

## ASME-HI 2006 OUTSTANDING PROJECT AWARD

When you drive past the Campbell Industrial Park exit on the H-1, you cannot help but notice the tall building standing alone on the makai side of the freeway. This building houses the Honolulu Advertiser's Kapolei production and distribution facility that services all Hawaii. Put into service in August 2004, the building houses a world-class state-of-the-art publishing and handling machinery that you can be sure involves the design principles of mechanical engineering. Even though the Honolulu Advertiser is celebrating its 150th Anniversary this year servicing the people of Hawaii, it is by outstanding achievement and coincidence that the American Society of Mechanical Engineers (ASME) – Hawaii Section's 2006 Outstanding Project Award is presented to the Advertiser's Kapolei Publishing Facility.

### The Award

In its eleventh year, this award recognizes Hawaii mechanical engineering related projects of significance based on design concept, economic feasibility, social benefits, and environmental preservation. Members and guests of ASME-HI saw first-hand on May 11, 2005 the Advertiser's production and distribution facility in Kapolei including their state-of-the-art MAN Roland offset printing press. This tour helped validate the selection for this award.

The facility is in the right location, in the master-planned City of Kapolei, adjacent to Kalaeloa Barbers Point Harbor, and with direct access to providers of trans-Pacific fiber optics cables. It uses an energy-efficient design following HECO recommendations in purchasing energy-efficient equipment. The following is a brief description of the facility. Most of this description is taken from the August 22, 2004 Commemorative Edition of The Honolulu Advertiser.

### From Start to Finish

From the massive on-site warehouse, the rolls of paper each weighing as much as 2,500 pounds are picked up by the Aurosys paper handling system using a robotic system to transport and place the rolls at the bottom of the press.

The headliner is the German manufactured MAN Roland REGIOMAN presses which deliver more full-color photos and higher print quality than its predecessor presses. The press line consists of two presses of six printing towers each, for a total of 12 towers located in the tall part of the building. Each tower has seven levels from the bottom where the rolls of

*(continued on page 9)*



At the bottom of the front MAN Roland press, L-R: Kevin Dang, Tony Taparra, Jim Carberry, Dennis Morgan, Ed Chang, Todd Hirayasu, Jackson Cheng, Jennifer Dang, and Lanner Fayal.

## WEST POINT BRIDGE DESIGN COMPETITION-HAWAII CONTEST

By Paulette Ujimori, ASCE Hawaii Section YMF Past President and 2006 West Point Bridge Design Competition Chair

The American Society of Civil Engineers Hawaii Section Younger Member Forum (ASCE YMF) together with the ASCE Hawaii Section sponsored the first West Point Bridge Design Competition (WPBDC) in Hawaii this year. The WPBDC is an internet based bridge design competition that was created by the West Point Military Academy and ASCE National in 2001 as part of ASCE's 150th Anniversary celebration. The contest is designed to promote math, science and engineering to students in grades seven through twelve. Students download the WPBDC software to design a bridge on their computer at home or at school. Students then work alone or in teams of two to design a bridge that can meet a load test and be the most economical. When the student finishes their initial bridge design, the WPBDC software puts the bridge design through a load test. If the design passes the load test, students can either upload the bridge design to the WPBDC website or optimize the bridge design to bring the bridge cost down. When the student finally uploads the design to the WPBDC website, the bridge is validated and judged based on the construction cost estimate for the bridge.

There are no fees to enter the contest and students may enter as many bridge designs as they like. The contest is broken up into a qualifying round, a semi-final round and a final round. The qualifying round is also the round used for local competition. During the qualifying round, students are allowed to collaborate with their teachers and engineers in the community to optimize their bridge designs. Teams with the top designs from within different regions of the country are selected to continue to the semi-final round. Winners from the semi-final round go to the final round of competition held on May 16, 2006 at the West Point Military Academy in New York to compete for \$10,000 in scholarship monies. During the semi-final and final rounds, students must work on their bridge designs alone.

This year as part of an outreach activity for the ASCE Hawaii Section YMF and ASCE Hawaii Section, it was decided to start a local competition in Hawaii that was opened up to all students attending public high schools on the island of Oahu. Four schools responded with interest to participate, Farrington High School, McKinley High School, Roosevelt

*(continued on page 9)*



School winners (Left to Right): Talin Sokugawa (Roosevelt High School), Tyrus Lum (Roosevelt High School), Benjie Batangan (Farrington High School), Nguyen Ngo (Farrington High School), Jahn Paik (McKinley High School), and Johnathan Odo (McKinley High School)



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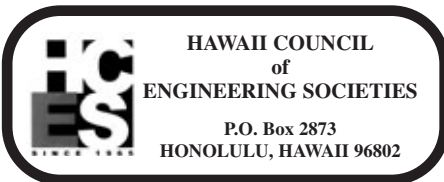
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Additions and/or corrections to the Wiliki mailing list should indicate the proper society, institution or association. Corrections to email addresses should be submitted to your society coordinator.

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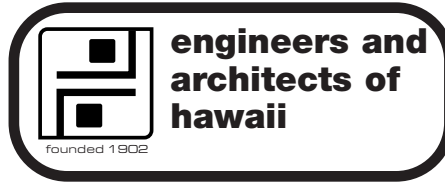
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**June Meetings**

**Program Chair:** Lee Mansfield

**Meeting Schedule:**

**June 2 TBA**

**June 9 No Meeting Kamehameha Day**

**June 16 TBA**

**June 23 TBA**

**June 30 Annual EAH Meeting, Officer Elections, Annual Members Picture**

Meetings held every Friday (except Holidays) at YWCA room 205 on Richards Street downtown. Meetings start at NOON and end promptly at 1:00 pm. Parking at Alii Place off Alakea Street for \$1.50 per hour.

Buffet Lunch: Members-\$8.00, Guests-\$9.00, BYO lunches welcome. If not having the Buffet Lunch a donation is requested: Members \$1, Guests \$2; to help cover room rental costs.

Program schedule may be adjusted. Call Secretary Sam Gillie at 543-4739 (543-4804 FAX) to confirm speaker. Anyone wanting a weekly email meeting notice please send your email address to Sam Gillie at [sgillie@hei.com](mailto:sgillie@hei.com).

The **Annual EAH Banquet** was held on **May 6th** at the Oahu Country Club. **Ralph Dobson** and **Sam Gillie** were recognized with Special Appreciation Awards from the Association for their service as Treasurer and Secretary

**SAD Note: RIJO HORI**, 88, of Honolulu, died April 13, 2006. Rijo was born in Honolulu and retired from city Board of Water Supply. He is survived by his wife, formally Alice Tamagawa; son, Dr. Arthur Hori; two grandchildren; brother, Sam Inaba. Service was on Saturday at Japanese Seventh-day Adventist Church, Manoa. Arrangements were by Nuuanu Memorial Park & Mortuary. Rijo attended Kaahumanu Elementary and Washington Middle schools and McKinley High School, 1935. He graduated from the University of Hawaii, School of Engineering Class of 1939, Phi Kappa Phi. It was hard to find jobs after getting out of college so he took a job as an engineering aid with the BWS. His first job was driving his boss around Oahu to take water samples. He also hiked into the valleys and mountains to survey BWS well sites. After December 7th 1941, he was assigned to camp out by BWS reservoirs to guard Oahu's water supply from any Japanese saboteurs. He retired from BWS Water Resources Division in 1976. (Information provided by **Richard Lum** EAH Past President {1981}). Rijo hadn't attended EAH in recent years, but he was an Honorary EAH member and joined EAH in 1949. **Bill Bonnet**, EAH Past President(1979), "I remember Rijo well. Always a smile and a

kind word. Gentle demeanor and positive approach to life and all he shared it with. Good man."

**Meeting Notes for April & May 2006:**

The sound recording of EAH presentations are posted to the EAH's WEB site.

**Meeting Notes for April 7th, 2006:**

**Bill Warren** reported on the Engineering and Science Fair on April 5th. **EAH** Awards were given to Tanya A. Lewis, Hawaii Preparatory Academy (Senior Research), Title "Radio Controlled Robotic Assistant for the Elderly/Disabled"; Juno J. Kim - Highlands Intermediate (Junior Research), Title "Performance of the Ranque-Hilsch Vortex Tube Against Conventional Microwaves and Refrigerators"; Ryan T. Ault - Trinity Lutheran School (Junior Display) Title: "Homemade Hovercraft". Each received a \$75 Savings Bond from EAH.

**Our thanks to Bill for again help out at the Science Fair for EAH.**

**Speaker: Alan Lloyd**

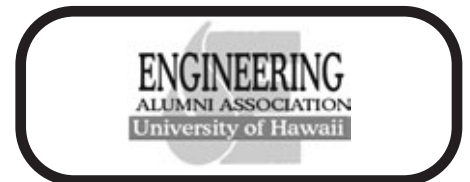
**Subject: "Update on Marine Propulsion System"**

**Alan** stepped in at the last minute, when the schedule speaker was not able to attend. Alan, true to form off the cuff, briefed us with a brief history of marine propulsion systems, starting with the triple expansion engines used in the World War I battleships, then the use of the first steam turbine electric generator, then the steam turbines and mechanical drives, onto the nuclear age and the latest gas turbine propulsion systems. As usual Alan took a technical engineering talk and presented it in understandable and interesting terms.

**Meeting Notes for April 21st, 2006:**

**Speaker: Frank Hays, Pacific Director, National Parks Service** **Subject: "The National Parks Service in the Pacific"**. Frank talked about each of the 11 parks the NPS administers in the Pacific Region, **Hawaii Volcanoes National Park; Ala Kahakai National Historic Trail; Kaloko-Honokohau National Historical Park; Puukohola Heiau National Historic Site** all on Hawaii; **Haleakala National Park; Kalaupapa National Historical Park; National Park of American Samoa; War in the Pacific National**

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**2006 EAAUH Golf Tournament:** Planning has begun for the annual scholarship golf tournament to be held on July 28, 2006 at the Pearl Country Club. If you would like to help, please contact Matt Fujioka ([mkf@akinaka.com](mailto:mkf@akinaka.com)) or Reid Ikemori ([rki@akinaka.com](mailto:rki@akinaka.com)) for more information.



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#### Legislative Wrap-up

Janice Marsters, ACECH President

This was a disappointing year in the State Legislature for Hawaii's design professionals. ACECH, in conjunction with its partner organizations (AIA, ASCE, APWA, CHEAP, SEA0H), promoted two bills and provided testimony on other bills that would affect our business interests. However, despite a lot of effort on our part, and strong support from Representative Michael Magaoy and others in the House, we were unsuccessful in getting our bills through.

#### Defense of the State – Design Professionals Beware!

If you enter into contracts with the State, and the contract's indemnification clause includes a requirement for you to "defend" the State, you are placing your firm's and your personal financial security at risk. Given the frequency of the State tendering defense claims, it is not a matter of "if" you will be involved in one of these cases, but a matter of "when". There is no statute of limitations. Firms have been issued defense claims for projects 10 – 20 years old. If you are not negligent, these claims to defend the State are not covered by your professional liability insurance and you will have to pay for the State's defense out of your own pocket.

And the situation is getting worse. We have recent reports that the State is expanding their requests for defense to cases involving contractor delay claims. So if you thought that the types of projects you do are unlikely to be the subject of a claim, the State's move to have us defend them against contractor delay claims puts all of us at further risk.

The situation is further exacerbated by the State's moves, via legislation, to limit their own liability. The State is now exempt from joint and several liability, and introduced legislature this year to further limit the liability of State employees. In tendering defense claims, Attorney General does not appear to consider that firms are following State codes in their design, and that construction work is approved by State inspectors.

Again this year, we introduced legislation that would prohibit the State from requiring design professionals to defend the State. The bill also would have provided relief for previous contracts, by making the requirement to defend void in previous contracts. We were also seeking to have the word "negligent" included in the indemnification clause, to limit design professional liability to only our negligent acts (rather than all our acts, etc., as currently required by the clause). We were successful in getting the bill passed through to the

joint House/Senate Conference Committee but the Attorney General threatened to have the bill vetoed again this year, so we had our section of the bill removed, knowing that it would be difficult to work with the legislature again next year if the bill was vetoed again.

It is difficult to understand why the Attorney General is so unyielding on this issue for State contracts. Neither the Federal Government nor the City and County of Honolulu require design professionals to defend them. The Attorney General has opined that the State should not be the "deep pockets" for claims on projects involving design professionals, and stated to the House Committee on Finance that requiring design professionals to defend the State is a business decision. Of course, we believe that the State and its citizens derive much more benefit from design projects than the design professionals, and that we should only be required to pay for damages resulting from our negligence.

Based on letters he submitted to the Legislative Conference Committee, the Attorney General also appears to have the ill-considered notion that protections for the State that are readily available from general contractors can somehow be imposed on the design team. This comparison to the liability of contractors is troubling, as the law looks at the two entities completely differently, with contractors required to guarantee their work and design professionals held responsible only for those damages caused by their failure to exercise reasonable professional care.

We know that a number of ACECH member firms are refusing to sign contracts with the State if an agency will not remove the "defend" term. The good news is that firms have been successful in having the "defend" term removed by some agencies. For example, DAGS Comptroller, Russ Saito, has removed the term from DAGS contracts, as he wants to have the maximum number of firms vying for projects.

While anti-trust laws prevent us from asking firms to decline State projects, we are doing our best to let you know of your risks so that you can make informed decisions. We also encourage you to consider the attitude of the administration on this issue in the upcoming elections.

We will continue to work toward a legislative prohibition of defense claims that will also apply to existing contracts. We plan to mount a stronger campaign so that the bill, if vetoed, has stronger support for a veto override. To that end, ACECH is planning the following actions over the next few months:

- Hire a lobbyist to assist us in getting the message to legislators.
- Work with the construction industry to garner union support (contractors are concerned about this issue as they see it potentially slow-

ing down work put out by the State).

- Meet with the Governor to describe how this policy is detrimental to design professionals and the State, and how it contributes further to the reputation that the State is not business-friendly.
- Set up a database of cases where firms have been requested to defend the State and the circumstances, as well as cases where firms have been successful in removing the "defend" requirement from contracts.


#### Certificate of Merit

This bill would have provided tort relief for design professionals by reinstating some measure of protection from unmerited lawsuits lost when the Design Conciliation Panel (DCP) was deleted as part of the Right to Repair bill (passed in 2004). The former DCP, although limited in its effectiveness because of too many exceptions, included a requirement for an informal hearing before the Panel and the execution of a Certificate of Consultation by a design professional. The bill was passed out of the House and the Senate Committee on Commerce, Consumer Protection, and Housing, but stalled in the Senate Committee on Judiciary. The Chair of that committee, Senator Hanabusa, would not hear the bill but told us to come back in the fall and they would help us craft a bill that would be passed by the Senate. The failure of this bill seems the result of politics in the Senate rather than of the merits of the bill, and we'll pursue this legislation again next year.

#### Procurement Bills

ACECH testified against several bills that exempted various State agencies from the procurement code, including qualifications-based

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- ✦ 2-3 years strong professional/investigative/managerial work experience desired
- ✦ 23-36 years of age
- ✦ Drug policy/drug testing mandatory
- ✦ Entry-level salary (GS-10) is \$50,383 Academy training; \$60,666 - \$68,632 upon graduation, including locality/availability pay



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### JUNE DINNER MEETING

Program: **Jon Gustafson, Project Manager, and Anthony Skuk, Project Engineer, from Traylor Pacific**

They will discuss the construction of the Kaunalapau Harbor Breakwater Repair Project. Traylor Bros., dba Traylor Pacific was awarded the Kaunalapau Breakwater Repair Project, on the island of Lanai, in August 2004. The 85 year old, once, 400' breakwater was severely damaged by two hurricanes, Iniki and Iwa, and is now approx. 200' long. It provides protection to Lanai's only commercial harbor but since its damage, the harbor is susceptible to storms and surges making the harbor, at times, unsafe to bring freight and fuel to the citizens of Lanai. The project involves reshaping the breakwater using existing rock, adding 100' to the length of the breakwater, placing 32,000 tons of 3 to 5 ton armor rock, installing 760 ea, 35 ton Core-Locs and placing 2,500 cy of concrete.

Date: **Thursday, June 15, 2006**

Location: Treetops at Paradise Park, Manoa Valley

Time: 5:30 p.m. - Social Time  
6:30 p.m. - Dinner  
7:30 p.m. - Program  
9:00 p.m. - Adjourn

Menu: Multi-entree buffet

Cost: \$22.00 for Hawaii Section members  
\$25.00 for non-section members and guests  
\$11.00 for University of Hawaii at Manoa Student Chapter members

Please make checks payable to ASCE-Hawaii Section and mail to Mike Hunnemann, ASCE Treasurer, c/o KAI Hawaii, 31 N. Pauahi Street, 2nd Floor, Honolulu, Hawaii, 96813, postmarked by Monday, June 12, 2006. Reservations for the dinner meeting to Mike Hunnemann by Monday, June 12, 2006, by phone at 791-3980, fax at 533-2686 or email at [mhunnemann@kaihawaii.com](mailto:mhunnemann@kaihawaii.com).

### EXECUTIVE COMMITTEE MEETING

June 12, 2006

### HAWAII SECTION OUTSTANDING CIVIL ENGINEERING ACHIEVEMENT (OCEA) AWARD NOMINATIONS FOR ASCE HAWAII SECTION OCEA AWARD

The ASCE Hawaii Section annually recognizes an exemplary civil engineering project as the Outstanding Civil Engineering Achievement (OCEA). This prestigious award recognizes the project that best illustrates superior civil engineering skills and represents a significant contribution to civil engineering progress and

society.

The 2006 Hawaii Section OCEA Award winner will be announced and the award presented to the project owner at the Hawaii Section Annual Banquet in October. OCEA Awards of Merit may also be awarded. The Hawaii Section OCEA Award winner will be nominated for the 2007 ASCE National OCEA Award to be presented next spring.

Nominations for the 2006 Hawaii Section OCEA Award may be submitted by the individual firms or agencies involved in the project. The project must be located either in the State of Hawaii or in a location that is not under the jurisdiction of another ASCE Section. The level of project completion required to be eligible for the OCEA Award depends on the type of project.

Please download additional information located at the following site: <http://www.asce-hawaii.org/awards.html#oce>. Deadline for nominations is Friday, September 15, 2006. Please submit six (6) copies of each nomination to Awards Committee Chair Benjamin Rasa of Belt Collins Hawaii, 2153 North King Street, Honolulu, Hawaii 96819. If you have any questions, please e-mail Ben at [brasa@beltcollins.com](mailto:brasa@beltcollins.com) or call 521-5361.

### ASCE HAWAII SECTION STUDENT SCHOLARSHIPS

Please help us increase our scholarship endowment so that we can recognize those 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 Keith Niiya at 533-3646, or [kniya@atahawaii.com](mailto:kniya@atahawaii.com).

### ASCE JOB LISTINGS

The following employers have openings they would like to fill:

Austin Tsutsumi & Associates, Inc. (Civil Engineer - Honolulu and Wailuku, Land Surveyor - Honolulu)

Brown and Caldwell (Civil or Mechanical Engineer - Honolulu, Project Manager - Maui)

Engineering Solutions, Inc. (Civil/Sanitary Engineers)

Fewell Geotechnical Engineering (Geotechnical Engineer - Honolulu)

Fukunaga & Associates (Civil and Civil/Environmental Engineers - Honolulu)

Towill, Shigeoka & Associates, Inc. (Licensed Professional Land Surveyor, Computer/Draftsperson (CAD), experienced Party Chiefs and Rodpersons for Oahu and Kona)

Warren S. Unemori Engineering (Project Engineer, Civil Engineer, & CAD Operator - Wailuku)

Richard Brady & Associates (Engineering & Project Management candidates in all disciplines)

For more information on these job listings, please visit the ASCE Hawaii Section website at <http://www.ascehawaii.org/jobs/jobs.html>.

### MEMBERSHIP DRIVE

ASCE counts on our members to help us grow every year by actively participating in the Member-Get-A-Member Drive. All you have to do to be eligible to win is refer a colleague, and you will be entered into quarterly drawings. Prizes range from iPods, to gift cards, to cash. This is a great time to help out your colleagues while also helping ASCE find new members. Take a minute to think about the people in your

professional life who could benefit from membership. Visit [www.ASCEDrive.org](http://www.ASCEDrive.org) to refer them and you could be a winner in the next drawing! Please contact our membership chair, Lori Nishida, at 533-3646 or [lnishida@atahawaii.com](mailto:lnishida@atahawaii.com) for further information.

### ASCE HAWAII SECTION'S WEBMAIL LIST - SIGN-UP AND/OR UPDATE

If you would like to receive e-mail notices of upcoming meetings or activities, please sign-up for the ASCE Hawaii Section's webmail list at <http://www.ascehawaii.org/emailform.html>. You may also update your email address on that same webpage. Please consider helping the ASCE Hawaii Section reduce operating costs by receiving your monthly issue of the Wiliki via e-mail. If you have any questions, please contact Webmaster Joanna Seto at 586-4329 or [jseto@ascehawaii.org](mailto:jseto@ascehawaii.org).



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Past Pres	Paulette Ujimori <a href="mailto:pujimori@ascehawaii.org">pujimori@ascehawaii.org</a>	257-6920 ext. 231

### Next YMF General Meeting

The next YMF general meeting is scheduled for Tuesday, July 11, 6:00 PM, at E&O Trading Company Restaurant at Ward Centre, 591-9555. The June 6 general meeting has been replaced with a technical presentation on the Honolulu High-Capacity Corridor Project. If you are interested in attending to find out what the YMF is all about, please contact Florence Ching at 227-4704.

### The Honolulu High-Capacity Transit Corridor Project - A YMF Sponsored Technical Presentation

Please join us as JoAnne Wong, Community Planning & Engineering, Inc., and Joy Wasai, Parsons Brinckerhoff Quade & Douglas, Inc., discuss how the Honolulu High-Capacity Transit Corridor Project is working towards solutions to the highly congested east-west corridor between Kapolei and the University of Hawaii at Manoa. With over 60% of Oahu's population residing in this area and projections for population growth faster than the rest of Oahu, a wide range of options are being evaluated to improve travel times and options.

The Honolulu High-Capacity Transit Corridor Project is the largest public works effort undertaken by the City and County of Honolulu. It is being funded by the largest GET increase ever implemented in the State of Hawaii. As Hawaii's next generation of engineers, here's a chance for us to learn more and give our feedback.

The presentation will be held on Tuesday, June 6, from 5:45 PM - 6:15 PM at 1100 Alakea Street (Alakea Corporate Tower), Mezzanine

(continued on page 7)

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*steeldon@earthlink.net*

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 Ad Hoc Field Problems Committee: Shane Arnold

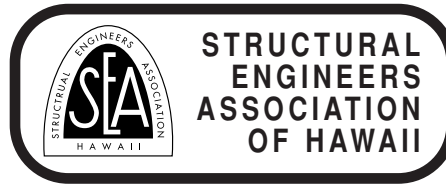
**LGSEA's Young Engineers' Program**

True to its commitment to improve quality of education for young engineers, LGSEA has launched its Young Engineers' Program aimed at introducing engineers to various cold-formed steel framing details. In April, a group of eight engineering graduate students toured the Dietrich Metal Framing Kapolei facility. They received copies of product literature and a brief overview of the cold-formed steel industry and its place in the Hawaii market. They also observed the manufacturing lines in full operation. Recently, about seven students had a field visit at the Radford Terrace job site.

**LGSEA Continual Support to Engineering Students**

LGSEA was acknowledged for its recent donations to the University of Hawaii's College of Engineering. Early this year, about \$3,400 gift was donated to the College of Engineering Structures Laboratory Fund. Last month, it turned over a \$500 check for the Dr. Arthur N.L. Chiu Endowed Scholarship in Civil Engineering through the UH Foundation. Last May 5, LGSEA participated in the 2006 Steel Scholarship Golf Tournament spearheaded by the Hawaii Pacific Steel Framing Alliance at Pearl Country Club. About 92 golfers played. A portion of the tournament proceeds would be donated as a scholarship of a graduate student in the UH-Manoa College of Engineering.

**Next Deadline for  
 Wiliki  
 is June 15th**



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**HIGHLIGHTS OF BOD MEETING**

May 3, 2006

**Committee Reports:**

General Membership Meetings/Technical Seminars/Events:

- 2006 IBC Webcast by SK Ghosh will be held at SSFM. The date is June 5, 2006 at 9am HST.
- ATC-20 is scheduled for June 20, 2006 in Honolulu at the Pagoda Hotel and June 21, 2006 in Hilo. FEMA will provide the instruction material.
- PCI Design Handbook 6th Edition Seminar is scheduled for July 25, 2006.
- CCPI annual Meeting will be held at the Hapuna Beach Prince Hotel on October 12 and 13, 2006.
- AISC 13th Edition Design Handbook Seminar is scheduled for October 26, 2006.

Golf: The first golf outing is scheduled for Friday, May 26, 2006 at Pearl Country Club. Ten tee times have been reserved. The next golf outing will be on Friday, November 24, 2006.

Legislative: There were 40 bills at the beginning of the legislative session that were of interest to SEAHO primarily relating to a state building code, emergency preparedness, and the evaluation of structural integrity of emergency shelters, shelters for persons with special needs,

hospitals, nursing care homes, schools, and government facilities. Besides funding, the only bill for an act of the original group of 40 to be passed was a bill requiring establishing locations for pet shelters. There was also a bill created after the Kaloko Dam failure that appropriated funding for dam safety evaluations and recovery.

**New Member Applications:**

No new applications for SEAHO membership were received to vote on.

**New Business:**

Gary Chock is member of the IBC Structural Code Committee for 2006-2007. This ICC Committee is doing the technical analysis of code changes for the IBC 2009.

**Old Business:**

Public Outreach: SEAHO is in the process of establishing a public outreach seminar on Hurricane. A draft outline and action plan has been established and is under review. The purpose of this seminar would be to educate the public, promote home strengthening, and provide more exposure for the SEAHO association and our profession. We will be partnering with other agencies. The seminar would last a half day. President B. Fung went over a draft outline and action plan for the process. General topics include hurricane basics and risk, SEAHO past damage evaluations (and photographic evidence), hurricane preparedness and building retrofits per the new loss mitigation grant program, and insurance. Some potential speakers have been identified. Anyone interested please contact Bennett Fung.

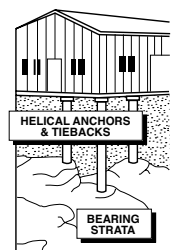
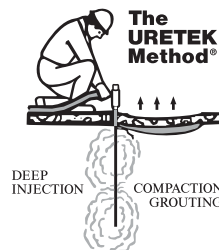
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General Engineering

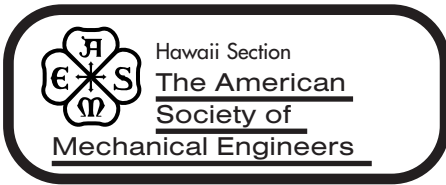
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#### NEXT ASME-HAWAII SECTION MEETING

Date: July 10, 2006  
Time: 5:30 pm to 6:30 pm  
Agenda: The ASME-HI 2006 Outstanding Project Award Presentation.  
Place: Hawaiian Electric Ward Avenue Cafeteria

The Honolulu Advertiser's Bill Bogert, Vice President of Production, will accept the 2006 award plaque for the Kapolei Printing and Production Facility.

Please contact Ray Liu or Kevin Dang for directions and for more information. The meeting day has been changed to the second Monday of every other month.

#### TOUR OF THE ANDREW KEITH RESIDENTIAL PHOTOVOLTAIC SYSTEM

On Saturday, April 22, 2006, Andy Keith invited ASME to his home in Kahaluu, on Oahu's Windward side, to view his photovoltaic system. Andy Keith is a great lecturer. Besides giving us a lot of great information, he provided a laminated photo of his panel arrangement, and refreshments. He's a great host.

Andy certainly knows residential photovoltaic. Here are some facts about this photovoltaic system: 1) HECO's first Net Metering customer (net metering allows customers to "sell back" electricity to the power utility), 2) Hawaii's second-largest residential PV system, 3) On an annual basis, the system makes more than 100% of household electricity, 4) Storage batteries provide a generous supply of stand-alone power during grid outages, 5) December 2005 marked 10 years of system operation.

Thank you Andy Keith for a very informative and entertaining tour of your PV system. For those who missed this tour, future tours can be arranged. Contact Ed Chang, 543-4227, if you are interested.

#### FRANCIS R. MONTGOMERY DESIGN PRESENTATION

The 2006 Department of Mechanical Engineering, UHM, Mini Baja Team plan to do a presentation on their project and Mini Baja competition results after they return from the Oregon competitions. The date, time, and place have not been confirmed. Please contact Derick Kam if you are interested in attending.

#### RED HILL FUEL OIL TANK FARM TOUR

Raymond Liu is in charge of setting the date and time for this tour. Currently he is looking at the month of June or July. Please keep watching the Wiliki and the ASME-HI website for more information.

#### ASME HAWAII P.E. REFRESHER COURSE

The ASME Hawaii section will be conducting

a P.E. refresher course which will start in August of 2006. Qualified candidates should sign up by July 2006 to apply for the October 2006 exam.

All candidates interested in signing up for the P.E. refresher course should do so before the deadline which is the end May 2006. To sign up, please email to: [liur020@hawaii.rr.com](mailto:liur020@hawaii.rr.com) or call 497-195. For future information, please visit our website at [www.sections.asme.org/hawaii](http://www.sections.asme.org/hawaii).

#### ASME HAWAII SECTION FUNDRAISING ACTIVITIES

The ASME Hawaii section is planning to conduct fundraising activities. Such activities may include selling Zippy's chili tickets, School Kine cookies and other programming to bolster our financial reserves.

Members interested in volunteering with fundraising activities, or wanting to purchase items being sold should contact our section secretary, Kevin Dang. For updated information on our fundraising activities, please visit our website at [www.sections.asme.org/hawaii](http://www.sections.asme.org/hawaii).

#### EAH, from page 2

**Historical Park Guam.** Frank's talk will be posted to the EAH WEB site.

#### Meeting Notes for April 28th, 2006

**Speaker: Linda Howe of A&B Government & Community Relations Dept.**

**Subject: "A Look Back at Hawaii and Alexander and Baldwin"**

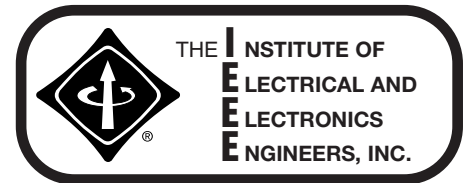
**Ms. Howe** provide an overview of A&B, Inc, how it started in 1870, but wasn't incorporated until 1900, by **Samuel T. Alexander** and **Henry Perrine Baldwin** and she continue with the rest of the A&B story. She presented a series of very interest pictures for engineers and architects of the 1928 construction of the historic A&B building on Bishop Street starting from the foundation to the roof. Other photos in her over 80 page slide presentation included historic pictures of the sugar cane fields, showing the evolution from horse powered equipment to the latest 100 ton diesel trucks used today to haul cane. She talked about A&B diversified agriculture development, one of which is Kauai Coffee. Also Matson shipping company and their shipping to the Far East in US built container ships.



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

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Tellers Committee Chair:  
Allen Agena  
[a.agena@ieee.org](mailto:a.agena@ieee.org)

#### IEEE Hawaii Events

##### 1. Robotic Fair, Saturday, June 17

Open to the public, this will have a chop suey mixture of Robots from the educational system competitions and a research robot. For information, please contact Mark Rognstad at [mark\\_rogstad@ieee.org](mailto:mark_rogstad@ieee.org).

##### 2. EXCOM (Executive Committee) meeting at Vineyard Zippy's, 5:30pm, June 6, Tuesday.

This is a meeting to plan and schedule events for the Hawaii IEEE section. It's open to those interested in finding out what's happening. Please RSVP to Al Toda at [aet@ieee.org](mailto:aet@ieee.org).

#### ACEC, from page 3

selection for design professionals. These bills were defeated but were then added via last-minute amendment to another bill that passed. We will continue to support the State Procurement Office's bills that would require exempt agencies to have procedures that essentially mirror the procurement code's requirements for transparency and reporting.

## ASCEYMF, from page 4

Level Conference Room (From the ground level take escalator up to 2nd floor. Conference room is located behind the mauka elevators). Downtown street parking is available after 5:30 PM. Please RSVP by Friday, June 2 to Lisa Takushi at [ltakushi@cpe-hawaii.com](mailto:ltakushi@cpe-hawaii.com) or 384-8997.

### Fall 2006 PE Refresher Course

We are currently accepting applications for the PE Refresher course to be held from August - October 2006. To sign up for the Fall 2006 ASCE Hawaii Section YMF P.E. Refresher Course or for more information please visit <http://www.ascehawaii.org/ymf/PErefresher.html> or contact Lori Nishida at 533-3646 or [lnishida@atahawaii.com](mailto:lnishida@atahawaii.com).

### 2006 Younger Member Employer Recognition Award

ASCE Hawaii Section YMF is requesting nominations for the 2006 Younger Member Employer Recognition Award. Nominations are strongly encouraged to recognize employers who support their Young Engineers to get involved within ASCE, the engineering community, and to improve their professional development. If your employer has been supportive of your activities and development, submit a nomination!

The ASCE Committee on Younger Members (CYM) will review nominations at its Fall meeting and select winning organizations. CYM will also award Superior Employer Recognition to an organization that shows exemplary support of their Young Engineers in their organization. Winning organizations will be published in the Civil Engineering magazine or ASCE News in addition to the Younger Member Newsletter and the Wiliki O' Hawaii.

If you are interested in submitting a nomination or have any questions, please contact YMF Awards Committee Chair Lauren Ishima at [lishima@hawaiiapacificengineers.com](mailto:lishima@hawaiiapacificengineers.com) or at 440-8496. Nominations are due to Lauren no later than July 18, 2006.



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## KNOW YOUR ASCE HISTORY

by C.S. Papacostas

### PURE, CLEAN WATER

Thrum's 1906 "Hawaiian Almanac and Annual" (HAA) said, "The Electric Light Station in Nuuanu valley has had recently completed a new substantial brick building for its power house to meet the increased efficiency that will be required of it when the new reservoir water supply becomes available."

As I explained last month (May 2006), the Big Reservoir was not finished until 1910. The "Evening Bulletin" (EB) of July 1 then proclaimed "Nuuanu dam is finished and Honolulu will never want for water during any dry season again, it is predicted." Similarly, in his report to Governor Walter F. Frear that year, Superintendent of Public Works J. W. Caldwell declared "the reservoir has fulfilled all expectations, not alone from the standpoint of water supply, but from the standpoint of furnishing power for lighting the city."

Contrary to these hopes, however, the May 24, 1913 "Star-Bulletin" (SB) informed the public "the city has just gone through one of its periods of water famine. Up to within a few days ago, over a large part of the municipality between Moanalua and Diamond Head irrigation was absolutely prohibited." During these low water periods, street lighting service was purchased from the reliable Hawaiian Electric Company (HECO) that had become a regulated monopoly.

By Act 50 of the 1913 Legislature, the Territory transferred Honolulu's water and sewer works to City & County jurisdiction beginning on June 30, 1914. The city was obliged to accept the system even though "complaints have been made that the potable water is a breeder of disease, and the cause of it has been traced to the big dam in Nuuanu [SB, May 15, 1913]." Also "because of the ill-kept condition of the water dam, 800,000 gallons a day are escaping, due to a broken 'toe' of the dam." An appraisal issued in 1914 found No. 1 in good condition but needing cleaning, No. 2 as "not any too good" due to leakage and thick vegetation, No. 3 "apparently excellent," and No. 4 "excellent."

Several proposals were put forth to augment the often diminished sources of Nuuanu water, but strong opposition developed on the grounds of health protection, structural integrity, and availability of sufficient water from the alternate sources. At the center of the battlefield for several years was the "Hillebrand Glen Project," an early design of which Roger C. Rice, USGS Assistant Engineer, described in the April 1917 issue of "Monthly Weather Review" as "a scheme to utilize the storm waters of Maole Stream for storage in reservoir No. 4 by constructing a diverting dam, tunnel and lined open ditch." Current maps designate the stream and the ditch by the alternate spelling "Mo'ole." Hillebrand Glen (spelled in various ways by the newspapers of the time), "is a valley ... lying between the western ridge of Nuuanu Valley and a southern spur from Mount Lanihuli." The name does not appear on modern maps that I checked but it was in honor of the German physician and botanist William Hillebrand who became the first director of The Queens Hospital in 1859. His home where he nurtured exotic plants is now known, after subsequent owner Mary E., as the Foster Botanical Gardens.

The O'ahu Loan Commission that was to

decide on the issuance of bonds for water projects in 1916, appointed an Engineers' Committee to investigate No. 4. According to the Pacific Commercial Advertiser" (PCA) the committee which, incidentally, included B. F. Howland, the territory's resident engineer during construction, concluded, "the dam shows no signs of physical deterioration," and recommended attending to damage sustained by the effluent pipe and detailed monitoring of the seepage. Bids were opened in November 1916 and, by all accounts, the project was completed in September of the next year.

To combat fears about water-borne pathogens, the operators of the system resorted to chlorination. They also proposed a filtration plant, an idea that kept resurfacing for decades. For several days in 1917, a detail of the National Guard was called out to keep pedestrians away from the Pali Road and Hillebrand Glen for fear of "contamination of city water by Alien Enemies" after the entry of the U. S. in World War I [SB, Oct. 12, 1917]."

The next milestone in the saga of the Nu'uanu dams was April 9, 1923, the day when Reservoir No. 5 (a cylindrical reinforced concrete structure located near No. 1) began supplying the city with water from mountain tunnels dug farther up the valley. The earthen reservoirs no longer serving this purpose, "everyone in the city now is receiving pure, clean water for the first time in the history of Honolulu [SB April 24, 1923]."

Finally, economic exigencies pointed to the purchase of electric power from HECO rather than producing it at the Nu'uanu Plant and, on Oct. 1, 1929, this government function ceased to exist; a story in the Nov. 6, 1929 Honolulu Advertiser (HA) announced "William L. Frazee, superintendent of the electric light department for 29 years, last night submitted his resignation."

A cataclysmic episode occurred in November 1930 when the spillway at No. 2 was severely damaged and overflows along the top of the structure rushed down the valley. At the same time, the water level in No. 4 reached to within seven feet of the top.

A commissioned report on the state of No. 4 to the newly established Honolulu Board of Water Supply (BWS) by notable engineer J. B. Lippincott stated, "If the dam is not repaired and strengthened, it should be taken out." His own recommendation was to reconstruct the dam to supply water via the "proposed filtration plant" to the growing population, to regulate floods and to act as a means of percolation [SB Feb. 12, 1931]. The recommended extensive changes were completed on Feb. 1, 1934.

The open reservoirs were then used solely for flood control until after World War II when the Territory introduced freshwater game fishes to the islands. July 5-6, 1969 marked the opening of No. 4 to recreational fishing.

Since then, No. 4 was the subject of inspections by the U. S. Corps of Engineers in 1977, and Phase I and II dam safety inspections by consultants to the State of Hawaii and the Honolulu Board of Water Supply in 1992 and 1999 respectively. Details to come...

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 [csp@wiliki.eng.hawaii.edu](mailto:csp@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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**2006 ITE District 6 Annual Meeting**

Sheraton Waikiki, June 25-28, 2006

The Hawaii Section of the Institute of Transportation Engineers is hosting the 2006 District 6 Annual Meeting in Honolulu at the Sheraton Waikiki. The event, which will be attended by members from Hawaii and the other 12 western states, will include a wide array of technical and social activities.

**Technical Tracks**

The technical program will consist of 94 individual presentations and one panel discussion contained within three different technical tracks. The Traffic Operations and Safety track will provide the latest information on traffic signal warrants & timing, safety, ITS, and wide variety of related topics. The Transportation Facilities and Modes track will feature pedestrian and bicycle planning and design, work zones, parking, transit planning, and other related topics. Transportation planning methods, goods movements, community design, and traffic simulation and modeling are some of the topics contained within the Special Topics track.

**Technical Training Sessions**

The Honolulu meeting will feature two technical training sessions on Sunday afternoon. The Americans With Disabilities Act (ADA) Workshop is designed to introduce attendees to the concepts of ADA and teach them to apply these concepts to "real-world" scenarios. Instructors Bill Hecker and Pete Pascua will present the highlights of the US Access Board's "Draft Public Rights-of-Way Accessibility Guidelines" which was published in November 2005 and expand on the top 10 things engineers should know about designing in the public right-of-way. In addition, they will conduct "hands-on" exercises that will take attendees out into the streets around the meeting site for a little real life work. The Road Safety Audits for Local Governments seminar is designed to introduce road safety audits (RSAs) as an effective tool that can help to reduce injuries and fatalities on your road network. The workshop will help road agency professionals and consultants understand basic road safety audit concepts and will present recommendations from actual RSAs performed in the United States.

**Technical Tours**

The Honolulu Meeting will feature two technical tours on Monday. The morning tour will allow attendees to visit the State of Hawaii Department of Transportation (SDOT) Traffic Operations Center (TOC) and the City and County of Honolulu's (CCH) Traffic Management Center (TMC). The TOC monitors traffic-related incidents with access to a variety of variable message signs, lane use signs, and traffic signals. The CCH TMC controls approximately 400 traffic signals at intersections under the jurisdiction of both the State and City.

The TMC is also linked to approximately 100 video cameras covering Oahu's urban portion of the arterial and freeway network, and provides real-time internet-based video streaming. The afternoon tour will allow attendees to visit the Hawaii Center for Advanced Transportation Technologies (HCATT) facility located in Kakaako. HCATT's primary objective is to develop and demonstrate zero emission and low emission transportation technologies to meet military and commercial needs and has most recently been involved with research regarding fuel cell technology at Hickam Air Force Base.

**Activities and Events**

During the course of the meeting there are a number of activities and events that have been planned. Attendees can enjoy a relaxing round of golf at the Hawaii Prince Golf Course on Sunday morning or take one or both of our spouse/guest tours being offered on Monday and Tuesday. The Dole Pineapple Plantation/North Shore tour is being offered on Monday and the Arizona Memorial/USS Missouri/Honolulu City Tour is being offered on Tuesday. In addition, there will be a Get Acquainted Social on Sunday evening that allows attendees to mingle and explore the vendor exhibit area, a Family Night luau on Monday evening, and an Annual Awards Banquet on Tuesday evening.

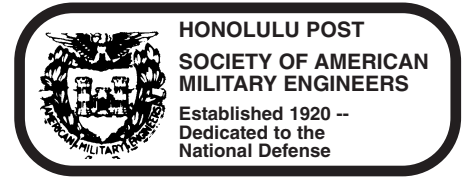
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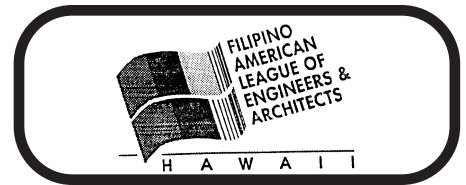
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The price for the ads will be based on a 1 1/4" x 2 5/16" module size which is 1/24th of the page, and be \$20.00 per month with a 15% DISCOUNT for a 6-MONTH RUN.



**West Point Bridge, from page 1**

High School and Pearl City High School. The contest was held during the 2006 WPBDC qualifying round from January 25th – March 22nd 2006. A local scoreboard was set up with WPBDC organizers so that students could see their standings in the Hawaii competition. Engineers from the ASCE Hawaii Section YMF and Hawaii Section visited classes at the participating schools to talk about bridge design, the contest, and to expose the students to Civil Engineering. The engineers also made themselves available to students during the bridge competition if the students had any questions about bridge design. This year, a total of 62 students submitted 39 bridge designs in Hawaii. Students competed for prizes for the best design overall and best design in their respective schools.

This year's overall bridge design winners were as follows: First Place Overall, Benjie Batangan, Farrington High School; Second Place Overall, Nguyen M. Ngo, Farrington High School; Third Place Overall, Ephraim E. Vita, Farrington High School. The school winners were as follows: Farrington High School, Benjie Batangan; McKinley High School, John Paik and Jonathan Odo; Pearl City High School, Jaren Shigeta and Kelsey Tsuneda; Roosevelt High School, Tyrus Lum and Talin Sokogawa. The overall winners received plaques and gift certificates for the Ala Moana Shopping Center. The school winners received movie ticket packages for Consolidated Theaters and the teachers received gift certificates for Office Depot. All of the winners and teachers were

recognized during the monthly ASCE Hawaii Section Dinner Meeting held on April 20, 2006 at the Treetops Restaurant.

While none of the teams from Hawaii this year made it to the semi-final round of the competition, students and teachers who participated enjoyed the contest and have indicated an interest in participating in next year's contest. The ASCE Hawaii Section plans to continue the contest again in 2007 if national contest organizers continue to offer the contest as an outreach tool. For more information on the WPBDC, please visit <http://bridgecontest.usma.edu>. The ASCE YMF and ASCE Hawaii Section would like to thank the following people who served on this year's committee for organizing and helping with the local WPBDC: Paulette Ujimori (chair), Greg Arakaki, Randy Akiona, Brian Enomoto, Ron Iwamoto, Nelson Pascua, Jon Young, Joy Wasai, Stuart Ujimori, and Mike Hanneman. If you are interested in helping in next year's competition, please contact Mr. Greg Arakaki of the ASCE Hawaii Section Outreach Committee at [garakaki@ascehawaii.org](mailto:garakaki@ascehawaii.org).

**ASME Project Award, from page 1**

paper are loaded, to the 2nd and 3rd levels where color and black and white printing is done, to the upper levels where the printed-paper flow is controlled and guided to the folders on the second level.

The presses use the offset printing process where large digital data files from the downtown editorial and administrative offices are received in Kapolei via high-speed telecommunication line using T-1 line connectivity and sent to a computer-to-plate machine, which exposes a plate for the presses. The plate is processed resulting in two areas, a non-image area that attracts water and the image area that attracts the ink. The printing plate transfers the image on to a blanket picking up only the ink-attracted image area. This image is then transferred (offset) from the blanket to the paper.

From the pressroom, printed and folded sections are carried by conveyor through the packaging and assembly room where pre-printed supplements are inserted and combined with live news sections, then stacked and strapped and ready for the delivery trucks.

This was a very brief description of the facility. Obviously it is recommended that you take a tour of the facility so you can get a good picture and understanding of how the newspaper you read every morning is printed and assembled.

**Acknowledgement**

ASME-HI thanks The Honolulu Advertiser's Jennifer Dang, NIE Coordinator, and Bill Bogart, Vice President of Production, for the comprehensive tour and helping to make this award possible during the Advertiser's 150th Anniversary.

**Wiliki Advertisers Wanted**



**Overall Winners Nguyen Ngo (Second Place), Bebi Davis (Farrington High School Teacher), Paulette Ujimori (WPBDC Chair), and Benjie Batangan (First Place)**



**ASCE Hawaii Section YMF Member Brian Enomoto speaks to McKinley High School Students about bridge design in preparation for the WPBDC.**



**Robot travels on track carrying roll of paper to one of the presses.**

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