

### ASCE HAWAII SECTION

## 2013 Outstanding Civil Engineering Achievement Award Winners

The American Society of Civil Engineers (ASCE) Hawaii Section is pleased to announce the 2013 Outstanding Civil Engineering Achievement (OCEA) Award winners. The purpose of this award program is to recognize projects that demonstrate important outstanding civil engineering accomplishments by Hawaii's design and construction professionals. Nominated projects and research/studies were received for six award categories. To be eligible, projects were required to have been designed or constructed in Hawaii and completed within the last two years. Some of the key judging criteria included:

- Resourcefulness in identifying and solving design challenges
- Contributions to the well-being of people and communities
- Pioneering use of materials and construction methods
- Inventive or new application of civil engineering technologies
- Protection of and reducing impacts to natural resources
- Beneficial effects of the project, including aesthetic value

The following projects and project teams were honored and presented with awards at the ASCE Hawaii Section OCEA Awards Banquet, held at the Harbor View Center on Saturday September 14th, 2013. Congratulations to our winners!

**2013 Hawaii Outstanding Civil Engineering Achievement Award and Best Large Project** (Project to be nominated by the ASCE Hawaii Section for the 2013 National OCEA award).

**Project Name:** Honoapiilani Highway Realignment, Phase 1A, Future Keawe Street Extension to Lahainaluna Road

**Project Owner:** State of Hawaii, Department of Transportation **Submitted By:** Wilson Okamoto Corporation

In 2006, the State of Hawaii, Department of Transportation (HDOT) awarded the design-build project "Honoapiilani Highway Realignment, Phase 1A, Future Keawe Street Extension to Lahainaluna Road, Federal Aid Project No. NH-030-1(35)R" to Hawaiian Dredging Construction Company with Wilson Okamoto Corporation leading the design. The project is the first phase of the Lahaina Bypass Highway and meant to alleviate traffic congestion along the existing highway with Phase 1A specifically targeting heavy traffic congestion associated with the Lahainaluna School Complex. The project constructed a 1/8 mile

extension of Keawe Street and 3/4 mile segment of bypass highway, featuring the long span Kahoma Bridge, a grade separated Lahainaluna Road interchange with bridge, PCC Pavement, a substantial amount of earthwork, and retaining structures.

#### Resourcefulness in identifying and solving design challenges

During bidding, the HDCC team conceptualized spanning across Kahoma Stream without intermediate piers utilizing a post tensioned, inverted tied-arch concrete bridge on shallow spread footings. The benefit of the single span outweighed design and construction challenges of the inverted tied-arch. Discovery of an archaeological resource conflicting with the highway, triggered re-design of Kahoma Bridge with a curve and lengthened 360' span, significantly magnifying design complexity.

Realigning the highway twisted the original design, curving Kahoma Bridge with a full super-elevated deck. Bents, connecting the inverted arch to the deck, were aligned longitudinally with the stream, and pre-cast concrete segments were no longer uniform, each piece containing unique dimensions. The highway curve also distorted forces and displacements requiring re-design of concrete members and post-tensioning. Despite these complex challenges, the bridge was designed and constructed to span the stream; we believe this is the first of its type on a curve.

The team needed to construct Kahoma Bridge without impacting the stream below. The team visited the project site to brainstorm a construction means and method to install the temporary shoring without applying for time consuming stream permits. Massive steel shoring towers and trusses spanned across

the stream supported by micropiles.

For the Lahainaluna Bridge, the team developed a thin, jointless (low-maintenance), post-tension, cast-in-place concrete arch girder bridge on shallow foundation. The design spanned the 130' grade separation over the new bypass highway without center piers. At the center, the arch thinned to just 3'-8" deep. The single span opened the view corridor by preventing center piers from becoming an obstruction on the highway below.

#### Pioneering use of materials and construction methods

Considerable effort was dedicated to develop high-performance concrete (HPC). The configuration of each bridge placed substantial forces and moments on critical components requiring minimum concrete compressive strengths of 8,000 psi with significant amounts of reinforcing. To ensure proper concrete placement and longevity of the completed structure, engineers meticulously selected materials and proportions to test the concrete mix prior to construction. For example, deck concrete was designed to minimize drying shrinkage, enhance fatigue endurance, minimize bleeding, and reduce plastic shrinkage by incorporating a shrinkage reducing admixture, fibers to address micro and macro cracking, synthetic air to improve workability, water reducers, hydration stabilizers, and viscosity modifying admixtures. The HPC was successfully placed with compressive strengths exceeding 11,000 psi.

Due to limited right-of-way width, an innovative anchored wall system was developed for cut condition retaining structures. The anchored wall system consists of a concrete

*continued on page 7*





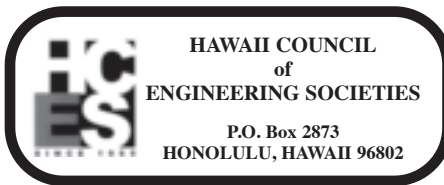
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**WILIKI MAILING LIST**

Additions and/or corrections to the Wiliki mailing list should indicate the proper society, institution or association. Corrections to email addresses should be submitted to your society coordinator.

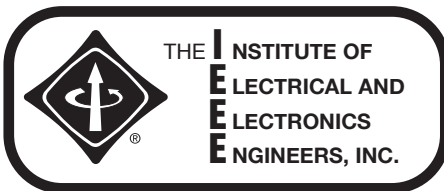


HOME PAGE: <http://hces.us>

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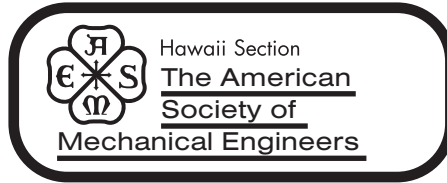
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Website: <http://sections.asme.org/hawaii>

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HCES Rep: Derick Kam  
Alternate: John Ahern

**NEXT ASME-HAWAII SECTION GENERAL/EXECUTIVE COMMITTEE MEETING**

Date: December 10, 2013 Tentative  
Time: 5:30 pm to 7:00 pm  
Place: TBA  
Agenda: TBA

Members and guests are invited. There will be free pizza and soft drinks, as usual. Please contact Chairman Kory Ikeda or Secretary Derek Sato for directions and for more information, such as parking.

**ASME P.E. EXAMINATION REVIEW COURSE UPDATE**

By the time you read this the October 25, 2013, examination will be over for three P.E. candidates taking the exam. It all started July 9, 2013 when eleven interested students started the review course in hopes of becoming Professional Engineers. Classes were held once a week in the University of Hawaii at Manoa, Agricultural Engineering Library, College of Tropical Agriculture & Human Resources from 6:00 p.m. to 9:00 p.m. Supplemental study sessions were held on weekends at the Barnes & Nobles at Kahala Mall or the UH Manoa Dining Area adjacent Hamilton Library. At the end of the course there were five students remaining. Three of them were determined to take the exam and become Professional Engineers.

ASME thanks Raymond Liu, P.E., for his dedication and hard work for arranging, coordinating, and instructing the course. This is an unpaid service to help mechanical engineers become full engineers, or Professional Engineers, a reason why they went to college and worked hard for their BS degrees.

ASME also thanks Dr. Charly Kinoshita, P.E., and Dr. Stephen Masutani, P.E., for dedicating their time and expertise to instruct the Thermodynamics, Heat Transfer, and Fluids parts of the course. Like Liu they have been participating in the review course for many years as a service to ASME and the engineering community.

ASME also thanks Ryan Kurasaki for helping with the course. He assisted Liu with the course logistics.

Obviously without these dedicated volunteers, we would not have this course, and those wanting to be P.E.'s would not have the extra help and encouragement that a review course provides.

**ASME SMARTBRIEF**

Members are reminded to sign up for ASME's SmartBrief, a free, daily e-mail newsletter providing the latest industry news and information. SmartBrief sifts through the engineering news daily and reports on the most relevant stories helping the readers stay ahead in their profession. ASME SmartBrief is read from mobile devices or at your desk. This is one of the many free electronic publications provided by ASME to its members.



[www.sfpehawaii.org](http://www.sfpehawaii.org)

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**HAWAII CHAPTER RECEIVES SILVER EXCELLENCE AWARD**

The SFPE Hawaii Chapter received the Silver Award for the 2012-2013 calendar year. This is the ninth consecutive year that the SFPE Hawaii Chapter has received an award. The Chapter Excellence Award was established by the SFPE Board of Directors to recognize Chapters that demonstrated excellence in contributing to the needs of their members and the Society. Three levels of recognition, Gold, Silver, and Bronze are awarded to qualifying Chapters. Sam Dannaway attended the SFPE Senate Meetings held on October 27, 2013 at the Omni Hotel in Austin, Texas to receive the award for the Hawaii Chapter.

**SFPE PROFESSIONAL PRACTICE COMMITTEE**

The SFPE Hawaii Chapter held an organizational meeting for their SFPE Professional Practice Committee on September 26, 2013 at Henry Loui's Restaurant. Topics with which SFPE Hawaii is currently involved that would fall under the purview of this committee would be professional licensing issues, support of the FPE PE Exam, and PE Exam Preparation. A new initiative to be undertaken by this committee is to liaison with agencies that use fire protection engineering services. Through this liaison SFPE Hawaii will address issues affecting our members with the goal of improving the level of fire protection engineering services provided to all.

**SFPE HAWAII REVIEWS DRAFT 2012 STATE FIRE CODE**

The SFPE Hawaii Chapter provided a review of the proposed amendment package of the 2012 State Fire Code and met with State Fire Council Administrator Socrates Bratakos, Administrative Specialist Lloyd Rogers, and Inspector Sheldon Yasso of the Honolulu Fire Department on October 7, 2013 at the Honolulu Fire Department Headquarters. SFPE Hawaii members are encouraged to participate in the review and development of the State and County Building and Fire codes.



<http://www.hawaiispe.org/>

#### 2013-2014 Officers and Directors

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 Liaison: barry.nakamoto@helcohi.com

#### Chapter Directors:

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 mandy@fermaui.com  
 Big Island: Curt Beck, P.E.  
 Kona-Kohala: Marc Botticelli, P.E.  
 marc@wrsasolutions.com

On July 20, 2013, the NSPE Board of Directors approved the issuance of the NSPE Position Statement No. 1770 regarding the optional early taking of the PE exam, as is noted below:

NSPE Position Statement No. 1770

#### Early Taking of the PE Exam

Approved by the NSPE Board of Directors on July 20, 2013

The National Society of Professional Engineers (NSPE) recommends and advocates that the National Council of Examiners for Engineering and Surveying (NCEES) and state PE boards provide flexibility for optional early taking of the PE exam by candidates who have met the educational requirements for licensure and passed the FE exam. NSPE advocates that the number of years of progressive engineering experience indicated in the NCEES Model Law remain unchanged, such that candidates who

pass the PE exam early need to accumulate the requisite number of years of documented acceptable progressive engineering experience prior to becoming licensed.

As a reminder, HSPE is seeking nominees for the 2014 Engineer of the Year and FALEA/HSPE will be seeking nominees for the 2014 Young Engineer of the Year. Please consider proposing candidates for these two prestigious awards. Nomination forms will be available on the HCES and HSPE websites. Mahalo!



#### CMAA Hawaii Chapter Officers for 2013-14

<http://hawchapter.cmaanet.org>

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 tim.bramsen@bowersandkubota.com  
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 neil.kaneshiro@yahoo.com  
 Treasurer: Darla Guerrero 593-1116  
 darla.guerrero@urs.com  
 Secretary: Dustin Timm 256-2020  
 dustintimm@hotmail.com  
 Past Pres: Mike Young 836-7787  
 myoung@bowersandkubota.com

CMAA Hawaii held its End of the Year and Installation Pa'ina on Sept 19 at the Old Spaghetti Factory. Special "Mahalo!" to the exiting officers and particularly Mike (Happy Birthday!) Young for his dynamic leadership over the last 2 years. Also installed the initial slate of officers for the CMAA Hawaii Student Chapter: President, Michael Handy ([mshandy@hawaii.edu](mailto:mshandy@hawaii.edu)); Vice President, Dylan Dane ([ddane@hawaii.edu](mailto:ddane@hawaii.edu)); Treasurer, Billy Kuan ([kuanbill@hawaii.edu](mailto:kuanbill@hawaii.edu)); Secretary, Lana Moe ([lmoe@hawaii.edu](mailto:lmoe@hawaii.edu)). Mahalo also to Chandra Namumnart for a great job of organizing the evening.

CMAA Hawaii's 2nd Annual Scholarship Golf Tournament teed off on Oct 4 at the Coral Creek Golf Course. A fabulous day on the links was enjoyed by all. The tournament was indeed a success and everyone's generous contributions will enable CMAA Hawaii to provide three scholarships for construction management related curriculums.

Our Chapter calendar includes luncheon meetings in Nov 2013 and Jan 2014. The Nov 20 meeting will be held at Hale Ikena on Fort Shafter and will feature Ernie Lau, Manager & Chief Engineer of the Honolulu Board of Water Supply, speaking on the capital projects program. Loren Lasher is lined up for the January meeting and will be speaking on partnering.

Do you Facebook? Search "CMAA Hawaii Chapter" to check out the latest happenings and photos of our events.

Our next community service project will be on Nov 16, when CMAA Hawaii will begin a long-term renovation project with the Honolulu Boys' Home that will benefit at-risk youths. Check the Chapter's website for more details as we finalize the program with the Hawaii State Courts and the Attorney General's office.

CMAA Hawaii's next quarterly Happy Hour is scheduled for Thursday, December 12 at Bar 35's back patio.

Please contact us for more information about Chapter activities or if you are interested in getting involved with CMAA.



P.O. Box 88840  
 Honolulu, HI 96830  
 Website: [www.acechawaii.org](http://www.acechawaii.org)

#### Officers for 2013-2014

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Director	Jeff Kalani	942-0001
Director	Sachin Shah	450-2984
Director	Paul Morimoto	486-0787, ext. 105

#### UPCOMING ACECH MEMBERSHIP MEETINGS

General Membership Meetings

Date: November 7th, 2013 (Thursday)

Time: 12:00 pm

Location: Honolulu Country Club

Topic: State DOT on DBE

Speaker: Don Fukuhara

Date: December 5, 2013 (Thursday)

Time: 12:00 pm

Location: Honolulu Country Club

Topic: State DOT on New Performance

Evaluations

Speaker: Duane Kashiwai

#### 2014 ACEC SCHOLARSHIP ANNOUNCEMENT

The American Council of Engineering Companies (ACEC) is offering 6 national scholarships to worthy students enrolled at accredited engineering programs. ACEC of Hawaii (ACECH) is accepting applications from students who are entering their junior, senior, fifth, or master's degree year (in the Fall of 2014). Applicants must be a U.S. citizen pursuing a Bachelor's or Master's degree in engineering or in an accredited land-surveying program. Up to 3 Hawaii applicants will be selected to move on to the national competition. Scholarship applications must be received by ACECH by January 11, 2014. Please contact Joe Kwan of the Limtiaco Consulting Group at 596-7790 to obtain more information.



#### 2012-2013 HAWAII CHAPTER – OFFICERS, BOARD OF GOVERNORS AND COMMITTEE CHAIRPERSONS

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 President-Elect: Barry Jim On, P.E., LEED AP, CxA  
 Vice President: William "Bill" Lee, P.E., LEED AP  
 Secretary: Donna Kishi  
 Treasurer: Dean Borges, P.E., LEED AP, CxA

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 Blake Araki, P.E.  
 Dean Oakley  
 Kevin Luoma, P.E.  
 Scott La Beau



Po Box 12204 Honolulu, HI 96828  
 Website: [www.eaauh.org](http://www.eaauh.org)

#### 2012-2013 OFFICERS AND DIRECTORS

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 Dayna E. Nemoto, Vice-President  
 Keith S. Uemura, Treasurer  
 Neal N. Miyake, Secretary  
 Kyle Y. Yukamoto, Past President  
 Ronald N.S. Ho, Board Chair

#### 6th Annual Holmescoming

Friday, November 8, 2013

5pm to 8:30pm

Holmes Hall, UH Manoa Campus

Sponsorships: \$1,200 (8 Tickets, recognition and signage at event) Individual Tickets: \$75 each Checks payable to UHF/CoE or charge online at [www.uhalumni.org/eaauh](http://www.uhalumni.org/eaauh)



### 2013-2014 ASCE HAWAII SECTION OFFICERS

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President:	Brian Enomoto, P.E. <i>email: benomoto@ascehawaii.com</i>	388-5559
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Immediate Past Pres:	Ian Arakaki, P.E. <i>email: ian@tlcghawaii.com</i>	596-7790
YMF President:	Jason Sugibayashi, P.E.	237-3218

### NOVEMBER DINNER MEETING

Program: Development in Kakaako, He'eia and Kalaheo  
 Speaker: Tony Ching, Executive Director at HDCA  
 Date: November 21, 2013  
 Location: Treetops at Paradise Park, Manoa Valley  
 Time: 5:30 p.m. - Social Time  
 6:30 p.m. - Dinner  
 7:00 p.m. - Program  
 8:45 p.m. - Adjourn  
 Menu: Multi-entree buffet  
 Cost: \$25.00 for ASCE Hawaii Section members  
 \$28.00 for Non-ASCE Hawaii Section members and Guests  
 \$11.00 for UH Manoa Student Chapter members

Please make checks payable to ASCE-Hawaii Section and mail to Lara Karamatsu, ASCE Hawaii Section Treasurer, Parsons Brinckerhoff, Pauahi Tower, 1003 Bishop Street, Suite 1000, Honolulu, Hawaii 96813. Please send reservations for the dinner meeting to Lara Karamatsu by Monday, November 18, 2013, by phone at 808-694-3213 or email at [karamatsu@pbworld.com](mailto:karamatsu@pbworld.com). No shows will be billed.

### EXECUTIVE COMMITTEE MEETING

Last held: October 2, 2013  
 Next meeting: November 6, 2013

### CONTINUING EDUCATION

ASCE National holds more than 275 seminars and computer workshops each year on a wide variety of technical, management, and regulatory topics. These seminars are held in more than 45 cities across the U.S. In addition, ASCE offers customized on-site training and many distance learning programs, including live interactive web/teleconference seminars, online courses and courses on CD, videotape, and audiotape. Please visit <http://ascehawaii.org> for complete details.

### ASCE HAWAII SECTION STUDENT SCHOLARSHIPS

Please help us increase our scholarship endowment so that we can recognize deserving students. We continue to accept tax-deductible donations with the goal of increasing the annual scholarships. Make your check payable to 'ASCE Hawaii Section' and mail to: ASCE Scholarship Committee, P.O. Box 917, Honolulu, HI 96808. If you have any questions,

please contact Ian Arakaki at 596-17790, or [ian@tlcghawaii.com](mailto:ian@tlcghawaii.com).

### ASCE JOB LISTINGS

The following job listings are currently posted on the ASCE Hawaii Section website:

- Civil Engineer VI – City and County of Honolulu
- Civil Engineer V (Geotechnical) City and County of Honolulu
- Civil Engineer IV – City and County of Honolulu
- Civil Engineer V – City and County of Honolulu
- Mechanical Engineer IV – City and County of Honolulu
- Project Engineer – Hawaii Public Housing Authority
- Building Engineer IV – Hawaii Public Housing Authority
- Senior Geotechnical Engineer/Manager – Parsons Brinckerhoff
- Senior Civil Engineer – Oceanit Laboratories, Inc.

Professional Engineer – Sam O. Hirota, Inc

For further information on these job listings or to find out how you can post job openings in your company on this website, please visit <http://www.ascehawaii.org/jobs.htm>.



### 2012-2013 YMF Officers

President -Kurt Nagamine  
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 Past President- Lara Karamatsu  
[lkaramatsu@ascehawaiiyfmf.org](mailto:lkaramatsu@ascehawaiiyfmf.org)

### YMF General Meeting

The next YMF general meeting is scheduled for Thursday, November 7th, 6:00 p.m. at Fort Shafter Bowling Center. If you are interested in attending to find out what the YMF is all about, contact YMF at [yfmf.hawaii@gmail.com](mailto:yfmf.hawaii@gmail.com).

### KNOW YOUR ASCE HISTORY

by C.S. Papacostas

#### An Ornament to the City

Have you ever wondered about the story behind the unusual building (pictured below) at the mauka-ewa corner of Fort and Hotel Streets in downtown Honolulu?

It is none other than the Pantheon Building, clad in a peculiar yellow facade that was added in the 1960s over the remodeled older Beaux Arts structure. As I related last month (October 2013), the construction of the two-story "brick and handsomely finished" commercial and office building suffered serious delays about which Pantheon Company stockholder J. M. Dowsett said: "The delay in this improvement has not been our fault. First, there was the hitch about the Silva claim to lease rights. This was gotten out of the way, and then other matters came up [Hawaiian Star, HS,

3/8/1910]."

Silva was the lessor of the corner lot and the Pantheon Saloon that stood there. After the controlled incineration of the saloon structure in February 1900 to arrest the spread of the bubonic plague, Silva reopened the establishment in Nu'uuanu. The "other matters" in Dowsett's quote included the development of an aborted entertainment complex called The Amphitheater which was planned to have an entrance via a wide arcade through the first floor of the Pantheon. A "request for privileges on the streets" by architect Kerr was required [HS, 4/3/1909] as was the securing of compliance with Honolulu's first fire ordinance that provided for the expansion of the plumber inspector's duties to include building inspection [Hawaiian Gazette, HG, 3/11/1910].

The heightened concern about fire protection is understandable in view of the extensive area that was burned down by the out-of-control Great Honolulu Chinatown Fire of 1900. Consistently, the design was such that "there will not be a stick of wood in the block... door and window sashes being of metal, similar to those in the Japanese bank building [Pacific Commercial Advertiser, 8/3/1910]." The bank mentioned was Yokohama Shokin Ginko (known in English as Yokohama Specie Bank) on Merchant Street, also designed by H. L. Kerr and completed in 1908.

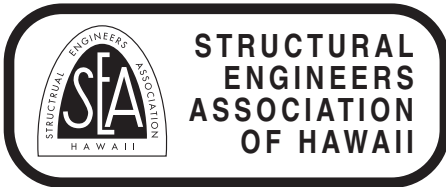
The construction company of Lucas Brothers was selected to build the new two-story Pantheon block at a cost of \$80,000 and the building's design included many contemporary features. The framework was "entirely of steel and the walls and floors of reinforced concrete, placing the building in what [was] known as Class A [HG, 7/20/1909]." Other features included a basement lit by sidewalk glass prisms and hydraulic elevators. The flexible wall partitions of "plaster spread over steel laths" provided noise insulation and could be moved to rearrange spaces to accommodate the varying needs of the occupants. The fronts at the ground floor were mostly of plate glass.

Blom's Dry Goods store closed the lease for the spaces at the corner [Evening Bulletin, 9/30/1911] and held a grand opening on December 2. About the location of Blom's store, the Hawaiian Gazette said, "this is considered by retail business men to be one of the best corners in Honolulu; three lines of cars pass by every five minutes during the day," the "cars" being the electric streetcars of the Honolulu Rapid Transit and Land (HRT&L) Company.

Contractor Lucas called it "an ornament to the city" and, in its retrospect for 1911, Thrum's Hawaiian Annual described it as "the principal

*continued on page 7*





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Web Page URL <http://www.seaoh.org>

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#### Section Meeting Highlights

On September 25, ITE held their monthly meeting and the City & County's Fasi Municipal Building. President Packard introduced, member Wes Frysztacki, of Weslin Consulting Services, Inc., who spoke about the Waikiki Regional Circulator Study. Wes explained that the study was done for the City & County of Honolulu's Department of Transportation Services (DTS), in which former DTS Director, member Wayne Yoshioka, allocated funds through the Oahu Metropolitan Planning Organization. Additionally, member Hong Li, conducted the traffic study in the area, and current DTS Deputy Director, member Mark Garrity, was in attendance and able to give an update on the projects current status. Wes talked about the top 8 things that can be done to improve circulation in Waikiki, including: having direct services and less stops; decreasing stop time, by changing the type of fare collection and having dedicated transit stops; improving way finding; and promoting livable communities. The meeting continued with discussion open to all in attendance, and proved to be a collaborative gathering of transportation professionals.

#### HIGHLIGHTS OF BOD MEETING September 4 and SEAHO Convention in October

##### Committee Reports: SEAHO Convention, October 4-6 2013

The 2013 annual SEAHO Convention was held in conjunction with CCPI's annual convention at the Hapuna Prince Hotel on the Big Island in early October. There were over a hundred total attendees and almost twenty exhibitors present to exchange new ideas and rekindle old relationships. The convention was very successful and a good time was had by all. Several executive officers from ACI attended the convention and volunteered to present information on new developments occurring within ACI. Not to be outdone, UH Professor Ian Robertson provided a "world-class" presentation on recent UH research subjects and the development of upcoming ASCE tsunami design requirements.

The Western Council of Structural Engineers Associations held their annual round-up meeting on the Big Island as well, just prior to the start of the Convention. SEAHO president Brian Kung, vice president Ethan Okuna, and Gary Chock represented the organization at the round-up. The meeting ended with Gary Chock's presentation overview of the development of the ASCE tsunami design publication.

Many thanks to all the exhibitors, attendees, speakers, volunteers, and donators who helped organize and make this year's convention a success. Mahalo!

#### New Member Applications:

Membership applications from Ryan Martinson from Kai Hawaii, and Kevin Lau from KSF, Inc., for the grade of Allied Member were received and are open for comments from the membership.

#### SEAHO Golf Scholarship Tournament:

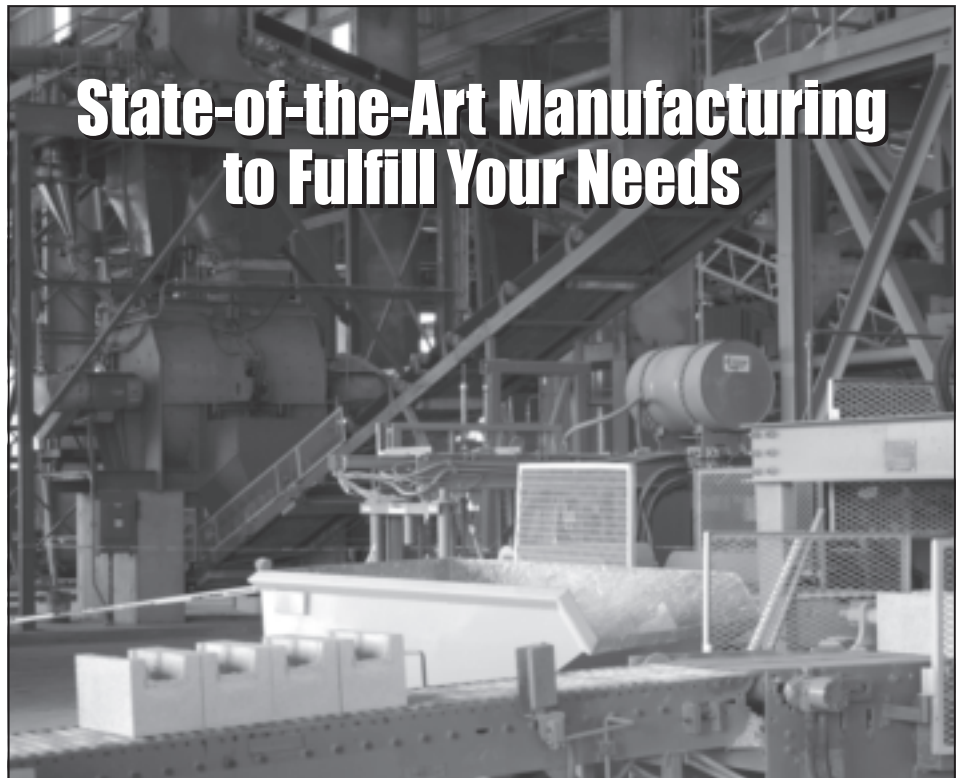
The 2013 SEAHO Scholarship Golf Tournament was held at Waialeale Country Club on September 6th, 2013. Twenty eight golfers enjoyed a sun filled day of camaraderie and team competition as each two-some battled in scramble format. The team of Ross Tanaka and Fred Erskine took home the top prize for their gross 70 / net 62.8.

Since there were no applicants for this inaugural tournament, SEAHO will carry over the \$800 raised toward next year's tournament. We would like to thank our sponsors: Rod Haraga of MIH, Dennis Sakamoto of Tileco and Mike Kasamoto. We would like to thank everyone that participated and look forward to next year's golf tournament.

#### Missing Members:

Please contact Membership Chairperson, Jiabao Chen (Ph: 791-3945 or email [jchen@kaihawaii.com](mailto:jchen@kaihawaii.com)), or any of the SEAHO Officers if you have a new mailing and/or email address.

The next SEAHO Board of Directors and Officers meeting will be held on Wednesday, November 6, 2013. Contact 2013 SEAHO President Brian Kung (488-7579, [brian@mkellc.com](mailto:brian@mkellc.com)) for more information.



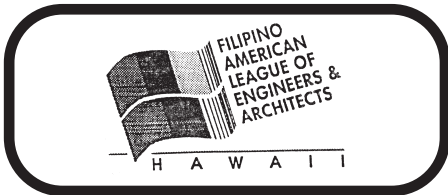
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**HIGHLIGHTS:** VOLUNTEERS NEEDED – Earlier this Month (October) President Jeffrey Cudiamat sent this important message to the FALEA Board: “The FILCOM Center needs volunteers to help beautify the grounds for their annual fundraising event on November 9. They want volunteer groups to come on November 2nd to clean up and do various upkeep; and they want FALEA to spearhead this affair, sending volunteers and coordinating with other groups to assist. Historically, FALEA has been instrumental in the design and construction of the FILCOM Center. FALEA members continue to contribute benevolently to this non-profit cultural center.” So far, responses from Board Members have been positive. Jeffrey will form a group of volunteers that are willing to help, and he will also meet with FILCOM President Rose Churma to let her know of our intentions. Contact Jeoff if you have any questions.

**REMINDERS** – Christmas caroling, Scholarship Applications, and our grand finale event of the year, d’Christmas Party, are just around d’corner! Have a great and safe Halloween Faleans!



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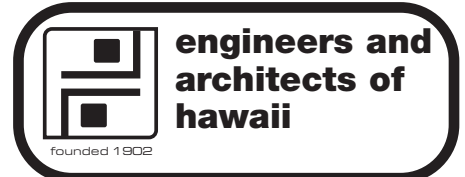
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**Hawaiian Electric charitable contributions support STEM programs**

Hawaiian Electric Company has contributed \$44,000 to support high school robotic programs, tournaments and STEM events, including:

- Astronaut Lacy Veach Day of Discovery, Oct. 26 at Punahou School
- Hawai'i FIRST Lego League State Championship, Dec. 7 at Neal Blaisdell Center
- 2013 Inaugural Hawaii State Vex Championship, Dec. 20-21 at Honolulu Community College

To date in 2013, Hawaiian Electric has contributed more than \$165,000 to support STEM (science, technology, engineering and mathematics) education initiatives in the state including math and science bowls, engineering and science fairs, education summits, robotic programs, and STEM projects and events. Company employees also volunteer countless hours to provide student mentoring as well as staffing at robotic tournaments.



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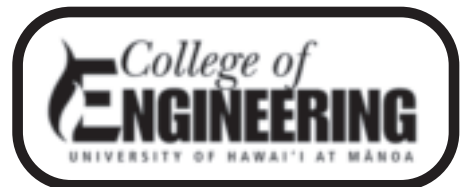
EAH's new meeting location is at the Mango Grill in the Topa Tower (Ewa tower on Fort Street ) in the Topa Financial Center (Old AMFAC Bldg). Parking is available (enter from Nimitz). The WEB site has been updated to provide directions and a Map. If you have questions please call Sam Gillie (543-4739).

Meetings are held every Friday (except Holidays).

Meetings start at NOON and have ended PROMPTLY at 1:00 pm for 70 Years.

Program schedule may be adjusted, call Sam Gillie to confirm speaker 543-4739 Fax 203-1335.

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**Award Winners, continued from page 1**

stem wall and heel-less footing supported by permanent ground anchors. The amount of excavation, wall construction duration, and seismic load design were significantly reduced by the ground anchor system as compared to conventional cantilever walls.

A geotextile fabric retaining wall system utilizing on-site graded and crushed material with a shotcrete facing increased cost effectiveness of fill walls. These geotextile fabric walls are the largest permanent fabric walls in Hawaii.

**Protection of and reducing impacts to natural resources**

Another project challenge was the discovery of significant historical agricultural terraces in direct conflict with the highway. The design halted in 2007 as archaeologists identified almost 30 acres of terraces and a complex auwai irrigation system demonstrating the technical competence of pre-machinery era Hawaiian cultivation. The planners embarked on a new Section 106 consultation process, while engineers evaluated multiple alternate highway alignments. Ultimately, the environmental process resulted with a new alignment by turning the highway and completely avoiding the resource.

The site grading for the project consisting of approximately 420,000 cubic yards of excavation and 240,000 cubic yards of embankment demonstrates an excellent example of material reuse and sustainability. About 70% of the excavation encountered hard basalt rock formation, generating large amounts of cobbles and boulders. The large excess of excavated material was broken to 3' dimensions and re-used on-site as general boulder fill in roadway embankments up to 38' high. An on-site crusher processed excavated material for use as reinforced fill for geotextile walls, utility trench backfill, and general roadway fill (4" minus). Remaining excavated material (175,000 CY) was crushed, stockpiled on-site, and utilized by a subsequent phase of the project.

**Contributions to the well-being of people and communities**

The project immediately and significantly improved traffic for the West Maui community by dispersing traffic volume away from a known choke point along the existing highway. Traffic associated with AM and PM school hours is distributed between two intersections instead of one, alleviating backup along the highway.

The realignment of the bypass highway also protected historical features. Section 106 con-

sultation resulted in providing access for Hawaiian descendants from the highway to uphill cultural destinations.

**Beneficial effects of the project, including aesthetic value**

Lahainaluna Bridge is the most visible bridge from the new highway. Rather than presenting a mundane I-girder bridge, the project team created a slender superstructure incorporating parabolic girders, providing a "Gateway" to West Maui.

Kahoma Bridge was designed to minimize the bridge's visual impact on Lahaina's scenic backdrop and the highway profile was designed to preserve spectacular panoramic mountain and ocean views. High strength and high performance materials optimized structural components forming its low profile, sweeping inverted arching contour. For the Lahaina Bypass project, the design aesthetics were maximized, being realized in both form and function.

**2013 Best Medium Project**

**Project Name:** Emergency Repairs for Karsten Thot (Kaukonahua) Bridge

**Project Owner:** State of Hawaii, Department of Transportation

**Submitted By:** MKE Associates LLC

**2013 Best Transportation Project**

**Project Name:** Ane Keohokalole Highway, Phase 1 and 1A, and Palani Road Improvements

**Project Owner:** County of Hawaii, Department of Public Works

**Submitted By:** Belt Collins Hawaii LLC

**2013 Best Water/Wastewater/Environmental Project**

**Project Name:** Pearl City Force Main Slip Lining Repair

**Project Owner:** City and County of Honolulu, Department of Design and Construction

**Submitted By:** The Limtiaco Consulting Group

**2013 Best Green Project**

**Project Name:** Kawainui Marsh Restoration Project

**Project Owner:** State of Hawaii, Department of Land and Natural Resources

**Submitted By:** Oceanit

**2013 Best Special Project**

**Project Name:** Emergency Earthquake Repairs at Various Locations along Hawaii Belt Road

**Project Owner:** State of Hawaii, Department of Transportation

**Submitted By:** AECOM

**ASCE History, continued from page 4**

structure of the year."

Do you know of a civil engineering accomplishment or event that your fellow ASCE members might find interesting? Please send a brief description to C.S. Papacostas (fax 956-5014, email [msp@wiliki.eng.hawaii.edu](mailto:msp@wiliki.eng.hawaii.edu)). Previous articles in the series may be found at the Section's web site. Just point your browser to <http://www.ascehawaii.org>.



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