NEWFOUNDLAND DESIGN ASSOCIATES LIMITED
CONSULTING ENGINEERS

NDAL Newsletter

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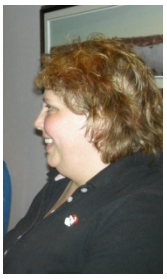
Message from the President

Thanks and congratulations to all of you who have taken the time to make this first newsletter possible. It is truly a great start to what we hope will offer the opportunities to bring us all closer, learn more about each other and what is happening throughout the company. The future is bright for NDAL but we must not let down our guard and continue to strive to produce top notch work and make that extra effort to ensure our client's needs are satisfied.



Remembering Michelle

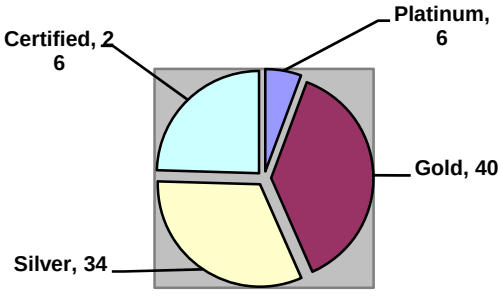
On June17, 2008, we lost a dear friend and co-worker, Michelle Whitten.

Michelle was a very fun loving and generous person who had the ability to light up a room just by walking in. Her positive attitude about her illness showed what type of person she was. She is going to be thoroughly missed by everyone. Michelle will live in our hearts forever with all the memories we have.

What is LEED?

Mechanical Contribution by Craig Penney

With all the talk these days about "green buildings" and "sustainable design", it seems that environmentally conscious design is currently a hot topic. NDAL currently has a number of projects in the design stages which require adherence to LEED principles. However, understanding varies as to what exactly is LEED? This article will attempt to explain the basics.



LEED Certified Projects in Canada (by Level of Certification)

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System was originally developed by the US Green Building Council (USGBC) in the mid-1990s. From 1994 to 2006, LEED grew from one standard for new buildings to a comprehensive system of standards covering a wide array of new construction and renovations. In Canada, the creation of the Canada Green Building Council (CaGBC) has led to the development of our own standard, LEED Canada NC 1.0, released in December 2004. Although the LEED movement in Canada appears to have originated out west (see sidebar), it has quickly spread to all portions of the country.

So what is a LEED project? Since LEED is a voluntary program, and is not mandated or connected to any regulatory agency, a project becomes a LEED project at the time of inception if, and only if, the owner elects to make it so. The project then achieves "LEED points", or credits, by incorporating LEED features and policies. The level of LEED certification is determined by the number of credits achieved (of a possible 70): certified – 26-32 points; silver – 33-38 points; gold – 39-51 points; platinum 52-69 points.

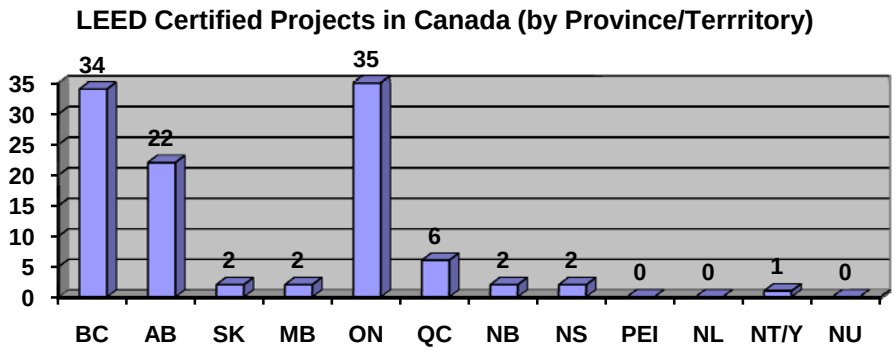
These points are organized into six broad categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design

Special Happenings

- We welcomed the newest member of the Butt-Lambe family: Shaunna Evelyn born May 10th weighing 5 lbs 12 oz.
- We welcomed the two new Courage puppies - Ringo (born Jan 23) - Mia (born Feb 14th)
- Congratulations to Steve Burke who is getting married on Aug 9 in Mount Pearl. He was only willing to tell us the date if we get him a good present!
- From the married to the nearly married. Congratulations Paul Porter who got engaged this Spring. Paul put a whole new take on the popcorn move at a date when he hid the ring in the popcorn box.
- A special congrats to the newest Babstock grandchild - Richard Arthur Lewis residing in Ottawa.
- A shout-out to "The Commish" (aka Justin Butler) who won the NDAL hockey pool win this past NHL season. It had been rumoured that the win could be considered suspicious but after a video judge review the win was considered good.

process.

You might be surprised to know what types of initiatives would earn LEED credits. The CaGBC sees LEED as part of a holistic approach to building construction and management. Under the heading of Sustainable Sites, a design that reduces the rate and quantity of stormwater runoff will earn 1 credit; providing bicycle storage racks and shower facilities will also earn 1 credit. Under the heading of Indoor Environmental Quality, a design that allows natural daylight to reach at least 75% of the occupied spaces will earn 1 credit; using low VOC (reduced offgassing) choices for carpet, paints, and caulkings can earn up to 3 credits.



The LEED standard is somewhat biased toward projects in large urban centres. For example, choosing a site that is near train or bus lines will earn 1 credit. There is also a credit for using lighter-coloured asphalt or alternatives, to reduce the "heat-island effect" found in cities in warmer climates.

Although it may not be perfect, LEED appears to have reached the "critical mass" necessary to establish itself as the standard for green building design. As our clients (PWGSC, DTW, and MUN, as examples) continue to educate themselves and embrace LEED, it will likely find its way into more of our projects in the future. Will we be ready? You bet.

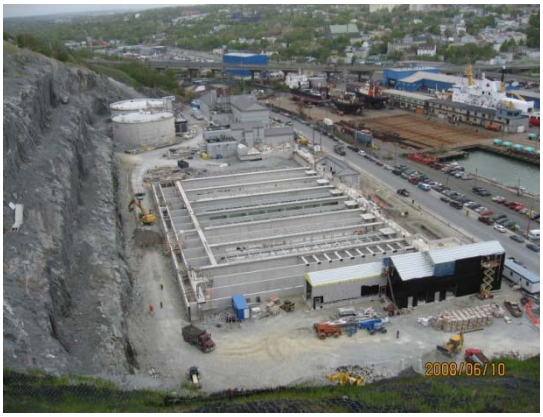
Note: there are LEED manuals in the office explaining the system, its philosophies and implementation. See Ken, Jim, Ray or Craig for some light reading.

Riverhead Update

Riverhead Contribution by William Noseworthy

The St. John's Harbour is a receiving water body for sanitary and storm water sewage from St. John's, Mount Pearl and Paradise. "It is estimated that approximately 120 million liters of raw sewage and storm water enters the Harbour daily through the City's sewer infrastructure. During wet weather storm events, the Harbour can receive 4 to 5 times the daily amount from its sanitary sewage system." The City of St. John's Harbour Clean Up Program aims to capture and treat sanitary and storm water sewerage entering the Harbour through its combined trunk sewers.

The construction of the Riverhead Wastewater Treatment Facility (RWTF) is one component of the City of St. John's Harbour Clean Up Program. The new facility will be a Primary Treatment Facility with the potential for expansion to Secondary / Enhanced Chemical Treatment as dictated by future Harbour water quality results. The RWTF has been subdivided into six main areas. In general each area represent one or more main plant functions as briefly described below.



Area 1 - New & Existing pumping stations; this is the head of the plant where flows from the combined trunk sewers enter the facility. Here the flows are screened & then pumped into a discharge/inlet channel which flows to the Grit Tanks of Area 2.

Area 2 - Aerated Grit Removal; grit is removed and flows passing through enter the Primary Influent Channels on the way to the Clarifier Tanks of Area 3.

Employee Comings and Goings

- We would like to welcome our work term students:
  - Will Power – entering his 5th year at MUN in Mechanical Engineering
  - Scott McIssac – entering his 3rd year Engineering at MUN
  - Tim Keating – entering his 4th year at MUN. He is pursuing both his BSc and Engineering degrees
  - David Keating entering his 2nd year at MUN in pre-Engineering
- A fond farewell to Craig Rowsell who completed his Engineering Degree and has moved to the big skies of Labrador
- Welcome to Gail Kielly who has joined our Riverhead site office.
- A special welcome back to Troy Squires who is helping out our civil team as a site rep for several different projects
- Craig Pike has joined us as a site rep working downtown

Area 3 - Primary Clarification; scum and sludge are removed and pumped to the Digester Tanks of Area 5. The majority of the flow passes through and enters the Primary Effluent Channel which then flows into the Chlorine Contact Tanks of Area 4.

Area 4 - Chlorination and Dechlorination; this is the last stop for effluent before it leaves the facility. Here chlorine is added to disinfect the effluent over a period of time. Before final discharge into the Harbour chlorine is removed with the addition of liquid sodium bisulfite.

Area 5 - Digestion Tanks; through a process of anaerobic digestion the scum and sludge from Area 3 is digested. The digested sludge is dewatered in Area 6 by dewatering centrifuges. The digestion process produces gas which is collected and used to fire the boilers, located in Area 6, which heat the entire facility.

Area 6 - Sludge dewatering, Boiler plant and Administration Building.

In May 2006 the City awarded the RWTF construction contract to Olympic Construction in the amount of approximately $62M. The current construction schedules indicate project completion on time before the end of November 2008.

References: Riverhead Wastewater Treatment Facility Schematic Design Report, Volume 1, July 2005, NDAL / CH2M.

Something to Think About

Administration Contribution by Sue Locke

I strive to be as environmentally friendly as I can in both my personal and work life. I buy as little disposable plastic items as I can. I avoid purchasing products that are excessively wrapped in plastic, never buy paper/plastic plates, cups or utensils; I choose to buy very few plastic drink bottles and so on. Our family of 4 puts out an average of 1 ½ bags of garbage a week and I know with a bit more effort I can do better than that. Simple things like squashing milk cartons and boxes before tossing them in the garbage can make a huge difference in the amount of garbage produced. At work I have been using the same sturdy plastic spoon & fork since Xmas; I simply wash it.

I think our office can do better when it comes to helping our environment. We use plastic utensils, plates, cups and so on when we have 2 fully functioning kitchens complete with sinks and cupboards. We spend approximately $15.00 a month on plastic utensils alone (80 sets), and then there are all those little plastic cups for the coffee.

I would think it might take less than a minute to wash/rinse a few things. The dollar stores sell all sorts of mugs and glasses for $1.00 and Wal-Mart sell sets of fork/knife/spoon for under $2.00. Think Green.

Engineering Through My Eyes

Structural Contribution by Craig Courage

I enter this new world of journalism with penned trepidation. I pledge to delve deep within our company to bring my readers the latest goings on. It is not intended to be a serious read so sit back, pour up a coffee and enter the world of engineering as I see it.

As NDAL's premier division, the lads of the structural department continue to pride themselves on, structurally speaking, being rigid and erect. Lots have happened within our group thus far in 2008. Leading the way is Steve Burke, or Sburke, as he likes to be called. Our young rookie has decided to join the ranks of the married. He and his beautiful bride, Tracy, will tie the matrimonial knot on August 9th in Mount Pearl. But Steve, or Clouds as he likes to be called, didn't stop there. Not sure of what he wanted to do with all his money he finally opted to toss it into a money pit. In other words, he sealed the deal on a new house. It would seem he wanted his very own threshold to carry his bride over. Well done Shleprock, as he likes to be called!

All this is in contrast to another rookie in our department. Poor Justin Butler or B.J. as he likes to be called, for he has had to take up a second job. You can find Justin working late nights in his new role as cook for the Taste of Thai, a favorite local restaurant, located at 177 Duckworth St. (Justin, there is your dig, where is my money?)

As of print deadline Lloyd Cooke is still retired. He and Jean have just returned from Florida where the two snowbirds hibernated from winter. You may wish to include June in your "months to escape from" next year Lloyd.

Jim Keating has managed to "employ" his entire family within the confines of NDAL. He seems to have realized that it is better to put all hands to work rather than take up a second job – as a cook, let's say. There's a lesson to be learned here, Justin. We all know that Sateeya can cook but can she design a beam, smaller than a W760 x 134, to span a few feet? Good grief, don't ask!

Events

- Annual Golf Tournament was held on June 20th. Look for pictures, stories and scores in our next issue.
- We welcomed a new kitchen this spring. Special thanks to Jim Keating for his tireless efforts in organizing the build and the grand opening

Contests

- We are still looking for a catchy name for our newsletter. Do you have any ideas. Please submit them to admin@ndal.com

Contact US

- Have any great ideas or additions for the next newsletter - Contact Us

admin@ndal.com

William Noseworthy continues to put forward his best effort towards cleaning up the St. John's harbour. He recently left Mel home to look after their two young children while he chased after his high school dream band…it would seem that Young Bill, as he likes to be called, is a huge fan of Iron Maiden. Rumour has it he brought a resume along to try out his luck as a roadie. Good luck chasing down your dreams, Will.

Bill Noseworthy, or Big Bill, as he likes to be called has come out of retirement so to speak. He has blown the dust off his slide rule in an effort to help out in the trenches, lending a hand with the MUN Residence.

George Chafe, or Little George, as he likes to be called continues to be a thorn in contractors' sides. Sadly George seems to get a little lonely down on site and insists on calling Glen at 7:30 most mornings. For this I'm sure Glen is very thankful. A recent telephone page went like this, "If anyone wants to talk to George Chafe, he's on line two" – Nobody responded.

For yours truly, there are two new additions to the family. Ringo and Mia are puppies that are responsible for both Paula and me putting in many a sleepless night. Puppies…same as children – without the MCP!

The following are a few predictions I believe will come to fruition over the next few months:

- Justin will become a bus boy at the Fairmont.
- Glen will forsake his beloved Leafs and throw his support behind the Chicago Black Hawks… cupless since 1961 but "due one" according to Glen.
- Larry will score a run from the third base…as coach!
- Colette will golf with three wise men.
- Reg will discover the "beautiful game" and start collecting soccer balls from pitches throughout the greater St. John's region.
- Gerry will co-star with Jay Leno.
- Cheryl's car gets towed by Sobey's.
- Dennis, after years away from trapping, gets "beaver fever" and returns to the wild.
- Paul releases his new interpretive book "Talking in Tongues".
- And the one prediction I know we all pray for that Michelle will soon rejoin the ranks within our NDAL family.**

** At the time of my writing, Flower, as she liked to be called was still with us. If Michelle's life were to be written as a book there would be a chapter about loving animals, another chapter about laughing and another about picking friends up when they're down. But like a good book, Michelle's life was far too short. She is a member of our NDAL family and will live forever in our heart and minds

The Evolution of Change

Electrical Contribution by Steve Hicks

Newfoundlanders have a profound sense of pride in their home. Throughout our history we have been faced with hardship and adversity, often ending tragically. We have persevered, however, and built our heritage by an enduring and indomitable spirit which has allowed us to prevail stronger and better time and time again while still remaining uniquely Newfoundland. To date there have been few, if any, periods in time more exciting to be here in Newfoundland. The future looks bountiful for our province. We are taking control of our own destiny and doing it by taking advantage of the potential this great place has. We have learned many things the hard way here in Newfoundland through mismanagement and weak leadership. These lessons have taught us it is imperative that we intelligently and responsibly manage our resources. Professionally I want to be a part of this, just as I hope NDAL and other companies here in Newfoundland do.

In recent years advancements in technology has radically changed the electrical industry resulting in revolutionary new products and engineering standards being created. Traditionally people reject change and the same holds true in many aspects of electrical engineering. Often new hardware and software is not utilized to its full potential until it is well dated and in modern designs not used at all. We are at a unique point in the history of our planet. The dire condition of planet earth and the path humankind has put her on does not give us the option to reject change. This reality will force us out of our comfort zone and engage modern technology sooner than we'd like. There is an energy crisis looming that will stretch to all ends of the modern world. This energy crisis though is based on current production methods and current consumer

habits. The modern world has no choice but change. The conservation of current assets and the development of clean renewable sources of energy are the only solutions. We are on the brink of a new world where innovation has to be the norm. It will become an electrical design teams duty to be pioneers, to break away from tradition, to constantly seek out and produce more efficient designs and to stay at the fore front with new technology.