

NA ENGINEERING ASSOCIATES INC.

NEWSLETTER | VOLUME 11 | ISSUE 1

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NA Engineering Associates Inc.
Stratford | London | Kincardine | Markham | Woodstock
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Proudly providing professional consulting services
in Ontario for more than twenty years.

leading the way with integrated digital solutions

As part of our commitment to providing innovative solutions to our clients, NA Engineering Associates Inc. (NAE) has been working hard to use state-of-the-art software as part of the structural steel connection design at the HWMB-WA at Ontario Power Generation's Darlington site.

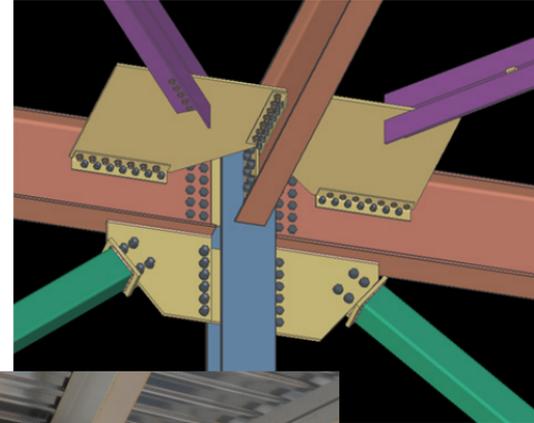
For this project, the NAE team has harnessed the power of SDS/2, cutting-edge modelling software that provides connection calculation and has the ability to produce connection detail drawings. As this software had not been previously implemented on a project by NAE, three of our dedicated team members traveled to Nebraska for a week-long training session with the provider.

This project is a prime example of NAE's guiding principle of providing the highest quality services to our clients. Throughout the project, we have been able to meet deliverable deadlines with

accurate calculations and drawings. We worked very closely with the fabricator to determine what their capabilities were throughout the project as to avoid designing something that was outside of their abilities. We also worked closely with the Designer of Record to identify any potential risks to the schedule resulting from connection design / fabrication perspective and provided alternative designs to increase the connection design and fabrication process.

As a result of our team's efforts and dedication to this project over the past year, we were subsequently hired to complete the steel and concrete inspection. There is also a potential for NAE to provide building envelope services as this project progresses.

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Hydro One station service building

As part of our ongoing services in support of the energy industry, NAE is currently working with Rankin Construction for the design of a new station service building and an addition to an existing relay building for Hydro One in Napanee, Ontario.

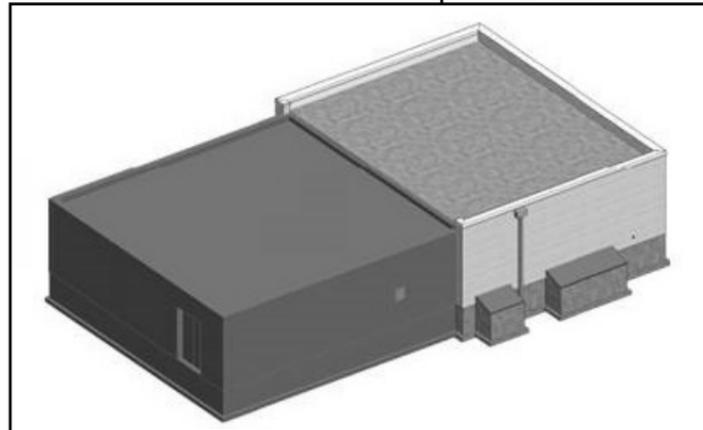
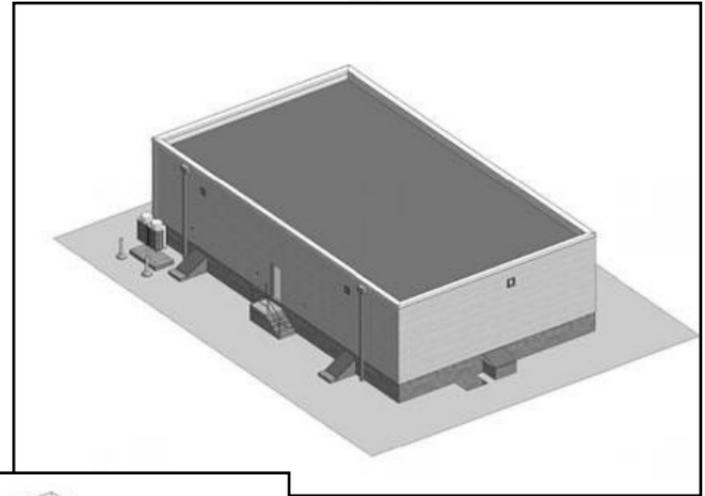
We are providing a range of design services, including building layouts, structural, mechanical, and electrical. The buildings are load-bearing concrete walls supported on concrete foundations with precast concrete roof slabs.

The station building comprises two battery rooms, two AC/DC rooms, and a crawl space. The relay addition includes a single room complete with a raised floor. Construction on this project started December 2016 and scheduled to finish in summer 2017.

Thanks to NAE's dedicated project team, the project schedule was kept on track. This multidisciplinary project demonstrates

NAE's wide array of in-house engineering capabilities and how we can leverage our resources to provide turnkey solutions incorporating numerous specialties. It also represents our growing capacity to provide comprehensive engineering services across Ontario.

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sustainable roofing solutions for the Stratford Festival Theatre

NAE provided consulting services for the roof replacement project for the main roof at the Stratford Festival Theatre, the home of North America's largest classical repertory theatre company and a cultural hub in Stratford, Ontario.

The roof was upgraded to a white/cool roof system, which reflects more sunlight and absorbs less heat than traditional roofing systems. This can help reduce energy bills by decreasing the reliance on air conditioning and reducing the temperature of the roof, helping to extend the service life of the roof. The environmental benefits include reducing local air temperatures, and lowering peak electricity demand.

In the early stages of the design, NAE conducted sound testing on mock-ups of different roof systems to see what effect different types of thermal insulation/membranes had on the sound transmission characteristics of the roofing systems being considered. Based on our design

and testing, the final roof included a new, waterproof membrane and also incorporated materials and methods of construction that significantly reduced the noise in the performance area of the building.

NAE undertook the site assessment, design, tendering, and contract administration services for the project. Construction was completed during the winter months, which provided additional challenges, including scheduling and safety, that NAE's team was able to overcome to bring the project in on time.

The construction of the new roof was completed in February 2017, ensuring that the show will go on for years to come for the theatre and the fans from all across North America who attend the Stratford Festival every year.

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innovation at work(spaces)

NAE is pleased to be supporting Bruce Power as they transform yesterday's assets into tomorrow's solutions. Our most recent efforts have been focused on the Bruce Power B11 Administration Building. NAE is designing renovations for the building to bring it up to new site standards for finishes and accessibility. The project is one of many that we have completed for Bruce Power over the past seventeen years.

NAE undertook renovation designs for this 55,000 square-foot facility in 2006 and again in 2012, but circumstances were such that re-construction activities had to be postponed. Now, with the Major Component Replacement program well underway, there is a strong business driver for refreshed and functional office space on site at Bruce Power.

The upgrades to B11 will extend the life of the facility to meet tomorrow's needs, with substantial improvements for the architectural, mechanical, and electrical systems. The project also includes new offices, an upgraded cafeteria, conference rooms, staff onboarding facilities, storage and other updated amenities. The outdated sewage pumping system is being completely overhauled. The project will vastly improve the building's energy efficiency, with new windows, exterior wall upgrades, a new chiller HVAC system and upgraded LED lighting and control systems.

Design for the project will be completed this summer with construction to commence late in 2017.

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Canadian Nuclear Association 2017 annual conference

NAE is proud to have taken part in the Canadian Nuclear Association (CNA) 2017 Conference and Trade Show this past February in our nation's capital, Ottawa, Ontario. This year's theme was aimed at fostering innovation and economic and environmental sustainability in the nuclear industry.

For over 15 years, NAE has worked to establish ourselves as a leader in supporting the Canadian nuclear industry through consulting services to become a trusted advisor to clients such as Bruce Power, Canadian Nuclear Laboratories, and Ontario Power Generation. Nick Aroutzidis, President and Founder of NAE, is a member of the CNA Board of Directors, underscoring our commitment to promoting the development of nuclear energy as a clean, affordable, safe, and reliable source of power.

The CNA Conference allowed NAE leadership to network with other industry leaders to develop

solutions to common industry challenges while promoting the numerous benefits of nuclear energy as an inexpensive, low-carbon solution to meet Canada's growing needs. It also provided NAE with the opportunity to advance our partnerships promote our growing portfolio of services.

In recognition of NAE's leadership in support of the regional economy, we received a Certificate of Recognition from Bruce County. 2017 marks the 10-year Anniversary of the NAE Kincardine office, opened to better serve Bruce Power and the surrounding Grey-Bruce community.

NAE remains dedicated to supporting the communities in which we live and work, which is a key part of our mission to provide the highest quality service for the greatest possible value.

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strategic agreement with Nuvia Canada

Leading engineering service providers Nuvia Canada Inc. (Nuvia) and NAE have signed a strategic agreement to expand and deepen their relationship within the Canadian nuclear industry. The agreement establishes a framework for the companies to leverage their complementary strengths for selected projects in order to provide additional value to clients, better serve the dynamic Canadian nuclear marketplace, and support mutual long-term growth objectives.

Areas of potential future cooperation include the revitalization of research facilities at Canadian Nuclear Laboratories, the refurbishment of major components and assets at Bruce Power and Ontario Power Generation, and the ongoing full life cycle support of international nuclear utilities and laboratories.

The strategic agreement has the full support of the Canadian Nuclear Association (CNA).

“As the Canadian nuclear industry moves ahead with major reactor refurbishments that will extend the production of safe and clean electricity in Ontario until mid-century, we applaud NA Engineering Associates’ efforts to



forge strategic relationships with international nuclear leaders such as the Nuvia Group,” said CNA President and CEO Dr. John Barrett. “These types of initiatives enhance collaborative best practices and nuclear expertise for our industry.”

“We have been working closely with NA Engineering Associates and are very pleased to have reached this milestone in our relationship in order to provide our clients a more competitive and broader range of nuclear innovations,” said Keith Collett, Nuvia CEO. “Together with NAE, we are looking forward to supporting nuclear’s commitment to Ontario’s Long-Term Energy Plan and R&D capabilities with the latest technologies under the most robust of quality assurance programs.”

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12th annual black bears charity hockey tournament

As part of our ongoing commitment to supporting the community, NAE was proud to support the 12th Annual Black Bears Charity Hockey Tournament hosted by Canadian Nuclear Laboratories (CNL) running from January 11 to 13, 2017. Every year, this event raises money for various charities and organizations as well as local individuals and families in need.

This year, the tournament raised \$27,000. The proceeds from this year's tournament will go towards supporting the Deep River and District Regional Hospital and the new orthopaedic surgery unit at the Pembroke Regional Hospital. A portion of the funds will also be donated to 6-year-old Kiara Ronan, who in 2016 was diagnosed with a kidney disease, Minimal Change Disease. The money will go to Kiara and her family to help offset medical costs as the treatment for Kiara's condition requires travelling back and forth to the Children's Hospital of Eastern Ontario (CHEO).

The annual charity tournament is put on by the

Black Bears Hockey Club, which comprises a group of Nuclear Response Force and Nuclear Security Officers who are all current or retired employees of CNL. Building 114 won their final game against the Fire/Security team to become the 'A' division champs. The tournament has raised over \$88,000 since its inception, and the event has grown from 6 to 18 teams. NAE is extremely pleased to have been able to contribute to such a great cause, and all of our thoughts are with this Kiara and her family.

For more information on how to get involved in the tournament through various sponsorship opportunities, please contact Dean Johnston at dean.johnston@cnl.ca

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bake sale in support of Humane Society

In support of the Ontario Society for the Prevention of Cruelty to Animals (SPCA) and Stratford Perth Humane Society, NAE held our fourth annual bake sale event to raise money for animals in need.

The event ran throughout the months of February and March, and featured treats prepared by a crew of amateur bakers who volunteered their time and effort for a good cause. Throughout the 2-month event, volunteers from our five offices prepared baked goods and brought them in to work, where their co-workers would partake of the treats while providing a monetary donation.

NAE's annual bake sale is part of National Cupcake Day, an annual fundraising event held to support SPCAs and Humane Societies across Canada.

Once again, the event was a huge success, with countless staff contributing. NAE was able to raise a total of \$623.25 this year. Special thanks to NAE's Cheryl Young who organizes this event at NAE, and who is pictured right presenting the a cheque to the Stratford Perth Humane Society. Also thank you to everyone who participated by baking delicious treats or by donating to this worthy cause.

To date, National Cupcake Day has raised over \$1.85 million to help support services and medical care for animals across Canada.

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supporting World Down Syndrome Day

NAE's Kincardine office is proud to have participated in World Down Syndrome Day, which took place March 21, 2017. As part of the local Lots of Socks Celebration in Kincardine, our staff created a window display to build awareness and foster inclusion and acceptance in our community.

We received a large poster print featuring a local individual with Down Syndrome to use as part of our window display; we then decorated our windows with colourful socks throughout the month of March until March 21. Our local Community Living Kincardine members then voted on their favourite window display in town and presented the coveted Golden Sock Award to the winners at a celebration held on World Down Syndrome Day.

The Lots of Socks Celebration also included an evening of fun activities, including an all-you-can-eat Taco bar, a "Sock Selfie" photobooth, and the West Shore Fashion Show. The event also featured the first public reading of "Meet Will and Jake—Best Friends Forever," an original children's book featuring a character with Down Syndrome written by Kincardine's Homies with Extra Chromies group.

You can follow along on Twitter with the hashtag #MyVoiceMyCommunity

For more information, please visit the following websites:

<https://worlddownsyndromeday.org/>

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