



October 25 Dinner Meeting

Construction Contract Tips in the Current Market - From Tenders to Design-Build

We kicked off our series of branch dinner meetings on October 25 with a welcome return to the Sunrise Golf Course in Cloverdale. For those who were unaware: in March 2009 we were forced to move a dinner meeting from Sunrise due to fire damage and it took until our October 2010 meeting for Sunrise to re-open. I am assuming that many of the meeting attendees were also unaware of this history since when the fire alarm went off in October 2010 there were a number of people who chose not to head outside to wait for the fire engine to arrive.

A considerable crowd had been drawn by the prospect of hearing John Haythorne, PEng and Karen Martin of Fraser Milner Casgrain but as dinner ended with nary a presenter in sight, the branch

executive were drawing straws to determine who would step to the microphone to make some jokes. Fortunately the lawyers were as good as their word and arrived just in time to give an insightful and well-received presentation on recent court rulings and their effect on engineering contracts.

Since a purpose of the Branch is communication amongst the membership, it seems appropriate to pass on a lesson learned: when signing out a laptop for a presentation, always make sure you get the log-in password.

- **Martin Fandrich, PEng,
Chair**

Popsicle Stick Bridge Competition



On March 12, the Fraser Valley Branch again hosted a Popsicle Stick Bridge Competition. It was open to students in grades 5 to 9.

For the second year running, we were hosted by Kwantlen College's Surrey Campus.

This competition which was a huge success is usually an excellent way to introduce Engineering to elementary and high school students, with the added bonus of \$800.00 dollars of prize money to be won. The prize money for this year's competition was made available by our two kind sponsors, AMEC Earth and Environmental and McElhanney.



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November 22 Dinner Meeting

Abbotsford Infrastructure Projects, including the Airport Expansion Project

On November 22nd, the FV Branch hosted the final dinner & speaker event of the year. The topic was an overview of the design and construction of some of the City of Abbotsford's highest transportation priorities and significant improvements to the airside infrastructure at the Abbotsford International Airport. The projects offered interesting challenges from the perspective of the civil, geotechnical, electrical, and transportation engineering disciplines.

It was well attended, and since the focus of the presentation was of great interest to members in the heart of the Fraser Valley, it was held in Abbotsford, near the projects themselves. Grant Acheson, P.Eng., General Manger, Infrastructure Stimulus Projects, from the City of Abbotsford gave a thorough concept outline and status update of the projects to upgrade the interchange at

Clearbrook Road and Highway 1 and also the McCallum Road interchange. A highlight of the presentation was a video clip of the bridge girder erection of the new Clearbrook overpass – which can be viewed at this link:

http://www.bcdailybuzz.com/media/6784/New_bridge_at_Clearbrook_Rd_over_Hwy_1/

An interesting point was raised about the integration of the “modern” roundabout as an effective means of controlling traffic through intersections as part of the current road improvements. Roundabouts more effectively minimize delay and have a better safety performance than stop controlled intersections. This map can be found at http://www.clearbrookinterchange.ca/?page_id=40

Harvie Buitelaar, P.Eng, a consultant with Airports and Aviation of Hatch Mott MacDonald Ltd., spoke about

infrastructure upgrades to the Abbotsford International Airport. The current project phase involves the construction of a parallel taxiway along the main runway, doubling the arrival rate on Runway 07 and the departure rate on Runway 25. The funding received from the Infrastructure Stimulus Fund will increase the airport's capacity, reduce greenhouse gas emissions by reducing aircraft taxi times and delays, and improve international trade by increasing the airport's capacity to handle larger aircraft, typical of international flights. Progress on the construction of the parallel taxiways and apron expansions are well underway and significant geotechnical work has been done on and around the airport property to accommodate this expansion.

- **Bernadette Currie, P Eng.,
Branch Secretary**

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January 31 Dinner Meeting

Reform of the Engineers and Geoscientists Act and Entrepreneur's Panel

We would be hard pressed to start off 2011 with more quality presentations than we

had at our January 31 meeting in Cloverdale. The evening

began with presentations of certificates to new members.



New members with certificates in tow.

Geoff Thiele, LLB, Director of Investigation and Discipline of APEG then took the reins with a well-researched presentation on Reform of the Engineers and Geoscientists Act. This is an important topic under consideration by the Association and one that affects us all as professionals. While the Fraser Valley branch was the first to hear the presentation, Geoff will also be travelling to other branches throughout BC.

We were pleased to hear from the personal experiences and

insights of our panel of entrepreneurs. Brad Miller, President, IMW Industries Ltd. spoke on the Top 10 Things Every Entrepreneur Should Avoid. Peter Klein, PEng, President and Founder, KLN Klein Product Development Ltd. spoke on Networking and What Is To Be Avoided in Entrepreneurship. Our third panelist, Claudio Arato, PEng, Director of Engineering and Technology, Sonoro Energy Ltd. spoke on Start-up Engineering. Despite the diversity of industries represented on our panel and

the wide range of experiences, similar themes could be heard. The diversity of the industries also resulted in divergent perspectives of similar issues based on varying industries. This event was well attended and the audience was appreciative of the observations of the speakers. All presentations from the event may now be found on the Fraser Valley web page in the past events section.

- **Martin Fandrich, PEng,
Chair**



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February 21 Dinner Meeting

Our Cosmic Journey – The Importance of Mineral Exploration, Discovery and Development

John Chapman, Principal of J.A. Chapman Mining Services, gave an enticing speech celebrating a remarkable marriage between mineral exploration and space travel.

Canada is a leader in the mining industry: we have 7% of the land area on earth and 0.5% of population, yet 20% of world mineral exploration is conducted in Canada, and Canadian companies conduct 43% of the world's mineral exploration.

Mr. Chapman brushed upon the importance of mining to humans, quoting "if it's not grown, it's mined". Mining has shaped our civilizations - the stone and bronze ages, industrialization by means of hydrocarbon fuels, the electrification age provided by various metals and minerals, and... as John predicts, the nuclear powered cosmic journey.

Why the journey?

Because we cannot survive as a single planet species – asteroids and comets taunt us from above, super volcanoes echo from below, and the earth's future ends with the sun. Picture a modern Noah and the Ark.

Why nuclear power?

Because energy density is very important in space!

We will need resources including hydrogen and oxygen (air and water), hydrocarbons, nuclear fuels (uranium and thorium), and all other minerals and elements.

The journey is feasible because the cosmos contains these building blocks; we can obtain the necessary resources "locally".

13.7 billion years ago, the big bang created hydrogen, helium and trace lithium. It followed with stellar nucleosynthesis of the heavier elements up to nickel, and then supernova neutron flux created the

March 28 Dinner Meeting

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On Monday, March 28, 2011 commencing at 6:10pm at the Best Western Regency Inn & Conference Centre .

The speaker was Peter Holt CEng., MIET MeRSA, Valley Transportation Advisory Committee (VALTAC)

The region south of the Fraser River faces challenges as a result of increasing population, the continuing growth of Deltaport and a poor transportation and transit network. The presentation placed particular emphasis on looking at existing infrastructure such as rail corridors to provide additional capacity above and beyond that available on the already overburdened road network.

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remainder of the heavier elements.

Therefore, our universe, solar system, natural resources, ourselves, and the things we create are all stardust.

Mr. Chapman touched upon the notable space programs of USA, Russia, China, India, Japan, and the Ukraine, and noted Canada's un-notable space program.

We can explore the cosmos like we explore the earth, first with remote sensing, building a GIS database. Then with the aid of GPS, we precisely zoom in and conduct surface exploration.

Common historical mining laws: "Possession is 9/10 of the law." "Use it or lose it". Space travelers will surely have to create their own politics.

Mr. Chapman's presentation and background notes are available for download on the Fraser Valley branch web page, www.apeg.bc.ca/fv in the Past Events section.

- **Aleksandra Sokolowski, EIT**

March 28 Dinner Meeting (cont. d)

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Peter Holt is a Chartered Engineer (UK) and former British Royal Navy engineering officer who emigrated from the UK with his wife and family in 1987. He has worked in senior management positions on major aerospace programs across Canada. A resident of Surrey for the last 14 years, Peter completed a three year contract as the Executive Director of the Surrey Board of Trade in 2007, where he was active in many of the regional committees and advisory groups. He is a particularly strong advocate for improved transportation and transit planning in the South of Fraser region. He is a director of both VALTAC (Valley Transportation Advisory Committee) and the Surrey based Fraser Valley Heritage Rail Society.

He operates his own independent business, Buckley Blair & Associates which is based in Surrey.



Professional Engineers
and Geoscientists of BC

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For more information
on the past dinner
meeting and
upcoming events,
please visit the Fraser
Valley web page on
the Apeg BC site.

www.apeg.bc.ca/fv

Your 2010-2011 Branch Executive Is:

Martin Fandrich PEng, Chair
Amil Lindsay, PEng, Vice Chair
Kara Jefford, EIT, Past Chair
Amer Nawaz, PEng, Treasurer
Bernadette Currie, PEng, Secretary
Ron Weismiller, PEng, Member-at-Large