



LINDA M. HODGDON  
Commissioner  
(603) 271-3201

# State of New Hampshire

DEPARTMENT OF ADMINISTRATIVE SERVICES  
OFFICE OF THE COMMISSIONER  
25 Capitol Street – Room 120  
Concord, New Hampshire 03301

20 *JBm*

JOSEPH B. BOUCHARD  
Assistant Commissioner  
(603) 271-3204

Bureau of Public Works  
Design & Construction

November 1, 2013

Her Excellency, Governor Margaret Wood Hassan  
and the Honorable Council  
State House  
Concord, New Hampshire 03301

## **REQUESTED ACTION**

Authorize the Department of Administrative Services, Bureau of Public Works Design and Construction to enter into an agreement Stantec Consulting Services, Inc., (Vendor Code 174802) 5 Dartmouth Drive, Suite 101, Auburn, NH 03032 in an amount not to exceed \$300,000 for Mechanical Services required for planning, design and construction of various Public Works' Projects as necessary and required by the Department. The contract is effective from the date of Governor and Council approval through June 30, 2016.

## **EXPLANATION**

The Department proposes to retain the private consulting firm Stantec Consulting Services, Inc., to expedite the current project workload and provide appropriate technical expertise as required for specific projects. This is one (1) of three (3) open-ended agreements for Mechanical services that will be presented for approval. The agreement will enable the Department to respond quickly to unscheduled project requests and possible emergencies regarding Mechanical services issues. The decision as to which projects will be assigned will be made on a case-by-case basis depending on the particular expertise required and the firm's current workload.

This type of consulting agreement will be funded from the monies for each project. The majority of projects needing this type of Mechanical services consultant work are maintenance and capital funded projects.

This agreement is a proposed contract with the Mechanical services firm selected to provide on-call Mechanical services. It is anticipated that Mechanical services can be handled by three (3) Mechanical firms through the contract period.

The consultant selection process employed by the Department for this project is in accordance with RSAs 21-I:22, 21-I:22-c, and 21-I:22-d, all applicable Federal Laws and the Department's procedures for "Selection of Engineers, Architects and Surveyors dated July 28, 2005. Cumulative scoring was used in this selection process in order to assure that the perspective of each committee member received proper consideration during scoring deliberations. Each committee member, Mark Nogueira, Michelle Juliano, Gordon Graham and Beverly Kowalik, brings different strengths and knowledge to the table. This allows thorough discussion and weighing of the different perspectives during the scoring process. This process also makes follow-up explanations to the unselected firms easier.

In April 2013, the Bureau of Public Works Design & Construction advertised in the Union Leader, the Bureau of Public Works Design & Construction website and email notification soliciting interest in providing on-call Mechanical. The following table lists the fourteen (14) consultant firms that submitted letters of interest and were considered for this assignment.

Colby Company Engineering	RDK Engineers
Dubois & King, Inc.	RFS Engineering
Harriman Associates	SMRT
Loureiro Engineering	Stantec Consulting Services, Inc.
McFarland Johnson	H. L. Turner
Oak Point Associates	WV Engineering Associates
John Penney	Yeaton Associates, Inc.

The firms were then rated on the basis of comprehension of the assignment, clarity of the proposal, capacity to perform in a timely manner, quality and experience of the project manager and team, and overall suitability for the assignment. It is now the Department's intent to enter into Statewide Consultant Service Agreements with the three (3) highest rated firms as their legal documentation and Certificate of Insurance become available.

Dubois & King, Inc.	Yeaton Associates, Inc.
Stantec Consulting Services Inc.	

A copy of Stantec Consulting Services, Inc.'s Statement of Qualifications is provided, herewith, for your information and convenience.

The subject agreement has been approved by the Attorney General as to form and execution. Copies of the fully executed agreement are on file at the Secretary of State's Office and the Department of Administrative Services, Bureau of Public Works Design & Construction.

Respectfully submitted,



Linda M. Hodgdon,  
Commissioner

## Explanation of Statewide Consultant Committee Selection

Members are selected using the approved guidelines for the Bureau of Public Works Design and Construction “Selection of Engineering, Architects, and Surveyor Services”. Per these guidelines, the Committee should consist of the Bureau Administrator plus two other Project Managers.

The Administrator is a member of all the Selection Committees, serving to provide the larger perspective of the consultant capabilities that are desired, also bringing knowledge of the quantity of work and various types of anticipated projects the consultant may be called on to perform. He brings the perspective of achieving agency goals, using a balance of those consultants who have performed excellent work in the past, along with bringing in new consultant firms. His background in the private sector and State services provides insight into expertise, staffing and capacity of the consultant firms.

The Assistant Administrator manages the day-to-day oversight of the Consultant assignments, and is the second member of all the selection committees. Her job description specifically outlines her involvement in the management of the consultants. She brings the expertise of the day-to-day working with consultants. Her past and present experience involves frequent interaction with consultants, including review of consultants’ proposals and their engineering work.

The Discipline Head, (PM 4 ) for the specific type of work the consultant is being hired for (i.e. Mechanical, Civil, etc.), brings additional expertise concerning the capabilities of various consultants with whom they have worked. Their years of project management experience provide the more detailed perspective about the various consultants’ strengths or weaknesses and how they would fit with the project needs.

Administrator PM 6

Mark T. Nogueira – 24 years private sector/State Service

Asst. Administrator PM 5

Michelle Juliano - 25 years State service

Project Mgr – PM 4

Beverly Kowalik - 20 years State service

Project Mgr – PM 4

Gordon Graham - 11 years State services

Interview/Selection date: 3-Sep-13

**COMMITTEE PROPOSAL RATING FOR  
MECHANICAL STATEWIDE**

Consultant Name	Comprehension of Assignment	Clarity of Proposal	Capacity to Perform in a Timely Manner	Quality and Experience of PM/Team	Overall Suitability for the Assignment	Total Score	Cumulative Score	
DuBois & King						0	<b>91.5</b>	<===== Highest Rating
Mark Nogueira	4.5	5	5	4.5	4.5	23.5		
Michelle Juliano	4	4	5	5	5	23		
Bevely Kowalik	5	5	4.5	4.5	5	24		
Gordon Graham	5	4	4	4	4	21		
John F Penney Consulting						0	<b>0.0</b>	
Mark Nogueira	0	0	0	0	0	0		
Michelle Juliano	0	0	0	0	0	0		
Bevely Kowalik	0	0	0	0	0	0		
Gordon Graham	0	0	0	0	0	0		
SMRT						0	<b>82.5</b>	
Mark Nogueira	4	4	4.5	4.5	4	21		
Michelle Juliano	3	4	4	4	4	19		
Bevely Kowalik	4	4.5	4	4.5	4.5	21.5		
Gordon Graham	4	4	4	5	4	21		
Stantec						0	<b>89.5</b>	<===== Highest Rating
Mark Nogueira	5	4.5	4.5	5	4.5	23.5		
Michelle Juliano	4	4	5	4	5	22		
Bevely Kowalik	4.5	4.5	4	4.5	4.5	22		
Gordon Graham	4	4	5	5	4	22		
HL Turner						0	<b>85.5</b>	
Mark Nogueira	4.5	4.5	4.5	4	4.5	22		
Michelle Juliano	4	5	4	4	4	21		
Bevely Kowalik	4	4.5	4	4	4.5	21		
Gordon Graham	4	4.5	5	4	4	21.5		
Yeaton Assoc.						0	<b>86.0</b>	<===== Highest Rating
Mark Nogueira	4	4	4	4.5	4	20.5		
Michelle Juliano	4	3.5	4	4.5	4	20		
Bevely Kowalik	4.5	5	4	5	5	23.5		
Gordon Graham	5	5	4	4	4	22		

Appendix to the Proposal for Statewide  
**MECHANICAL ENGINEERING SERVICES**

STATE OF NEW HAMPSHIRE  
Department of Administrative Services  
Bureau of Public Works Design and Construction

June 26, 2013



# APPENDIX A: QA/QC PROGRAM

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# ISO9001 Quality Management Standard and the Stantec Quality Management System (SQMS)



## Quality Management at Stantec

Stantec has a formal quality management system in use across the organization which is registered to the ISO9001:2008 Quality Management standard. The quality management system promotes quality practices across the organization with the goal of:

- Reducing the risk and consequences of design errors
- Helping us grow by promoting reliable processes
- Improving productivity and efficiency
- Promoting the quality and reliability of our services
- Improving the financial performance of our operations
- Increasing client confidence and loyalty
- Supporting regulatory compliance

The Stantec Quality Management System (SQMS) helps communicate the organization's practices for planning, managing people, client satisfaction, practice management, managing sub consultants, and for continual improvement. The specific elements of the SQMS are:

- Strategic Planning—aligning our focus, planning our work
- People Focus—key processes to help our most valuable resource
- Customer Focus—understanding client requirements
- Service Delivery—focus on project management and delivery
- Supplier Focus—promoting mutually beneficial supplier relationships
- Measurement and Improvement—measurement of client satisfaction, business results, and progress on improvement objectives

## Project Planning and Delivery

The service delivery requirements of the standard are addressed through a focus on our project management and project delivery processes. Our Project Management Framework confirms and clarifies in a concise format the expectations Stantec has of their Project Managers and provides centrally located reference documents ("one stop shopping") with easily accessible on-line references to relevant resource information.

The "9 Point Project Management Framework" includes the critical tasks which affect both the management of risks and achievement of quality on typical projects, and are organized based on the four key stages of project management: Initiate, Plan, Control, and Close-out.

## Supporting Processes

Other critical aspects of the ISO9001:2008 registered Stantec Quality Management System include:

- Client Feedback Interview process—Client feedback is used to improve our performance on a specific project as well as to continually improve our organizational practices and processes.
- Practice Audit Process—We conduct internal practice audits to assess compliance with our company policies and procedures and with the various elements of the Stantec Quality Management System. The other significant objective of this process is to evaluate the effectiveness of the SQMS and to look for opportunities to improve our processes and leverage best practices.
- Improvement Process—Promoting a culture of continual improvement is a fundamental aspect of successful organizations with effective quality management systems. To this end, we have a formal improvement process to encourage suggestions for improvement and to document follow-up actions.



# Certificate of Registration

## QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

*This is to certify that:*

**Stantec Inc.  
and its Operating Subsidiaries'**  
10160 - 112 Street  
Edmonton  
Alberta  
T5K 2L6  
Canada

*Holds Certificate No:* **FS 533134**

*and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:*

The provision of professional design and consulting services in planning, engineering, architecture, surveying, economics and project management to private and public sector clients in a diverse range of markets from initial concept, financial feasibility, project completion, encompassing the core practice areas of Buildings, Environmental Infrastructure, Industrial, Transportation, and Urban Land.

*For and on behalf of BSI:*

*VP Regulatory Affairs, BSI Group America Inc.*

Originally Registered: **12/17/2008**

Latest Issue: **04/13/2012**

Expiry Date: **12/16/2014**



Page: 1 of 25

This certificate remains the property of BSI and shall be returned immediately upon request.  
An electronic certificate can be authenticated online. Printed copies can be validated at [www.bsigroup.com/ClientDirectory](http://www.bsigroup.com/ClientDirectory)  
To be read in conjunction with the scope above or the attached appendix.  
Americas Headquarters: BSI Group America Inc., 12110 Sunset Hills Road, Suite 200, Reston, VA 20190, USA.  
A Member of the BSI Group of Companies.



# APPENDIX B: RESUMES

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**Richard Nadeau** PE, LEED AP, RCDD  
Project Manager, QA/QC



**Stantec**

Mr. Nadeau has over thirty years of experience in the design and management of manufacturing, industrial, and commercial projects. His fields of expertise encompass lighting and power systems design, fire alarm and detection systems, security systems and telecommunications/intercom/clock systems. He has over ten years of experience in the design of computer systems and network wiring.

## EDUCATION

A.A.S., Electromechanical Technology, Central Maine Technical College, Auburn, Maine, 1975

## REGISTRATIONS & LICENSES

Professional Engineer #63086, State of Vermont

Professional Engineer #11955, State of New Hampshire

Professional Engineer #10553, State of Maine

Professional Engineer #48816, State of Massachusetts

Registered Communications Distribution Designer (RCDD)

Licensed Master Electrician, State of Maine

LEED AP, (U.S. Green Building Council)

## PROFESSIONAL ASSOCIATIONS

Member, Building Industry Consulting Service International (BICSI)

## AWARDS

ACEC Maine Grand Conceptor Award -1999  
BIW Outfit Support Towers  
Project Manager and Electrical Engineer

## PRESENTATIONS

Co-Presenter – National Association of State Facilities Administrators 2007 East Regional Conference, "Geothermal Heating and Cooling Systems"

Co-presenter – Forum on Renewable Energy Solutions, Western Maine Legislative Caucus 2007 "Geothermal Systems Warms the New UMF Education Center"

Presenter – Green Mountain College 2009, "Geothermal Systems"

## SELECTED PROJECT EXPERIENCE

State of New Hampshire - 29 Hazen Drive Boiler Combustion Air and Chiller Improvements, Concord, NH  
*This project included redesign of the existing combustion air system for three large fire tube boilers for this large state owner building. The final design included dedicated combustion air fans which will duct fresh air through enclosed ductwork directly to the front of the boiler. Each fan will be interlocked with the burner controls for each boiler. This project also included the redesign of chiller condensing water tanks which have been problematic.*

State of New Hampshire - Materials Handling and Research Building Lab Improvements, Concord, NH  
*This project included acoustical analysis of one of the labs in the building and recommendations for mitigation.*

State of New Hampshire - Sununu Building Lighting Improvements, Concord, NH  
*Design for the addition of occupancy sensor type lighting controls and completion of a Square D lighting control system.*

State of New Hampshire - Concord ANG Helicopter Hanger Lighting Improvements, Concord, NH  
*Design for the addition of occupancy sensor type lighting controls and replacement of HID type lighting fixtures with high efficiency fluorescent type.*

\* denotes projects completed with other firms

Richard Nadeau P.E., LEED AP, RCDD

Project Manager, QA/QC

**State of New Hampshire - Pelham Road Medium Voltage Relocations, Concord, NH**

*Design for the relocation of primary power poles along Pelham Road and medium voltage feeders to building padmounted transformers.*

**Augusta Police Station, Augusta, Maine**

*Project Manager and Electrical Designer responsible for the relocation of a police station and dispatchers' area for the city of Augusta from the old city hall building to the Naval Reserve Center. The move involved new computer wiring and duplicating all dispatcher systems including computer-aided-dispatching, radio, and fire systems.*

**Little Bay Bridge, Dover, NH**

*Project Manager and Electrical Designer responsible for design of a waterway navigational lighting system and electrical service to be located under the Little Bay Bridge.*

**White River Junction VAMC Specialty Clinic Addition, White River Junction, Vermont**

*Project Manager responsible for mechanical, electrical and plumbing services for the addition of a new 16,000 sq. foot third floor, onto an existing hospital building. The new floor was needed to accommodate outpatient services including vascular labs, orthopedics, and neurology departments. A new VAV air handling unit with clean-steam humidifier was provided to serve the new third floor clinic spaces. Two new shell-and-tube heat exchangers use heat from the campus steam system to generate hot water for reheat coils and radiant heating ceiling panels in the new space.*

**Maine Medical Center Radiation Oncology Department, Portland, Maine**

*Responsible for the mechanical and electrical design services for the installation of a new Varian linear accelerator vault. The project involved demolition of existing underground vault prior to new construction. Electrical systems included specialized wiring for accelerator, power line conditioner, fire alarm system, emergency and normal lighting and miscellaneous power to the treatment room.*

**Exeter Hospital Power Plant Replacement, Exeter, New Hampshire**

*This project included the replacement of one 200 HP fire tube boiler with a new 350 HP fire tube boiler with replacement of ancillary support equipment for the entire plant including installation of a new tray type deaerator, surge tank, new steam header, breeching, and three flue stack.*

**Exeter Health Resources Emergency Generator Sizing, Exeter, New Hampshire**

*This project included sizing for a new emergency generator at a separate building on the Exeter Hospital campus. This project included installation details and specification.*

**Lake Region Middle School, Naples, Maine**

*New construction of a two-story, 25,000 square foot addition. Services included the preparation of the construction cost estimate for the mechanical and electrical portions of the project. Drawings were prepared delineating the location of major equipment, electrical panels, lighting layout, duct, and piping layout with sizes. Specifications for the construction were also provided with other construction services.*

**Lambert Park Housing, Bath, Maine**

*Mechanical/electrical design services to rehabilitate 70 existing duplex housing units.*

**BIW Manufacturing Support Center, Bath, Maine**

*Project Manager responsible for the addition of a new \$5MM, 75,000 square foot, four-story building. The new building included office, lunchroom and warehouse space. Design services provided included electrical design of lighting, power distribution, and communications systems; structural design of the building; mechanical design of HVAC systems; and architectural design associated with this new facility.*

**Togus VAMC Specialty Clinic Addition, Togus, Maine**

*Project Manager responsible for mechanical, electrical and plumbing services for the addition of a new 16,000 sq. foot third floor, onto an existing hospital building. The new floor was needed to accommodate outpatient services including vascular labs, orthopedics, and neurology departments. A new VAV air handling unit with clean-steam humidifier was provided to serve the new third floor clinic spaces. Two new shell-and-tube heat exchangers use heat from the campus steam system to generate hot water for reheat coils and radiant heating ceiling panels.*

**Bartlett Hall Dormitory, Thomas College**

*Provided mechanical and electrical design and engineering services for the construction of a 100-bed, approximately 28,500 square foot, free standing, three-story dormitory building. The new building included a main entrance, RA residence, laundry facility, boiler/mechanical room, telecommunications room, electrical room and some common spaces.*

\* denotes projects completed with other firms



Mr. Piik has more than 15 years of experience in mechanical engineering and design for a variety of clients. His areas of expertise include design development, detailed construction drawings and specifications, and construction management for healthcare projects.

## EDUCATION

Bachelor of Science, Rensselaer Polytechnic Institute, Troy, New York, 1991

Master of Science, Stanford University, Palo Alto, California, 1992

## REGISTRATIONS

Professional Engineer #78714, State of Vermont

Professional Engineer #48769, Commonwealth of Massachusetts

Professional Engineer #13477, State of New Hampshire

Professional Engineer #9418, State of Rhode Island

Professional Engineer #0027573, State of Connecticut

Professional Engineer #10695, State of Maine

## PROJECT EXPERIENCE

**Anna Philbrook Center Commissioning, Concord, New Hampshire**  
*Commissioning Agent for renovation of a 33,000 square foot government office building. Mechanical systems include energy recovery ventilators and variable-refrigerant-flow multi-zone split ductless heat pumps.*

**NHDOT Traffic Building A Commissioning, Concord, New Hampshire**  
*Mechanical Engineer responsible for design and commissioning for mechanical systems upgrades in 5,000 square foot of office space in a department of transportation building. Mechanical system upgrades include new condensing unit and electronic controls.*

**LEED Certified Medical Office Building Commissioning, 50 Sewall Street, Portland, Maine**  
*Mechanical Engineer responsible for providing the commissioning services for HVAC infrastructure of a new 40,000 square foot medical office building. This project was certified by USGBC under its LEED for Core & Shell rating system.*

**Renewable Energy Evaluation, South Elementary School, Londonderry, New Hampshire**  
*Mechanical Engineer responsible for a comparison study of different alternative energy technologies and their economics. The study was used by the Londonderry School District for planning purposes.*

**Claremont Municipal Airport Hangar Reconstruction Study, Claremont, New Hampshire**  
*Mechanical Engineer responsible for design of HVAC and plumbing systems for the renovation of a hangar and pilot's lounge.*

**Shawangunk Correctional Facility HVAC Study, Walkill, New York**  
*Mechanical Engineer responsible for evaluation of existing HVAC systems, analysis, and recommendations for improvements for cell blocks comprising 450,000 square feet in a maximum security correctional facility.*

**University of Maine - Merrill Hall Heating Plant Upgrade, Farmington, Maine**  
*Mechanical Engineer responsible for the replacement of the existing steam heating system to one that uses hot water. Merrill Hall is on the National Register of Historic Places.*

**Heating System Upgrade, Falmouth Middle School, Maine**  
*Mechanical Engineer responsible for the mechanical design of a new hot water heating system to replace the existing steam heating system for a 130,000 SF middle school.*

**Biomass Boiler, Falmouth Middle School, Maine**  
*Mechanical Engineer responsible for the mechanical design of a new woodchip boiler for a 130,000 SF middle school.*

\* denotes projects completed with other firms

# Christopher Piik P.E.

HVAC Systems Commissioning

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## **VAMC Clinical Lab Renovation, White River Junction, Vermont**

*Mechanical Engineer responsible for designing a new dedicated air handling system and chiller for the hospital's clinical lab department. The new air handling unit was designed to deliver 100% outside air and utilize the buildings central chilled water system as well as a new, dedicated air-cooled chiller to provide year-round cooling with improved efficiency.*

## **VAMC Specialty Clinic Addition, White River Junction, Vermont**

*Mechanical Engineer responsible for designing a new air handling system with energy recovery wheel, and hydronic radiant heating ceiling panels for supplemental perimeter heat, to serve a third floor addition housing multiple specialized treatment departments.*

## **Brockton VAMC Domestic Water Heater Replacements, Brockton, Massachusetts**

*Project Manager and Mechanical Engineer responsible for design of semi-instantaneous, steam-heated water heaters in four buildings of the VA campus. The new water heaters replace aging storage tank systems to save energy.*

## **Orthopedic Unit, Lewiston, Maine**

*Lead Mechanical Engineer responsible for providing HVAC and medical gas design services for the renovation of the existing hospital day surgery floor for conversion to an orthopedic patient floor.*

## **Sleep Lab, Lewiston, Maine**

*Lead Mechanical Engineer responsible for providing mechanical design services for the fit-out of shell space in a new hospital wing for conversion into a state-of-the-art sleep lab with an emphasis on noise control.*

## **CT Scan and MRI Suite, Patient Service Center, North Chelmsford, Massachusetts**

*Mechanical Engineer responsible for new CT Scan and MRI equipment that was installed in an existing outpatient surgery center affiliated with Lowell General Hospital. Designed HVAC systems, MRI equipment utilities and helium quench event safety systems.*

## **Meriden-Markham Municipal Airport, Snow Removal Equipment Storage Facility, Meriden, Connecticut**

*Responsible for the design of heating and ventilation systems for vehicle garage for airport snow removal equipment.*

## **Emergency Department, Everett, Massachusetts**

*Mechanical Engineer responsible for designing a new air handling system exclusively serving the renovated Emergency Department at Whidden Memorial Hospital. The rooftop air handling unit included dual supply and return fan sets and UV germicidal technology.*

## **Endoscopy Department, Somerville, Massachusetts**

*Mechanical Engineer responsible for designing HVAC systems for the new Endoscopy Department at Somerville Hospital in Somerville, Massachusetts. Existing air handling equipment was upgraded, rather than replaced, as a cost-effective means of accommodating the new patient treatment functions within a former administrative area of the hospital.*

## **LEED Certified Medical Office Building, 50 Sewall Street, Portland, Maine**

*Mechanical Engineer responsible for providing the commissioning services for HVAC infrastructure of a new 40,000 square foot medical office building. This project was certified by USGBC under its LEED for Core & Shell rating system.*

## **Cardiac Catheterization Lab, Lowell, Massachusetts**

*Mechanical Engineer responsible for designing HVAC systems for cardiac catheterization procedure rooms, recovery area, and support spaces within an existing hospital building. Work included installation of two new indoor air handling units and creation of a new hydronic hot water system utilizing the existing central steam plant as a heat source. Dedicated environmental control units were used to meet the requirements of the medical computer equipment rooms.*

## **Community Health Center\*, Brockton, Massachusetts**

*Mechanical Engineer responsible for mechanical engineering and design for a new five-story community health center. Design for this project combined distributed heat pump systems for temperature control and centralized outside air systems utilizing energy recovery.*

## **Flowers (City) Park, New Rochelle, New York**

*Mechanical Engineer responsible for water and natural gas infrastructure upgrades to support improvements to athletic fields, a new playground with water spray feature, and additional restrooms and drinking fountains within a 20-acre park.*

\* denotes projects completed with other firms

James Bererton P.Eng.

Sustainable Energy Specialist, Geoexchange



Stantec

With over 20 years practical engineering experience hailing from the oil and gas industry, Mr. Bererton provides a grounded engineering perspective. Over the past seven years, his new focus has been concentrated in the renewable energy industry. Mr. Bererton has developed his passion for sustainable design across a wide range of technologies including waste heating recovery, solar thermal, photovoltaics, biomass, geothermal, wind turbines, and sustainable building design. Highlighted projects include: the design of the largest net zero facilities in North America, a solar thermal truck wash in Fort McMurray, and sustainable energy frameworks countries and large corporations.

Biomass projects include the conversion of wood and straw waste to heat and power using gasification as well as Organic Rankine Cycle technologies. Involvement on the world-renowned Okotoks Drake Landing Solar Community provided a firm background in solar thermal and seasonal storage applications. Leading the Canadian side of the TRNSYS modeling for the Vulcan Community Energy project has provided insight into solar thermal and district energy. Spear heading the net zero design of the Sacramento Municipal Utility District's new corporate yard facilities demonstrates the successful combination of analysis and design at the cutting edge of sustainability. The single axis tracking PV array on the SMUD project yielded one of the lowest \$/kWh PV energy at \$0.114/kWh life cycle cost. As a recognized expert in the field of geo-exchange and energy storage designs, Mr. Bererton has contributed to the International Energy Agency standards as well as Canadian standards.

## EDUCATION

B.Sc., Engineering Physics, University of Alberta,  
Edmonton, Alberta, 1995

Energuide for Houses Auditor Certification, ATCO Gas,  
Calgary, Alberta, 2004

ENME 485 Engineering, University of Calgary, Calgary,  
Alberta, 2005

TRNSYS Course, T.E.S.S., Madison, Wisconsin, 2005

RS100-8 Renewable Energy Project, Wills College,  
Willis, Ontario, 2006

Geo-Exchange Designer/Cdn Geo-Exchange Coalition,  
Certification Course, Calgary, Alberta, 2008

ENME 471 Heat Transfer, University of Calgary,  
Calgary, Alberta, 2006

## MEMBERSHIPS

Member, International Energy Agency

Member, Canadian Standards Association

Member, Canadian GeoExchange Coalition

Member, Association of Professional Engineers and  
Geoscientists of Alberta

## PROJECT EXPERIENCE

**Direct Expansion Standard Development (Contributor)**  
*Participant in expert panel for the amendment of Canadian Standard CSA-448 on geo-exchange systems for the inclusion of direct expansion systems into the revised standard. Supplied recommendations for field sizing criterion, long term thermal impact, frost protection and corrosion protection systems.*

**Energy Conservation through Energy Storage (ECES): Annex 21 Thermal Response Test (Sub-task leader)**  
*Sub-task leader responsible to facilitate development of international guidelines for standard thermal response test used for low temperature geothermal heating and cooling and energy. Research and development of horizontal geo-exchange model and thermal response test protocol development for horizontal fields. Advisor regarding multi-step energy pulse test for numerical (parametric) estimation of formation thermal properties.*

\* denotes projects completed with other firms

James Bererton P.Eng

Sustainable Energy Specialist, Geoexchange

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**West Jet – Corporate Campus Building, Calgary, Alberta**

*Geo-exchange system design using geothermal piping integrated into structural piles. First implementation of energy piles in Western Canada. Integrated design using thermal storage and heat transfer from cooling to heating side using heat pumps.*

**New Hampshire Veterans Home - Geo-Exchange (Sustainable Energy Designer)**

*Hybrid geo-exchange system combining vertical borefield, horizontal slinky field, and surface water geo-exchange systems to reduce reliance on fuel oil and electrical cooling. Provided system design, modeling, sizing, and specifications.*

**Wal-mart Canada Burlington Store Geo-Exchange, Burlington, Ontario (Sustainable Energy Designer)**

*World 's first implementation of revolutionary installation of horizontal geo-exchange field. Design assistance modeling of super efficient HVAC system including: roll-out radiant floor system, specialized air handling units with dehumidification, heat recovery, heat pumps, and hot water coils, energy recovery ventilation, and complete building envelope model. Ongoing design assistance modeling to improve system performance using alternative energy options.*

**Musselwhite Mine GensSet Heat Recovery**

*Lead feasibility study and design for direct contact heat recovery system for 4 reciprocating generator sets. Evaluated multiple technologies to determine lowest cost technically acceptable solution.*

**Vulcan Community Solar - Town of Vulcan Distributed Biomass/Solar Energy\*, Vulcan, Alberta (Thermal Modeling Lead)**

*Conceptual and FEED Engineering for a solar/biomass distributed energy system for a town of 800 homes and 200 commercial users using a combination of straw biomass boilers and a 20,000 m<sup>2</sup> solar thermal array. TRNSYS modeling of system; Optimization and system design; Cost estimating.*

**Pincher Creek Recreation Center, Pincher Creek, Alberta**

*Transient thermal analysis of ice arena systems integrated with swimming pool. Heat recovery system design using heat pumps to improve ice rink chiller performance while simultaneously generating heat for the swimming pool. Analysis of solar thermal array tied to ventilation pre-heat and swimming pool heating.*

**Regional Municipality of Wood Buffalo, Fort McMurray, Alberta**

*Concept and pre-feasibility engineering investigation of district heating network using waste heat recovered from oil sands mining and upgrading facilities  
Investigated 27 km district heating pipeline viability and cost  
Developed concept for ultra low temperature distribution network (60C supply with 25C return)*

**Goodridge Corners Community Sustainable Energy, Edmonton, Alberta**

*Led concept engineering effort to evaluate and identify sustainable energy options for community wide implementation of a 5000 residence green field community in North Edmonton. Investigation included district heating network supplied by various carbon neutral technologies including straw fired biomass boilers and solar thermal with seasonal storage, distributed solar thermal hot water heating, and distributed geothermal systems.*

**Town of High Level Wood Waste to District Heating and, High Level, Alberta**

*Evaluation of technology candidates. Geo-spatial analysis of wood and agri-residue waste streams including transportation cost analysis.  
Conceptual design of network and cogeneration systems.  
Organic Rankine Cycle technology integration*

**SAIC Canada - Okotoks Solar Thermal Seasonal Storage Project\*, Okotoks, Alberta (Control Systems Consultant)**

*Participated in extensive development of Seasonal Thermal Energy Storage pilot project. Activities included but not limited to: System optimization and control Controls design and operation of Bore-field geometry and Control system selection.*

**Solar Truck Wash, Fort McMurray, Alberta**

*Detailed design for a 320 kW thermal solar truck wash suitable for -50°C ambient conditions. Design issues dealt with redundant freeze protection and over temperature systems, technical and economic evaluation of multiple products, as well as funding applications.*

\* denotes projects completed with other firms

# Richard McCauley PE

Senior Mechanical Engineer, Boiler Systems



Stantec

As a Senior Mechanical Engineer Mr. McCauley is responsible for design development of mechanical systems which involves the coordination of system engineering between engineering disciplines, process design, calculations, process diagrams, equipment specifications and review of the physical design. He has been a key contributor on five combined cycle generating stations and led the mechanical engineering effort on a District Energy Plant and a Distillation Plant. In addition to his work in the Power Generation Industry, Mr. McCauley has more than fifteen years' experience in the Naval shipbuilding industry from design engineer to coordinator for combat system testing, as well as five years' experience in light commercial construction.

## EDUCATION

BSME, Villanova University, Philadelphia, Pennsylvania, 1982

## REGISTRATIONS

Registered Engineer, National Council of Examiners for Engineering & Surveying

Professional Engineer, State of Maine

## PROJECT EXPERIENCE

State of New Hampshire - 29 Hazen Drive Boiler Combustion Air and Chiller Improvements, Concord, NH

*This project included redesign of the existing combustion air system for three large fire tube boilers for this large state owner building. The final design included dedicated combustion air fans which will duct fresh air through enclosed ductwork directly to the front of the boiler. Each fan will be interlocked with the burner controls for each boiler. This project also included the redesign of chiller condensing water tanks which have been problematic.*

### **Carbon Capture**

Sask Power Carbon Capture Test Facility  
*Lead Mechanical Engineer.*

### **Natural Gas Transmission**

Woodland Paper, Natural Gas Spur,  
*Lead Mechanical Engineer.*

### **Mechanical Commissioning and System Testing**

Burke Destroyers\*, Bath, Maine  
Combat Support System Engineer  
System Test Superintendent

### **Cogeneration / Combined Heat & Power**

Lake Cogeneration Distillation, Umatilla, Florida  
*Lead Mechanical Engineer Integration of distillation system in an existing cogeneration plant.*

### **Biomass Cogeneration Plant, Old Town, Maine**

*Engineering services for relocation of 13MW steam plant.*

### **L'Energia Cogen Repowering, Lowell, Massachusetts**

*Process tie-in for non-combustion turbine.*

### **HVAC Design**

University of Southern Maine- Owner's Engineer  
*Review of Mechanical system.*

### **Maine Retirement System Study - A/C Improvements**

*Heat Gain calculation for new dormitory.*

### **Mayflower Apartments, Sanford, Maine**

*Designed heating and air conditioning systems.*

### **Gorham Middle School Commissioning, Gorham, Maine**

*Commissioning services provided for the school which was designed with a geothermal heat pump system to provide energy efficient air conditioning and heating. Large geothermal water pumps were required despite a lack of a boiler facility. Energy efficient transformers, grounding loop, and lightning arrestor system were some other features of the electrical system.*

### **Sanford & Biddeford Savings Institution- Design, Westbrook, Maine**

*Designed plumbing systems.*

\* denotes projects completed with other firms

# Richard McCauley PE

Senior Mechanical Engineer, Boiler Systems

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## **Building Commissioning- Camden Hill High School, Camden, Maine**

*Investigation and analysis of the school's energy performance.*

## **Power**

### **Hunlock Creek Power Station, Hunlock, Pennsylvania**

*Lead Mechanical Engineer for the conversion of a former coal-fired power plant to a clean-burning natural gas combined cycle power plant with 125 MW of capacity.*

### **Gateway Coke and Energy, Granite City, Illinois**

*Lead Mechanical Engineer on the project. Installation of 120 new coke ovens, six (6) Heat Recovery Steam Generators (HRSGs) and a Flue Gas Desulfurization system to treat the exhaust gas. The installation will produce 650,000 tons of blast furnace coke per year and approximately 500,000 lb/hr of high pressure steam. High quality coke and high pressure steam generated by the HRSGs will be delivered to US Steel's adjacent Granite City Works steel plant. US Steel will use the high pressure steam to generate electricity in conjunction with a steam turbine installed on their site.*

### **Kendall Packaged Boiler, Cambridge, Massachusetts**

*Mechanical engineering and design, procurement support, and startup services for the replacement of two package boilers at the Kendall Generating Plant which provides steam and electricity to more than 200,000 homes and business in Cambridge, Massachusetts. The project included the demolition of two existing boilers and associated systems. Two new boilers, including auxiliaries, were retrofitted into the location previously occupied by the old boilers.*

### **Atlantic Generating Station, 250MW Combined Cycle Unit, Port St. Lucie, Florida**

*Mechanical engineering services provided.*

### **Orange Distillation, Bartow, Florida**

*Lead Mechanical Engineer Integration of distillation system in an existing cogeneration plant.*

### **Rathdrum, 270MW Combined Cycle Unit, Rathdrum, Idaho**

*Mechanical engineering services provided.*

### **Wilmington District Energy, Wilmington, Delaware**

*Lead Mechanical Engineer in design of 6,000 ton chilled water pump and 833 GPM hot water plant for service at County Government Building.*

Scott Rogers P.E.

Senior Mechanical Engineer, Steam & Condensate



Stantec

Mr. Rogers has over twenty five years' experience of varied engineering in Power, industrial, pulp and paper, industrial government, municipal, and commercial projects. His areas of expertise include industrial process and mechanical design, and the design of both industrial and commercial HVAC systems.

## EDUCATION

BS, Chemical Engineering, University of Maine, Orono, Maine, 1980

## REGISTRATIONS

Professional Engineer #5253, State of Maine

## PROJECT EXPERIENCE

### 70 MW Biomass Power Plant

Mechanical Engineer responsible for the design of a base load biomass powerplant which included a new woodyard, turbine hall, and cooling tower. The abandoned black liquor recovery boiler was converted to a bubbling bed design for burning biomass. The former poppermill site made for many layout and construction challenges.

### Capital Cost Estimate for SO<sub>2</sub> Absorber and CO<sub>2</sub> Capture, Coal Fired Power Plant

Mechanical Engineer responsible for the layout of a new SO<sub>2</sub> Absorber, CO<sub>2</sub> Absorber, and Regenerator System at a 550 MW Coal Fired Power Plant. The scale up of the proprietary process involved the evaluation of many technologies to meet the process requirements along with space and cost considerations.

### Smart P&IDs for NO<sub>x</sub> and SO<sub>2</sub> Absorber, Coal Fired Power Plant

Mechanical Engineer responsible for the generation of over 50 smart P&IDs for a proprietary process to remove NO<sub>x</sub> and SO<sub>2</sub> from two coal fired boilers totaling 600 MW. The smart P&IDs allow lists such as a manual valve list, a control valve list, an instrument list, an equipment list, and a line list to be created directly from the P&IDs.

### Pilot Plant for CO<sub>2</sub> Capture, Coal Fired Power Plant

Mechanical Engineer responsible for the piping design of a CO<sub>2</sub> Absorber and Regenerator System at a Pilot Plant. The challenge for this project was the limited space available and the instrumentation intensive process requirements of a pilot plant. A 3D model was developed to address constructability and access concerns during the fast track design. Also involved with the design of alterations to the Regenerator System to enhance CO<sub>2</sub> recovery.

### Hospital Endocrinology Wing

Process/Mechanical Engineer responsible for the HVAC detailed design, including waiting rooms, nurse stations, examination rooms, sterilizing room, and office spaces; This project included 26 VAV zones with reheat along with various pressurizing and exhausting requirements.

### Groundwood Rejects Refining Expansion

Process/Mechanical Engineer responsible for sidehill screens, screw press, screw conveyors, and a 2500 HP refiner. Also designed air conditioning system for a new MCC Room.

### Heat Recovery Project in a Refiner Mechanical Pulp Mill

Process/Mechanical Engineer responsible for two stage scrubbers were installed to recover the heat leaving with the refiner exhaust. The scrubbers also provided a reduction in the volatile organic compounds being released to atmosphere.

### Wet End Rebuild on a 1200 fpm Paper Machine

Process/Mechanical Engineer responsible for the design including material balances; white water silo, fan pump, cleaner and headbox replacement; and fourdrinier table modifications.

### Medium Consistency Bleaching System, Groundwood Mill

Process/Mechanical Engineer for project including new screw conveyors to transport stock from the existing thickeners to a new MC pump with the bleaching solution injected into the pump suction.

\* denotes projects completed with other firms

# Scott Rogers P.E.

Senior Mechanical Engineer, Steam & Condensate

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## **Foul Condensate Steam Stripping System, Kraft Mill**

*Process/Mechanical Engineer on project including a collection system from the digester and two evaporator systems, a storage tank, a fiber filter, spiral pre-heating, a stripping column with horizontal reflux condenser, and a stripper off gas system to an existing boiler and standby incinerator. The exhaust of the standby incinerator required the installation of a quench chamber and spray scrubber to meet SO<sub>3</sub> emissions.*

## **New Displacement Drum Brown Stock Washing System, Kraft Mill**

*Process/Mechanical Engineer responsible for this project including the demolition of an old evaporator system to make way for the new washing system; A new elevated concrete structure supported on mini-piles was designed to support the new DD washer; A new MC pump with a shortened standpipe was installed on a CB washer to supply the new DD washer.*

## **Capital Appropriation Grade Estimate**

*Process/Mechanical Engineer responsible for installing a new lime mud filter and dryer in order to increase existing kiln capacity; Included a new structural steel building, which needed to span over an existing building, to house the new filter and dryer.*

## **Black Liquor Heat Recovery System, Kraft Mill**

*Process/Mechanical Engineer responsible for the following: replacing an existing flash steam condenser and black liquor heater with new larger capacity units; An additional black liquor heater was added to cool the black liquor prior to storage. This reduced the stored black liquor temperature enough to reduce the flashing so it would not have to be collected as part of the new HVLC system; This project was designed in 3D to facilitate the involvement of operations and maintenance personnel in the design phase.*

## **Alkaline Paper Machine Conversion**

*Process/Mechanical Engineer on project consisting of a PCC unloading station and new PCC storage tank with supply pumps, GCC storage and new supply pumps, a new starch cooker and storage tank with new rotary lobe supply pumps, new ASA emulsifiers for sizing starch, a Lazon biocide control system, and a first pass retention system. Several tote systems were replaced with bulk storage and feed systems.*

## **Lime Mud Dryer System, Kraft Mill**

*Process/Mechanical Engineer responsible for the following: adding a new pre-coat filter and lime mud dryer to increase lime mud production through an existing kiln. A new building was erected over an existing filter building to house the new equipment. A new lime mud supply system was designed to feed the new filter and two existing filters. The pumps were supplied with density and flow control. New belt conveyors were installed to replace the existing conveyors on the existing filters. The scrubber system was upgraded with a new quench section and a new venturi section in the existing separator. A new hot water system was designed to supply dilution and shower water for the entire lime mud filter systems. This consisted of a new steam heated hot water tank and a steam trim heater for the showers.*

## **Wire Shower System Upgrade**

*Process/Mechanical Engineer responsible for new high pressure oscillating showers and a new jet-type pump were installed along with filters. The existing pumps changed service to other lower pressure showers including the press felts.*

## **Complete Bleach Plant Upgrade, Kraft Mill**

*Process/Mechanical Engineer for project including new washer repulpers, tower stock pumps, tower dilution pumps, and vat dilution pumps. The MC pump speeds were increased along with new motors.*

## **Softwood/Hardwood Kraft Mill**

*Process/Mechanical Engineer responsible for study to determine the order of magnitude cost to install a high volume, low concentration vent collection system.*

## **Pulp Baling and Stacking System**

*Process/Mechanical Engineer on project involving the replacement of several conveyors, a new indexing conveyor, a bale stacker, and a two stack bale lowerator.*

## **Two Brownstock Washer Studies for a Softwood/Hardwood Kraft Mill**

*Process/Mechanical Engineer on project with goals to eliminate the sewerage of excess brownstock washer filtrate, reduce carryover to the bleach plant, and if economically justifiable, reduce chemical usage in the bleach plant while allowing for a production increase. Technologies evaluated were: atmospheric diffusion washing, pressure diffusion washing, compaction baffle washing, drum displacement pressure washing, a washing press, and oxygen delignification.*



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/22/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER  <b>MARSH CANADA LIMITED</b> 680, 10180 - 101 STREET EDMONTON, AB T5J 3S4	CONTACT NAME <b>MICHAEL POPLETT</b>	FAX (A.C. No.) 780-429-1422	
	PHONE (A.C. No., Ext): 780-917-4850	E-MAIL ADDRESS: MICHAEL.POPLETT@MARSH.COM	
INSURED  <b>STANTEC CONSULTING SERVICES INC.</b> 5 DARTMOUTH DRIVE, SUITE 101 AUBURN, NH 03032	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A:		
	INSURER B:		
	INSURER C:		
	INSURER D:		
	INSURER E: <b>LLOYD'S OF LONDON</b>		<b>37540</b>
INSURER F:			

**COVERAGES**      **CERTIFICATE NUMBER:** 705      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSURANCE TYPE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
<b>GENERAL LIABILITY</b>						EACH OCCURRENCE \$
<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						MED EXP (Any one person) \$
						PERSONAL & ADV INJURY \$
						GENERAL AGGREGATE \$
						PRODUCTS - COMP/OP AGG \$
GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						\$
<b>AUTOMOBILE LIABILITY</b>						COMBINED SINGLE LIMIT (Ea accident) \$
<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$
<input type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$
						\$
<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR						EACH OCCURRENCE \$
<b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
DED <input type="checkbox"/> RETENTION \$ <input type="checkbox"/>						\$
<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>						WC STATUTORY LIMITS OTHER
ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N		N/A				E.L. EACH ACCIDENT \$
If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$
						E.L. DISEASE - POLICY LIMIT \$
<b>PROFESSIONAL LIABILITY</b>			QF047513	08/01/13	08/01/14	CLAIM & AGGREGATE LIMIT \$3,000,000 INCLUSIVE OF COSTS CLAIMS MADE BASIS
INCLUDING CONTRACTOR'S POLLUTION LIABILITY			NO RETROACTIVE DATE			

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
AUBURN, NH. STANTEC PROJECT # 1988. RE: MECHANICAL STATEWIDE AGREEMENT. THE COVERAGE SHALL NOT BE CANCELLED OR NON RENEWED EXCEPT AFTER THIRTY (30) DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER. NO ATTENTION SHALL BE MORE THAN \$75,000.

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
STATE OF NEW HAMPSHIRE ATTN: BUREAU OF PUBLIC WORKS DESIGN & CONSTRUCTION POB 483, 7 HAZEN DRIVE, ROOM 250 CONCORD, NEW HAMPSHIRE 03302-0483	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
11/01/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	AON REED STENHOUSE INC. AON RISK SERVICES CENTRAL, INC. 900 - 10025 - 102A AVENUE EDMONTON, AB T5J 0Y2	CONTACT NAME: ANDREA OTTO PHONE (A/C, No, Ext): 1-800-444-3017 FAX (A/C, No): 952-656-8834 E-MAIL ADDRESS: ANDREA.OTTO@AON.COM
	INSURED	STANTEC CONSULTING SERVICES INC. 5 DARTMOUTH DRIVE, SUITE 101 AUBURN, NH 03032
		INSURER(S) AFFORDING COVERAGE
		INSURER A: ZURICH AMERICAN INSURANCE COMPANY
		INSURER B: SENTRY INSURANCE COMPANY
		INSURER C: ZURICH INSURANCE COMPANY
		INSURER D: SENTRY INSURANCE COMPANY
		INSURER E:
		INSURER F:

COVERAGES                      CERTIFICATE NUMBER:                      REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

SR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> CONTRACTUAL/CROSS LIABILITY <input checked="" type="checkbox"/> OWNERS & CONTRACTORS GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC	X		GLO6556026  XCU COVER INCLUDED	05/01/13	05/01/14	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			90-17043-03	11/01/13	11/01/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			8831307 EXCESS GENERAL, AUTO AND EMPLOYERS LIABILITY (FOLLOW FORM)	05/01/13	05/01/14	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE/OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	90-17043-01	11/01/13	11/01/14	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
AUBURN, NH. STANTEC PROJECT # 1988. RE: MECHANICAL STATEWIDE AGREEMENT. STATE OF NEW HAMPSHIRE IS INCLUDED AS AN ADDITIONAL INSURED BUT ONLY ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED. THE COVERAGE SHALL NOT BE CANCELLED OR NON RENEWED EXCEPT AFTER THIRTY (30) DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER AND ADDITIONAL INSUREDS.

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
STATE OF NEW HAMPSHIRE ATTN: BUREAU OF PUBLIC WORKS DESIGN & CONSTRUCTION POB 483, 7 HAZEN DRIVE, ROOM 250 CONCORD, NEW HAMPSHIRE 03302-0483	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  <i>Andrea Otto</i>