



SEATTLE SECTION NEWSLETTER

January 2010
Volume 45 No. 5

Section Officers

October 1, 2009 – September 30, 2010

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YMF Chairperson (Position Vacant)

BOEING BRANCH OFFICERS

Karen Dix-Colony, *President* 425-266-8899

WEBMASTER

Lisa Martinez seattleasce@yahoo.com

ASCE Seattle Section Meeting

Thursday, January 28, 2010

Please note that this is a joint meeting and the RSVP procedure and cost are different than most Seattle Section meetings.

Place: Red Lion Inn, 11211 Main St, Bellevue, WA

Cost: \$35 per person (\$40 for late reservations)

Students and non-reimbursed public agency employees: \$15

Spouses and guests are welcome.

If you are a student and would like to be sponsored, please specify when you RSVP.

You can pay via PayPal or credit card online, or at the door by cash or check payable to "ASCE Seattle Geotechnical Group."

Meal: Grilled Northwest Salmon; Vegetarian: Ravioli Florentine

5:30 Socialize

6:30 Dinner

7:30 Program: Sound Transit Link Light Rail's Beacon Hill Station and Tunnels

8:45 End

Please make your reservations by **4:00 pm Tuesday, January 26** using one of the following methods:

- Visit the Geotechnical group website www.seattlegeotech.org
- Send e-mail to rsvp@seattlegeotech.org
- Phone Tyler Stephens at (206) 695-6915

Please include your dinner entrée preference with RSVP.

Sound Transit Link Light Rail's Beacon Hill Station and Tunnels – State of the Art Construction in Difficult Ground

This will be a (3-way) joint meeting with our ASCE Geotechnical Group and the AEG.

The Beacon Hill Station and Tunnels contract includes the civil facilities construction for the Beacon Hill Tunnel, the Beacon Hill Tunnel Station, aerial guideways, and the aerial McClellan Station, which includes approximately one mile of 20-foot diameter twin-bore tunnels with portals; a deep, mined, binocular tunnel station with platform, concourse, cross-passage and ventilation tunnels; station access and ventilations shafts with headhouses for access; trackwork; utilities; architectural features; mechanical and electrical equipment, including emergency ventilation fans and fire protection systems; high-speed elevators; and a plaza with landscaping.

The Beacon Hill Station is the deepest, mined structure of its size in soft ground using Sequential Excavation Mining techniques for tunnel

See *Beacon Hill* on page 2

**The deadline for the
February 2009 issue is
5:00 p.m.
FRIDAY, January 22, 2009
No exceptions.**

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Your newsletter editor is:  
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#### **CHANGE OF ADDRESS:**

All change of address information (including your e-mail address for the newsletter) should be provided directly to ASCE at [www.asce.org](http://www.asce.org) or: 1801 Alexander Bell Drive, Reston, VA 20191-4400. The Seattle Section will receive the updated information from ASCE.

**AMERICAN SOCIETY OF  
CIVIL ENGINEERS, SEATTLE SECTION**  
<http://www.seattleasce.org>

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#### **ASCE SEATTLE SECTION NEWSLETTER ADVERTISING RATES**

##### **Employment Ads:**

Employees Wanted:  
75 cents per word

##### Seeking Employment:

First 75 words free  
75 cents per each additional word

##### **Display and Business Card Ads:**

Contact the editor at  
[seattleASCEnews@gmail.com](mailto:seattleASCEnews@gmail.com)  
for pricing and format requirements.

#### **Beacon Hill (continued from page 1)**

structures up to 40 feet in diameter in North America. The mainline tunnels were driven using an Earth Pressure Balance Tunnel Boring Machine and a one-pass pre-cast segmental lining.

The Beacon Hill station and tunnels were constructed in a very complex geological setting influenced by several glaciation periods and possible tectonic influences. In 2002 and 2004 the US Geological Survey redefined the aerial extent of the fault splays and interpreted a "deformation zone" for the Seattle Bremerton Fault, such that the Beacon Hill Station is within the deformation zone and ½ mile north of the northern-most fault splay.

Due to the engineering complexities and safety considerations associated with the tunnel construction, the C710 contract provided for a range of options for the contractor to respond to unforeseen conditions in a timely manner with cost allowances for these measures included in the base contract amount.

"Red" Robinson, Vice President of Shannon and Wilson, and Richard Sage, Construction Manager for Sound Transit, will discuss the geologic conditions anticipated and those encountered, how the actual conditions were handled, and the overall construction of the station and

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### **Bio for January 28 Speakers**

**Richard Sage** is Construction Manager for the Link Light Rail of the Central Puget Sound Regional Transit Authority (Sound Transit). He oversees the \$313 million Beacon Hill Station and Tunnel contract and will be overseeing the \$154 million Capitol Hill to Pine Street Tunnels contract. Mr. Sage has 43 years of experience in construction and construction-related industries. He is a graduate of Michigan State University in Civil Engineering and is a Registered Professional Engineer and Certified Construction Manager. He is Committee Member of the Transportation Research Board's Tunnel and Underground Structures Committee; and a member of the Underground Construction Association of the Society of Mining and Metallurgical Engineers, the Disputes Resolution Board Foundation and the American Society of Civil Engineers. He also serves as a member of the three-person Independent Cost Evaluation team reviewing cost, schedule, risk, contract packaging and construction strategies for the State of Washington on the Alaska Way Viaduct Replacement Project.

**Robert "Red" Robinson** is the Director of Underground Services for the geotechnical and environmental firm of Shannon & Wilson, Inc. in Seattle. Mr. Robinson has nearly 35 years of experience on over 300 tunnel projects throughout the U.S. and Canada. He has participated in a wide range of exploration, design, and construction tasks for water resources and electrical utilities, rapid transit, railroad, and highway tunnels ranging from 2-ft diameter directionally drilled utility lines to a 64 ft diameter highway tunnel. Mr. Robinson He is currently a member of the Executive Committee for the Rapid Excavation and Tunneling Conference, and an executive member of the Underground Technology Research Council. He has authored and co-authored over 50 professional papers dealing with various aspects of tunneling, rock mechanics, and slope stability.

## Welcome New ASCE Members!

We welcome the following eight members, who joined the Seattle Section since November 5th. If you see somebody you know, give them a call!

Mr. Stuart Pflugruth, S.M.ASCE  
Seattle University

Mr. Zachary Wieben, S.M.ASCE  
Northeastern University

Mr. Tori Hesedahl, S.M.ASCE  
U of Washington

Mr. Brett Johnson, S.M.ASCE  
U of Washington

Ms. Jennifer Light, S.M.ASCE  
Santa Clara University

Mr. Travis Rauscher, S.M.ASCE  
U of Washington

Mr. Cory Henderson, S.M.ASCE  
U of Washington

Mr. Ellison Iseri, S.M.ASCE  
Seattle University

## Fletcher Wins 2009 ASCE Citizen Engineer Award

By Joshua Shippey, P.E.

ASCE recently announced that Seattle Section member Erin Fletcher was selected as one of the ASCE 2009 Citizen Engineer Award recipients. The award is presented to members of ASCE to recognize their accomplishments in the area of public service.



*Erin Fletcher*

Erin has significant accomplishments within the Seattle Section as well as outside of ASCE. Her contribution to the Engineer Your Life project influences young minds all over the world on a daily basis. The award will be presented in San Diego at the ASCE Multi-Region Leadership Conference in February.

Congratulations, Erin!

## Richard Williamson Jones Scholarship

By Ann Bryant, P.E.

Applications are being accepted for the Richard Williamson Jones Memorial Scholarship. The maximum \$2,000 award is given out annually to a student who has attained at least a junior standing in civil engineering. Candidates must be U.S. citizens and a permanent resident within the jurisdiction of the Seattle Section of ASCE (King, Snohomish, Kitsap, Whatcom, Skagit, San Juan, Island, Clallam, and Jefferson counties). Richard Jones often commented that when he was a student, he would have been much better off if he had just had a little more money for books and supplies. Applications must be postmarked by January 29, 2010 to be considered.

For further information and application forms visit [www.seattleasce.org](http://www.seattleasce.org). If you have questions contact Ann Bryant, P.E., Immediate Past President, (425)255-3554 or [ann.bryant@comcast.net](mailto:ann.bryant@comcast.net). Good Luck!

Advertisement

## Expansion Opportunity

A leading Geotechnical and Materials Testing firm with offices in the western US is expanding in other geographic areas. Our current work includes geotechnical engineering and materials testing on major highways, dams, tunnels, bridges, rails lines, schools and international geotechnical consulting. Our project sizes range up to \$1 billion. We are looking for acquisition of a small to a medium size geotechnical and/or material testing firm (less than 20 people) with strong technical capabilities and clients in both public and private sectors.

Please contact Stuart Trautenberg, our Acquisition Consultant, for additional information. All information and discussions will be confidential.

Stuart A Trautenberg  
Office: 949-499-9511  
Cell: 949-633-9511  
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# ASCE Seattle Section Executive Board Meeting Minutes

## Minutes for November 11, 2009 and December 9, 2009

### Minutes for November 11, 2009

#### ATTENDANCE

##### Board Members

Ron Bard, Ann Bryant, Garth Merrill, Marc Schulte, Melissa Wu, Mike Harney, Stefanie Fishman, Erin Fletcher, Perry Cole

Quorum: YES

##### Absent with Notice

None

##### Other Members Present

Mark Killgore

#### CALL TO ORDER

Section President Ron Bard called meeting to order at 4:31 p.m.

Board unanimously approved October 14, 2009 meeting minutes, with addition of Stefanie Fishman as an attendee.

#### PROCEEDINGS

##### 1. Regular Business

###### Treasurer's Report

Treasurer's Report for the period ending October 31, 2009 was discussed.

Board unanimously approved the November 11, 2009 Treasurer's Report, which should reflect the new, approved budget.

Board discussed outstanding invoices, including one from GoJobs for a job posting. Board agreed to dismiss all outstanding invoices, except the GoJobs.

Check list to ASCE National is still outstanding. The check list is necessary for getting the allotment from ASCE National.

###### Standing Committees

Standing committee report uploaded to the eRoom.

###### *Diversity Committee*

Would like to give scholarship for people who are unemployed in order to re-enter workforce. Would like Board to confirm whether the award can be conferred to non-ASCE members as well as members. Also would like to know if award can be given to people outside WA state.

Board discussed the request. Board agrees that "non-members" should be changed to "former members," and that awardees should have a home address in the Seattle

Section area. Board discussed whether this scholarship is within the Diversity Committee's mission. Ann noted that this is in line with recent mandates by ASCE National. Board also requested that the committee provide more information on the number of scholarships and amounts.

###### *Heritage and History*

Committee has confirmed that Sections 100th Anniversary is 2013.

The committee confirms that it has received all of the archive material.

###### *House and Hospitality*

House and hospitality committee confirmed that the RSVP date would change from Monday to Friday. This would require the newsletter to be out 2 weeks prior to the Section meeting. Date will remain on Monday for rest of calendar year.

###### *PSEC*

PSEC interested in creating high school mentor list. Board discussed format and logistics of the list. The opportunity will be announced at the meeting. Interested parties should contact Paul Grant.

###### *Scholarships*

R.H. Thomson committee requests approval of Dave Enger as new member.

The Board unanimously voted to approve Dave Enger as the new member.

Next meeting is November 18th. The R.H. Thomson award will be given this year.

Board discussed the Student Advisory Committee and its level and frequency of interaction with university students.

###### *Programs*

January meeting will be on the 28th, joint with geotechnical group. This will be announced in the newsletter and at the meeting.

#### NO ACTION ITEMS

##### Branch Reports

Branch report has been uploaded to the eRoom.

Board discussed North Branch and Kitsap Branch activities.

Discussion of Kitsap Branch budget request.

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**November Minutes** (continued from page 4)

Discussed Boeing Branch Tax ID status They are using Section's Tax ID.

NO ACTION ITEMS

**Technical Committees**

Technical committees report has not been uploaded to eRoom.

Discussion of Ports and Harbors issues.

Discussion of Water Resources activities, including visit to Chittenden Locks on 23 November.

Transportation and Urban Dev have requested help on sending heir email blast.

NO ACTION ITEMS

**Younger Member Forum**

YMF report uploaded to eRoom.

Discussion of YMF activities. Planning for Winter Leadership retreat, possibly with Portland YMF.

NO ACTION ITEMS

**Membership Report**

Membership is steady.

Membership drive is on-going. Mark has made up some prizes; included in newsletter. Deadline for signing up new members in the Membership Drive is December 1.

NO ACTION ITEMS

**2. Old Business**

*Constitution and Bylaws and Duties and Procedures Update*

Discussion of status of constitution and bylaws, and updates to the Duties and Procedures Manual.

ACTION ITEMS

None

**3. New Business**

*Endorsement of Mark Killgore on the EWRI Board*

Mark presented his CV and qualifications and asked for Board endorsement. He will follow-up with Ron.

Motion for endorsement made and unanimously passed.

*Korean Delegation Visit to Seattle*

Delegation from Korean technical / vocational institute will be visiting Seattle on November 16-17. Discussion of the purpose of the visit and whether / how ASCE should participate.

*Seattle Section Centennial 2013*

Discussion of possible events.

*Brown Paper Tickets Event Management*

Discussion of this service, which would include online RSVP and ability to implement credit card payment.

*ASCE Pipeline Conference in Seattle, 2010*

Conference organizers have requested Section's help in publicizing the event.

Discussion of Transportation Committee participation in the event.

*K through 12 Outreach*

Discussion of a possible new committee. YMF has a K through 12 Outreach chair, and is fairly active. Discussion of YMF activities and possible additional activities with regard to K to 12 outreach. Ron will include an article in the next newsletter about this subject.

**4. Announcements for Meeting**

- Request for articles for newsletter.
- January meeting date.
- Membership drive incentives.

**ADJOURNMENT**

Meeting adjourned at 5:38 p.m.

Submitted by Secretary, Michael D. Harney.

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**Minutes for December 9, 2009**

**ATTENDANCE**

**Board Members**

Ron Bard, Ann Bryant, Marc Schulte, Melissa Wu, Mike Harney, Erin Fletcher

Quorum: YES

**Absent with Notice**

Perry Cole

**Other Members Present**

Ron Borowski, Ed Huston, Paul Grant

**CALL TO ORDER**

Section President Ron Bard called meeting to order at 4:39 p.m.

Board unanimously approved November 11, 2009 meeting minutes.

**PROCEEDINGS**

**1. Regular Business**

**Treasurer's Report**

Garth was not present. No report.

See **December Minutes** on page 6

## Standing Committees

Standing committee report uploaded to the eRoom.

### *Diversity Committee*

Discussion of the Workforce Re-Entry Scholarship. This would provide training for someone who is out of work in order for them to re-enter the workforce. The Diversity Committee would sponsor the scholarship, but all Section members would be eligible. The criteria for the award was discussed. Committee is requesting Board approval.

The Board approves the scholarship with the stipulation that the criteria be better defined, and that the Board will approve the recipient.

### *PSEC*

Discussion about whether nominations for PSEC Engineer of the Year should be limited to members of the Section. Board nomination would generally be for a Section member only, but others may be considered.

Discussion of creating a link on the Section website to PSEC. Board approved putting a link to PSEC on the website.

### *Scholarships*

R.H. Thomson scholarship will be given this year. Committee is investigating procedures for when a scholarship should be given.

NO ACTION ITEMS

## Branch Reports

Branch report has been uploaded to the eRoom.

Discussion of high school outreach in Kitsap and Poulsbo areas.

Kitsap Branch has an interesting speaker and would like to hold a joint meeting about the Port of Bremerton in February. The program for Life Members is scheduled for February.

NO ACTION ITEMS

## Technical Committees

Technical committees report has not been uploaded to eRoom.

Discussion of whether technical committees should be encouraged to become institute chapters. The Board has a neutral position on this topic, and neither encourages or discourages institute chapter formation.

Discussion of several technical topics for possible meetings (e.g., Civil3D Users Group).

NO ACTION ITEMS

## Younger Member Forum

YMF report uploaded to eRoom.

Discussion of YMF activities. Annual holiday party was last week.

NO ACTION ITEMS

## Membership Report

Membership is steady at 2428. The Section is gaining new student members. Membership numbers and demographics were discussed. The possibility of a membership survey in the spring was discussed.

Results of the membership drive were discussed.

NO ACTION ITEMS

## 2. Old Business

### *Constitution and Bylaws and Duties and Procedures Update*

Discussion of status of constitution and bylaws, and updates to the Duties and Procedures Manual.

ACTION ITEMS

None

## 3. New Business

### *Successor Licensing*

Ed Huston (SEAW) discussed the current practice of successor licensing. Ed provided some information, including a model rule, and asked the Board to review the topic. Ed will also provide the Board with the current language. Ed would like the Board to recommend approval of the model rule language to the Board of Registration.

### *Korean Delegation Visit to Seattle*

Delegation from Korean technical / vocational institute visited Seattle on November 16-17. Marc Schulte met with the delegation, and the Board discussed his conversations with the delegation, including ASCE's mission, professional licensing, etc.

### *K through 12 Outreach*

Discussion of how to do more with this topic. Erin has agreed to chair a committee.

## 4. Announcements for Meeting

- Erin received the Citizen Engineer of the Year Award.

## ADJOURNMENT

Meeting adjourned at 5:38 p.m.

Submitted by Secretary, Michael D. Harney.

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## Volunteers Needed for ASCE's Booth at the Engineers Week Fair on February 13

By W. Paul Grant, P.E.,  
PSEC Immediate Past President/ASCE PSEC Representative

Each year, ASCE participates in events at the Engineer's Week Fair, which this year will be held on February 13 from 10:00 a.m. to 4:00 p.m. at the Museum of Flight (9404 East Marginal Way South in Seattle). The Fair, which is open and free to the public, provides a fun, hands-on environment to see and hear about the various engineering disciplines, as well as encourage K-12 students to think about engineering as a career. The event is sponsored by the Puget Sound Engineering Council (PSEC), which is a consortium of 20 engineering societies of which ASCE is a charter member.

The Fair includes display booths staffed with volunteers from the member societies with hands-on displays to show students the creative and fun side of engineering. In addition, the Fair also features ASCE's Younger Mem-

ber Forum's (YMF) Popsicle Stick Bridge Competition, where students from over 20 high schools will test their model bridges to see how much weight the bridges can support and how accurately the teams can predict the load capacity of the bridges. This is a great event that showcases the talents of the competing teams as well as the organization and enthusiasm of the YMF in orchestrating the event!

This year we are looking for volunteers who are available to staff our display booth for a shift that may last between 1.5 and 2 hours. If you are interested in being a volunteer, please send your contact info and availability (i.e., morning or afternoon shift) to Paul Grant at [pgrant@pangeoinc.com](mailto:pgrant@pangeoinc.com).

Thanks for your help.

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## Water Resources Committee Tours the Ballard Locks

By Joshua Phillips, P.E., Water Resources Committee Co-Chair

Since I was a kid, I have visited the Hiram M. Chittenden Locks in Seattle many times. However, the November 23, 2009, trip with the Water Resources Committee was by far the most memorable. In coordination with the U.S. Army Corp of Engineers, we were provided with a great inside view of their maintenance and operations equipment, the system's controls, and a good insider's explanation of its systems. Judging by the excellent turnout, and the many positive comments afterward, I was not the only person who was impressed.

We timed our trip to coincide with the lock being drained for its annual maintenance, and standing above it, I could get a sense that it's much deeper than I would have guessed after only seeing it filled. This also provided us with a chance to see sections of the facility which are normally hidden underwater, such as their floatable sea-water gate. Also visible here was the emergency bulkheads. While the Corps has



never had to use them, this is the time when the bulkheads receive their annual testing.

We have to thank Marian Valentine and the rest of the operations staff for their time and trouble in providing us with this special look inside their facility.

## Calendar of Upcoming Events

### Wednesday, January 20, 6:00 pm

#### **North Branch Meeting**

Location: Lakeway Inn, 714 Lakeway Drive, Bellingham  
Speaker: Gary Fortenberry, Engineers Without Borders  
Contact: Jim Perry, P.E., (360) 540-1617,  
jperrye@gmail.com

### January 21, Noon

#### **Water Resources Technical Committee**

Location: HDR, Bellevue  
Program: MGSFlood version 4  
Contact: Laura Ruppert, (425) 739-4227,  
laura.ruppert@otak.com

### Thursday, January 28, 5:30 pm

#### **Seattle Section Meeting (Note the different day, date and location for this meeting)**

Location: Red Lion Hotel, Bellevue  
Program: Sound Transit's Link Light Rail  
Beacon Hill Tunnel  
Cost: \$30 per person (\$35 for late reservations)

### Saturday, January 30, 8:30 am

#### **History & Heritage Committee Meeting**

Location: Grand Central Bakery, 1616 Eastlake Ave E, Seattle  
Contact: Cindy Hirsch, P.E., (206) 438-2150,  
Cindy\_Hirsch@URSCorp.com

## Membership Renewal Drive Update

By Marc Schulte, P.E.

As advertised, ASCE Seattle Section offered Seattle Section members who renewed between September 1 and December 7, 2009 a special incentive prize for their early renewal. The three lucky winners were Susan Anderson, Ken Oja, and Russ Podmayer.

Thanks to everyone who renewed their ASCE memberships early this year, and best wishes for a successful 2010!

## Water Resources Committee Update

By Laura Ruppert, P.E.

The Water Resources Technical Committee had a busy November with a speaker and a field trip. Our November speaker was Dustin Atchison of CH2M Hill in Bellevue. He spoke about Developing and Calibrating Hydrologic Models for Evaluation of Green Infrastructure Options in Seattle's Combined Sewer Overflow (CSO) Control Program. The November field trip provided an opportunity for our members to take a tour through the Ballard Locks (see separate article, page 7).

The January brown bag will be held on Thursday, January 21 at HDR in Bellevue where Bruce Barker will be presenting the latest version of MGS Flood.

January 2010 Newsletter  
Volume 45, Number 5

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AMERICAN SOCIETY  
OF CIVIL ENGINEERS

SEATTLE SECTION

