Capital Communiqué
2018 May Edition

ASHRAE Ottawa Valley Chapter

DATE: **Tuesday May 15, 2018**
Social: 17:30, Dinner: 18:30, Program: 20:00

LOCATION: **Centurion Conference & Event Center**
170 Colonnade Road, Nepean, ON K2E 7J5

THEME: **History**

PROGRAM: **Meeting the Goals of the Vancouver Declaration on Climate Change in Federal Government Facilities**

BGIS is working closely with Public Services and Procurement Canada (PSPC) to implement aggressive measures to reduce the environmental impact of facilities owned by the federal government across the country. In addition to discussing the approach and challenges related to the mandate, the presentation will focus on the importance of relationships, communication and collaboration between all stakeholders to achieve aggressive greenhouse gas emission reductions while maintaining long-term fiscal responsibility.

SPEAKER: **Daniel Gosselin, P.Eng.**
National Director of Energy, BGIS

During his 17 year career, Daniel has specialized in the execution of capital projects including the delivery of practical sustainability solutions, including LEED design and construction services. More specifically, Daniel has successfully led teams in the delivery of deep energy retrofit projects, primarily focused on Heating, Ventilation and Air Conditioning (HVAC). As National Director on the RP1 federal government facility management contract, Daniel oversees a team of energy managers, engineers and architects. His primary mandate is to work closely with PSPC to achieve carbon neutrality in their facilities across the country by 2030.

Space is limited so please register online at the link below

Chapter Members: $48.00	Guests: $65.00
Student Members: $35.00	Life or Fellow: $48.00
Past President: $0.00	Past President Companion: $0.00

https://ashraeottawa.simplesignup.ca/en/3349/index.php?m=eventSummary

President's Message

President
Adam Graham
2017-2018
OVC President
HTS

E-mail: *adam.graham@hts.com*

It appears that this will be my final President's Message and the **last communique** for this **ASHRAE** year. I can't believe that it has been a year since my installment as **Chapter President** last May. It has been a fun and extremely busy year for me and from the sounds of it, our entire industry... May marks our **final program meeting** of the year and the month that we ask our **Past President's** and their Companions to join us for the evening and celebrate our **Chapter's History**. This happens to be the theme for the evening as well. We are lucky to have such great people that have invested so much of their time to **ASHRAE OVC** coming back year over year to join us.

Our current **History Chair Ryan Dickinson** will have a table top history display to showcase the last 65 years of our **Chapter**. We will be back at **Centurion Center** and our program will be put on by **Daniel Gosselin**, National Director of Energy at BGIS. His presentation entitled **"Meeting the goals of the Vancouver Declaration on Climate Change in federal government facilities"** will give an overview on how PSPC intends on leading by example in reducing our **Country's carbon footprint** and how these projects will be managed. Refer to the program article for more details. You can register for the meeting at the link below:

We are lucky to have an **extremely strong Chapter** here in **Ottawa**. This is a result of all of the great people that **volunteer** their time and resources to help run this Chapter. I would like to take a moment to **thank everyone involved in making this past year a success**.

First, I would like to thank the **Executive, Board of Governors, Committee Chairs, Members, and Sandy Taylor for all of their support.** Secondly, I would like to thank all of the members that continue to stay involved and those who promote **ASHRAE** within their organizations.

Some items we as a Chapter can be particularly proud of include:

- Our membership numbers continue to **rise** with a vast increase in **young people getting involved**.

- We offered a good mix of strong **technical topics** and other events including **technical sessions, seminars, and tours,** to provide value to our membership.

- We have decided as a BOG to fully fund our **ASHRAE OVC Scholarship** commitment this year to annually provide a source of funds to a worthy local student recipient, encouraging more young people to find a career in our industry. We hope to be able to **award the first scholarship** as soon as possible.

I am grateful for the opportunity to lead this great **Chapter** and for all of the experience gained in moving through the **Board** and **Executive**. This experience is invaluable and I encourage anyone considering this opportunity to make the leap and **talk to someone about how to get more involved**. Though it was a lot of work and extremely busy at times, the people involved made it maneageable and well worth the effort. I am excited for a renewed focus on family and work life while continuing my involvement with the **Chapter** on a limited basis in the coming years.

Moving forward, the **Chapter** is in extremely capable hands. Next year's **Board of Governors, Executive and many volunteers** are an exceptionally competent group of individuals. That said, I ask everyone to please give your full support to incoming **President Daniel Redmond** and his team next year and I look forward to the many great things to come for the **OVC**.

Enjoy your summer, and I hope to see you all at our **Annual Golf Tournament** in June or back at **ASHRAE** in the fall.

Thank you,

Adam Graham
2017-2018 OVC President

ASHRAE May Meeting Link: https://ashraeottawa.simplesignup.ca/en/3349/index.php?m=eventSummary

OVC Program Survey

Every year here at the **Ottawa Valley Chapter** we strive to deliver programs that are interesting, informative and of high value to you, the membership. A lot of planning goes into arranging the speakers and topics, and feedback from the membership is critical to ensure that everyone's expectations are met.

We will be meeting over the next few months to develop the program for the 2018-19 year. We have put together a survey and encourage all chapter members to have a look. The survey only takes a few minutes and gives an opportunity to identify programs that would be of interest to you. The **electronic on-line survey** can be reached via the web link below.

Thank you very much for your help in preparing next year's program agenda.

Governor
Jacob Hough
2017-2018
OVC CTTC Chair
Total HVAC

E-mail: *jacobh@totalhvac.com*

OVC Program Survey Link: https://www.surveymonkey.com/r/ZKTGDBR

ASHRAE OVC Annual Golf Tournament 2018

Registration for the 2018 edition of the **ASHRAE Golf Tournament** is **now full!** This year we will be returning to **The Marshes Golf Club** and the tournament is going to be held on Monday June 4th. The format for the tournament remains unchanged, we will be playing a **four player scramble** (also known as **Best Ball**) and **dinner** is included as part of the entry fee. Event details, costs and a payment link are all listed below.

It is also worth noting that **Sponsorships** of the tournament can be **purchased online** and are **still available**. A Sponsorship includes a sign on the course at either a green or tee-off and recognition at the dinner portion of the event as well. This Tournament is a **fundraiser for ASHRAE Research** and the local **ASHRAE Chapter**, so what better way to support ASHRAE while getting some advertising and industry awareness at the same time. Finally, if you have somebody who is interested in joining the **dinner portion only** then the option is also available to **purchase a seat for the dinner**.

Date:
Monday June 4, 2018

Location:
The Marshes Golf Club
320 Terry Fox Drive
Ottawa, ON K2K 3L1

Registration: 11AM
Golf: 12PM (noon shotgun)
Dinner: 6PM (immediately following golf)

President
Adam Graham
2017-2018
OVC President
HTS

E-mail: *adam.graham@hts.com*

Note: This year there is no cash BBQ option being provided by the Marshes. Sandwiches should be available for purchase on the go. Arrive early if you would like to have lunch upstairs at the restaurant prior to golf.

If you have any questions or if you need any additional information please contact **Rod Lancefield:**

Telephone: 613-728-7400
Email: *rod.lancefield@hts.com*

ASHRAE OVC Golf Tournament Link: https://ashraeottawa.simplesignup.ca/en/3242/index.php?m=eventSummary

What You Missed

The seventh program meeting of the 2017/2018 **ASHRAE** season was held at the **Centurion Conference & Event Center** on Colonnade Road in Ottawa. The theme for the evening was **Research**. The meeting was attended by forty-six people, which consisted of thirty-three members and thirteen guests. The program for the evening was **Acoustics: Supporting Sound Mechanical HVAC Design**. The speaker was **Emanuel Mouratidis** who is the Director of Acoustics Engineering at VAW Systems Ltd., a noise control manufacturer.

President Adam Graham called the meeting to order, introduced the Executive and Board of Governors. **Secretary Aaron Dobson** introduced the guests for the evening.

Celine Baribeau, Membership Promotion Chair introduced six new members to the Ottawa Chapter.

Nominations Chair Steve Moons followed up on the opening of nominations from last month's meeting. Before Steve announced the leadership for next year he asked if there were any **final nominations** to be brought forth. There were no additional nominations. Steve asked for someone to motion the nominations be closed. **Nick Lea** motioned and **Mike Swayne** seconded motion. Steve announced the 2018-2019 **Chapter Year Executives** with:

- **Dan Redmond** as **President**
- **Chris Fudge** as **President-Elect**
- **Aaron Dobson** as **Treasurer**
- **Adrianne Mitani** as **Secretary**

Adam Graham will be the **Past-President**.

Board of Governors will be:

- **Adam Moons**
- **Chris Frauley**
- **Jacob Hough**
- **Celine Baribeau**
- **Peter Shaw-Wood**

Executive and **BOG** will be sworn in at the **May** Meeting. **Adam** thanked **Steve** and **Abbey** for taking over the nominations committee and congratulated the **incoming Executive and BOG**.

YEA Chair Joe Della Valle talked about the next **YEA Event** on Thursday May 3rd at **TailGators**. Joe mentioned students are welcome to the event to network with YEA members. Details are posted on the **ASHRAE OVC website**.

Adam Graham talked about the two seminars held before the chapter meeting. First seminar was presented by **Frank Mills** on **Cold Climate Design** and the second was presented by **Emanuel Mouratidis** (also the chapter meeting speaker) on **Acoustics, product design and system selections**. Adam thanked the seminar speakers and presented visiting ASHRAE DL Frank Mills with a gift from the Chapter.

CTTC Chair Jacob Hough talked about the **ASHRAE Technology Awards** which are to promote and give praise to local projects in innovative engineering design or sustainability. Jacob announced the **three winners at the chapter level** and thanked everyone who applied. First award - **existing education facility** was presented to **Dan Redmond** from Carleton University for the **Herzberg Renewal Project**. Second award – **other institution category** was presented to **Martin Ma** from JP2G for the **CMHC National HQ Building C Project**. In Martin's absence, **Mike Swayne** accepted the award. Third award – **existing commercial facilities** was presented to **Patrick St-Onge** from BPA for the **Bank of Canada Head Office Renewal**. In Patrick's absence, **Georges Maamari** accepted the award. Jacob congratulated all the award winners.

Adam Graham gave an overview of **ASHRAE Golf** on June 4th at **The Marshes**. The golf tournament is open to previous teams first and remaining spots, if any, will be open for registration next week.

Adam Graham invited **Chris Frauley** to talk about the **Ottawa Regional Science Fair**. Chris mentioned the science fair has been going on for over 50 years. The science fair was held at **Carleton University**. There was a large turnout with teams from grade school, right to high school. The **ASHRAE Chapter awarded prizes**

Secretary

Aaron Dobson

2017-2018

OVC Secretary

Ainsworth

E-mail: *Aaron.Dobson@ainsworth.com*

to 3 teams. The **3rd place** prize was to **"Shrink that Footprint"**, **Angelika Boehm and Mackenzie Watson**, an experiment testing the effectiveness of low-e window coatings. The **2nd place** prize was to **"Creation de Maisons Solaires Passives Adaptees"**, **Camille Arseneault and Tia Jones**, an experiment testing different attributes of a solar house (house orientation, type of window, paint colour, etc.). The **1st place** prize was to **"Is Fiberglass Insulation the BEST choice?"**, **Hana Abdelwahhab**, an experiment testing the effectiveness of different insulations using hot water in tupperware containers. This was done by a single 8th grader where the other finalist were in high school in groups of 2. Chris also mentioned that **Algonquin College** had a **Career Fair** last week at their ACCE building. It was a meet and greet for the construction industry with students and hiring companies. The career fair is like the ASHRAE Career Fair. **Chris encourages members to get involved next year for the career fair**.

Adam invited **Dan Vivian** to talk about an **ASHRAE** sponsored event with **PEO** in early May. The joint **ASHRAE/PEO event** will be a field trip to a passive house (**EcoGen house in Merrickville**) and a high-performance building (ware-house office building for **Solar City**). The buildings will be showcasing the highest level of technology performance for HVAC.

EcoGen passive house in Merrickville has **R-70 exterior insulation**, **passive solar heating**, **solar PV generation**, **radiant floor heating**, **heat-recovery**, **hydronic thermal energy storage**. The house has a **hydronic recirculation pump** that uses only 23 watts and the house is **cooled** with only 43 watts.

Solar City is a 10,300 sq-ft high performance warehouse/office

building which features **high performance insulation**, **metal construction**, **passive solar heating**, **solar PV generation**, **radiant hydronic floor heating and cooling**. The building generates 2.5 times more energy than it consumes. The field trip will be May 5th at 1 pm. Details are posted on the **ASHRAE OVC website**.

Research Promotion Chair Dan Redmond gave an update on research promotion. ASHRAE RP generates funding for standards and guidelines. Research goals are given to the Society, Region and Chapter. The **Ottawa Chapter Goal has been achieved for the 2017-2018 ASHRAE year**. Dan thanked the membership and Research Promotion team (**Adam Graham**, **Abbey Saunders**, **Georges Maamari**, **Frank Bann**, **Mike Swayne**, **Rob Lefebvre** and **Dan Redmond** as **RP Chair**). Dan mentioned that additional Research money raised will go towards the **ASHRAE scholarship fund**. The OVC Research goal was $30,100. A total of $30,709.54 has been raised to date. Dan mentioned 4 field-level Redblack tickets for the May 31st game against **Montreal** were donated by **Ainsworth** for the raffle.

Adam Graham invited the companies to talk about their **table-tops**. **Tim Sutton** from **S&P Ventilation** talked about their ventilation products sold through **Mastron**. **Chris Fudge** from **Master Group** talked about their **York Low Pressure Centrifugal Chiller with Magnetic Bearing Compressor**. **Adam Moons** from **Master Group** talked about **VAW Systems** sound solutions and noise abatement.

Adam Graham invited **Nick Lea**, Global Product Manager from Nortec, and **Vice-Chair on Technical Committee 5.11** to talk about ASHRAE technical committees. ASHRAE has 4 different types of technical committees that focus on technical information (**Technical Committee TC, Task Group TG, Technical Resource Group TRG, Multidisciplinary Task Group MTG**). The members of these committees could be Engineers, Manufacturers, Consultants, Researchers, Universities, Utilities, Regulators, Contractors, Government. Nick went over an organizational chart of a technical committee with the Section Head, Chair, Officers, committee members, subcommittees and communications. Technical committees are divided into **areas of expertise** called **"Sections"**. There are 10 different sections. Nick discussed the different tasks of the technical committees such as research, standards, handbooks, conference programs. Technical Committees meet in person twice per year at **ASHRAE Conferences**. There are additional conference calls during the year for specific tasks. **To get involved with a technical committee** you can apply online at the ASHRAE website to automatically become a **Provisional Corresponding Member**. There is no charge to attend a Technical Committee meeting.

Dan Redmond invited **Emanuel** to draw the winning raffle ticket. Winner of the Redblacks tickets was **Evans Mutua**. Dan mentioned that $560 was raised for **ASHRAE Research Promotion** thanks to **Ainsworth**.

Dinner was an assorted buffet and cake for dessert.

Adam Graham introduced the speaker **Emanuel Mouratidis**. **Emanuel Mouratidis** is the **Director of Acoustic Engineering** for **VAW Systems Ltd.** and the topic for the evening is **Acoustics: Supporting Sound Mechanical HVAC Design**.

Emanuel started the presentation talking about practical mechanical **HVAC acoustics design**. Acoustics is a common occupant complaint of HVAC systems and is a key component of **whole building comfort and healthier environments**. If ignored, it may result in costly repairs, delays, loss or reduced space usage and damaged reputation. The focus of the presentation is to review direct, cost-effective strategies and methods. The motivation is to help your projects achieve acoustic success.

Emanuel went through different **types of silencers** that are encountered. **Fume hood silencers** for labs, **extended width silencers** for high velocity systems. Other products encountered in design are **acoustic enclosures** which are fabricated from acoustic panels. When designing the enclosure, the supporting equipment needs to be addressed. The enclosure needs to be ventilated. How do we ventilate the enclosure without compromising the acoustics? If you add a louvre, what type of silencer do you need for it? Special types of doors need to be specified. Does the enclosure sit on a separate pad or another structure?

Acoustic louvres are the noise control last line of defense when you do not have any more room in your system. Emanuel talked about the different types of louvres and their applications. You can use a **standard rain louvre**, **side proof louvre** (added acoustic benefit from bending the air and eliminating the view into the building from the outside) or **airfoil louvre** (lowest pressure drop solution but not as high performing as the other 2 louvres). For **retrofit solutions** you can take an existing rain louvre and add **baffling**.

Emanuel talked about **strategies for acoustics success**. Obtain Owner and Design Team "buy-in" at onset of Project. Clearly **define the acceptable sound levels** in each space. Form a noise control team consisting of Architectural Design Lead, Mechanical Design Lead, Acoustic Engineer, Noise Control Supplier and Other Specialists & Stakeholders. **Manage the mechanical "foot-print"**. Locate noisy equipment away from critical spaces.

For **indoor applications**, how much **natural attenuation** do you have? Consider a 18"x36" unlined sheet metal duct between the fan and critical space. A 10ft length of ductwork provides 2dB low frequency natural attenuation while a 40ft length of ductwork provides 10dB low frequency natural attenuation.

For **outdoor applications**, are you taking advantage of **divergence and barrier losses**? Point source sound pressure level decreases 6dB with doubling distance. There is a -16dB reduction 6ft from the source, a -22dB reduction 12ft from the source and a -34 dB reduction 48ft from the source. **Barriers provide sound pressure level reductions**. There is -10dB reduction for **"partially shielded"** and -20dB reduction for **"fully-shielded"**. **Emanuel** gave an example of a commercial building near a

residential area with acoustics issues from noisy fans and the suggestions made to improve the sound levels. **Select suitable construction materials and duct velocities that meet desired room noise levels**. If the specification changes from **stainless steel to aluminum**, it is a big deal with acoustics. The difference in mass will impact the amount of **radiated noise**. Control duct velocity and minimize regenerated noise and pressure drop issues. For **diffuser, grille & damper velocities**, the selection is based on specified **Noise Criteria (NC)** and/or **dBA** as per Manufacturer's ratings.

Emanuel went through a **manufacturer's data sheet** for air device noise. They rate their equipment against a Noise Criteria (NC). NC ratings are based on an **acoustically soft room** (carpet floor, gypsum wall and ceiling tiles). Sound levels are based on **ideal airflow into diffusers**. Maintain enough space; fan and duct clearances need to meet guidelines (**AMCA**, **ASHRAE**, etc.). Specify quality equipment and avoid undesirable operating points. It is time to call an **Acoustics Expert** if you have a **high-performance building**, **mixed use space**, **very low noise space** (<NC-30), **unusual noise paths** (e.g. room-ceiling-room), **potential for mock-up testing** (lab, factory, at site).

Emanuel gave an overview of the **practical designs** to achieve acoustics success including **noise criteria**, **noise path analysis**, **cost effective design/specification** (control noise at the source, silencer characteristics) and **aerodynamic system effects**. Maintain the room maximum sound pressure level, in Noise Criteria (NC) for indoor spaces (specification may be defined by the ASHRAE Handbook).

The **NC levels are the go to criteria in our industry** where there is a single number for different spaces. Emanuel talked about the **history of the Noise Criteria curves** which were created through psychoacoustic testing in the 1970's by subjecting people to different sound level intensities and frequencies. **For outdoor spaces, do not exceed maximum allowed Sound Pressure Level (dBA)** at nearby receptor. Noise receptor may be **adjacent property line** (at-grade, patio, window) or on-site (patient, classroom windows). Consider **tone prominence criteria** for critical applications. Tone may be prominent if the sound level within any **1/3 octave band** exceeds the average of the adjacent bands by the following: 15dB for 25Hz to 125Hz, 8dB for 160Hz to 400 Hz, 5dB for 500Hz to 10kHz.

For **low frequency noise**, which in the HVAC world is 125 Hz or lower. Sounds with low frequency noise may deliver noise-induced rattles and rumbles resulting in greater receptor annoyance (**ANSI S12.9**). If dBC – dBA >10dB; need to assess, if dBC – dBA > 20 dB; low frequency noise is likely. If sound pressure level (frequency<=63) >70 dB (~NC-50); low frequency noise is likely.

Effective **noise path analysis** can be broken down into **Source** (AHU, VAV, Pump etc.), **Path** (duct, elbow, plenum, atmosphere etc.) and **Receiver** (space use, indoor/outdoor). Emanuel went through a series of slides talking about each of the different noise paths and key features to consider when designing the systems. When specifying **duct liner, silencer or noise control**, the **thermal insulation and acoustic materials** used in HVAC systems are required to **pass air exposure and erosion test standards**.

ASHRAE Standard 62.1 requirements (refers to various **UL** and **ASTM** test methods) for resistance to mold growth, resistance to erosion. Some concerns relating to **fibre-type materials** are **life expectancy**, **exposed edges** and **surfaces** and **duct cleaning**.

Emanuel talked about **silencers** for any application. These were **absorptive - common**, **fiber-filled media type**, **lined – absorptive with liner protection** (no fibers exposed to airstream), **reactive – 100% no-media**. For the various silencer types, Emanuel went through the **insertion loss** with variable free area, variable silencer length, and variable extended width.

Emanuel touched on **aerodynamic system effects** when it comes to noise control. Real-life installations rarely resemble lab tests. HVAC component interactions (**silencers**, **elbows**, **transitions**, **fans**, etc.) are called **system effects**. System effects are believed to increase pressure drop and generated noise. **ASHRAE Handbook** Table 27 describes pressure drop factors on silencers.

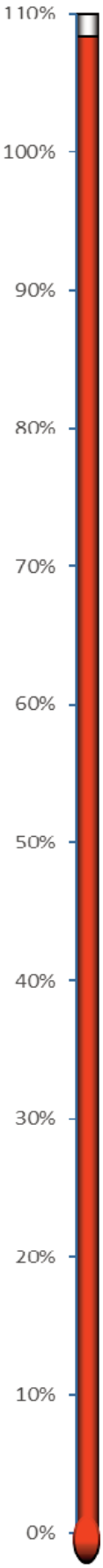
Emanuel went through a **case study** with a RTU serving critical spaces. **Most installations require at least one air/duct borne and one break-out path assessment**. Apply noise control as close as possible to the source. Under the roof-top unit, in the mechanical room, at the fan inlet/outlet and at a wall partition.

President Adam Graham thanked the speaker and reminded all attendees of the survey. Next meeting is May 15th at the **Centurion Conference and Event Center**. Meeting adjourned at 21:05.

All chapter meeting pictures and videos are posted online. Visit www.ashrae.ottawa.on.ca and search under the Chapter year for links.

Research Promotion

Thank you very much for your continued support of **ASHRAE Research Canada!**



Many of you are aware that ASHRAE research plays an important role in our everyday lives. Our built environment including everything from our homes, offices and hospitals to quality of food and living conditions in airplanes are dependent upon the research conducted by ASHRAE to keep people healthy and comfortable. Every dollar raised by **ASHRAE Research Canada** stays in Canada to further research in the HVAC&R industry. Furthermore, for every dollar raised, two to three dollars are invested in research, here in Canada.

Thanks to the dedication of our donors and the efforts of the 2017-2018 **RP Campaign Team**, the **Ottawa Valley Chapter** has raised 108% of our total goal of $30,100 for 2017-2018. To date, **$32,619** has been raised for **Research Promotion**. Thank you very much for all of your support!!!

At the **April** Program Meeting, four tickets to see the **Ottawa Redblacks** were graciously donated by **Ainsworth** and $560.00 was raised towards this year's campaign. Thank you very much **Ainsworth** for your continued support!

Thank you very much to our **2017-2018 RP Campaign donors**. The list below of current 2017-2018 RP Campaign donors will be updated for each monthly newsletter, so donate quickly to see you name appear!

Two of the easiest ways to make your donation to the 2017-2018 RP Campaign are by clicking either of the links below.

Should you wish to make a donation with a cheque, please make all cheques payable to **ASHRAE Research Canada**.

ASHRAE OVC Link: https://ashraeottawa.simplesignup.ca/en/2594/index.php?m=eventSummary

ASHRAE Society Link: https://xp20.ashrae.org/secure/researchpromotion/rp.html

President-Elect
Daniel Redmond
2017-2018
OVC President-Elect
Carleton University

E-mail: *daniel.redmond@carleton.ca*

My contact details are shown below, but I will gladly make arrangements to pick-up any cheques if needed.

Daniel Redmond
Carleton University
Facilities Management and Planning
1125 Colonel By Drive
Maintenance Building, Room 200
Ottawa ON
K1S 5B6
daniel.redmond@carleton.ca
p: 613.520.2600 x8641

ASHRAE Partner $5,000-$9,999	**ASHRAE Associate** $2,500-$4,999	**Major Donor Silver** $1,000-$2,499
	Longhill Enbridge Gas Distribution Victaulic Company of Canada Nortec Humidity Inc.	EH Price Ottawa Honeywell MCA Ottawa Ainsworth Trane Canada - Ottawa Goodkey Weedmark & Assoc.
Major Donor Bronze $500-$999	**Major Donor Antique** $250-$499	**Honor Roll** $150-$249 ($100-$249 for individuals)
Modern Niagara Ottawa Total HVAC Walmar Ventilation Inc. Engineered Air Ottawa Master Group Johnson Controls Ottawa C&S Heating Ltd. Isotherm Commissioning Ltd.	Aaron Dobson T.A. Morrison & Co. Inc. JP2G Consultants Inc. Optimum Mechanical Solutions R.J. McKee Engineering Ltd. Dilfo Mechanical Ltd.	Abbey Saunders Chris Frauley Richard Cameron Adam Graham Daniel Redmond Stan Millross Steve Moons Jacob Hough Ryan Dickinson Adrianne Mitani Mike Swayne Chris Fudge Adam Moons Robert Kilpatrick Subash Vohra Andrew Douma Belimo Robert Lefebvre

News Update

ASHRAE Announces Launch of Building Energy Quotient Portal 'As Designed' Rating

ATLANTA –
ASHRAE announced the recent launch of the *As Designed* rating of its **Building Energy Quotient** (**Building EQ**) **Portal**, providing a faster, more automated approach to receive a Building EQ **Performance Score**.

Both the *In Operation* and *As Designed* ratings are now available in the **Building EQ Portal**. *As Designed* rating compares **potential energy use** based on the building's physical characteristics rating systems **with standardized energy use simulation** and can identify whether a building is **achieving its design potential** when compared to the **actual energy performance** measured with the *In Operation* rating.

As Designed rating:
- Uses standardized energy use simulation of the candidate building.
- Is based on a building's physical characteristics and systems.
- Is independent of occupancy and operating variables.
- Compares potential energy performance between buildings with very different operational and occupancy profiles.
- Models only the candidate building for consistency between the two ratings.
- Is applicable to both new and existing buildings.

"We are excited to launch the *As Designed* rating as a complimentary tool for **easily benchmarking energy performance**, which can stimulate the adoption of high performance building techniques to achieve full design potential," says **Hugh Crowther**, **Building EQ committee chair**. "The Building EQ program offers a unified system of both asset and operational ratings, helping building owners make informed decisions on how to improve energy performance, reduce cost and effectively manage their building portfolio."

Both evaluations – *In Operation* and *As Designed* – can be used independently to compare a candidate building to other **similar buildings** in the same climate zone or together for an assessment of a **building's design potential compared to actual operation**.

Building EQ rests on **ASHRAE** methodologies and standards and the experience of credentialed practitioners. These characteristics assure owners they are receiving reliable and consistent results and recommendations.

Other features include an **Online Data Entry** and submission process, **Median EUI** calculation aligned with **ENERGY STAR® Portfolio Manager** and an improved submission approval process.

To learn more about the Building EQ Portal, visit:
www.ashrae.org/buildingEQ

Governor
Jacob Hough
2017-2018
OVC Program
Committee Chair
Total HVAC

E-mail: *jacobh@totalhvac.com*

ASHRAE Announces Technical Program for Annual Conference, June 23 -27

ATLANTA – The **2018 ASHRAE Annual Conference** technical program will provide practitioners with topical, in-depth educational tracks to optimize the design and performance of buildings. The conference is June 23-27 in **Houston**.

The five-day event includes **eight conference tracks**, **tours**, **social events** and a **keynote message** from research scientist and author, **Dr. Ainissa Ramirez** on **"Inspiring the Next Generation"**.

Additionally, **2018-19 ASHRAE President Shelia Hayter**, **Fellow ASHRAE**, will present the **Society Theme** for the coming year during the **President's Luncheon** on Monday, June 25.

Registration is now open for the conference which takes place at the **Hilton Americas-Houston Hotel** and the **George R. Brown Convention Center**. Early bird registration ends April 30.

"The dynamic and innovative industry of **HVAC&R** is a reflection of our ever-changing individual, societal, and global constructs and demands," **Cindy Moreno**, **chair of the 2018 ASHRAE Annual Conference**, said. "The **2018 Annual ASHRAE Conference** aims to provide the setting for a meaningful exchange of knowledge and experience, and the technical program looks to enrich that exchange with a broad spectrum of topics and discussion. We welcome you to join us as we share ideas ranging from basic design fundamentals to specific applications and technologies."

The need to achieve sustainable buildings in hot and humid climates calls for an understanding of the local climate and integrating appropriate building technologies into the architectural and urban design. A **new and anticipated track** at this year's conference, **Residential – Modern Building in Hot and Humid Climates**, will discuss how modern residential design and building practices can be integrated into hot and/or humid climates with specific challenges ranging from **indoor comfort** to **ventilation** and **mold**.

Another popular design track, **District Energy and Cogeneration Plants**, will address how the carbon footprint is being minimized by combining resources. This track takes a look at the advantages and limitations, do's and don'ts and best practices of utilizing this type of shared system.

Conference Tracks include:

- **HVAC&R Systems and Equipment**
- **Fundamentals and Applications**
- **District Energy and Cogeneration Plants**
- **HVAC & Resiliency: Safeguarding our World**
- **Residential – Modern Building in Hot and Humid Climates**
- **Professional Skills**
- **Research Summit**
- **HVAC&R Control Freaks**
- **HVAC&R Analytics**

ASHRAE Learning Institute (ALI) will offer two full-day seminars and eight half-day courses.

New courses include:

- **Advance Design for Net Zero Buildings**
- **Latest in High-Performance Dedicated Outdoor Air Systems (DOAS)**
- **Save 30% Complying with Standard 90.1-2013**
- **Principles and Practices of Thermal Energy Storage Systems for Air Conditioning**

Apply by June 5 to sit for one of six **ASHRAE certification exams**:

- **Energy Auditing**
- **Energy Modeling**
- **Commissioning**
- **Healthcare Facility Design**
- **High-Performance Building Design**
- **Building Operations.**

At this year's sixth annual **Research Summit**, an announcement will be made about an exciting collaboration with **ASHRAE**'s archival research publication, **Science and Technology for the Built Environment (STBE)**.

Learn more and register for the **2018 ASHRAE Annual Conference** at: www.ashrae.org/houston

Chapter Technology Award

Congratulations to the winners of the **2018 Chapter Technology Awards**.

These Awards recognize outstanding achievements by members who have shown innovative building design to improve:

- **occupant comfort**
- **indoor air quality**
- **energy conservation**

Their designs incorporate ASHRAE standards for effective energy management and IAQ. Performance is proven through one year's actual, verifiable operating data.

- ***Other Institutional Facilities - Existing***
  Martin Ma
  JP2G
  CMHC National Headquarters C Building

- ***Educational Facilities - Existing***
  Daniel Redmond
  Carleton University
  Herzberg Renewal – Phase 1

- ***Commercial Facilities - Existing***
  Patrick St-Onge
  Bouthillette Parizeau
  234 Wellington, Head Office Renewal

Governor
Jacob Hough
2017-2018
OVC CTTC Chair
Total HVAC

E-mail: *jacobh@totalhvac.com*

Regional Award winners will be announced at the **ASHRAE Summer Conference** this June in **Houston, TX**.

Submissions will open in the Fall for the 2019 Chapter Technology Awards. For any questions, please contact Jacob Hough at jacobh@totalhvac.com

ASHRAE HVAC Design Course

DATE: **May 28-29, 2018**

LOCATION: **Dalhousie University, Sexton Campus 'B' Building**
1360 Barrington Rd St.
Halifax, NS

COST: **$854**
(ASHRAE MEMBER $699)

TOPIC: **HVAC Design: Level II Applications**

OVERVIEW:
ASHRAE's HVAC Design: Level II – Applications provides instruction on HVAC system designs for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. In two days, gain an in-depth look into Standards 55, 62.1, 90.1, 189.1 and the Advanced Energy Design Guides. Training will focus on a range of topics including: HVAC equipment and systems, energy modeling, designing a chiller plant, and BAS controls.

- Sustainability/Green/ LEED/HPB/NZEB
- Standard 55
- Standard 62.1
- Building Systems: Education Facility
- System Applications: Chiller/Boiler, Air Handlers, VAV Terminals
- Life Cycle Cost
- Building Systems: Multi-story Office Building
- Water-to-Water GSHP Option 1 Chilled Beam with DOAS
- Water-to-Water GSHP Option 2 UFAD

Developed by industry-leading professionals, the training provides advanced information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.
Who Should Attend?
- Engineers with HVAC design experience (3–10 years)
- Participants who attended the HVAC Design: Level I – Essentials
- Architects who want an in-depth understanding of HVAC design
- Facilities managers involved in new construction or major renovation projects
- Technicians who would like to gain thorough design knowledge
- Construction project managers involved with mechanical systems

INSTRUCTOR: **Joel Primeau, P.Eng., HBDP, LEED AP, ASHRAE Member**

Joel Primeau is a sales engineer with over 27 years of HVAC experience. He has lead and assisted teams of engineers and technicians in the design and construction of high-performance, sustainable facilities. Joel's experience spans a wide range of engineering design and construction projects. His expertise is in the design of high-efficiency HVAC systems that enhance indoor air quality and comfort. Joel frequently trains engineers, architects and facility managers on the design process, central heating and chilling plant optimization, high-performance HVAC systems, and heat recovery applications.

Joel is a Licensed Professional Engineer, ASHRAE Certified High-Performance Building Design Professional (HBDP), and a LEED® Accredited Professional. He earned a BEng in Mechanical Engineering from the Royal Military College in Kingston, Canada. After a brief career as an army engineer, Joel has since worked in the HVAC industry in consulting, facilities management and technical sales.

Space is limited so please register online at the link below

https://www.ashrae.org/professional-development/learning-portal/instructor-led-training/hvac-design/halifax-hvac-design-training-may-2018

Grassroots Government Activities

Committee Chair

Richard Cameron

2017-2018
OVC Grassroots Government Activities Committee Chair

ProEng Consulting

E-mail: *richard.cameron@ProEngConsulting.com*

Hi Everyone,

The **Building EQ**, **ASHRAE**'s building energy rating system, now has both the *In Operation* and *As Designed* assessments available in an **online portal**. The following resources are available on the Building EQ webpage on the ASHRAE website (link below).

The **main webpage** for the program has **general resources** for the program including:

- Overview video (2 min) of the Building EQ Program. The video is also available for viewing on the ASHRAE YouTube channel.
- Building EQ Technical Fact Sheet (1 page PDF)
- Example file for Building EQ Brochure (PDF).
- Building EQ Presentation Template with speaker notes (PDF of presentation notes pages). A link provided to request PowerPoint slides.
- Link to learn more about the Building EQ Portal. This link takes you to the **Portal landing page**.

The **Portal landing page** contains resources more specific to the Portal and its use including:

- Training video on how to use the Building EQ Portal. The video is also available for viewing on the ASHRAE YouTube channel.
- Example of the Building EQ User Input Report which is available to all users working on projects.
- Example of the Building EQ Label Report which is available to credential users for approved project submissions.
- Example of the Building EQ Disclosure Report which is available to credential users for approved project submissions.
- Example of the Building EQ Energy Audit Spreadsheets Report which is available to credential users for approved project submissions.
- List of FAQ's on the Building EQ Program and Portal
- Link to enter the Building EQ Portal. This link takes you to the Building EQ Portal where you can access the portal to log-in, create an account, join a project, enter submission data, generate reports or review previously entered information.

ASHRAE Society link: https://www.ashrae.org/technical-resources/building-eq

YEA

Committee Chair

Joe Della Valle

2017-2018

OVC YEA Chair

Walmar Ventilation

E-mail: *joedellavalle@walmar.net*

Hi OVC!

I have booked a time for the final **YEA Event** of this year. It will be held on Thursday May 3rd, from 5:30 to 10:00 at **Tailgators Pool Hall**.

An email invitation has been sent to all chapter members. Please forward to interested students and non-members, they are also welcome.

If you haven't received the invitation or would like more information, the event link can be found at the link below.

Hope to see you there!

ASHRAE OVC Link: https://ashraeottawa.simplesignup.ca/en/3335/index.php?m=eventSummary

Membership Update

Committee Chair
Celine Baribeau
2017-2018
OVC Membership Committee Chair
BPA

E-mail: *cbaribeau@bpa.ca*

I would like to introduce and welcome the following new members:

Mrs Luminita Dumitrascu
Mr Taous Achour
Dr Bradford Gover
Mr Kyle Vanriemsdyk
Mr Martin Theoret
Mr Connor Algie
Mr Jeremy Salgo
Mr Mark Vachon

At any time, if you have any questions or comments regarding your **ASHRAE membership**, please do not hesitate to contact me.

Thank you all for the continued support and participation in your local ASHRAE chapter.

Looking forward to seeing everyone at the next ASHRAE meeting in May.

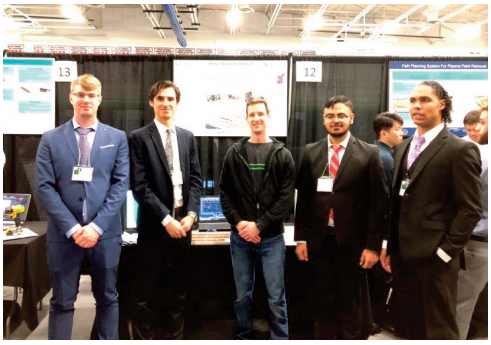
Student Activities

Committee Chair
Peter Shaw-Wood
2017-2018
OVC Student Activities Chair
Alscott Air Systems Limited

E-mail: *pshaw-wood@alscott.ca*

Hello all,

Finishing up the school year the **ASHRAE OVC** was very pleased to attend the **Ottawa Regional Science Fair** and award 3 prizes of $200 to winning HVAC applicable projects. I want to thank **Jayson Bursill** from **Carleton University** and **Jacob Hough** for the high level judging! **Chris Frauley** also came out on the early Saturday morning to give out the prizes. Fantastic stuff! See the picture below from the judge's perspective.

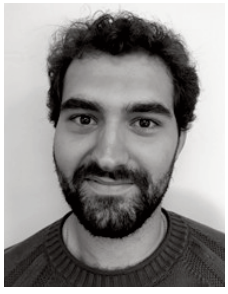


We also had the opportunity to check out **Applied Research Day** at **Algonquin College** to see the students there with their entry into the **ASHRAE Student Design Competition**. The project looks great and I'm keen to see how they do! Best of luck team!

All the best,

Peter Shaw-Wood
OVC Student Activities Co-Chair

Table Top Display



Committee Chair
David Michelin
2017-2018
OVC Table Top Chair
HTS

E-mail: *David.Michelin@hts.com*

Last chance to show your stuff in the 2017-2018 **ASHRAE** season so get your Table Top before they are all gone!

What better way to display a new product, existing line, or share great ideas than to have a table-top display at our local OVC **ASHRAE** meetings? The OVC meetings provide a captive audience in the industry and exposure to 60+ people.

Please contact **David Michelin** (*david.michelin@hts.com*) to secure yours today! Cost for a table-top is $225 and spaces are filling up quickly, so book your table-top today!

Payment is to be made through the online system prior to the date reserved. Follow the link below:
https://ashraeottawa.simplesignup.ca/en/2592/index.php?m=eventSummary

Jp2g Consultants Inc.
ENGINEERS · PLANNERS · PROJECT MANAGERS

Job Posting 18-O06

Mechanical Engineering Technologist - Ottawa

Overview

Jp2g Consultants Inc. is an employee owned, multi-disciplinary consulting firm providing a comprehensive range of planning, engineering, environmental, and project management services to the public and private sectors, from offices located in Ottawa and Pembroke. Jp2g is committed to maintaining client satisfaction, encouraging employee growth, and enhancing the communities we live in.

Our growing Ottawa office is seeking a talented and driven **Mechanical Engineering Technologist** to join our team. We're looking for someone who is diligent, team-oriented, and has a strong understanding of mechanical engineering for buildings.

At Jp2g, you will work with a dynamic multi-disciplinary group of engineers, technicians, project managers, and planners. Jp2g believes in employee empowerment. As a valued member of our professional team, you will enjoy a unique working environment and will be provided with opportunities to demonstrate your initiative while developing your skills.

Job Description

As a member of our professional team, you will be responsible for a variety of assignments for the Mechanical Engineering Department. With Jp2g, you will have opportunities to work on a wide variety of projects, with emphasis on federal, commercial, and institutional clients. The focus of Jp2g's mechanical work includes new buildings, renovations, restoration and adaptive renewals, investigations, and reports.

Role and Responsibilities

Mechanical Design Expertise

- Maintain the technical competence and production requirements of Jp2g's Mechanical department
- Strong ability to read and understand mechanical drawings
- Carry out site surveys to understand the existing mechanical systems
- Develop mechanical designs and layouts for fire protection, plumbing, and HVAC systems
- Size ductwork and piping in accordance with the company's standards
- Develop details, sections, and layouts of mechanical rooms and service spaces
- Prepare building condition assessment reports, and construction budgets
- Review codes and standards and obtain preliminary approvals where appropriate
- Review shop drawings during construction, visit construction sites to review general conformance of mechanical designs, prepare field observation reports to address construction progress and deficiencies
- Setup AutoCAD drawings as per the company's standard
- Prepare AutoCAD drawings from sketches, mark-ups, and/or design
- Upon completion, verify CAD drawings against such sketches to ensure accuracy of work
- Maintain familiarity with current techniques, codes, and standards to sustain and improve technical skills

Job Information

Job ID: 18-O06

Location: Ottawa, Ontario

Experience (years): 5+

Status: Permanent, full-time

Industry: Building Services

Number of Positions: 1

How to Apply

Send your resume to:
Email: careers@jp2g.com

Subject: 18-O06 – Mechanical Engineering Technologist

We thank all applicants for their interest; however only candidates selected for an interview will be contacted.

Job Posting 18-O06

Mechanical Engineering Technologist – Ottawa

Collaboration

- Work with a team of project managers, engineers, and technologists
- Assist mechanical engineers with project execution, design development, construction documents, budget estimates, and coordination with other disciplines
- Attend coordination meetings with design team
- Coordinate with industry, other disciplines, and clients
- Familiarize with architectural, structural, and electrical drawings for coordination (e.g. space limitations and interferences)
- Share expertise with colleagues and other offices

Project Management

- Complete projects independently when required
- Build and maintain positive relationships with colleagues, other consultants, and key stakeholders to ensure projects run smoothly and to resolve concerns promptly and efficiently
- Assist in researching new systems, resources, analytical processes, procedures, and working practices to identify and implement changes to increase efficiency, productivity, and overall profitability

Qualifications

- Strong desire to learn and for advancement and professional development
- Minimum 5 years' experience in the consulting engineering industry or direct experience with HVAC contractors in developing interference drawings
- C.E.T. or C.Tech. designation
- Diploma in Mechanical Engineering Technology
- AutoCAD training from a recognized College and exposure to HVAC and plumbing layouts and systems
- CAD experience and capability
- Ability to work in a complex and fast-paced team environment, dealing with multiple projects and clients
- Sound communication skills (oral and written)
- Strong sense of initiative and ability to prioritize tasks
- Strong desire to learn and for advancement and professional development
- Strong attention to details without losing sight of the big picture
- Excellent problem-solving and decision-making skills
- Working knowledge of MS Office (Word, Excel, PowerPoint, etc.)
- Reliable vehicle access is required

Asset Qualifications (beneficial, but not required)

- Experience in generating drawings in Revit
- Bilingual (English and French) including proficiency in technical translations

Compensation and Benefits

- Friday afternoons off year-round (36 hour/week)
- Group RSP planning opportunities
- Professional development and advancement opportunities
- Competitive compensation and benefits package
- Shareholder opportunities

The successful candidate will be required to complete a CISD security application (Level II Secret).

Jp2g welcomes applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.

Jp2g Consultants Inc.
ENGINEERS · PLANNERS · PROJECT MANAGERS

Job Posting 18-O07

Mechanical Engineer | Project Manager - Ottawa

Overview

Jp2g Consultants Inc. is an employee owned, multi-disciplinary consulting firm providing a comprehensive range of planning, engineering, environmental, and project management services to the public and private sectors, from offices located in Ottawa and Pembroke.

Jp2g is committed to maintaining client satisfaction, encouraging employee growth, and enhancing the communities we live in.

Our growing Ottawa office is seeking a talented and driven **Mechanical Engineer | Project Manager** to join our team. We're looking for someone who is diligent, team-oriented, and has a strong understanding of mechanical engineering for buildings.

At Jp2g, you will work with a dynamic multi-disciplinary group of engineers, technicians, project managers, and planners. Jp2g believes in employee empowerment. As a valued member of our professional team, you will enjoy a unique working environment and will be provided with opportunities to demonstrate your initiative while developing your skills.

Job Description

As a member of our professional team, you will be responsible for a variety of assignments for the Mechanical Department. With Jp2g, you will have opportunities to work on a wide variety of projects, with emphasis on federal, commercial, and institutional clients. The focus of Jp2g's mechanical work includes new building, renovation, restoration and adaptive renewals, investigations, and reports.

Role and Responsibilities

Mechanical Engineering Expertise

- Undertake feasibility studies, assist Department Manager to develop engineering concepts, concept reports, and construction budgets
- Review codes and standards and obtain preliminary approvals where appropriate.
- Carry out site surveys to understand the existing mechanical systems
- Conduct calculations of hydraulic, heating, and cooling loads of buildings
- Complete design of mechanical systems (fire protection, plumbing, HVAC, and controls) for building projects including selection of mechanical equipment
- Complete layout of plumbing, piping, and ductwork through complex facilities integrating multiple mechanical spaces and systems
- Prepare specifications to supplement drawings in project bid packages
- Review contract documents prior to tender for completeness
- Perform contract administration
- Maintain familiarity with current techniques, codes, and standards to sustain and improve technical skills

Job Information

Job ID: 18-O07

Location: Ottawa, Ontario

Experience (years): 5+

Status: Permanent, full-time

Industry: Building Services

Number of Positions: 1

How to Apply

Send your resume to:

Email: careers@jp2g.com

Subject: 18-O07 – Mechanical Engineer | Project Manager

We thank all applicants for their interest; however only candidates selected for an interview will be contacted.

Job Posting 18-O07

Mechanical Engineer | Project Manager – Ottawa

Project Management

- Prepare fee proposals
- Work with a team of engineers and technologists
- Prepare schedule of tasks required to complete a project, hours required, and critical performance data
- Assign tasks to Technologists and Designers; supervise for content and completion in assigned hours
- Chair project meetings
- Make sure internal quality assurance is performed prior to issuance of tender package
- Coordinate mechanical systems installation requirements with other design disciplines; ensure proper coordination of documents with the other design disciplines

Leadership

- Provide day-to-day supervision of assigned employees
- Mentor junior staff, recommend appropriate training/coaching, prepare evaluation reports
- Direct, motivate, and appropriately influence others
- Build a strong sense of teamwork, purpose, and group identity
- Display a positive attitude, serve as credible model, and set high standards the department
- Articulate clear goals and expectations
- Delegate appropriate levels of authority to others

Business Development

- Maintain existing business and develop new business
- Represent Jp2g at industry events (e.g. ASHRAE, Ottawa Construction Association)
- Develop a reputation for honesty, trust, and dependability with clients

Qualifications

- Strong desire to learn and for advancement and professional development
- Professional Engineer, Licensed in the Province of Ontario (P.Eng. designation)
- Minimum 5 years' experience in the consulting industry
- Strong ability to work independently in a complex environment, dealing with multiple projects and clients
- Experience in project management
- Sound communications skills (oral and written) as demonstrated through client and staff relations
- Knowledge of OBC, NBC, ASHRAE, CSA and NFPA standards
- Familiar with HVAC software (such as Carrier HAP and Trane Trace) and NMS specifications
- Strong sense of urgency and ability to prioritize tasks
- Excellent problem solving and decision-making skills
- Basic CADD experience
- Reliable vehicle access is required

Asset Qualifications (beneficial, but not required)

- LEED certification / experience implementing sustainable design (LEED projects)
- Experience in Revit
- Bilingual (English and French) including proficiency in technical translations

Compensation and Benefits

- Friday afternoons off year-round (36 hour/week)
- Group RSP planning opportunities
- Professional development and advancement opportunities
- Competitive compensation and benefits package
- Shareholder opportunities

The successful candidate will be required to complete a CISD security application (Level II Secret).

Jp2g welcomes applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.

Jp2g Consultants Inc.
ENGINEERS · PLANNERS · PROJECT MANAGERS

Job Posting 18-O08

Senior Mechanical Engineer - Ottawa

Overview

Jp2g Consultants Inc. is an employee owned, multi-disciplinary consulting firm providing a comprehensive range of planning, engineering, environmental, and project management services to the public and private sectors, from offices located in Ottawa and Pembroke. Jp2g is committed to maintaining client satisfaction, encouraging employee growth, and enhancing the communities we live in.

Our growing Ottawa office currently requires a qualified **Senior Mechanical Engineer**. We're looking for someone with a minimum of 15 years' experience in the consulting industry in the field of mechanical building services.

At Jp2g, you will work with a dynamic multi-disciplinary group of engineers, technicians, project managers, and planners. Jp2g believes in employee empowerment. As a valued member of our professional team, you will enjoy a unique working environment and be provided with opportunities to demonstrate your initiative while developing your skills.

Job Description

As a member of our professional team, you will be responsible for a variety of assignments for the Mechanical Engineering Department. Jp2g provides opportunities to work on a wide variety of projects, with emphasis on federal, commercial, and institutional clients. Focus of mechanical work includes building HVAC, plumbing, fire protection, energy management, direct digital controls (DDC), investigations and reports.

Role and Responsibilities

Technical Skills

- Undertake feasibility studies, assist Department Manager to develop engineering concepts, concept reports, and construction budgets
- Review codes and standards and obtain preliminary approvals where appropriate
- Carry out site surveys to understand the existing mechanical systems
- Conduct calculations of hydraulic, heating and cooling loads of buildings
- Complete design of mechanical systems (fire protection, plumbing, HVAC and controls) for building projects including selection of mechanical equipment
- Complete layout of plumbing, piping, ductwork and equipment through complex facilities integrating multiple mechanical spaces and systems
- Prepare specifications to supplement drawings in project bid packages
- Review contract documents prior to tender for completeness
- Perform contract administration
- Maintain familiarity with current techniques, codes, and standards to sustain and improve technical skills

Job Information

Job ID: 18-O08

Location: Ottawa, Ontario

Experience (years): 15

Status: Permanent, full-time

Industry: Building Services

Number of Positions: 1

How to Apply

Send your resume to:

Email: careers@jp2g.com

Subject: 18-O08 – Senior Mechanical Engineer

We thank all applicants for their interest; however only candidates selected for an interview will be contacted.

Job Posting 18-O08

Senior Mechanical Engineer - Ottawa

Teamwork

- Attend client meetings as directed by Department Manager
- Attend coordination meetings with design team
- Coordinate mechanical systems installation requirements with other design disciplines
- Mentor junior staff

Project Management

- Manage project tasks within assigned time and budget constraints
- Assign tasks to Designer and CAD operator; supervise delegated tasks for content and completion in assigned hours
- Prepares project fee proposals
- Prepare schedule of tasks required to complete project, hours to perform tasks, critical performance data
- Maintains existing business and develops new business opportunities
- Any other tasks assigned by Department Manager required to assist in the continued success of the firm

Qualifications

- Bachelor's degree in Mechanical Engineering
- Minimum 15 years of experience in a consulting engineering office in the field of mechanical building services – fire protection, plumbing, HVAC and controls
- Professional Engineer licensed in the Province of Ontario
- Strong ability to work independently and in a complex environment, dealing with multiple projects and clients
- Sound communications skills (oral and written) as demonstrated through client and staff relations
- Demonstrate experience working with other consultants and contractors, and coordination of major projects
- Knowledge of OBC, NBC, ASHRAE, CSA and NFPA standards
- Familiar with HVAC software (such as Carrier HAP and Trane Trace) and NMS specifications
- Strong sense of urgency and ability to prioritize tasks
- Excellent problem solving and decision-making skills
- Basic CADD experience
- Reliable vehicle access is required

Asset Qualifications (beneficial, but not required)

- Bilingual (English and French) including proficiency in technical translations
- LEED certification / Experience implementing sustainable design (LEED projects)
- Experience in project management

Compensation and Benefits

- Friday afternoons off year-round (36 hour/week)
- Group RSP planning opportunities
- Professional development and advancement opportunities
- Competitive compensation and benefits package
- Future shareholder opportunities

The successful candidate will be required to complete a CISD security application (Level II Secret).

Jp2g welcomes applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.

Advertising

Treasurer
Chris Fudge
2017-2018
OVC Treasurer
Master Group
E-mail: *cfudge@master.ca*

Advertising career opportunities on the **ASHRAE Ottawa Valley Website** makes good business sense. We offer a unique way to reach technical professionals and make your ad dollars work hard for you.

To discuss your needs, contact one of our chapter officers, via our "This Year" page. Increase the impact of your advertising through the **ASHRAE Ottawa Valley Website** today.

Rates for **career opportunities** ads are as follows:

Chapter Member:
$50/month
$80/2 months
$100/3 months

Non-member:
$250/month

Note: Purchase of additional months will only have a discounted rate if purchased up front. Otherwise the standard rate will apply for additional months.

Placement of an Ad
We suggest that you complete and submit our advertisement form to speed up the processing of your request. If you have provided your e-mail address, a confirmation receipt e-mail will be sent to you for reference.

Please note that ads require prepayment made to the treasurer. Please register and pay through the online system and contact **Chris Fudge** (cfudge@master.ca) with any questions. Follow the link below for payment.

The ads will appear on the website until the end date for publication provided in the submitted form. To extend the ad, please resubmit the form with the new publication dates and the required prepayment amounts.

Link: https://ashraeottawa.simplesignup.ca/en/2590/index.php?m=eventSummary
Link: https://ashraeottawa.simplesignup.ca/en/2593/index.php?m=eventSummary

Business Card Ads

Publicity
Rod Lancefield
2017-2018 Publicity
Committee Co-Chair
HTS Engineering Ltd.
E-mail: *rod.lancefield@hts.com*

You can support your chapter and promote your business by placing your business card in the Capital Communiqué. It will also appear on the chapter website.

The cost is $250.00 for the year. Please contact **Rod Lancefield** at *rod.lancefield@hts.com* for more details.

Payment will be made through the online system. Follow the link below for payment.
https://ashraeottawa.simplesignup.ca/en/2591/index.php?m=eventSummary

Ads will **now require prepayment**. All of last year's ads will appear in the Communique for the first month of this year to allow time for payment for the upcoming year. Ads will be refreshed accordingly in the second Communique.

Publicity
2017-2018 Publicity Committee Co-Chair
HTS Engineering Ltd.
E-mail: rod.lancefield@hts.com