & Presidents Dinner

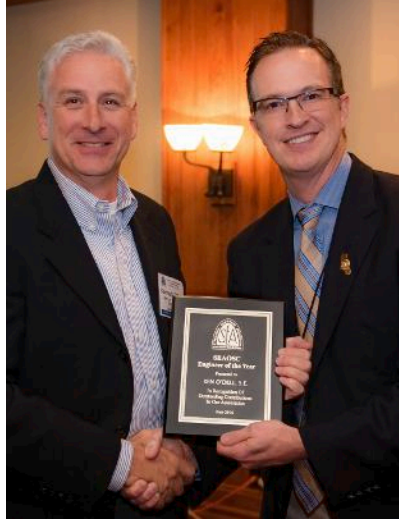
S.B. Barnes Research Award
Tom Van Dorpe, S.E.



S.B. Barnes Research Award
Gary Mochizuki, S.E.



Engineer of the Year
Ken O'Dell, S.E.



Honorary Member
Nabih Youssef, S.E.



Committee Chairs were presented with Presidential Certificates of Appreciation in recognition of their dedicated volunteer service and outstanding contributions to SEAOSC.



@deanoia

Past Presidents



From back left to front right: Doug Thompson, Jeff A. Crossier, Earl Schwartz, John Coil, Kevin O'Connell, Ted Christensen, Manuel Morden, Melvyn Green, Martin Johnson, Janah Risha, Michael Cochran

Passing of the Presidential Gavel

Passing of the Presidential Gavel Plaque for recognition of service to Michelle Kam-Biron (2015-2016) from Jeff Ellis (2016-2017)





Summer Webinar Series

July 2016



Cost Per Webinar:	SEAOSC Member	\$75
	Non-Member	\$150
	SEA Price	\$100

*All presentations are
Diamond Review Certified.*

Designing with Post-Tensioned Concrete

Thursday, July 14, 2016 - 12:00pm – 1:30pm PT

Post-tensioning is a highly efficient structural system that has been used in the design of buildings and parking structures for over 50 years. The efficiency stems from being able to use high strength materials, to structurally utilize the entire cross section, to vary the force and location of the reinforcing to best resist applied loads, and to control the timing of when the prestressing force is applied to the structure.

The presentations will focus on design issues particular to post-tensioned structures. It will highlight some of the advantages and limitations of post-tensioned concrete as compared to reinforced concrete and structural steel construction. Common floor systems used in buildings and parking garages will be explored. Rules of thumb for efficient design of post-tensioned structures will be presented. Particular code requirements for the design of unbonded post-tensioned structures will be presented.

The seminar is intended for engineers with some experience in the design and construction of reinforced and post-tensioned concrete structures.

Construction of Post-Tensioned Structures

Thursday, July 28, 2016 - 12:00pm – 1:30pm PT

This is the second presentation in the series and continues the discussion on the construction of post-tensioned structures. This session will focus on the construction aspects of post-tensioned construction. The following topics will be presented

- Construction process for post-tensioned structures
- Areas of responsibility for engineers
- Typical construction details for post-tensioning
- Special details to reduce restraint stresses
- Creating openings in new and existing construction
- Common mistakes that compromise the long term performance

The seminar is intended for design engineers and construction engineers involved in construction of buildings.

Presented by Pawan R. Gupta, Ph.D., P.E., S.E., LEED AP®

Walter P Moore, Los Angeles, CA

Pawan R. Gupta is a Principal and Managing Director of Diagnostics in Los Angeles, CA. He has been involved in the design, repair, and rehabilitation of structures and facilities in the United States and Canada for the last 18 years. He received his PhD from the University of Toronto, Toronto, ON, Canada, and is active in several professional organizations, including ACI and ICRI. He is a member of ICRI Committee 150, ICRI Notes on ACI 562 Code Requirements. He is a Fellow of ACI and a member of ACI Committees 350, Environmental Engineering Concrete Structures; 364, Rehabilitation; 437, Strength Evaluation of Existing Concrete Structures; and 440, Fiber-Reinforced Polymer Reinforcement, and Joint ACI-ASCE Committee 423, Prestressed Concrete.

For more information and to register, please visit www.seaosc.org.

2016 SEAOSC Golf Tournament at Friendly Hills Country Club

SPONSORSHIP OPPORTUNITIES



Monday, August 29, 2016 • 10:00 am – 8:00 pm

8500 South Villaverde Drive, Whittier, CA 90605

Tee off with SEAOSC members at our annual golf tournament.

Gain visibility with your target audience while supporting the SEAOSC Scholarship Fund!

Tournament Sponsor

\$3,000

- Registration for 4 Golfers
- Acknowledged as sponsor of one hole (excluding “Hole-in-One” holes). Up to 3 company staff at assigned hole, includes lunch and dinner.
- Tabletop exhibit at Dinner
- Ability to provide company literature in attendee bags
- Recognized as Tournament Sponsor:
 - > In event program
 - > SEAOSC newsletter
 - > Marketing materials for the event (if confirmed before August 1, 2016)
 - > At dinner from the podium and on table tents

Eagle Sponsor

\$2,000

- Registration for 4 Golfers
- Up to 2 company staff at assigned hole during tournament (excluding “Hole-in-One” holes), includes lunch and dinner
- Signage at Lunch Area
- Ability to provide company literature in attendee bags
- Recognized as Eagle Sponsor:
 - > In event program
 - > SEAOSC newsletter
 - > Marketing materials for the event (if confirmed before August 1, 2016)
 - > At dinner from the podium

Hole-in-One Sponsor

\$1,500

- Registration for 2 Golfers
- Up to 2 company staff at assigned hole, includes lunch and dinner (One company staff at assigned hole for duration of the tournament)
- Recognized as Hole-in-One Sponsor:
 - > Via signage on the course
 - > In the event program
 - > At dinner from the podium

Birdie Sponsor

\$1,000

- Registration for 2 Golfers
- Recognized as Birdie Sponsor:
 - > At all Beverage/Snack stations
 - > In the event program
 - > At dinner from the podium

SPONSORSHIP CONFIRMATION

I want to tee up as:

- Tournament Sponsor** – \$3,000
- Eagle Sponsor** – \$2,000
- Hole-in-One Sponsor** – \$1,500
- Birdie Sponsor** – \$1,000

Hole-in-One Sponsors Only – Indicate Your Hole Preference, 1 = 1st choice, 2 = 2nd choice, 3 = 3rd choice, 4 = 4th choice. Holes assigned on a first come, first served basis.

_____ Hole #2 _____ Hole #8 _____ Hole #13 _____ Hole #16



REGISTER YOUR SPONSORSHIP GOLFERS

Includes green fee, range balls, BBQ lunch, dinner and raffle ticket!

CHECK-IN TIME 10:00 AM, SHOTGUN START 12:30 PM

Golfer	Phone Number	Email Address
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Full foursome sign-ups will receive complimentary Tee Box Sign.

PAYMENT INFORMATION

TOTAL AMOUNT DUE: \$ _____

Checks can be made payable to SEAOSC and mailed to 11300 W. Olympic Blvd., Ste 600, Los Angeles, CA 90064

Credit Card Number _____ Exp. Date ____/____ Card Type: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Name on Card: _____

For more information please contact Colleen Elkins at **310-437-0555, ext. 114**, or via email: colleen@seaosc.org

A portion of the proceeds will benefit the SEAOSC Scholarship Fund.



SAVE THE DATE!



STRENGTHENING OUR CITIES SEAOSC SUMMIT

November 17 & 18, 2016

**Center at Cathedral Plaza
555 W. Temple Street
Los Angeles, CA 90012**

Every year, the Strengthening Our Cities Summit presented by the Structural Engineers Association of Southern California (SEAOSC) brings together community leaders to present resources and tools for building owners, businesses, and government officials to understand the risk they face and how to mitigate losses.

The goals of this year's summit are to:

- Educate those present on the latest tools, techniques, rules, and proposals, and how to use them
- Convene government, business, and technical experts to move forward together to address the community's need
- Highlight trends and best practices for building owners, businesses, and government in addressing existing buildings built before the latest code



**Registration and Program Information
Coming Soon! For more information, visit
<http://summit.seaosc.org/>.**



WOOD DESIGN AWARDS

NOMINATION DEADLINE: SEPTEMBER 30, 2016



Each year, WoodWorks hosts an award program to recognize excellence in wood design and showcase innovative buildings that demonstrate wood's strength, beauty, versatility and cost-effectiveness.

Categories:

- Multi-Family Wood Design
- Commercial Wood Design: Multi-Story
- Commercial Wood Design: Low-Rise
- Wood School Design
- Institutional Wood Design
- Wood in Government Buildings
- Green Building with Wood
- Beauty of Wood

About WoodWorks

Free project assistance for wood buildings

WoodWorks provides free resources related to the design, engineering and construction of non-residential and multi-family wood buildings.

For technical support, visit woodworks.org/project-assistance or email help@woodworks.org.

There is no cost to nominate a project for a wood design award. Visit woodworks.org for details.



WoodWorks™
WOOD PRODUCTS COUNCIL

2016 winners (clockwise from top left): Chicago Horizon, Ultramoderne, photo Tom Harris, Hedrich Blessing; Fire Station 76, Hennebery Eddy Architects, photo Josh Partee; Olney Branch, Montgomery County Public Libraries, The Lukmire Partnership, photo Eric Taylor; The Brooklyn Riverside, Dwell Design Studio, photo Pollack Shores; Matrix Residential; Cottonwood Valley Charter School E-Pod, Environmental Dynamics, photo Patrick Coulie; Unitarian Universalist Fellowship of Central Oregon, Hacker, photo Lara Swimmer

KPFF Portland is looking for

Both Experienced and Entry-Level Structural Engineers

KPFF is about freedom. Freedom to work on what inspires you. Our engineers work on a vast spectrum of projects that are located around the globe: from anchorage of mechanical systems to complex, non-linear analysis of high-rise structures, we do it all. We have all the benefits of a large, stable firm but none of the red tape that comes with it. Providing first-class service to our clients is what we're about. KPFF is experiencing solid growth and continues to innovate and adapt to better serve our clients. We are a group of dedicated, friendly, collaborative, hard-working engineers and we are looking for exceptional engineers to join us. Please use the appropriate link below to review job details and apply.

Experienced Structural Engineer - Apply Here
(copy/paste into browser):

http://chc.tbe.taleo.net/chc05/ats/careers/requisition.jsp?org=KPFF_2&cws=63&rid=73

Entry-Level Structural Engineer - Apply Here (copy/paste into browser):

http://chc.tbe.taleo.net/chc05/ats/careers/requisition.jsp?org=KPFF_2&cws=63&rid=151

KPFF is an equal opportunity employer.

Holmes Culley is a California based structural engineering firm dedicated to providing quality service and creative design solutions. As part of the New Zealand based Holmes Group, we are an international practice with over 300 professionals in six offices, providing engineering expertise to clients along the West Coast and throughout the Pacific Region.

We are seeking structural engineers with 5+ years design experience for both our San Francisco and Los Angeles offices; M.S. degree in Structural Engineering and PE license are preferred.

Check us out at www.holmesculley.com and send your resume with cover letter to hr@holmesculley.com

Job Requirements:

- B.S. and/or M.S. Degree in Civil / Structural Engineering.
- 5+ years working in the field of structural engineering.
- Licensed Professional Engineer (PE) in the state of California.
- Seismic design experience or education.
- Verbal communication skills, including listening and questioning.
- Written communication skills, including report writing.
- Coaching/mentoring skills
- Presentation skills to contribute to team talks, and project presentations.
- Time management skills.
- Computer software skills: Intermediate MS Word, Advanced MS Excel, Intermediate ETABS, SAP, Risa (or equivalent).
- Problem-solving skills.
- Sound technical skills: understands structural engineering design principles.
- Team player: works with project team.
- Willing to travel to other locations for periods of time to undertake projects.

Your ad here!

BOARD OF DIRECTORS



Structural Engineers Association OF SOUTHERN CALIFORNIA

July 1, 2016 - June 30, 2017

The SEAOSC Board of Directors works on the behalf of our membership. If there are general or specific items you would like to see the Board of Directors address or discuss please contact any of the SEAOSC Board members.

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Jeff Ellis

jellis@strongtie.com
714-738-2029

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blyons@risha.com
818-729-9777

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Mehran Pourzanjani

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949-250-2911

Immediate Past President

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Victoria Wigle

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213-330-7000

SEAOSC Executive Director

Stacy Kent

stacy@bscmanage.com

Get involved! Members are invited to join a SEAOSC committee. Please contact the chairperson for information on current projects and meeting times, dates and locations.

Committees	*Board Contact Chair & Vice-Chairs	Phone	Email
Membership	Victoria Wigle* Kerry Regan Christian Cody	213-330-7000 323-536-2363 323-907-2523	vwigle@thorntomasetti.com kregan@bbse.com christian.cody@hilti.com
Younger Members	Todd Brown* Nathan Jo Paul St. Pierre	714-997-1145 818-441-8014 562-754-0258	tbrown@dalechristian.com nathanjo@gmail.com paulleostpierre@gmail.com
Image & Public Relations	Paul Van Benschoten* Ken O'Dell Samuel Mengelkoch	818-285-2650 562-985-3200 310-323-9924	vanbenschoten@coffman.com kodell@mhpse.com smengelkoch@structuralfocus.com
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Seismology	Colin Kumabe* Jesse Karns Ashi Dhalwala	213-482-0447 562-964-7962 310-828-1422	colin.kumabe@lacity.org jkarns@sideplate.com cegin@gmail.com
Sub Cmte: Steel Bldgs. Existing Buildings	Edgar Plazola* Daniel Zepeda	310-640-0123 213-596-5000	eplazola@insight-se.com dzepeda@degenkolb.com
Disaster Emergency Svcs.	Joseph Valancius* Doug Litchfield	818-240-1919 818-913-3558	valancius@kcse.com dlitchfield@mwdh2o.com
Quality Assurance	Bob Lyons*	818-729-9777	blyons@risha.com
Legislative	Kevin O'Connell*	213-271-1934	kdoconnell@sgh.com
Sustainable Design	Jeff Haight*	805-963-1210	jhaight@eshse.com
EPRS Ad Hoc	Leo Torres	818-844-1969	torres@kcse.com
Summit	Victoria Wigle* Annie Kao David Williams	213-330-7000 714-738-2092 213 596 4992	vwigle@thorntomasetti.com akao@strongtie.com dwilliams@degenkolb.com

▼ *Please visit*

<http://seaosc.org/about-structural-engineering/committees>

to view the annual committee charges and tasks.