



Tacoma/Olympia Section
Civil Engineer
THE NEWSLETTER

DEC 2007

Joint Meeting with Seattle ASCE

I-90 Snoqualmie Pass East Project

WEDNESDAY, DEC. 12th

Doubletree Guest Suites
16500 Southcenter Pkwy
Tukwila, WA

Welcome: 5:30pm
Dinner: 6:15pm
Program: 7:15pm

Cost: \$20* cash or check
*students \$15
(\$22 for late reservations)

MENU

*Orange Infused Stuffed Pork Loin or
Vegetable Wellington*

****Please RSVP by noon,
Friday, Dec. 7th** (Please indicate with
rsvp if the vegetarian meal is preferred.)

seattleascereservations@gmail.com
or call 206.926.0482

*Please note the section does not
have the ability to accept credit
cards. **Cash or Checks**, please.*

Speaker

*Speaker: Randy Giles, P.E.,
University of Washington Mechanical Engineering College*

Randy Giles, P.E. is a project engineer with 16 years experience in highway design and construction. He is an engineering manager for the Washington State Department of Transportation responsible for developing a series of projects to reconstruct Interstate 90 just east of the summit of Snoqualmie Pass. Randy manages a blended co-located engineering staff of WSDOT and consultant engineers currently involved in geotechnical field exploration, geometric design, hydraulic and stormwater engineering, and other related work.

I-90 Snoqualmie Pass East Project

Improving travel across Snoqualmie Pass has been a challenge since the early days of road building. Snoqualmie Pass continues to present the same challenges and some new difficulties that the Washington State Department of Transportation must overcome as they prepare to reconstruct and widen I-90 just east of the summit.

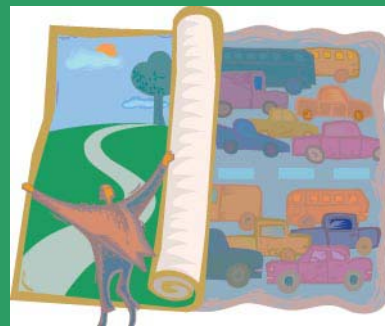
In 2005, Washington State Legislature provided funding for the first of several phases to reconstruct and widen Interstate 90 from Hyak to Easton. This first phase of work is located along Keechelus Lake and involves several challenging aspects, including avalanche chutes, unstable slopes, landslide areas, rugged topography, ESA species,

high traffic volumes and short construction windows. Current plans incorporate some distinctive

features such a new six-lane snowshed, wildlife crossings, and large retaining walls along Keechelus Lake.

Randy will present some of the more interesting project

features and discuss how the numerous challenges affect the design including how the project team is dealing with risk.



“Engineers Make the *Difference...*
They Provide the *Quality* of Life!”

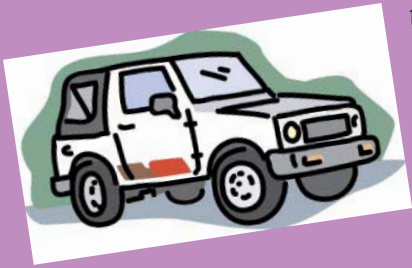
President's Corner with Bernie Hargrave



Bernie Hargrave P.E.

The blizzard pelted my windshield as I crept along in my old pickup with chains clattering against the wheel wells. During college at WSU, snow and ice were common road conditions for me and while never comfortable I was an experienced winter driver. Yet at the higher

elevations over Snoqualmie Pass that icy winter night 30-years ago, I was a white-knuckled, blurry-eyed driver yearning to be back on the rolling Palouse hills. My return from that ski trip convinced me to replace the rust bucket with a 4X4 pickup and I never looked back. Constantly evolving technology makes our lives safer, less stressful and free to pursue happier endeavors



than sliding on inclined planes. Today, all-wheel drive is common on many vehicles, even though 30-years ago such vehicles were awkward to use and relatively few in number.

Besides better vehicles, trips over Snoqualmie Pass have gotten safer and more reliable due to improved highway designs. A few years ago ASCE members learned about the then recently completed westbound Denny Creek viaduct over an avalanche zone. On December 12th we will learn about Washington Department of Transportation's plans to improve eastbound safety on I-90 over the pass. I hope you will be able to attend.

Within each engineering discipline and our many specialties we make people's lives better. Those improvements can come as increments or as breakthroughs. More often now, they come as replacements of obsolete or deteriorated infrastructure. I am intrigued with the opportunities we have to design these replacements with improvements beyond human betterments. The original designs of yesteryear often look quaint or antiquated when viewed with current knowledge. What will our designs look like with better knowledge 25 to 50-years from now?

I am convinced that among the advancements we will make in the future are some that are available to us now. Since engineering is fundamentally about applying science to systematically solve problems, incorporating findings from more scientific disciplines in our examination of complex problems is one way to assure better solutions today. Perhaps one of the most complex problems facing civil engineers now is the unexpected negative interactions among our many individual achievements. This complex network of cumulative project effects clearly produces human betterments. Yet, all those projects also create new issues in unexpected, difficult-to-solve ways.

What lessons can we learn from the advancements in safer highway designs over Snoqualmie Pass that can

be applied to other Northwest transportation issues? When one applies science from biology and geomorphology, we learn that those cross-slope processes of sediment and water movement sustain habitat for biota. Wildlife routinely move along corridors produced by those natural processes. Mr. Giles' I-90 presentation will include discussion on wildlife features. Perhaps other transportation corridors, like those along marine shorelines or lowland streams, that currently impede natural processes can incorporate the lessons from Snoqualmie Pass. Let's learn together. See you at the Southcenter Doubletree Inn on December 12th.

All the best,

Bernie Hargrave
2007-2008 Tac/Oly Section President

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Contact:

Bernie Hargrave

Bernard.L.Hargrave.Jr@wscs02.usace.armymil

SECTION CALENDAR and ENGINEERING RESOURCES



Section Calendar

Tacoma/Olympia ASCE Section Meetings/Activities

December 12, 2007 – Joint Meeting with Seattle ASCE Section; Randy Giles, P.E. Project Engineer; **I-90 Snoqualmie Pass East Project;** Seattle Section Host – Doubletree Suites, Tukwila Welcome 5:30pm; Dinner 6:15pm; Program 7:15pm

***January 15, 2008** – Luncheon Meeting, La Quinta Inn, Tacoma. 11:30am Tentatively, Mt. Rainier Road Damage From 2006 Storms presented by Rainier National Park Director

February 2008 – Engineer's Week dinner at St. Martin's University, Lacey

March 2008 – Joint Luncheon Meeting with Society of Military Engineers (SAME)

***DATE/TIMES/LOCATIONS TO BE ANNOUNCED/VERIFIED**

Tacoma/Olympia ASCE Board Meetings:

Local Board Meetings are open and generally held the **first Monday of the month** at 5:30pm. Locations vary. **Please check the WEB site, this calendar, or contact the president for confirmation.**

Monday December 3rd. 6:00pm, Olive Garden, Tacoma; off I-5, 72nd St Exit.

<http://sections.asce.org/tacoly/tacoly.htm>

Younger Member Forum Activities And Update

Younger Member Newsletter
www.asce.org/inside/cym_pubs.cfm

Upcoming Events & Activities

MESA Career Day; Pacific Lutheran University(PLU)- Parkland, Wa; **January 17, 2008;** 9:00am -1:00pm) **Volunteers and Companies needed**

ASCE 2008 Region 8/9 Leadership Conference And Western Region Younger Member Council (WRYMC) ; February 8 – 9; Las Vegas, NV

National Engineers Week; 3rd Week - February, 2008

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Contact:
Bernie Hargrave...
Bernard.L.Hargrave.Jr@nws02.usace.army.mil

TRANSPEED Courses

For a complete list of courses, visit the website at <http://www.engr.washington.edu/epp/Transpeed/index.html> for specific course descriptions and dates. Click on the specific course link to view the course outline.

or contact:

Julie Smith

Engineering Professional Programs

Phone: 206-543-5539

Toll-Free: 1-866-791-1275

2007 Professional Development Short Courses

For a complete description of the course and registration information visit our website <http://www.engr.washington.edu> or call us at: Engineering Professional Programs, University of Washington, phone: 206.543.5539 (fax) 206-543-2352 or (toll free) 1.866.791.1275

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(direct) 206-543-5743

Continuing Ed

For scheduled seminars in your geographic area are available on ASCE's website at www.asce.org/conted/seminars.

These in-depth, practice-oriented programs are produced by ASCE's Continuing Education Department and may be of interest to many ASCE members in your Sections and Branches. We would greatly appreciate if you would consider posing information on these seminars in your newsletters and on your websites.

If you have questions or need assistance, please contact:

Kelly Jarvis, Continuing Education Registrar at kjarvis@asce.org or

Michael Cook at mcook@asce.org.



Tacoma/Olympia Section Board 2007 - 2008

<http://sections.asce.org/tacoly/html/board.htm>

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We're on the web!

<http://sections.asce.org/tacoly/tacoly.htm>

For address changes/corrections, notify the Editor or the WEBmaster.