



C E N S

CONSULTING ENGINEERS
OF NOVA SCOTIA

DIRECTORY
2019 / 2020



Premier's Message

On behalf of the Province of Nova Scotia, I am pleased to bring greetings to the Consulting Engineers of Nova Scotia.

From our schools to our hospitals and roads, public infrastructure is at the core of how government serves the people of Nova Scotia. Consulting engineers play an integral role in designing, building and maintaining this infrastructure.

Your knowledge, experience and skills help ensure government can provide these public services and that Nova Scotians are able to utilize and enjoy efficient, effective and safe infrastructure.

Thank you for your work, your dedication and your ongoing contribution to our province.

Sincerely,

A handwritten signature in black ink that reads "Stephen McNeil". The signature is written in a cursive, flowing style.

Honourable Stephen McNeil, M.L.A.
Premier



CONSULTING ENGINEERS OF NOVA SCOTIA


Directory of Members,
Fields of Practice and Services Offered
2019 - 2020

Consulting Engineers of Nova Scotia
P.O. Box 613, Station "M"
Halifax, Nova Scotia Canada B3J 2R7
Telephone: (902) 461-1325
Facsimile: (902) 461-1321
Website: www.cens.org



Just the *facts*

about Engineers Canada-sponsored insurance plans

 Over **90,000** of your peers and their families enjoy these benefits. *You can, too.*







Here are more key facts about these valuable plans:

- +** You have **exclusive access** to insurance plans created specifically for engineering professionals.
- +** Engineers Canada and Manulife **continually assess the plan benefits and rates** to ensure they're highly competitive.
- +** They're innovative, with recent enhancements like the **job loss waiver of premium** – the first of its kind in Canada.

Learn more about how these plans can benefit you.

 manulife.com/cens

 1 877 598-2273

-  Term Life
-  Health & Dental
-  Major Accident
-  Critical Illness
-  Disability Income
-  Manulife One



Manulife, Manulife & Stylized M Design, and Stylized M Design are trademarks of The Manufacturers Life Insurance Company and are used by it, and by its affiliates under license. All rights reserved. © 2019 The Manufacturers Life Insurance Company. Manulife, P.O. Box 670, Stn Waterloo, ON N2J 4B8.

Underwritten by
The Manufacturers Life Insurance Company

TABLE OF CONTENTS

SECTION 1

Consulting Engineers of Nova Scotia
Code of Consulting Engineering Practice
Selecting a Consulting Engineer
Remuneration for Services

SECTION 2

Alphabetical Listing of Member Firms

SECTION 3

Index of Types of Services, Fields of Practice and Specialization

SECTION 4

Member Firm Profiles



Daniel Ingersoll, QC

Laura Hanusiak

David Reid

Leverage our industry experience to craft a custom solution that works for you.

Dan, Laura, and David can provide legal guidance on all matters related to growing your engineering business. They will help you make strategic decisions today, that will support your business success in the future.

From lease review to the benefits of incorporation, to the drafting and reviewing of employment documents, our experience and knowledge allow us to anticipate, adapt and respond promptly with practical solutions to your specific business needs.

Cox & Palmer is a full-service, top ranked Atlantic Canadian law firm with the knowledge and experience you can rely on for solid legal solutions. We work with clients to understand their needs and provide valuable advice when it matters most.

Daniel Ingersoll, QC

Employment | Regulated Professions
902.491.4211
ingersoll@coxandpalmer.com

Laura Hanusiak

Corporate | Property
902.491.4463
lhanusiak@coxandpalmer.com

David Reid

Corporate | Contracts
902.491.4131
dreid@coxandpalmer.com

COX & PALMER
The difference is a great relationship

Consulting Engineers of Nova Scotia
Code of Consulting Engineering Practice
Selecting a Consulting Engineer
Remuneration for Services

CONSULTING ENGINEERS OF NOVA SCOTIA

The Consulting Engineers of Nova Scotia (CENS) is a Society registered under the laws of the Province of Nova Scotia and represents the majority of Consulting Engineers in Nova Scotia. CENS is a member-organization of the Association of Canadian Engineering Companies (ACEC).

The primary objectives of CENS are:

- to maintain high professional standards in the Consulting Engineering industry;
- to assist in promoting good business relations between Consulting Engineers and their Clients;
- to foster the interchange of professional, management and business experience among Consulting Engineers.

FULL MEMBERS of the society consist of INDEPENDENT firms and/or representatives of firms and/or individuals furnishing consulting engineering services as their prime objective or principal activity, and who meet the following qualifications:

- a) INDIVIDUALS are members of the Association of Professional Engineers of Nova Scotia.
- b) FIRMS are managed by persons resident in Nova Scotia, of whom:
 - i. at least 40% (forty percent) are registered professional engineers, and
 - ii. at least 51% (fifty-one percent) are registered professional engineers and associated professionals.
- c) both FIRMS and INDIVIDUALS are engaged primarily in the business of offering independent consulting engineering services to the public, and maintain a permanent office in Nova Scotia for this purpose, where the majority of any work destined for application in Nova Scotia is performed, under the supervision of members of the Association of Professional Engineers of Nova Scotia.
- d) an INCORPORATED FIRM is incorporated in Canada and a majority of its directors are resident in Canada.

CENS annually elects a Board of Directors which includes a Board-Elected President, Vice President, Secretary, and Treasurer. CENS employs an Executive Director.

Consulting Engineers are independent business people who have an established position in the community earned through years of dedicated service. They may practice either as a sole proprietor, a partnership or in a Consulting Engineering Corporation.

Nova Scotia Consulting Engineers are legally registered professional engineers authorized to practice engineering under the laws of the Province. They have no involvement in commerce, manufacturing or construction activities which might influence their objective judgement on behalf of a Client. They are subject to a strict code of ethics and accept responsibility for their acts and those of their staff.

Nova Scotia Consulting Engineers have attained international acceptance and have served Clients throughout North America and abroad.

CONSULTING ENGINEERS OF NOVA SCOTIA CODE OF CONSULTING ENGINEERING PRACTICE

Members of the Consulting engineers of Nova Scotia will fulfill their duties with honesty, justice, and courtesy towards society, clients, other consulting engineers and employees.

THE PROFESSION

- Member conduct shall at all times be guided by integrity, competence and devotion to service, and to the advancement of public welfare.
- Members shall regard with the highest respect, the Engineering Profession Act and the Canons of Ethics for Engineers.
- Members shall ensure that engineers in their employ are aware of and abide by the Engineering Profession Act and the Canons of Ethics for Engineers.
- Members shall register to practise with the Professional Association as companies and shall ensure that engineers in their employ also register.

THE ASSOCIATION

- Members shall at all times act in a manner which supports the objectives of CENS.
- Members of the association shall make time available from principals and staff to support the efforts of the Association.
- Members shall abide by the Code of Practice of the Association of Consulting Engineers of Canada.

SOCIETY

- Members shall practice their profession with concern for health, safety, protection of the environment and the social and economic well-being of Society.
- Members shall present their experience and capabilities honestly. When stating past projects as an example of their work, they shall take credit only for the work completed by their firm.
- Members shall conform with all applicable laws, by-laws, and regulations.
- Members shall satisfy themselves that their designs and recommendations are safe and sound. If their engineering judgement is overruled, members will report the possible consequences to clients, owners and if necessary, the appropriate public authorities.
- Members expressing engineering opinions shall do so in a complete, objective, truthful, and accurate manner.
- Members should participate in civic affairs and work for the benefit of their community and should encourage their employees to do likewise.

RESPONSIBILITY TO CLIENTS

- Members shall discharge their professional responsibilities with integrity and complete loyalty to the terms of their assignments.
- Members shall market their services only on the basis of qualifications and capability, and shall represent their capabilities accurately.
- Members shall foster a qualifications-based selection approach with clients. They shall not attempt to cause unfair political influence in the consultant selection process nor encourage clients to call for priced proposals.
- Participating in price shopping by clients or reducing rates to secure a project is unacceptable practice.
- Members will accept only those assignments for which they are competent or for which they associate with other competent experts.
- Members shall obtain remuneration for their professional services commensurate with the value of the services rendered.
- Members shall disclose any conflicts of interest to their clients.
- Members shall respect the confidentiality of all information obtained from their clients.

RELATIONS WITH OTHER CONSULTING ENGINEERS

- Members shall relate to other consulting engineers with integrity and in a manner that will enhance the professional stature of consulting engineering.
- Members shall respect the clientele of other consulting engineers and will not attempt to supplant them when definite steps have been taken towards their engagement.
- Members shall compete fairly with their fellow consulting engineers, offering professional services on the basis of qualifications and experience.
- Members engaged by a client to review the work of another consulting engineer will inform the engineer of their commission and will avoid statements which may maliciously impugn the reputation or business of the engineer.

RESPONSIBILITIES TO EMPLOYEES

- Members shall treat their employees with integrity, provide for their proper compensation and require that their work conform to high standards.
 - Members shall encourage and support their employees in enhancing their professional qualifications and development.
 - Members shall not request their employees to be responsible for work for which they are not qualified.
-

SELECTING A CONSULTING ENGINEER

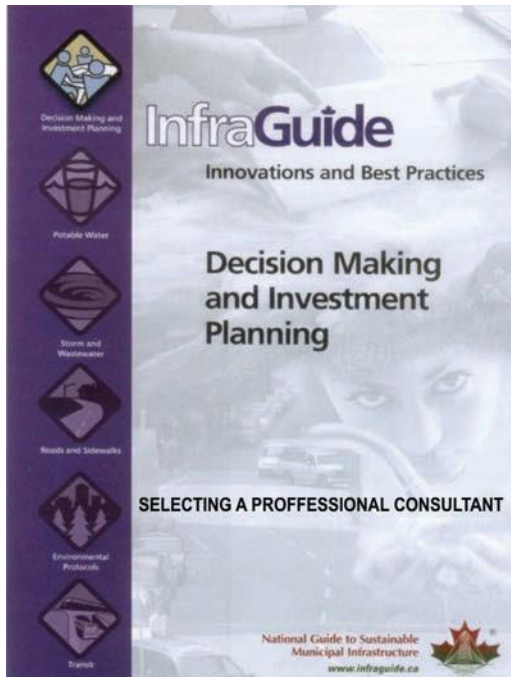
Selecting a Consulting Engineer is one of the most important project decisions a client makes. The success of any project is enhanced by the engagement of the best engineering expertise. Using Nova Scotia consulting engineers ensures that experience and expertise remains available for the long term benefit of clients in Nova Scotia.

Selection processes based solely or primarily on fee-based bidding procedures are not in the best interest of the project and may provide the engineer with insufficient funds to examine best solutions. This could result in construction and life-cycle costs far exceeding initial fee savings. A qualification-based selection process usually provides the best value-for-money approach for professional engineering services. The InfraGuide, National Guide to Sustainable Municipal Infrastructure publication *Selecting a Professional Consultant* provides additional information on this subject. For information on implementation of the InfraGuide Best Practice, please contact ACEC* at www.acec.ca.

Normal qualification criteria used for consultant selection include:

- technical competence;
- managerial ability;
- experience on similar projects;
- qualified personnel available for the project's duration;
- proven performance;
- financial stability;
- location and/or local knowledge; and
- professional independence and integrity.

InfraGuide Best Practice is a proven process for retaining the services of a consulting engineering firm. First, it involves selecting the best consulting engineering firm from a set of qualitative criteria and second, negotiating a fair engineering fee directly related to the scope of services required.



For all projects, the nature and scope of services required must be determined through:

- development of a detailed description of the
- proposed project (scope), its purposes and
- objectives;
- establishment of desired timetable;
- determination of budgets and construction cost estimates for all phases of the project; and
- identification of any special considerations.

CENS recommends the following procedures for the appointment of a Consulting Engineering firm:

** The Association of Canadian Engineering Companies of Canada (ACEC) represents the private sector engineering companies in Canada. Consulting engineering is a \$12 billion industry in Canada, with 30% of revenue coming from international work. The industry employs over 72,000 people.*

-
- A. Direct Appointment: Many clients, through experience, develop a “trusted advisor” business relationship with one, or more Consulting Engineering firms. Under these circumstances CENS recommends direct appointment of the Client's preferred firm based on known qualifications.

The following action steps are recommended:

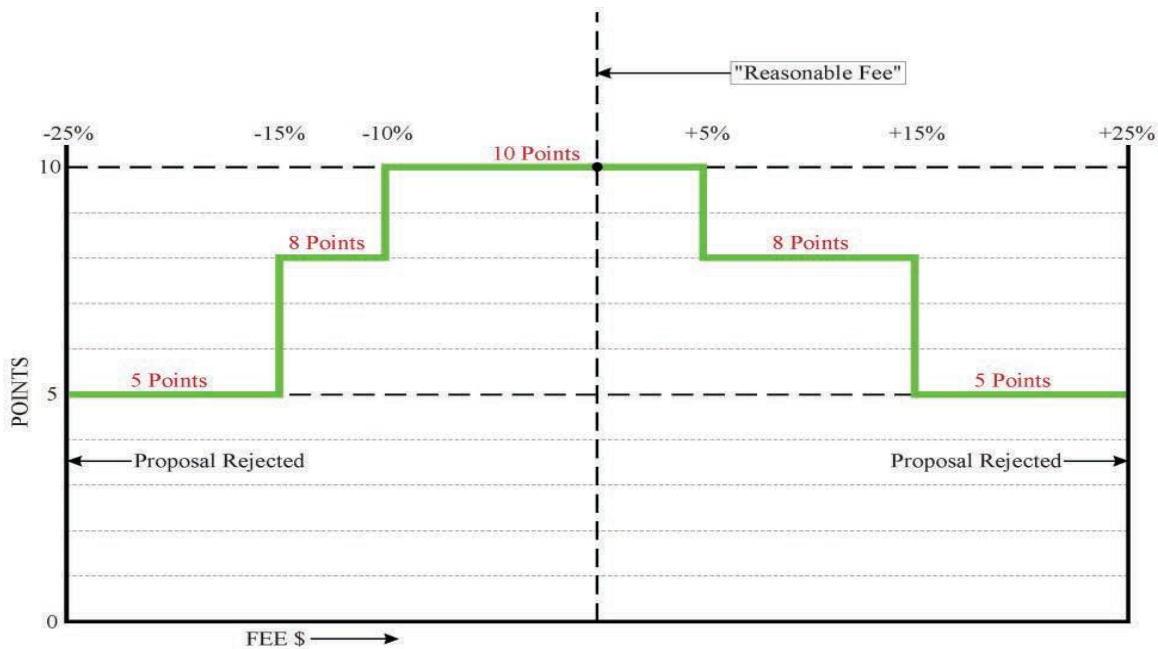
1. interview the Consulting Engineer to confirm availability of personnel and to discuss the scope, schedule and budget of the project including the services required; and
2. directly appoint the Consulting Engineering firm who the Client has determined is best suited for the project.

- B. Formal Selection Process: Where an established working relationship does not exist, clients may wish to assess the capabilities of a number of firms before making a selection. In this case, CENS recommends the following process:

1. Identify a number of candidate firms based on:
 - personal experience;
 - referrals;
 - advertisement; and
 - industry directories (e.g. CENS, Engineers Nova Scotia, ACEC).
 2. Request confirmation from those identified of their interest in the project and an outline of their capability to provide the required services including:
 - a statement of interest in and a demonstrated understanding of the project;
 - evidence of the ability to do the work;
 - profiles of the firm's principals and staff who would be assigned to the project;
 - suitable references, including previous clients.
 3. Verify references to confirm past performance.
 4. Select a short list of 2-4 firms for further evaluation.
 5. Interview the short-listed candidates to further examine their qualifications, meet project team members and discuss the scope of the project and the services required. Identify expected / reasonable range of fees either based on previous experience or percentage of construction cost.
 6. For projects where the client considers it necessary, written proposals may be requested in response to comprehensive and complete Terms of Reference. CENS recommends a briefing session between the short-listed consultants and the client prior to proposal preparation. Personal interviews/presentations should then follow the written submissions. Evaluate based on technical and management criteria and rank the candidate firms.
 7. Select the highest ranked firm and:
 - Negotiate the final scope of services and level of effort required. By first agreeing on the scope of the project, the client can make clear the emphasis on factors such as environmental impact, cost, schedules, and social implications.
 - Negotiate a fair / reasonable fee and contract based on the most appropriate method of remuneration for the specific project. Fees established at this stage are fairer to both client and consultant because they are negotiated after the parameters of the work are fully defined.
 - If primary negotiations are unsuccessful, begin negotiations with the second ranked Consulting Engineering firm.
 - When an acceptable contract has been negotiated, notify the other candidates.
-

- A good client-consultant relationship is encouraged from the beginning of the QBS Best Practice process. Effective and frequent communication avoids adversarial situations and leads to successful projects.

C. Reasonable Fee: While neither CENS nor Engineers Nova Scotia recommend selecting a professional engineer based on fee alone, the identification of a “reasonable fee” should be determined, either based on a percent of estimated construction cost, or some average / mean / median of fees submitted for a project. Once a reasonable fee is identified, this can provide a benchmark for comparing and rating proposals as a final step in consultant selection. The following graph indicates a suggested means of comparison whereby fees in excess of the “reasonable fee” will be assigned reduced points. Fees lower than the reasonable fee and within 10% of the reasonable fee are suggested to offer no additional value to the client. Fees below 90% of the reasonable fee should, in fact, be considered detrimental to the project.



D. Contracts and Agreements: Many clients / consultant agreements include no more than clear identification of: scope, schedule and budget. These three (3) components however, are a must, and need to be agreed upon and signed off by both client and consultant.

Larger and more complex projects should include a written contract such as the ACEC Document No. 31 (latest revision). Professionals contemplating changes to this Agreement are advised to first consult with legal counsel. Reference is made to the ACEC booklet, *Guidelines for Engineering Practice*, where the provisions of this Agreement are discussed in detail.

TURNKEY POWER SOLUTIONS CUSTOMIZED FOR YOU

Design • Engineering • Commissioning • Maintenance



Dartmouth • Sydney • Yarmouth • Fredericton • Moncton • Bathurst • Charlottetown

1 877-428-5228 | toromontcatmaritimes.com

TOROMONT



Construction Products Limited

Quality - Innovation - Service

Quality Product Solutions for Design and Construction

Fredericton
506.452.8178

Moncton
506.858.5952

Dartmouth
902.468.1515

Saint John
506.634.1705

St John's
709.745.2505

www.arrowco.ca

REMUNERATION FOR SERVICES

Most engineering projects result in construction and have long-term operational ramifications. Accordingly, the cost of engineering services is typically a small percentage of the full (life-cycle) cost of a project. The most cost-effective solution to a Client's needs will not usually result from minimum or lowest cost engineering services. Care should be taken, not only to select the best qualified Consulting Engineer, but also to agree upon a basis of fee that fully compensates the services required.

Consulting Engineers perform services on a professional fee basis. The term "fee", as used in this publication, represents the total charges for engineering services, including all project expenses incurred by the Consulting Engineer. This Section outlines primary methods for determining a Consulting Engineer's fee. These methods are:

- 1. Fee Basis A: Agreed Fixed Fee**
- 2. Fee Basis B: Time and Expenses**
- 3. Fee Basis C: Other Methods of Remuneration**

Success in meeting the Client's overall project objective is of paramount concern. The determination of the Consulting Engineer's scope of services and associated fee is only one step in the process of project development; however, in many cases this step will govern the remainder of the project. It is very important for all parties to reflect on the potential impact that the selected method of fee computation may have on the overall project. They should select a fee basis which would be beneficial to the project's objectives.

1. Fee Basis A: Agreed Fixed Fee

For those projects where a clearly defined scope of services is agreed to by a client and a Consulting Engineer, fees can reasonably be established as an Agreed Fixed Fee. In these cases, both the Client and the Consulting Engineer should be clear in the written agreement as to the scope of work, schedule, and the extent and level of service to be provided. It is also recommended that the agreement provides for a method of payment for services that may be incurred beyond the limits of the agreement.

2. Fee Basis B: Time and Expenses

Time-based methods provide an opportunity to overcome the many uncertainties that often exist at the start of a project. The critical issue here is that, if the full scope of services cannot be established, it is nearly impossible to accurately estimate the cost of engineering services in advance of the start of the project. Similarly, the amount of time required to observe and review construction is largely in the control of the Contractor, not the Consulting Engineer. Accordingly, the type and quantity of services required may, and in many cases should, vary. Therefore, time and expenses-based fee methods are often appropriate.

CENS suggests the use of a range of hourly billing rates for professional engineering services as a basis for a "time and expenses" contract. Billing rates are reviewed bi-annually by CENS. Suggested rates shown on Table 1 have been determined by a survey of rates charged in 2018 by CENS Member firms. Table 1 represents average salary for each level of responsibility.

Table 1 – Suggested Hourly Rates

Engineer Level	Experience (Years from Graduation)	Rate (\$ / hr)	Level of Responsibility (See below)
Engineer in Training (EIT)	0 – 4	\$ 87	A
Junior Engineer	4 – 7	\$ 102	B
Intermediate Engineer	7 – 10	\$ 124	C
Senior Engineer	10 +	\$ 146	D
Specialist Engineer	> 15	\$ 173	E
Principal Engineer	no limit	\$ 212 +	F

Principals, senior officers, and staff rendering individual services on assignments for which they are eminently qualified (usually levels D, E, or F) could be billed at up to twice the rates specified in the Directory. Such assignments include providing expert testimony, value engineering, etc.

Where time and expenses-based fees are used, it is important that the Consulting Engineer and the Client collaborate to control cost without jeopardizing the overall quality of the services provided.

Prior approval of budget limitations by the Client is assumed. However, time-based fees are not compatible with a fixed upper financial limit.

Levels of Responsibility	Recommendations, Decisions and Commitments	Leadership Authority and/or Supervision Exercised
Level A	Few technical decisions called for and these will be of a routine nature with ample precedent or clearly defined procedures guidance.	May assign and check work of technicians or helpers.
Level B	Decisions made are normally within established guidelines.	May give technical guidance to junior engineers or technicians, assigned to work on a common project.
Level C	Makes independent studies, analyses, interpretations and conclusions. Difficult, complex or unusual matters or decisions are usually referred to more senior authority.	May give technical guidance to engineers of less standing, or technicians assigned to work on a common project. Supervision over other engineers not usually a regular or continuing responsibility.
Level D	Recommendations reviewed for soundness of judgment but usually accepted as technically accurate and feasible.	Assigns and outlines work; advises on technical problems; reviews work for technical accuracy, and adequacy. Supervision may call for recommendations concerning selection, training and discipline of staff.
Level E	Makes responsible decisions not usually subject to technical review. Takes courses of action necessary to expedite the successful accomplishment of assigned projects.	Outlines more difficult problems and methods of approach. Coordinates work programs and directs use of equipment and material. Generally makes recommendations as to the selection, training, discipline and remuneration of staff.

Levels of Responsibility	Recommendations, Decisions and Commitments	Leadership Authority and/or Supervision Exercised
Level F	Makes responsible decisions on all matters, including the establishment of policies subject only to overall company policy and financial controls.	Reviews and evaluates technical work, selects, schedules and coordinates to attain program objectives; and/or as an administrator makes decisions concerning selection, training, rating, discipline and remuneration of staff.

3. Fee Basis C: Other Methods of Remuneration

In response to a changing marketplace and clients' needs for varied project delivery approaches, several other (innovative) alternatives and variations to the historical time-based, fixed fee, or percentage cost of construction fee bases, are beginning to develop. Other methods being introduced to the industry include:

- Value-added—usually determined as a percentage of the projected or perceived project savings;
- Profit sharing—an agreed percentage of profits, either estimated or long-term actual;
- Equity participation—where the engineer participates financially in the project through contribution of services or direct investment;
- Performance-based—a two-tiered payment schedule to the engineer in the form of basic payment for design services, plus a bonus for predetermined tangible results.

Comments on the applicability, advantages and disadvantages of each of these innovative fee bases are presented in the following subsections. If any or all of these methods become more commonplace, CENS / Engineers Nova Scotia intend to provide more specific guidelines in future fee schedules.

3.1 Value-Added

This fee structure is best suited to predesign services but could be applied at any stage, if there is a clear basis for normal expectations, against which innovative approaches can be judged. It requires a good engineer/client relationship and is best suited to long-time repeat client projects. It has the potential to exceed the basic fee for detailed design services; for example, an engineer's innovative thinking before commencing basic design can introduce major value to the client in the form of significant project cost reductions. The fee is usually determined as a percentage of the projected, or perceived, project savings.

- Advantages—good potential for significant improvements on specialized assignments; encourages innovative thinking by engineers.
- Disadvantages—needs a method of agreeing on intangible gains over a base case; high financial risk for an engineer if unsuccessful.

3.2 Profit Sharing

This fee structure is appropriate for engineers who are in a position to adequately assess the risks associated with the project. It can be applied to first-time clients or repeat clients, and is simply calculated as an agreed percentage of profits, either estimated or long-term actual. It requires careful definition of what constitutes “profit” and the nature of the accounting process, to avoid later disputes.

- Advantages—encourages an increased engineering emphasis, for total project benefit; good potential for engineers with sufficient financial backing to engage in such business arrangements; develops good client/engineer relationships, since success depends on team/project results.
- Disadvantages—engineers require solid financial resources to finance operations during project design and construction; high financial risk for engineers, relating not only to personal performance but also to the calibre of project partners; remuneration depends on the performance of others on the team.

3.3 Equity Participation

This fee structure is very similar to profit sharing, except that engineers participate financially in the project, either through contribution of services or direct investment.

- Advantages—encourages an increased engineering emphasis for total project benefit; introduces and encourages entrepreneurship; good long-term potential if project is successful; develops good client/engineer relationships.
- Disadvantages—engineering firms generally do not have significant equity capital to participate in projects in this manner; engineers require venture capital resources for investment, as well as for ongoing operations; high financial risk for engineers, because payment depends not only on personal performance, but also on the caliber of partners; payback period is long-term with increased chance of changing financial conditions.

3.4 Performance-Based

This fee structure involves a two-tiered payment schedule to the engineer, comprising basic payment for design services, plus a bonus for predetermined tangible results, e.g. completion ahead of schedule, shorter approval times, lower construction costs, lower operational and maintenance costs, etc. In the same sense that bonuses are developed, penalties may also be applied. It differs from profit sharing/equity participation in that the entire remuneration does not necessarily depend on overall project success, but on meeting or exceeding defined goals and performance.

- Advantages—encourages clients to define performance priorities; significant profit potential for engineers in return for optimum performance; high incentive for engineers to achieve defined performance objectives; promotes innovative thinking by engineers.
- Disadvantages—tends to downgrade the basic fee in favour of increased bonus/penalty arrangements; requires predetermined goals to be accurately identified, to reduce future client/engineer disputes.

Selecting a consulting engineer is one of the most important project decisions a client makes. **Consulting Engineers Nova Scotia (CENS)** suggest clients consider the life-cycle cost of a project including design, construction, operations and maintenance costs, as well as the reliability and the durability of the end product.

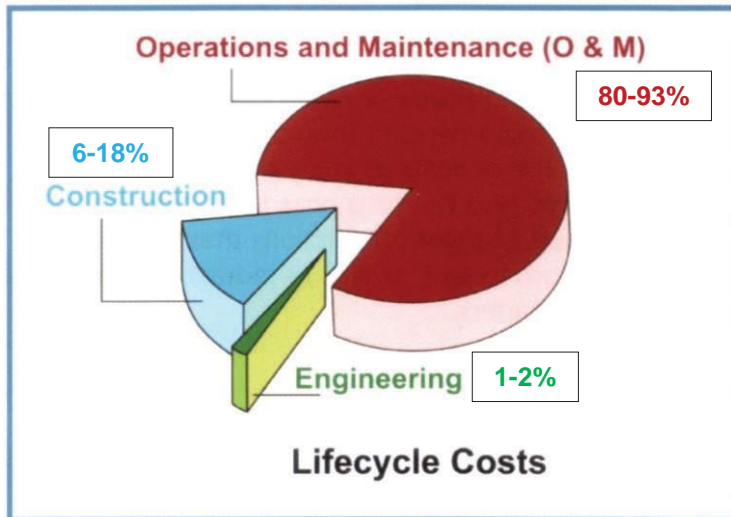


Figure 1: Typical breakdown of project life cycle costs

Figure 1 shows the total relative costs for design, construction and operations and maintenance over the life-cycle of the project. The Engineering design component, while only in the range of **1 to 2% of total costs**, has a significant impact on both construction costs and operations and maintenance costs, as well as the overall reliability of the project itself.

Although the engineering design costs are minimal compared to the overall cost of a project, it must be noted the real additional cost to the client for choosing the “best design” is the difference between it and the lowest price, in effect, **a fraction of 1%**.

There are additional “best value” business reasons for the client when selecting the “best design”, for example:

- Extensive studies have shown that selecting “low price” design results in approximately **10% extras** on the project, whereas selection of the best technical solution results in extra costs of **less than 5%**.
- Clients have experienced **less staff monitoring** of the project is required when the best engineering design is selected.
- **Productivity** by both the client and engineering staffs is enhanced.
- Best design will result in a **better quality product** for the end user and lower life cycle cost of a project.
- Best design provides more opportunity for **innovation and creativity**.

CENS has created a document entitled **“Guidelines for Procuring Consulting Engineering Services in Nova Scotia”**. This Guideline, prepared by CENS and endorsed by Engineers Nova Scotia, is intended to assist our clients in getting **“best value”** for their financial investments when procuring engineering design services.

Alphabetical Listing of Member Firms

ALPHABETICAL LISTING OF MEMBER FIRMS

Telephone Facsimile

Executive Director - P.S. Ferguson, P.Eng.

461-1325 461-1321

Member Firm	Phone/Fax	Voting Rep./Contacts	Email Addresses/Website
1. ABLE Engineering Services Inc. 4073 Highway # 3 PO Box 959 Chester, NS B0J 1J0 5209 St. Margarets Bay Road, Suite 201 Upper Tantallon, NS 4 Calkin Drive Kentville, NS B4N 3V7	1-833-756-8433 902-273-3072	Andre Veinotte Bryan Maillet Contact: Sandy Dewar	andre@ableinc.ca info@ableinc.ca www.ableinc.ca
2. ADM Systems Engineering Limited 30 Damascus Road, Suite 208 Bedford, NS B4A 0C1	902-464-4862 ext 201 902-466-6889 (f)	Jim Gillis	Jim.gillis@actemium.com www.actemium.com
3. AECOM Canada Ltd. 45 Wabana Court, Harbourside Place Suite 129A Sydney, NS B1P 0B9 1701 Hollis Street, SH400 (Sarah Howard Building) Halifax, NS B3J 3M8 PO Box 576 CRO Halifax, NS B3J 2R7	902-595-2030 Main line 902-595-6000 902-428-2021 902-428-2031 (f)	Jennifer Hood Nora Doran	jennifer.hood@aecom.com nora.doran@aecom.com www.aecom.com
4. A.H. Roy & Associates Ltd. 275 Main Street, Suite 100 Antigonish, NS B2G 2C3	902-863-2955 902-863-2214 (f)	Vic Belliveau Paul Doiron Ron Kell Josh Bouchie Daniel Doiron	vbelliveau@ahroy.ca pdoiron@ahroy.ca rkell@ahroy.ca jbouchie@ahroy.ca ddoiron@ahroy.ca www.ahroy.ca
5. Allnorth Consultants Limited Suite 102, 100 Venture Run Dartmouth, NS B3B 0H9	902-835-9758 1-888-839-3114 (f)	Karen Verney	kverney@allnorth.com
6. Arcadis Canada 26 Aster Court Halifax, NS B3S 1G5	902-579-3410	Martin Gavin	Martin.gavin@arcadis.com
7. B.D. Stevens 20 MacDonald Avenue Dartmouth, NS B3B 1C5	902-468-8040 902-468-4839 (f)	Mark VanZeumeren	markvz@bdstevens.ca www.bdstevens.ca
8. BGC Engineering Inc. Suite 630 – 1718 Argyle Street Halifax, NS B3J 3N6	902-474-5925 902-474-5929 (f)	Scott Munro Marc Adams Carolina Dietrich	smunro@bgcengineering.ca madams@bgcengineering.ca cdeitrich@bgcengineering.ca info@bgcengineering.ca www.bgcengineering.ca

Member Firm	Phone/Fax	Voting Rep./Contacts	Email Addresses/Website
9. Black & McDonald 60 Cutler Avenue Dartmouth, NS B3B 0J6	902-481-5601 902-222-2444 902-468-3102 (f)	Charles Savoie Charles Leonard	csaviue@blackandmcdonald.com cleonard@blackandmcdonald.com www.blackandmcdonald.com
10. Campbell Comeau Engineering Limited 2719 Gladstone Street, Suite 110 Halifax, NS B3K 4W6	902-429-5454 902-444-3099 (f)	Michel Comeau Wes G. Campbell	cce@campbellcomeau.ns.ca www.campbellcomeau.ns.ca
11. CBCL Limited PO Box 606 Halifax, NS B3J 2R7 <u>Branch Office:</u> PO Box 567 Sydney , NS B1P 6H4	902-421-7241 902-423-3938 (f) 902-539-1330 902-539-4406 (f)	David Lea John Flewelling Andrew Gates Lorne Martin Kevin Murphy	davidlea@cbcl.ca johnf@cbcl.ca andrewg@cbcl.ca lornem@cbcl.ca kevinm@cbcl.ca www.cbcl.ca
12. Clow Engineering & Design Inc. 239 Howe Avenue, Fall River, NS B2T 1H7	902-476-2533	Trent Clow	clowengineering@gmail.com
13. COWI North America, Ltd. 910 – 1809 Barrington Street Halifax, NS B3J 3K8	902-407-8285	Eileen McEwen	eer@cowi.com www.cowi-NA.com
14. Conquest Engineering Ltd. 348 Bluewater Road Bedford, NS B4B 1J6	902-835-7313 902-835-1260 (f)	Luis Repetto	luisrepetto@conquest-eng.com
15. DesignPoint Engineering & Surveying Ltd. Suite 104, 222 Waterfront Drive Bedford, NS B4A 0H3	902-414-8181 902-414-9190 902-410-6283 902-237-6039	Glenn Woodford Andrew Forsythe Lindsay Reimer Evan Teasdale Adam Sketchley Ellen Dalton	glenn.woodford@designpoint.ca andrew.forsythe@designpoint.ca lindsay.reimer@designpoint.ca evan.teasdale@designpoint.ca adam.sketchley@designpoint.ca ellen.dalton@designpoint.ca
16. Dillon Consulting Limited Suite 100, 137 Chain Lake Drive Halifax, NS B3S 1B3 <u>Branch Office</u> 275 Charlotte Street Sydney, NS B1P 1C6	902-450-4000 902-450-2008 (f) 902-562-9880 902-562-9890 (f)	Terry Boutilier Sarah Devereaux Scott Kyle Dan Morehouse Andrew Thalheimer	tboutilier@dillon.ca sdevereaux@dillon.ca skyle@dillon.ca dmorehouse@dillon.ca athalheimer@dillon.ca www.dillon.ca
17. Dumac Energy Limited 752 Bedford Highway, Suite 210 Halifax, NS B3M 2L9	902-457-1300 902-457-1777 (f)	Marc Dumaresq Mark Eisnor Nicole Pettipas	marc@dumac.ns.ca meisnor@dumac.ns.ca npettipas@dumac.ns.ca www.dumac.ns.ca
18. EastPoint Engineering Ltd. Suite 1500 1801 Hollis Street Halifax, NS B3J 3N4	902-422-2000 902-422-1919 (f)	Aubrey Palmeter Nick Tobin Hugh Reid	aubrey.palmeter@eastpoint.ca nick.tobin@eastpoint.ca hugh.reid@eastpoint.ca www.eastpoint.ca
19. EDM Planning Services Ltd. 300-2111 Maitland Street Halifax, NS B3K 2Z8	902-425-7900 902-425-7990 (f)	Melissa Macleod, adm Tim Veinot	melissa@edm.ca tim@edm.ca www.edm.ca
20. EMW Group Inc. 60 Payzant Ave. Dartmouth NS B3B 1Z6	902-405-4133 902-405-4134 (f)	Edward Walentynowicz	edward@emwgi.com www.emwgi.com
21. Englobe Corp. 97 Troop Avenue Dartmouth, NS B3B 2A7	902-468-6486 902-468-4919 (f)	Scott Simms Tony Ramia	scott.simms@englobecorp.com tony.ramia@englobecorp.com www.englobecorp.com

Member Firm	Phone/Fax	Voting Rep./Contacts	Email Addresses/Website
22. EXP Services Inc. 90 Lovett Lake Court, Suite 401 Halifax, NS B3S 0H6 301 Alexandra Street, Suite A Sydney, NS B1S 2E8	902-453-5555 902-429-5457 (f) 902-562-2394 902-564-5660	Normand Landry Brian Walker Stacy Muise Jane Shapland	Normand.landry@exp.com brian.walker@exp.com stacy.muise@exp.com jane.shapland@exp.com www.exp.com
23. F.C. O'Neill, Scriven & Assoc's Limited Bayers Road Centre 7071 Bayers Road, Suite 2001 Halifax, NS B3L 2C2	902-429-0701 902-429-9729 (f)	Scott Moore Glen Rockett Dave Parkinson	scottm@onsa.ca glenr@onsa.ca davep@onsa.ca www.ONSA.ca
24. Fundy Engineering & Consulting Ltd. PO Box 25083 Halifax, NS B3M 4H4	902-492-1550 506-635-0206 (f)	Rob Haineault	rob.haineault@fundyeng.com www.fundyeng.com
25. GEMTEC Limited 300 Horseshoe Lake Drive, Suite 303 Bedford, NS B3S 0B7	902-832-5999 902-832-5929 1-877-243-6832	Angelo Di Quinzio	Angelo.diquinzio@gemtec.ca
26. Geotechnology Limited 23 Roslyn Drive Dartmouth, NS B2W 2M2	902-452-8667	Eric Jordan	ejorden@eastlink.ca
27. GHD 45 Akerley Blvd. Dartmouth, NS B3B 1J7	902-468-1248 902-468-2207 (f)	Cole Sinclair Mike Gallahue	cole.sinclair@ghd.com mike.gallahue@ghd.com www.ghd.com
28. Golder Associates Ltd. 201 Brownlow Avenue, Suite 26 Dartmouth, NS B3B 1W2	902-466-1668 902-466-1669 (f)	Sheri L. Burton Belinda Culgin Josiane Hardy	sheri_burton@golder.com Belinda_Culgin@golder.com Josiane_Hardy@golder.com www.golder.com
29. Harbourside Group of Companies 219 Waverley Road, Suite 200 Dartmouth, NS B2X 2C3	902-405-4696 902-405-4693 (f)	Robbie Fraser Greg MacDonald Mark Reynolds Michael MacDonald Vince Goreham	rfraser@harboursideengineering.ca gmacdonald@harboursideengineering.ca mreynolds@harboursideengineering.ca mmacdonald@harboursideengineering.ca vgoreham@harboursideengineering.ca www.harboursideengineering.ca
30. Hatch Corporation Suite 1009, 1809 Barrington Street Halifax, NS B3J 3K8 <u>Branch Office:</u> 106-200 Churchill Drive Sydney, NS B1S 0H5	902-421-1065 902-429-3525 (f) 902-564-5583 902-564-9158 (f)	Lorne Flowers Corrina Genter David Johnson Floyd Butts	lorne.flowers@hatch.ca corrina.genter@hatch.ca david.johnson@hatch.com floyd.butts@hatch.ca www.hatch.ca
31. InterTalk Critical Information Systems 371 Cutler Avenue Dartmouth, NS B3B 0J5	902-468-5998	Chris Oldham	info@intertalksystems.com www.intertalksystems.com
32. J.W. Cowie Engineering Limited 1046 Barrington Street, Suite 200 Halifax, NS B3H 2R1	902-422-4493 902-422-5066 (f)	Jim W. Cowie	jwcowie@eastlink.ca www.cowieengineering.ca
33. Lindsay Construction 134 Eileen Stubbs Avenue, Unit 105 Dartmouth, NS B3B 0A9	902-468-5000 902-468-6615	Kirby Putnam Geoff Jamieson Paul Currie	Kirby.putnam@lindsayconstruction.ca Geoff.jamieson@lindsayconstruction.ca Paul.currie@lindsayconstruction.ca www.lindsayconstruction.ca
34. MaRTHA Myers Consulting Services 408 – 25 th Arthur Street, Dartmouth, NS B2Y 2L8	902-233-9238	Martha Myers	marthamyersconsulting@gmail.com www.marthamyersconsulting.ca

Member Firm	Phone/Fax	Voting Rep./Contacts	Email Addresses/Website
35. Malcolm PINTO Engineering Limited 3480 Joseph Howe Drive, Suite 400 Halifax, NS B3L 4H7	902-420-9800 902-484-7288 (f)	Malcolm Pinto	mpinto@consultpinto.com www.consultpinto.com
36. MCA Consultants 3-90 Raddall Avenue Dartmouth, NS B3B 1T2	902-481-8126 902-892-5122 (f)	Steven Ramsay	steve@mcaconsultants.ca www.mcaconsultants.ca
37. MCW Maricor (Consultants) 30 Duke Street, Suite #1 Truro, NS B2N 2A1 7051 Bayers Road, Suite 102 Halifax, NS B3L 2C1	902-893-8455 902-893-3670 (f) 902-876-3182 902-876-2796	Bruce Thompson Ross Penner Ted Loucks	bthompson@mcw.com rpenner@mcw.com tloucks@mcw.com www.mcw.com
38. Meco (Mitchelmore Engineering) 109 Ilsley Avenue, Unit 14 Dartmouth, NS B3B 1S8	902-444-3131 902-404-7777(f)	Perry Mitchelmore Lori Dunn	perry.mitchelmore@mecoengineers.com lori.dunn@mecoengineers.com www.mecoengineers.com
39. Pinchin Ltd. 42 Dorey Avenue Dartmouth, NS B3B 0B1	902-461-9999 902-461-9932 (f)	Laura Tait Selin Aniscikli Trevor Houweling	ltait@pinchinleblanc.com saniscikli@pinchin.com thouweling@pinchinleblanc.com
40. P.S. Ferguson 20 Freshwater Trail, Unit 105 Dartmouth, NS B2W 0J3	902-461-1325 902-461-1321 (f)	Executive Director	cens@eastlink.ca
41. Ricas Fire Protection Engineering Ltd. #3-644 Portland Street, Suite 206 Dartmouth, NS B2W 6C4	902-456-1518	Alana MacLellan-Bonnell	alana@ricas.ca ca.linkedin.com/in/alanamaclellanbonnell www.ricas.ca
42. RJ Bartlett Engineering Ltd. 1046 Barrington Street, 3rd Floor Halifax, NS B3H 2R1	902-496-3070 902-468-1150 (f)	Christian Oickle	coickle@rjbartlett.com www.rjbartlett.com
43. Rundle Engineering PO Box 70036 Lower Sackville, NS B4C 0B1	902-209-5110	Bob Rundle	rrundle@burnsideconsultants.ca
44. Servant Dunbrack McKenzie & Macdonald 36 Oland Crescent, Bayers Lake Business Park Halifax, NS B3S 1C6	902-455-1537 Ext. 236 Ext. 232 902-455-8479 (f)	Ray Landry Geoff MacLean	rlandry@sdmm.ca gmaclea@sdmm.ca www.sdmm.ca
45. Smith + Andersen 1969 Upper Water Street, Suite 1905 Purdy's Tower II Halifax, NS B3J 3R7	902-334-0336 902-440-0981	Troy Droesbeck	troy.droesbeck@smithandandersen.com
46. SNC – Lavalin Inc. 5657 Spring Garden Road, Suite 200 Halifax, NS B3J 3R4 65 Beech Hill Road Antigonish Co., NS B2G 2P9	902-492-4544 902-492-4540 (f) 902-863-1220	Cliff Johnston David Haley David Preston Todd Barkhouse	Cliff.johnston@snclavalin.com Davids.haley@snclavalin.com David.preston@snclavalin.com www.snclavalin.com todd.barkhouse@snclavalin.com

Member Firm	Phone/Fax	Voting Rep./Contacts	Email Addresses/Website
47. Stantec Consulting Ltd. 102-40 Highfield Park Drive Dartmouth, NS B3A 0A3 <u>Branch Offices</u> 201 Churchill Drive, Suite 207 Membertou, NS B1S 2M9 Website:	902-468-7777 902-468-9009 (f) 902-468-0420 902-468-0454 902-564-1855 902-564-8756 (f)	Main Switchboard Hal Lewis Paul Sanford Brian Donnelly Willie McNeil	All Inquiries hal.lewis@stantec.com paul.sanford@stantec.com brian.donnelly@stantec.com willie.mcneil@stantec.com www.stantec.com
48. Strait Engineering Limited 298 Reeves Street, Unit 9 Port Hawkesbury, NS B9A 2B4	902-625-3631 902-625-3634 (f)	H. Basil Mattie	strait@straiteng.com
49. Strum Consulting 1355 Bedford Highway Bedford, NS B4A 1C5 <u>Branch Office</u> 3A Vincents Way, Unit A Antigonish, NS B2G 2X3	902-835-5560 902-835-5574 (f) 902-863-1465 902-863-1389 (f)	Bruce Strum Chris Boudreau Blake Beaton	bstrum@strum.com cboudreau@strum.com bbeaton@strum.com www.strum.com
50. Tate Engineering 100 Oakfield Park Road Oakfield, NS B2T 1B3	902-576-3420	Roxanne Tate Murray Tate	roxanne@tateengineering.com murray@tateengineering.com
51. T.P. Murphy Engineering Inc. 1510 Purcells Cove Road Halifax, NS B3P 1B6	902-221-2715	Tim Murphy	tim@murphyengineering.ca www.murphyengineering.ca
52. Wood Environment & Infrastructure Solutions 50 Troop Avenue, Unit 300 Dartmouth, NS B3B 1Z1 <u>Branch Office:</u> 500 Kings Road, Suite 208 Sydney, NS B1S 1B1	902-468-2848 902-468-1314 (f) 902-564-1110 902-564-6318 (f)	Philip Sullivan Joseph Fakhri Colin Dickson Matt Davidson	philip.sullivan@woodplc.com joseph.fakhri@woodplc.com colin.dickson@woodplc.com matthew.davidson@woodplc.com www.woodplc.com
53. Woods Engineering Inc. 35 Fraser Drive Musquodoboit Harbour, NS B0J 2L0	902-293-8593	John Woods	John.woods@woodseng.ca
54. WSP Canada Inc. 1 Spectacle Lake Drive Dartmouth, NS B3B 1X7	902-835-9955 902-835-1645 (f)	Ron A. Hiltz Greg O'Brien Adam Milligan Patrick Lewis Geoffrey Millen Tom Leung	ron.hiltz@wsp.com greg.obrien@wsp.com adam.milligan@wsp.com Patrick.lewis@wsp.com Geoffrey.millen@wsp.com Tom.leung@wsp.com www.wsp.ca

Metro's Newest **FORD** Dealership

MACPHEE



580 Portland Street
Dartmouth, NS B2W 2M3



Tel. (902) 434-7700 Fax. (902) 434-5841

macpheedford.com



Golf & Country Club Redefined

Oakfield Golf & Country Club is one of Atlantic Canada's finest Championship 18 hole courses located only 5 mins from Stanfield International Airport, and 30 mins from downtown Halifax.

Oakfield is a members facility which also welcomes visitors throughout the golf season.

For more information on Membership or to book a tee time at Oakfield Golf and Country Club please call 902.861.2777 ext 4, then press 2.

www.oakfield.ca



Index of Types of Services, Fields of Practice and Specialization

TYPES OF SERVICES CATEGORIES:

- Accident Investigation
 - Arbitration
 - Building Science
 - Construction Management (On Site)
 - Economic/Financial Studies & Cost Benefit Analysis
 - Environmental Management/Hazard Assessment
 - Facilities Planning & Operations
 - Infrastructure Management
 - Inspection/Testing/Laboratory Analysis
 - Instrumentation & Controls
 - LEED Consulting Services
 - Market/Tariff Studies
 - Marine & Coastal
 - Operation & Maintenance Planning/Studies
 - Pre-Feasibility/Pre-Investment/Feasibility Studies
 - Preliminary/Final Design
 - Preparation of Contract Documents & Bid Evaluation
 - Process Evaluation & Selection
 - Procurement Services
 - Product/Production Technology & Management
 - Project Management (On Behalf of Owner)
 - Quality Control
 - Quantity Surveying/Cost Estimating
 - Research & Development
 - Start-up Operations/Commissioning
 - Structural
 - Supervision/Inspection of Construction & Equipment Installation
 - Sustainability Initiatives
 - Technical Assistance/Advisory Services
 - Technical Due Diligence
 - Training & Transfer of Technology
-

ACCIDENT INVESTIGATION

Campbell Comeau Engineering Limited
EastPoint Engineering Ltd.
EMW Group Inc.
J.W. Cowie Engineering Limited
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

ARBITRATION

Campbell Comeau Engineering Limited
exp Services Inc.
Malcolm Pinto Engineering Limited
Stantec Consulting Ltd.

BUILDING SCIENCE

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
exp Services Inc.
GHD
Hatch Corporation
Pinchin Ltd.
Smith + Anderson
SNC – Lavalin Inc.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

CONSTRUCTION MANAGEMENT (ONSITE)

AECOM Canada Ltd.
B.D. Stevens Limited
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Dumac Energy Limited
EMW Group Inc.
exp Services Inc.
EastPoint Engineering Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Harbourside Engineering Consultants
Hatch Corporation
Lindsay Construction
MCA Consultants
MCW Maricor
Meco (Mitchelmore Engineering Company Ltd.)
Pinchin Ltd.
SNC Lavalin Inc.

Strait Engineering Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

ECONOMIC/FINANCIAL STUDIES & COST BENEFIT ANALYSIS

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven and Associates
Harbourside Engineering Consultants
Hatch Corporation
MCA Consultants
(Meco) Mitchelmore Engineering Company Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

ENVIRONMENTAL MANAGEMENT/HAZARD ASSESSMENT

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Pinchin Ltd.
Stantec Consulting Ltd
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

FACILITIES PLANNING & OPERATIONS

AECOM Canada Inc.
EastPoint Engineering Ltd.
EDM Planning Services Ltd.
exp Services Inc.
GHD
Hatch Corporation
MCW Maricor
Smith + Anderson
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

WSP

INFRASTRUCTURE MANAGEMENT

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
exp Services Inc.
EastPoint Engineering Ltd.
Fundy Engineering & Consulting Ltd.
GHD
SNC Lavalin Inc.
Stantec Consulting Ltd
Strait Engineering Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

INSPECTION/TESTING/ LABORATORY ANALYSIS

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
EMW Group Inc.
Englobe Corp.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Pinchin Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Environmental
Wood Environment & Infrastructure Solutions
WSP

INSTRUMENTATION & CONTROLS

AECOM Canada Ltd.
Actemium
CBCL Limited
EastPoint Engineering Ltd.
EMW Group Inc.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
Smith + Anderson
Stantec Consulting Inc.

LEED CONSULTING SERVICES

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Dumac Energy Limited
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd
Wood Environment & Infrastructure Solutions
WSP

MARKET/TARIFF STUDIES

AECOM Canada Ltd.
EDM Planning Services Ltd.
Stantec Consulting Ltd.

MARINE & COASTAL

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EastPoint Engineering Ltd.
EMW Group Inc.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

OPERATION AND MAINTENANCE- PLANNING/STUDIES

AECOM Canada Ltd.
CBCL Limited

TYPES OF SERVICES

Dillon Consulting Limited
EDM Planning Services Ltd.
EMW Group Inc.
exp Services Inc.
GHD
Harbourside Engineering Consultants
Hatch Corporation
R.J. Bartlett Engineering Ltd.
Smith + Anderson
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

PRE-FEASIBILITY/PRE-INVESTMENT/ FEASIBILITY STUDIES

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Dumac Energy Limited
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
Meco (Mitchelmore Engineering Company Ltd.)
Pinchin Ltd.
R.J. Bartlett Engineering Limited
Servant Dunbrack McKenzie & MacDonald
Smith + Anderson
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

PRELIMINARY/FINAL DESIGN

Actemium
AECOM Canada Ltd.
B.D. Stevens Limited
Buckland & Taylor Ltd.
CBCL Limited
Campbell Comeau Engineering Limited
COWI North America Ltd.

Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Dumac Energy Limited
EDM Planning Services Ltd.
EMW Group Inc.
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
J.W. Cowie Engineering Limited
Lindsay Construction
Malcolm Pinto Engineering Limited
MCA Consultants
MCW Maricor
Meco (Mitchelmore Engineering Company Ltd.)
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.
WSP

PREPARATION OF CONTRACT DOCUMENTS AND BID EVALUATION

AECOM Canada Ltd.
B.D. Stevens Limited
CBCL Limited
Campbell Comeau Engineering Limited
COWI North America Ltd.
Dillon Consulting Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Harbourside Engineering Consultants
Hatch Corporation
J.W. Cowie Engineering Limited
MCA Consultants
MCW Maricor

Meco (Mitchelmore Engineering Company Ltd.)
Pinchin Ltd.
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

PROCESS EVALUATION AND SELECTION

Actemium
AECOM Canada Ltd.
CBCL Limited
EMW Group Inc.
exp Services Inc.
EastPoint Engineering Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

PROCUREMENT SERVICES

Actemium
CBCL Limited
exp Services Inc.
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strait Engineering Limited
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.
WSP

PRODUCT/PRODUCTION TECHNOLOGY AND MANAGEMENT

exp Services Inc.
InterTalk™ Critical Information Systems
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

PROJECT MANAGEMENT (ON BEHALF OF OWNER)

Actemium
AECOM Canada Ltd.
B.D. Stevens Limited
Campbell Comeau Engineering Limited
CBCL Limited
COWI North America Ltd.
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Dumac Energy Limited
EDM Planning Services Ltd.
EMW Group Inc.
exp Services Inc.
EastPoint Engineering Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Harbourside Engineering Consultants
Hatch Corporation
Lindsay Construction
Malcolm Pinto Engineering Limited
MCA Consultants
Meco (Mitchelmore Engineering Company Ltd.)
Pinchin Ltd.
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.
WSP

QUALITY CONTROL

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EMW Group Inc.
Englobe Corp.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation

TYPES OF SERVICES

MCA Consultants
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

QUANTITY SURVEYING/COST ESTIMATING

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EMW Group Inc.
EastPoint Engineering Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
Meco (Mitchelmore Engineering Company Ltd.)
Pinchin Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Strait Engineering Limited
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

RESEARCH AND DEVELOPMENT

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
EMW Group Inc.
Fundy Engineering Consulting Ltd.
Harbourside Engineering Consultants
Hatch Corporation
InterTalk™ Critical Information Systems
Malcolm Pinto Engineering Limited
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.

START-UP OPERATIONS/COMMISSIONING

Actemium
AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
exp Services Inc

F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Stantec Consulting Ltd.
Woods Engineering Inc.
WSP

STRUCTURAL

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
COWI North America Ltd.
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EastPoint Engineering Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Harbourside Engineering Consultants
Hatch Corporation
J.W. Cowie Engineering Limited
Lindsay Construction
Meco (Mitchelmore Engineering Company Ltd)
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Wood Environment & Infrastructure Solutions
WSP

SUPERVISION/INSPECTION OF CONSTRUCTION AND EQUIPMENT INSTALLATION

Actemium
AECOM Canada Ltd.
B.D. Stevens Limited
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dumac Energy Limited
EMW Group Inc.
exp Services
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Harbourside Engineering Consultants
Hatch Corporation
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.

TYPES OF SERVICES

Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

SUSTAINABILITY INITIATIVES

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EastPoint Engineering Ltd.
EDM Planning Services Ltd.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
MCA Consultants
MCW Maricor
Pinchin Ltd.
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Limited
Wood Environment & Infrastructure Solutions
WSP

TECHNICAL ASSISTANCE/ ADVISORY SERVICES

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
COWI North America Ltd.
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EMW Group Inc.
Englobe Corp.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
J.W. Cowie Engineering Limited
Malcolm Pinto Engineering Limited
MCW Maricor
(Meco) Mitchelmore Engineering Company Ltd.
Pinchin Ltd.

R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.
WSP

TECHNICAL DUE DILIGENCE

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
exp services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GHD
Golder Associates
Hatch Corporation
Malcolm Pinto Engineering Limited
MCW Maricor
(Meco) Mitchelmore Engineering Company Ltd.
Pinchin Ltd.
R.J. Bartlett Engineering Limited
Smith + Anderson
Stantec Consulting Ltd
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

TRAINING AND TRANSFER OF TECHNOLOGY

AECOM Canada Ltd.
CBCL Limited
EMW Group Inc.
Hatch Corporation
Pinchin Ltd.
R.J. Bartlett Engineering Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

FIELDS OF PRACTICE SECTORS:**AGRICULTURAL SECTOR**

- Agricultural Engineering/Agrology
- Drainage Studies/Surveys
- Farm Land Resources: Appraisal/Reclamation
- Farm Mechanization
- Food Processing
- Food Storage
- Grain Storage & Drying/Silos
- Irrigation Systems/Networks
- Manure Management Systems
- Rural Planning & Development
- Soil Surveys/Conservation/ Improvement

COMMUNICATION SECTOR

- Computer Technology/Applications
- Data Transmission Systems
- Information Systems
- Postal Facilities
- Radio & Television Systems
- SCADA Systems
- Specialized Communication Systems - Rail/Air/Pipeline/Water Transport
- Telecommunications: Network Design
- Telephone/Telegraph/Telex Systems

CONSTRUCTION SECTOR

- Building Materials/Fabricating
- Clay/Ceramic Building Products: Plants/Processes
- Construction: Development of Technology
- Construction Machinery & Equipment: Manufacturing Plants
- Educational Facilities – Design
- Electrical Engineering (Construction)
- Fire Prevention/Protection
- Foundations
- Heating/Ventilation & Air Conditioning/Refrigeration
- Hospital/Healthcare Facilities - Design
- Hotel Design
- Housing: Pre-Fabricated
- Illumination & Lighting
- Industrial Plant/Factory Buildings
- Landscaping Architecture
- Mechanical Engineering (Buildings)
- Roofing & Waterproofing

- Structural Engineering (Steel, Concrete, Wood, etc.)
- Universities/Colleges/Campus Development - Planning/Design

ENERGY SECTOR

- Biogas Production/Utilization
- Biomass/Wood/Waste, etc. - Energy Fuels
- Coal/Lignite/Anthracite: Energy Fuels
- Coal Processing/Handling/Transportation
- Dams: Earth/Concrete/Rock Filled
- District Heating & Co-Generation
- Electric Power Generation - Hydroelectric (includes Tidal)
- Electric Power Generation - Nuclear
- Electric Power Generation - Thermal/Gas – Steam
- Electric Power System Analysis/Planning/ Automation
- Electric Power Transmission/ Distribution Systems
- Energy Conservation/Dynamic Analysis/ Management Auditing
- Heat Storage/Pumps
- Industrial Power Systems
- LEED Design & Certification
- Power Generation - Alternate Sources
- Solar Energy
- Wind Energy

ENVIRONMENT SECTOR

- Acoustics/Noise Abatement/Vibration
- Air Pollution Control
- Brownfield Development
- Carbon Capture & Storage
- EA Permitting & Compliance
- Ecosystem Restoration
- Environmental Standards
- Environmental Surveys/Studies/Impact Assessment/Management
- Flood/River Control Works
- Meteorology
- Oceanography
- Permafrost Engineering
- Soil/Land: Pollution Control
- Solid Waste Disposal/Treatment
- Sustainability
- Toxic/Hazardous Products: Waste Disposal
- Water Pollution Control

FISHERIES SECTOR

- Fish By-Products: Processing
- Fish Processing/Storage
- Fishery Resources: Evaluation/Development/Operations/Aquaculture
- Fishing Vessels/Gear & Equipment
- Marine Biology

FORESTRY SECTOR

- Forestry Engineering
- OSB, MDF, etc.
- Pulp & Paper Plants/Products
- Sawmills
- Wood Processing/Products: Plywood Board, etc.

GEOLOGY / GEOPHYSICS SECTOR

- Coal/Lignite/Anthracite: Geophysics/Exploration
- Erosion Control/Landslide Protection
- Geological Engineering/Surveys
- Geophysics
- Earthquake Engineering/Seismology
- Hydrological/Hydrographic Surveys - Hydrogeology
- Metallic/Non-Metallic Minerals - Geophysics/Exploration
- Oil & Gas Petroleum - Geophysics/Exploration Drilling
- Soil & Rock Mechanics/Earth Sciences

INDUSTRY SECTOR

- Breweries & Distilleries
- Cement Plants
- Chemical Plants: Organic/Inorganic Products
- Concrete Products
- Electrical Machinery & Equipment Manufacturing Plants
- Electronics
- Fertilizer Plants
- Glass Factories/Products
- HAZOP Analysis & Review
- Hydraulic Engineering
- Industrial Engineering/Time & Motion Studies, etc.
- Instrumentation & Control System Integration
- Leather & Leather Products - Manufacturing Plants/Processes

- Machine Design
- Maintenance Programs/Reliability Engineering
- Materials Engineering
- Materials Handling
- Mechanical Engineering (Industrial)
- Metal Products (Finished): Manufacturing Plants
- Prestart Health & Safety Reviews
- Printing/Publishing & Allied Plants Process Automation
- Synthetic Fibres/Plastics: Production Facilities
- Textiles/Fabrics - Natural & Synthetic: Manufacturing Plants
- Transportation/Automotive Equipment: Manufacturing Plants
- Warehouses/Storage Facilities/Inventory Control

MINING & METALLURGY SECTOR

- Blasting Control
- Conveyors
- Corrosion
- Iron & Steel Works - Rolling/Forging/Casting, etc.
- Mining Engineering - Open Pit/Underground Mining
- Non-Ferrous Metals - Fabricating Plants: Rolling/Forging/Casting/Extruding/etc,
- Tailings, Disposal, etc.
- Welding

MUNICIPAL ENGINEERING SECTOR

- Master Planned Communities
- Municipal Services: Street Lighting/Community Facilities/Markets/Centres
- Parking Facilities
- Parks: Industrial
- Recreation & Leisure
- Regional & Policy Planning
- Resort & Recreational Parks/Facilities
- Street Construction/Maintenance/Lighting
- Urban/Regional Planning & Development
- Waste Collection & Disposal

OIL AND GAS SECTOR

- Oil & Gas Pipelines/Transportation
- Oil & Gas Production/Engineering/Storage/Terminal Distribution

- Oil & Gas Refineries/Treatment/Processing (includes Liquefied Natural Gas Plants)
- Oil Shale/Tar Sands: Extraction/Processing

SURVEYING & GEOMATICS SECTOR

- Aerial Photography: Photogrammetry/Photo Interpretation/Cartography
- Data Acquisition
- Digital Topographic Mapping
- Geodesy
- Georeferenced Data Distribution
- Georeferenced Data Management
- GIS Needs Assessment
- GIS System Selection & Integration
- GIS Application Development
- Land Records Management
- Land Surveying/Cadastral
- Remote Sensing/Satellite Interpretation/Imagery
- Resource Mapping
- Resource Surveys (Locating)
- Topographic DTM Models
- Topographic Surveys
- Utility Mapping

TRANSPORTATION SECTOR

- Aeronautical Engineering & Space Technology
- Airports: Runway/Taxiway/Aprons
- Airports: Terminals/Hangers/Workshops/Warehouses
- Airport Infrastructure: Fuelling/Lighting/Cargo Handling
- Bridges (Including Overpasses)
- Deep Sea: Container Ports
- Harbours, Piers, Jetties, Wharves, Terminals
- Hydraulic Modelling
- Locks/Canals
- Multimodal/Intermodal Transportation Systems: Studies Planning
- Naval Architecture/Marine Engineering
- Pavement Design
- Railways: Tracks/Terminals/Yards
- Roads (Primary & Secondary) Highways Planning/Design
- Subways & Rapid Transit Systems: Studies/Design
- Traffic: Surveys/Studies/Control Systems
- Transportation Planning

- Tunnels

WATER SUPPLY & SANITATION SECTOR

- Desalination Plants: Design
- Sewage Collection & Treatment Systems – Planning/Design
- Storm Drainage/Sewers
- Water Resources Appraisal/Use
- Water Resources Development - Ground/Surface Water
- Water Reservoirs/Distribution Systems
- Water Supply & Treatment Systems – Planning/Design

AGRICULTURAL SECTOR

**AGRICULTURAL
ENGINEERING/AGROLOGY**

GHD
Golder Associates Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

DRAINAGE STUDIES/SURVEYS

CBCL Limited
Dillon Consulting Limited
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**FARM LAND RESOURCES:
APPRAISAL/RECLAMATION**

GHD
Golder Associates Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

FARM MECHANIZATION

FOOD PROCESSING

Actemium
B.D. Stevens Limited
CBCL Limited
GHD
MCA Consultants
MCW Maricor
Malcolm PINTO Engineering Limited
Stantec Consulting Ltd.
WSP

FOOD STORAGE

Actemium
CBCL Limited
GHD

Hatch Corporation
MCA Consultants
MCW Maricor
Malcolm PINTO Engineering Limited
Stantec Consulting Ltd.
WSP

GRAIN STORAGE AND DRYING/SILOS

Hatch Corporation
Strait Engineering Limited

IRRIGATION SYSTEMS/NETWORKS

CBCL Limited
Dillon Consulting Limited
GHD
MCA Consultants
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

MANURE MANAGEMENT SYSTEM

Dillon Consulting Limited
Stantec Consulting Ltd.
Strait Engineering Ltd.

RURAL PLANNING AND DEVELOPMENT

Dillon Consulting Limited
CBCL Limited
Golder Associates Ltd.
Hatch Corporation
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**SOIL SURVEYS/CONSERVATION/
IMPROVEMENT**

CBCL Limited
Fundy Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

COMMUNICATIONS SECTOR**COMPUTER TECHNOLOGY/APPLICATIONS**

Actemium
EMW Group Inc.
F.C. O'Neil, Scriven & Associates Ltd.
InterTalk™ Critical Information Systems
Smith + Anderson
Wood Environment & Infrastructure Solutions

DATA TRANSMISSION SYSTEMS

CBCL Limited
Dumac Energy Limited
EMW Group Inc.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
InterTalk™ Critical Information Systems
MCW Maricor

INFORMATION SYSTEMS

CBCL Limited
Dumac Energy Limited
EMW Group Inc.
F.C. O'Neil, Scriven & Associates Ltd.
InterTalk™ Critical Information Systems
Smith + Anderson

POSTAL FACILITIES

CBCL Limited
Hatch Corporation
Malcolm PINTO Engineering Ltd.
Stantec Consulting Ltd.
WSP

RADIO AND TELEVISION SYSTEMS

CBCL Limited
F.C. O'Neil, Scriven & Associates Ltd.
MCW Maricor
InterTalk™ Critical Information Systems

SCADA SYSTEMS

Actemium
AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EMW Group Inc.
exp Services Inc.
Hatch Corporation
MCW Maricor
Stantec Consulting Ltd.

SPECIALIZED COMMUNICATIONS SYSTEMS - RAIL/AIR/PIPELINE/WATER TRANSPORT

CBCL Limited
EMW Group Inc.
Hatch Corporation
InterTalk™ Critical Information Systems

TELECOMMUNICATIONS: NETWORK DESIGN

CBCL Limited
Dumac Energy Limited
F.C. O'Neil Scriven & Associates Limited
InterTalk™ Critical Information Systems
MCW Maricor
Smith + Anderson

TELEPHONE/TELEGRAPH/TELEX SYSTEMS

CBCL Limited
F.C. O'Neil Scriven & Associates Limited
MCW Maricor
Smith + Anderson

CONSTRUCTION SECTOR**BUILDING MATERIALS: FABRICATING**

Campbell Comeau Engineering Limited
exp Services Inc.
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited

CLAY/CERAMIC BUILDING PRODUCTS: PLANTS/PROCESSES

CBCL Limited

CONSTRUCTION: DEVELOPMENT OF TECHNOLOGY

Campbell Comeau Engineering Limited
MCA Consultants

CONSTRUCTION MACHINERY AND EQUIPMENT: MANUFACTURING PLANTS

Actemium
CBCL Limited
exp Services Inc.
Hatch Corporation
Malcolm Pinto Engineering Limited

MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Stantec Consulting Ltd.

**EDUCATIONAL FACILITIES - DESIGN:
ENGINEERING/ARCHITECTURAL**

AECOM Canada Ltd.
B.D. Stevens Limited
Campbell Comeau Engineering Limited
CBCL Limited
Dumac Energy Limited
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

**ELECTRICAL ENGINEERING
(CONSTRUCTION)**

Actemium
AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
Englobe Corp.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCW Maricor
R.J. Bartlett Engineering Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Woods Engineering Inc.
WSP

FIRE PREVENTION/PROTECTION

CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
Stantec Consulting Ltd.

FOUNDATIONS

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
EastPoint Engineering Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
J.W. Cowie Engineering Ltd.
Lindsay Construction
Malcolm Pinto Engineering Limited
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strait Engineering Limited
Wood Environment & Infrastructure Solutions
WSP

**HEATING/VENTILATION AND AIR
CONDITIONING/REFRIGERATION**

CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
exp. Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
Smith + Anderson
Stantec Consulting Ltd.

WSP

**HOSPITAL/HEALTH CARE FACILITIES -
DESIGN: ARCHITECTURAL/ENGINEERING**

AECOM Canada Ltd.
Campbell Comeau Engineering Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

**HOTEL DESIGN:
ARCHITECTURAL/ENGINEERING**

AECOM Canada Inc.
B.D. Stevens Limited
Campbell Comeau Engineering Limited
CBCL Limited
Dumac Energy Limited
exp Services Inc
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven and Associates Limited
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

HOUSING: PRE-FABRICATED

Campbell Comeau Engineering Limited
CBCL Limited
Hatch Corporation
MCA Consultants

ILLUMINATION AND LIGHTING

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCW Maricor
Smith + Anderson
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

INDUSTRIAL PLANT/FACILITY BUILDINGS

Actemium
AECOM Canada Inc.
B.D. Stevens Limited
CBCL Limited
Dumac Energy Limited
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consultants Ltd.
Hatch Corporation
Lindsay Construction
Malcolm PINTO Engineering Limited
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
Woods Engineering Ltd.
WSP

LANDSCAPING ARCHITECTURE

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
Wood Environment & Infrastructure Solutions
WSP

MECHANICAL ENGINEERING (BUILDINGS)

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
Englobe Corp.

exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

ROOFING & WATERPROOFING

CBCL Limited
EastPoint Engineering Ltd.
exp Services Inc.
GHD
Hatch Corporation
Lindsay Construction
Stantec Consulting Ltd.

STRUCTURAL ENGINEERING (STEEL, CONCRETE, WOOD, ETC.)

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
COWI North America Ltd.
Dillon Consulting Limited
EastPoint Engineering Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Harbourside Engineering Consultants
Hatch Corporation
J.W. Cowie Engineering Limited
Lindsay Construction
Malcolm Pinto Engineering Limited
Meco (Mitchelmore Engineering Company Ltd.)
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Wood Environment & Infrastructure Solutions
WSP

UNIVERSITIES/COLLEGES/CAMPUS DEVELOPMENT - PLANNING/DESIGN: ARCHITECTURAL/ENGINEERING

AECOM Canada Ltd.
B.D. Stevens Limited
Campbell Comeau Engineering Limited
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neill, Scriven and Associates Limited
Funding Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Limited
Servant Dunbrack McKenzie & MacDonald Ltd.
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

ENERGY SECTOR**BIOGAS PRODUCTION/UTILIZATION**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Hatch Corporation
MCA Consultants
MCW Maricor
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

BIOMASS/WOOD/WASTE, ETC. - ENERGY FUELS

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
F.C. O'Neil, Scriven and Associates Ltd.
GHD
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd

Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**COAL/LIGNITE/ANTHRACITE:
ENERGY FUELS**

AECOM Canada Ltd.
CBCL Limited
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**COAL PROCESSING/HANDLING/
TRANSPORTATION**

CBCL Limited
Hatch Corporation
Stantec Consulting Ltd.
Strum Consulting

DAMS: EARTH/CONCRETE/ROCK-FILLED

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

DISTRICT HEATING AND CO-GENERATION

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven & Associates Limited
MCA Consultants
MCW Maricor
Hatch Corporation
R.J. Bartlett Engineering Limited
Smith + Anderson
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

**ELECTRIC POWER GENERATION -
HYDROELECTRIC (INCLUDES TIDAL)**

AECOM Canada Ltd.
CBCL Limited
EastPoint Engineering Ltd.
GHD
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.
WSP

**ELECTRIC POWER GENERATION -
NUCLEAR**

AECOM Canada Ltd.
Hatch Corporation
R.J. Bartlett Engineering Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**ELECTRICAL POWER GENERATION -
THERMAL/GAS - STEAM**

AECOM Canada Ltd.
CBCL Limited
F.C. O'Neill, Scriven & Associates Ltd.
GHD
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**ELECTRIC POWER SYSTEM ANALYSIS/
PLANNING/AUTOMATION**

Actemium
AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
F.C. O'Neill, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCW Maricor
Meco (Mitchelmore Engineering Company Ltd.)
Smith + Anderson
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**ELECTRIC POWER TRANSMISSION/
DISTRIBUTION SYSTEMS**

AECOM Canada Ltd.
CBCL Limited
EastPoint Engineering Ltd.
EMW Group Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCW Maricor
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
WSP

**ENERGY CONSERVATION/DYNAMIC
ANALYSIS/MANAGEMENT AUDITING**

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
F.C. O'Neill, Scriven & Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

HEAT STORAGE/PUMPS

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neill, Scriven & Associates Limited
Hatch Corporation
MCA Consultants
MCW Maricor
Stantec Consulting Ltd.
WSP

INDUSTRIAL POWER SYSTEMS

Actemium
AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EMW Group Inc.
EastPoint Engineering Ltd.
F.C. O'Neil, Scriven & Associates Ltd.
Hatch Corporation
MCW Maricor
Stantec Consulting Ltd.

Wood Environment & Infrastructure Solutions
WSP

LEED DESIGN & CERTIFICATION

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neill, Scriven & Associates Limited
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
Smith + Anderson
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

**POWER GENERATION -
ALTERNATE SOURCES**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EMW Group Inc.
F.C. O'Neill, Scriven & Associates Limited
Hatch Corporation
MCW Maricor
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.

SOLAR ENERGY

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Dumac Energy Limited
EMW Group Inc.
EastPoint Engineering Ltd.
F.C. O'Neill, Scriven & Associates Ltd.
GHD
Hatch Corporation
MCA Consultants
MCW Maricor
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
Woods Engineering Inc.

WIND ENERGY

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neill, Scriven & Associates Limited
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
Malcom PINTO Engineering Ltd.
MCA Consultants
MCW Maricor
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

ENVIRONMENT SECTOR**ACOUSTICS/NOISE ABATEMENT/
VIBRATION**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
F.C. O'Neill, Scriven & Associates Limited
GHD
Golder Associates Ltd.
Hatch Corporation
MCA Consultants
Pinchin Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

AIR POLLUTION CONTROL

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
Pinchin Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

BROWNFIELD DEVELOPMENT

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Pinchin Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

CARBON CAPTURE & STORAGE

AECOM Canada Ltd.
Dillon Consulting Limited
GHD
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

EA PERMITTING & COMPLIANCE

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Englobe Corp.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Fundy Engineering & Consulting Ltd.
Golder Associates Ltd.
Pinchin Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

ECOSYSTEM RESTORATION

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
Englobe Corp.
exp Services Inc.

Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

ENVIRONMENTAL STANDARDS

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Pinchin Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

**ENVIRONMENTAL SURVEYS/STUDIES/
IMPACT ASSESSMENT/MANAGEMENT**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Pinchin Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

FLOOD/RIVER CONTROL WORKS

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.

GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

METEOROLOGY.

GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

OCEANOGRAPHY

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
GHD
Golder Associates Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

PERMAFROST ENGINEERING

Dillon Consulting Limited
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
exp Services Inc.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

SOIL/LAND: POLLUTION CONTROL

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Englobe Corp.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Pinchin Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited

Strum Consulting
Wood Environment & Infrastructure Solutions

SOLID WASTE DISPOSAL/TREATMENT

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
GHD
Hatch Corporation
Pinchin Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

SUSTAINABILITY

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
MCA Consultants
Pinchin Ltd.
Stantec Consulting Inc.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**TOXIC/HAZARDOUS PRODUCTS:
WASTE DISPOSAL**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Pinchin Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

WATER POLLUTION CONTROL

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

FISHERIES SECTOR**FISH BY-PRODUCTS: PROCESSING**

MCA Consultants

FISH PROCESSING/STORAGE

CBCL Limited
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
Stantec Consulting Ltd.

**FISHERY RESOURCES:
EVALUATION/DEVELOPMENT/
OPERATIONS/AQUACULTURE**

AECOM Canada Ltd.
Dillon Consulting Limited
MCA Consultants
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

FISHING VESSELS/GEAR AND EQUIPMENT

MCA Consultants

MARINE BIOLOGY

AECOM Canada Ltd.
Dillon Consulting Limited
Fundy Engineering & Consulting Ltd.
Golder Associates Ltd.
Stantec Consulting Ltd.
Strum Consulting

Wood Environment & Infrastructure Solutions

FORESTRY SECTOR

FORESTRY ENGINEERING

GEMTEC Consulting Engineers & Scientists
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

OSB, MDF, ETC.

Actemium
Hatch Corporation
Stantec Consulting

PULP AND PAPER PLANTS/PRODUCTS

Actemium
CBCL Limited
Hatch Corporation
Stantec Consulting Ltd.

SAWMILLS

Actemium
CBCL Limited
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
Stantec Consulting Ltd.

**WOOD PROCESSING/PRODUCTS:
PLYWOOD BOARD, ETC.**

Actemium
Hatch Corporation
Stantec Consulting Ltd.

GEOLOGY/GEOPHYSICS SECTOR

**COAL/LIGNITE/ANTHRACITE:
GEOPHYSICS/EXPLORATION**

GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation

**EROSION CONTROL/
LANDSLIDE PROTECTION**

CBCL Limited
Dillon Consulting Limited

Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
WSP

GEOLOGICAL ENGINEERING/SURVEYS

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

GEOPHYSICS

GEMTEC Consulting Engineers & Scientists
exp Services Inc.
GHD
Golder Associates Ltd.
Wood Environment & Infrastructure Solutions

**EARTHQUAKE
ENGINEERING/SEISMOLOGY**

Campbell Comeau Engineering Limited
CBCL Limited
Fundy Engineering & Consulting Ltd.
MCA Consultants
Golder Associates Ltd.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**HYDROLOGICAL/HYDROGRAPHIC
SURVEYS - HYDROGEOLOGY**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
Fundy Engineering & Consulting Ltd.

GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**METALLIC/NON-METALLIC MINERALS -
GEOPHYSICS/EXPLORATION**

exp Services Inc.
GHD
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation

**OIL AND GAS PETROLEUM -
GEOPHYSICS/EXPLORATION/DRILLING**

Dillon Consulting Limited
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GHD
Hatch Corporation
Stantec Consulting Ltd.

**SOIL AND ROCK MECHANICS/
EARTH SCIENCES**

AECOM Canada Ltd.
CBCL Limited
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

INDUSTRY SECTOR**BREWERIES AND DISTILLERIES**

Actemium

Campbell Comeau Engineering Limited
CBCL Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EMW Group Inc.
F.C. O'Neil, Scriven & Associates Ltd.
GHD
Hatch Corporation
Malcolm PINTO Engineering Ltd.
MCA Consultants
R.J. Bartlett Engineering Limited
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting

CEMENT PLANTS

CBCL Limited
Dillon Consulting Limited
EMW Group Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Malcolm PINTO Engineering Limited
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting

**CHEMICAL PLANTS: ORGANIC/
INORGANIC PRODUCTS**

CBCL Limited
Hatch Corporation
MCA Consultants
R.J. Bartlett Engineering Limited
Stantec Consulting Ltd.

CONCRETE PRODUCTS

Campbell Comeau Engineering Limited
EMW Group Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Stantec Consulting Ltd.

**ELECTRICAL MACHINERY AND
EQUIPMENT MANUFACTURING PLANTS**

Actemium
CBCL Limited
EMW Group Inc.
F.C. O'Neil, Scriven & Associates Ltd.

Hatch Corporation
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Limited
Stantec Consulting Ltd.
Woods Engineering Inc.

ELECTRONICS

EMW Group Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Hatch Corporation

FERTILIZER PLANTS

CBCL Limited
Hatch Corporation
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Limited
Wood Environment & Infrastructure Solutions

GLASS FACTORIES/PRODUCTS

CBCL Limited
Hatch Corporation

HAZOP ANALYSIS & REVIEW

CBCL Limited
Golder Associates Ltd.
Hatch Corporation
Strum Consulting

HYDRAULIC ENGINEERING

CBCL Limited
Dillon Consulting Limited
Hatch Corporation
MCA Consultants
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**INDUSTRIAL ENGINEERING/
TIME AND MOTION STUDIES, ETC.**

CBCL Limited
EMW Group Inc.
Hatch Corporation
Stantec Consulting Ltd.
WSP

**INSTRUMENTATION & CONTROL SYSTEM
INTEGRATION**

Actemium
CBCL Limited
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
Stantec Consulting Ltd.

**LEATHER AND LEATHER PRODUCTS -
MANUFACTURING PLANTS/PROCESSES**

CBCL Limited
Hatch Corporation

MACHINE DESIGN

Actemium
CBCL Limited
MCA Consultants
Stantec Consulting Ltd.

**MAINTENANCE PROGRAMS/
RELIABILITY ENGINEERING**

Actemium
EMW Group Inc.
exp Services Inc
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.
WSP

MATERIALS ENGINEERING

Englobe Corp.
Golder Associates Ltd.
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

MATERIALS HANDLING

CBCL Limited
EastPoint Engineering Ltd.
EMW Group Inc.
Hatch Corporation
Stantec Consulting Ltd.

MECHANICAL ENGINEERING (INDUSTRIAL)

Actemium
CBCL Limited
Dumac Energy Limited

EastPoint Engineering Ltd.
EMW Group Inc.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
Hatch Corporation
MCA Consultants
MCW Maricor
R.J. Bartlett Engineering Limited
Stantec Consulting Ltd.
WSP

**METAL PRODUCTS (FINISHED):
MANUFACTURING PLANTS**

Actemium
CBCL Limited
Hatch Corporation
MCA Consultants

PRESTART HEALTH & SAFETY REVIEWS

exp Services Ltd.
Hatch Corporation

**PRINTING/PUBLISHING AND
ALLIED PLANTS PROCESS AUTOMATION**

Campbell Comeau Engineering Limited
CBCL Limited
Hatch Corporation

**SYNTHETIC FIBRES/PLASTICS:
PRODUCTION FACILITIES**

CBCL Limited
Hatch Corporation
MCA Consultants
MCW Maricor

**TEXTILES/FABRICS - NATURAL AND
SYNTHETIC: MANUFACTURING PLANTS**

CBCL Limited
EMW Group Inc.
MCA Consultants
MCW Maricor

**TRANSPORTATION/AUTOMOTIVE
EQUIPMENT: MANUFACTURING PLANTS**

CBCL Limited
EMW Group Inc.
Hatch Corporation
MCA Consultants
R.J. Bartlett Engineering Limited
Stantec Consulting Ltd.

**WAREHOUSES/STORAGE
FACILITIES/INVENTORY CONTROL**

Campbell Comeau Engineering Limited
CBCL Limited
EMW Group Inc.
Hatch Corporation
MCA Consultants
MCW Maricor
Malcolm PINTO Engineering Ltd.
R.J. Bartlett Engineering Limited
Smith + Anderson
Stantec Consulting Ltd.
WSP

MINING & METALLURGY SECTOR

BLASTING CONTROL

Fundy Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.

CONVEYORS

Actemium
CBCL Limited
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.

CORROSION

MCA Consultants
Stantec Consulting Ltd.

**IRON AND STEEL WORKS –
ROLLING/FORGING/CASTING/ETC.**

Hatch Corporation

**MINING ENGINEERING -
OPEN PIT/UNDERGROUND MINING**

CBCL Limited
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

NON-FERROUS METALS - FABRICATING PLANTS: ROLLING/FORGING/CASTING/EXTRUDING/ETC.

GEMTEC Consulting Engineers & Scientists
Hatch Corporation

TAILINGS, DISPOSAL, ETC.

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

WELDING

Hatch Corporation
MCA Consultants

MUNICIPAL ENGINEERING SECTOR**MASTER PLANNED COMMUNITIES**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

MUNICIPAL SERVICES: STREET LIGHTING/COMMUNITY FACILITIES/ MARKETS/CENTRES

AECOM Canada Ltd.
CBCL Limited
Dumac Energy Limited
Design Point Engineering & Surveying Ltd.

EDM Planning Services Ltd.
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neil, Scriven & Associates Ltd.
GEMTEC Consulting Engineers & Scientists
Hatch Corporation
MCA Consultants
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

PARKING FACILITIES

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
EastPoint Engineering Ltd.
F.C. O'Neil, Scriven & Associates Ltd.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
MCA Consultants
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

PARKS: INDUSTRIAL

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
EDM Planning Services Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Hatch Corporation
MCA Consultants
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.

SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

RECREATION & LEISURE

Campbell Comeau Engineering Limited
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dumac Energy Limited
EDM Planning Services Ltd.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
MCA Consultants
Servant Dunbrack McKenzie & MacDonald Ltd.
Strait Engineering Limited
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

REGIONAL & POLICY PLANNING

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
Golder Associates Ltd.
Hatch Corporation
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**RESORT AND RECREATIONAL PARKS/
FACILITIES**

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dumac Energy Limited
EastPoint Engineering Ltd.
EDM Planning Services Ltd.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.

GEMTEC Consulting Engineers & Scientists
Hatch Corporation
MCA Consultants
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**STREET CONSTRUCTION/
MAINTENANCE/LIGHTING**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
EDM Planning Services Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**URBAN/REGIONAL PLANNING
AND DEVELOPMENT**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

WASTE COLLECTION/DISPOSAL

AECOM Canada Ltd.

CBCL Limited
Dillon Consulting Limited
EastPoint Engineering Ltd.
exp Services Inc.
GHD
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

OIL AND GAS SECTOR

**OIL AND GAS PIPELINES/
TRANSPORTATION**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EastPoint Engineering Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**OIL AND GAS
PRODUCTION/ENGINEERING/
STORAGE/TERMINAL DISTRIBUTION**

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
EastPoint Engineering Ltd.
Fundy Engineering & Consulting Ltd.
Golder Associates Ltd.
Hatch Corporation
R.J. Bartlett Engineering Limited
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**OIL AND GAS REFINERIES/TREATMENT/
PROCESSING (INCLUDES LIQUEFIED
NATURAL GAS PLANTS)**

CBCL Limited
EastPoint Engineering Ltd.
Fundy Engineering & Consulting Ltd.
Golder Associates Ltd.
Hatch Corporation
R.J. Bartlett Engineering Limited
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions

**OIL SHALE/TAR SANDS:
EXTRACTION/PROCESSING**

EastPoint Engineering Ltd.
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

SURVEYING & GEOMATICS SECTOR

**AERIAL PHOTOGRAPHY:
PHOTOGRAMMETRY/PHOTO
INTERPRETATION/CARTOGRAPHY**

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GHD
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Servant Dunbrack McKenzie & MacDonald
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

DATA ACQUISITION

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
exp Service Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Harbourside Engineering Consultants
Servant Dunbrack McKenzie & MacDonald
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

DIGITAL TOPOGRAPHIC MAPPING

Design Point Engineering & Surveying Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting
WSP

GEODESY

Design Point Engineering & Surveying Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Servant Dunbrack McKenzie & MacDonald
Strum Consulting
WSP

GEOREFERENCED DATA DISTRIBUTION

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
exp Services Inc.
GHD
GEMTEC Consulting Engineers & Scientists
Servant Dunbrack McKenzie & MacDonald
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

GEOREFERENCED DATA MANAGEMENT

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Servant Dunbrack McKenzie & MacDonald
WSP

GIS NEEDS ASSESSMENT

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
Stantec Consulting Ltd.
Strum Consulting

GIS SYSTEM SELECTION AND INTEGRATION

AECOM Canada Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Hatch Corporation
Stantec Consulting Ltd.
Strum Consulting
WSP

GIS APPLICATION DEVELOPMENT

AECOM Canada Ltd.
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
GHD
Hatch Corporation
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

LAND RECORDS MANAGEMENT

AECOM Canada Ltd.
GHD
Servant Dunbrack McKenzie & MacDonald
WSP

LAND SURVEYING/CADASTRE

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
GEMTEC Consulting Engineers & Scientists
Servant Dunbrack McKenzie & MacDonald Ltd.
Strum Consulting.
WSP

REMOTE SENSING/SATELLITE DATA INTERPRETATION/IMAGERY

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
EDM Planning Services Ltd.
exp Services Inc.
GHD
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

RESOURCE MAPPING

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
exp Services Inc.
Stantec Consulting Ltd.
Strum Consulting
WSP

RESOURCE SURVEYS (LOCATING)

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
exp Services Inc.
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strum Consulting
WSP

TOPOGRAPHIC DTM MODELS

AECOM Canada Ltd.
Design Point Engineering & Surveying Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting
WSP

TOPOGRAPHIC SURVEYS

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald Ltd.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
WSP

UTILITY MAPPING

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
exp Services Inc.
Servant Dunbrack McKenzie & MacDonald Ltd.

Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
WSP

TRANSPORTATION SECTOR**AERONAUTICAL ENGINEERING AND SPACE TECHNOLOGY**

Hatch Corporation

AIRPORTS: RUNWAY/TAXIWAY/APRONS

AECOM Canada Ltd.
CBCL Limited
Englobe Corp.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
SNC Lavalin Inc.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

AIRPORTS: TERMINALS/HANGARS/WORKSHOPS/WAREHOUSES

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
EastPoint Engineering Ltd.
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited
MCW Maricor
R.J. Bartlett Engineering Limited
Smith + Anderson
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

AIRPORT INFRASTRUCTURE: FUELLING/LIGHTING/CARGO HANDLING

AECOM Canada Ltd.

CBCL Limited
exp Services Inc.
F.C. O'Neil, Scriven & Associates Ltd.
GHD
Hatch Corporation
MCW Maricor
Smith + Anderson
Wood Environment & Infrastructure Solutions
WSP

BRIDGES (INCLUDING OVERPASSES)

AECOM Canada Ltd.
Campbell Comeau Engineering Limited
CBCL Limited
COWI North America Ltd.
Dillon Consulting Limited
EastPoint Engineering Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
Malcolm Pinto Engineering Limited
SNC Lavalin Inc.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

DEEP SEA: CONTAINER PORTS

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Stantec Consulting Ltd.
Strum Consulting

**HARBOURS, PIERS, JETTIES,
WHARVES, TERMINALS**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EastPoint Engineering Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists

GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
MCA Consultants
MCW Maricor
Malcolm Pinto Engineering Limited
Meco (Mitchelmore Engineering Company Ltd.)
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Wood Environment & Infrastructure Solutions
WSP

HYDRAULIC MODELLING

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

LOCKS/CANALS

AECOM Canada Ltd.
CBCL Limited
EastPoint Engineering Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Malcolm Pinto Engineering Limited
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.

**MULTI MODAL/INTERMODAL
TRANSPORTATION SYSTEMS: STUDIES
PLANNING**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
GHD
Hatch Corporation
Stantec Consulting Ltd.

WSP

**NAVAL ARCHITECTURE/
MARINE ENGINEERING**

AECOM Canada Ltd.
Dillon Consulting Limited
exp Services Inc.
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

PAVEMENT DESIGN

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EastPoint Engineering Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
SNC Lavalin Inc.
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

RAILWAYS: TRACKS/TERMINALS/YARDS

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**ROADS (PRIMARY AND SECONDARY)
HIGHWAYS PLANNING/DESIGN**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EastPoint Engineering Ltd.
Englobe Corp.

exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Harbourside Engineering Consultants
Hatch Corporation
Servant Dunbrack McKenzie & MacDonald Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strum Consulting
Strait Engineering Limited
GEMTEC Consulting Engineers & Scientists
WSP

**SUBWAYS AND RAPID TRANSIT
SYSTEMS: STUDIES/DESIGN**

AECOM Canada Ltd.
exp Services Inc.
Golder Associates Ltd.
Hatch Corporation
SNC Lavalin Inc.
Stantec Consulting Ltd.
WSP

**TRAFFIC: SURVEYS/STUDIES/
CONTROL SYSTEMS**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Englobe Corp.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Harbourside Engineering Consultants
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

TRANSPORTATION PLANNING

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
Englobe Corp.
exp Services Inc.
GHD
Harbourside Engineering Consultants
Hatch Corporation
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions
WSP

TUNNELS

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Wood Environment & Infrastructure Solutions

**WATER SUPPLY AND
SANITATION SECTOR****DESALINATION PLANTS: DESIGN**

AECOM Canada Ltd.
CBCL Limited
exp Services Inc.
Hatch Corporation
MCA Consultants
Stantec Consulting Ltd.

**SEWAGE COLLECTION AND TREATMENT
SYSTEMS – PLANNING/DESIGN**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
Dumac Energy Limited
EastPoint Engineering Ltd.
EDM Planning Services Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GHD
Hatch Corporation
MCW Maricor
Servant Dunbrack McKenzie & MacDonald Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions

STORM DRAINAGE/SEWERS

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited

EastPoint Engineering Ltd.
EDM Planning Services Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Hatch Corporation
MCW Maricor
Meco (Mitchelmore Engineering Company Ltd.)
Servant Dunbrack McKenzie & MacDonald Ltd.
SNC Lavalin Inc.
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

WATER RESOURCES APPRAISAL/USE

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**WATER RESOURCES DEVELOPMENT -
GROUND/SURFACE WATER**

AECOM Canada Ltd.
CBCL Limited
Dillon Consulting Limited
EDM Planning Services Ltd.
Englobe Corp.
exp Services Inc.
Fundy Engineering & Consulting Ltd.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
Stantec Consulting Ltd.
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**WATER RESERVOIRS/
DISTRIBUTION SYSTEMS**

AECOM Canada Ltd.
CBCL Limited
Campbell Comeau Engineering Limited
Design Point Engineering & Surveying Ltd.
EastPoint Engineering Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Meco (Mitchelmore Engineering Company Ltd.)
R.J. Bartlett Engineering Limited
Servant Dunbrack McKenzie & MacDonald
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

**WATER SUPPLY AND TREATMENT
SYSTEMS - PLANNING/DESIGN**

AECOM Canada Ltd.
CBCL Limited
Design Point Engineering & Surveying Ltd.
Dillon Consulting Limited
EastPoint Engineering Ltd.
EDM Planning Services Ltd.
exp Services Inc.
GEMTEC Consulting Engineers & Scientists
GHD
Golder Associates Ltd.
Hatch Corporation
Stantec Consulting Ltd.
Strait Engineering Limited
Strum Consulting
Wood Environment & Infrastructure Solutions
WSP

Member Firms Profile Pages



Improving industrial performance.

Our Firm

ADM Systems Engineering Ltd.,
a wholly owned subsidiary of
Vinci Energies.

We operate under the
industrial brand Actemium to
leverage the power of a
worldwide network. With over
300 business units we operate
in 38 countries.



Actemium's mission is to help its clients to improve their competitive advantage
and industrial performance.

Solutions & Services for Industry



Halifax Office
208-30 Damascus Rd.
Bedford NS B4A 0C1
902-464-4862 ext. 201
www.actemium.ca/en/





Imagine it.
Delivered.

AECOM is a global network of experts working with clients, communities and colleagues to develop and implement innovative solutions to the world's most complex challenges.

Delivering clean water and energy. Building iconic skyscrapers. Planning new cities. Restoring damaged environments. Connecting people and economies with roads, bridges, tunnels and transit systems. Designing parks where children play. Helping governments maintain stability and security.

We connect expertise across services, markets, and geographies to deliver transformative outcomes. Worldwide, we design, build, finance, operate and manage projects and programs that unlock opportunities, protect our environment and improve people's lives.

Imagine it. Delivered

Halifax

1701 Hollis Street, SH400
P.O. Box 576 CRO
Nova Scotia B3J 3M8
Canada

T +1 902 428-2021
F +1 902 428-2031

Sydney

45 Wabana Court
Harbourside Place
Nova Scotia B1P 0B9
Canada

T +1 902 595-6000
F +1 902 595-6020

www.aecom.com

A tradition of leading the way in new construction technologies for the Maritimes

B.D. Stevens Ltd. has been a leader in the design-build construction services industry for over 50 years. Our experience and reputation for integrity and quality have established us as the right choice for your construction needs.

Sister company to Citadel Contractors in Apex, North Carolina, B.D. Stevens Ltd. is able to share ideas in Tilt-up from our two unique markets.

With successful projects spanning the range from retail and office space to industrial, warehouse and institutional facilities B.D. Stevens Ltd. continues to integrate Tilt-Up construction into the Atlantic Canadian building landscape.

Projects of note:

ISL Web Marketing and Development- Halifax, NS (Award-winning)

DASC- Dartmouth Adult Services Centre- Dartmouth, NS

Aylesford Baptist Church- Aylesford, NS

Steele Auto Group- Steele Subaru, Mazda, Porsche

Wilson's Pharmasave- Berwick, NS

Glen Arbour Market- Hammonds Plains, NS

Eden Valley Poultry- Berwick, NS

20 MacDonald Avenue, Dartmouth, NS B3B 1C5 (902)468-8040



ABOUT US

CAMPBELL COMEAU ENGINEERING LIMITED is a Halifax-based structural, marine and civil engineering consulting firm. The firm specializes in the field of structural engineering and marine civil engineering, industrial projects, restoration, condition assessment, and associated fields. We provide a full range of services from planning and feasibility studies, concept, preliminary and detailed designs and contract packages to site inspection and contract administration. The company has provided structural engineering services for many of the major building projects in Nova Scotia and throughout the Atlantic Region since incorporation in 1967 (then W. G. Campbell Engineering Limited). We have a team of professional engineers, technicians, draftsmen and clerical staff generally in the 14 – 18 person size range.

The company size is such that the company principals are directly involved in all aspects of projects. This is consistent with our firm belief that all projects should have senior guidance and input throughout various project phases.

W.G. Campbell, P.Eng., is the founding President of Campbell Comeau Engineering Limited and over the past 50 years has had extensive experience in structural engineering design for institutional, commercial, industrial and residential projects. We also has a legal background and provides the firm with a broad knowledge of construction contract administration issues as well as the ability to deal with engineering issues which require legal input.

M. P. Comeau, M.Sc., P.Eng., has wide experience at the senior level in the analysis and design of building structures. He has served as a senior structural engineer for many of the significant buildings which have been constructed in the Halifax area in the past 35 years. He has many years of experience in the development of structural design concepts and the coordination of structural engineering requirements for major building assignments.

Campbell Comeau Engineering has expanded its practice to include Marine Civil Engineering with the addition of Dan O'Halloran, M.Sc., P.Eng.

We consider that we have excellent experience and capability in structural, marine and civil design. We are continually maintaining this experience and participate in code development committees, engineering practice groups and industry seminars.





OUR SERVICES

➤ **Campbell Comeau Engineering provides:**

- Structural Engineering
- Project Management
- Predesigns and Budget Estimates
- Detailed Design and Tender Packages
- Permitting Assistance
- Site Reviews

Planning & Engineering

- structural
- engineering evaluations
- feasibility and preliminary studies
- engineering evaluations
- development of design criteria
- design program/detailed designs
- construction cost estimates
- tender documents
- site inspection
- contract administration
- general consulting



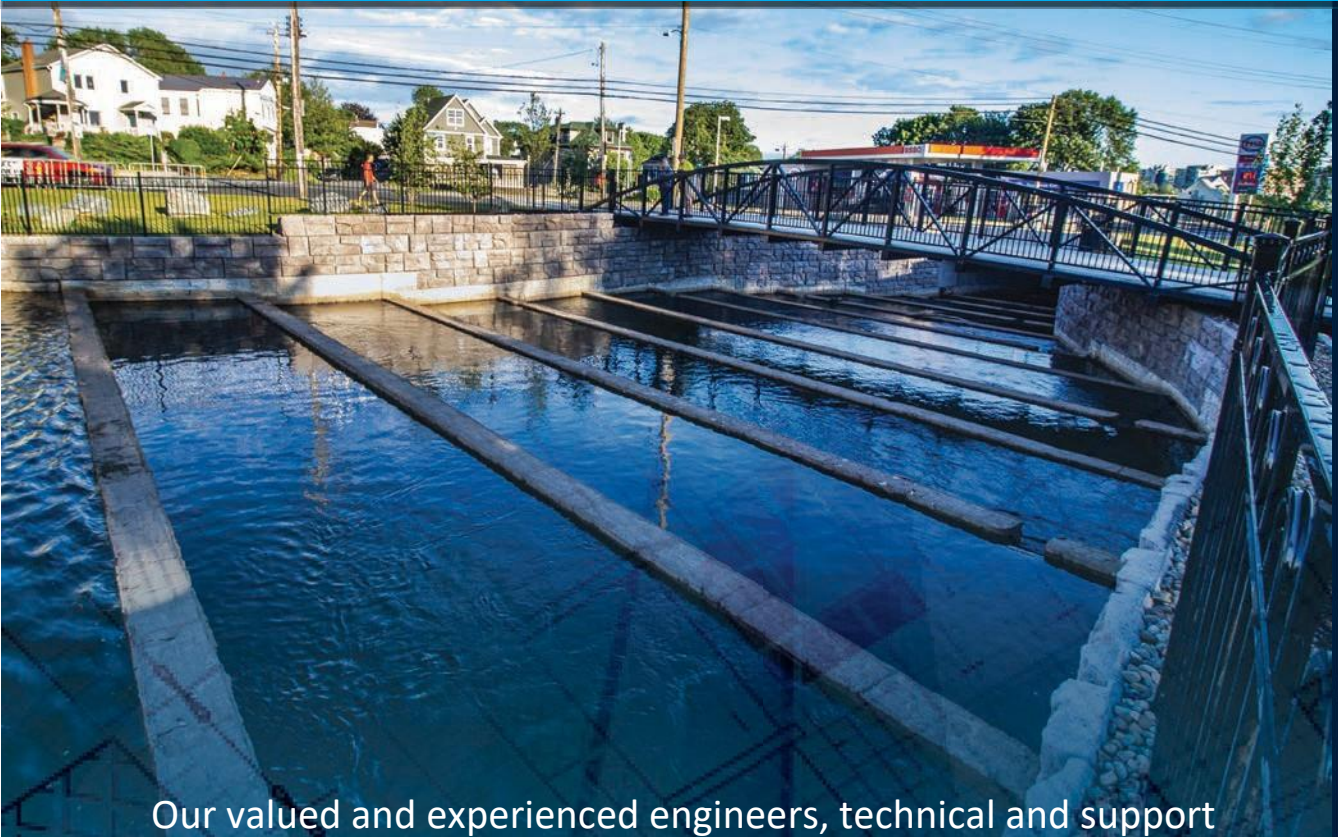
Structural & Civil Marine Engineering

- structural engineering for all building types
- restoration of historic structures
- concrete, steel and timber structures
- site preparation works
- foundations, retaining structures
- structural inspections, assessments and reports
- engineering assistance on claims and legal action
- marine structures and wharfs
- project management.



CBCL LIMITED
Consulting Engineers

We foster mutual success with our clients, value our employees and contribute to the communities in which we live and work.



Our valued and experienced engineers, technical and support staff are shaping tomorrow locally, nationally and internationally.

Halifax, Sydney, Charlottetown, Fredericton, Moncton,
Saint John, St. John's, Happy Valley-Goose Bay, Ottawa





CBCL LIMITED
Consulting Engineers

MARINE | MINING | BUILDINGS | ENVIRONMENTAL
MUNICIPAL SERVICES | WATER AND WASTEWATER
TRANSPORTATION AND BRIDGES | ENERGY AND POWER
OIL AND GAS | INDUSTRY AND MANUFACTURING

f t v in
www.CBCL.ca



CBCL Limited is the leading locally owned multidisciplinary engineering and environmental consulting firm in Atlantic Canada. In business since 1955, we take pride in our heritage and the success of our valued employees.

Our total staff numbers over 300 and includes civil, structural, environmental, chemical, industrial, mechanical, and electrical engineers, quantity surveyors, landscape architects, biologists, environmental scientists and planners.

Qualified technical and clerical personnel who work in areas such as automated design and drafting, construction inspection, technical specification production, quantity surveying, and cost estimating are available to support professional staff with:

PROJECT MANAGEMENT

- Planning/Feasibility
- Coordination/Scheduling
- Budgets/Estimating
- Value Engineering
- Quality Assurance



DESIGN

- Conceptual
- Preliminary
- Detailed
- Specifications
- Contract Documents



IMPLEMENTATION

- Tenders/Evaluation
- Construction Inspection
- Progress Certification
- Start-up/Commissioning
- Operational Training

CIVIL ENGINEERING AND SURVEYING EXCELLENCE



ABOUT US

DesignPoint is a professional engineering and surveying firm specializing in municipal/civil projects including land development, municipal infrastructure, specialized flood studies, legal and topographical surveys, as well as specialized surveying.

The principals have over 10 decades of combined experience in these types of projects. Their expertise is well known throughout the region and every project will benefit from this great wealth of experience.

LAND DEVELOPMENT

Our team has a long history of successful land development projects locally and beyond. Let us help make your project a success.

From initial review to detailed design through to contract administration, we can lead your project through the complex process of planning, design, and approval with our 360-degree view of the development process. From start to finish.

DesignPoint provides services to clients across Atlantic Canada and beyond.

ENGINEERING

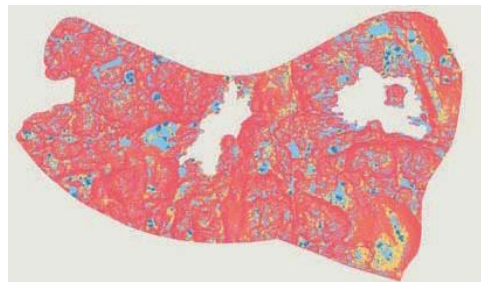
We offer full civil engineering services. If you require experienced professional engineering solutions for Infrastructure projects, make DesignPoint part of your team.

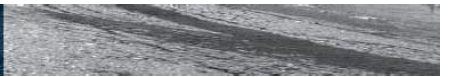
- Water Distribution System Engineering
- Wastewater Engineering
- Stormwater Engineering
- Servicing Review and Studies
- Hydrologic and Hydraulic Computer Modelling
- Site Civil Design
- Construction Support Services
- Traffic & Transportation Engineering
- Active Transportation Trail Design
- Retaining Wall Design
- Small and Large Scale Watercourse Crossing Design

SURVEYING/GEOMATICS

DesignPoint offers professional land surveying services. If you require surveying services, let us provide a solution.

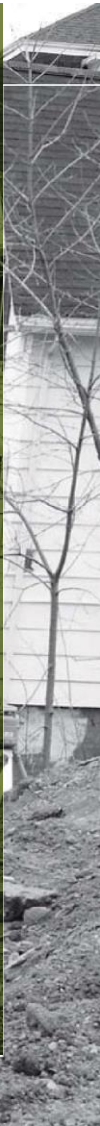
- Legal Boundary Surveys
- Retracement Surveys
- Topographical Surveys
- Subdivision Plan of Survey
- Linear Infrastructure Survey
- Lidar Processing and Contour Map Development
- Air Photo Interpretation
- 3D Laser Scanning
- Mining Surveys
- Lot Grading
- Deformation Surveys
- Condominium Surveys
- Lease Hold Surveys to BOMA Standards





DesignPoint thinks about infrastructure in new ways: improving quality of life, creating sustainable communities, and creating solutions that are smart, innovative, resilient, and cost-effective. We are true design thinkers.

222 Waterfront Drive, Suite 104,
Bedford, NSB4A 0H3 • 902.832.5597
designpoint.ca

SUSTAINABILITY

DesignPoint recognizes environmental protection as one of our guiding principles and a key component of sound business performance. We are committed to providing a quality service in a manner that promotes a safe and healthy workplace for our employees and minimizes our potential impact on the environment.

We operate in compliance with all relevant federal, provincial, and municipal environmental legislation, and we strive to use pollution prevention and environmental best practices in all we do.

**Land developers,
government agencies,
utilities and land owners
look to us for innovative,
efficient solutions.**



designpoint.ca

Why Dillon?

We want to be more than just an advisor;
we want to be a trusted partner.

True partners work together to achieve results
 that far exceed project expectations.

*Partnership is the
 very essence of Dillon.*



Committed to Atlantic Canada

Dillon is proud of its long history providing services throughout Nova Scotia, Prince Edward Island, New Brunswick and Newfoundland and Labrador. With roots extending back to 1975, our Atlantic offices have played a pivotal role in the ongoing evolution of our communities.

We are committed to providing sustainable and effective solutions to our private and public sector clients. Dillon personnel actively volunteer on boards and committees and are committed to serving local industry and professional organizations.



Perspective is everything

We are a national firm specializing in planning, engineering and environmental sciences. Our local engineers, environmental scientists, geoscientists and planners are supported by colleagues from offices across Canada.

INFRASTRUCTURE

- Civil Infrastructure Engineering
- Transportation Engineering
- Waste Management
- Water and Wastewater Engineering
- Water Resources Engineering

COMMUNITIES

- Community Planning and Urban Design
- Fire and Emergency Services
- Integrated Mobility
- Landscape Architecture
- Spatial Information Management



ENVIRONMENT

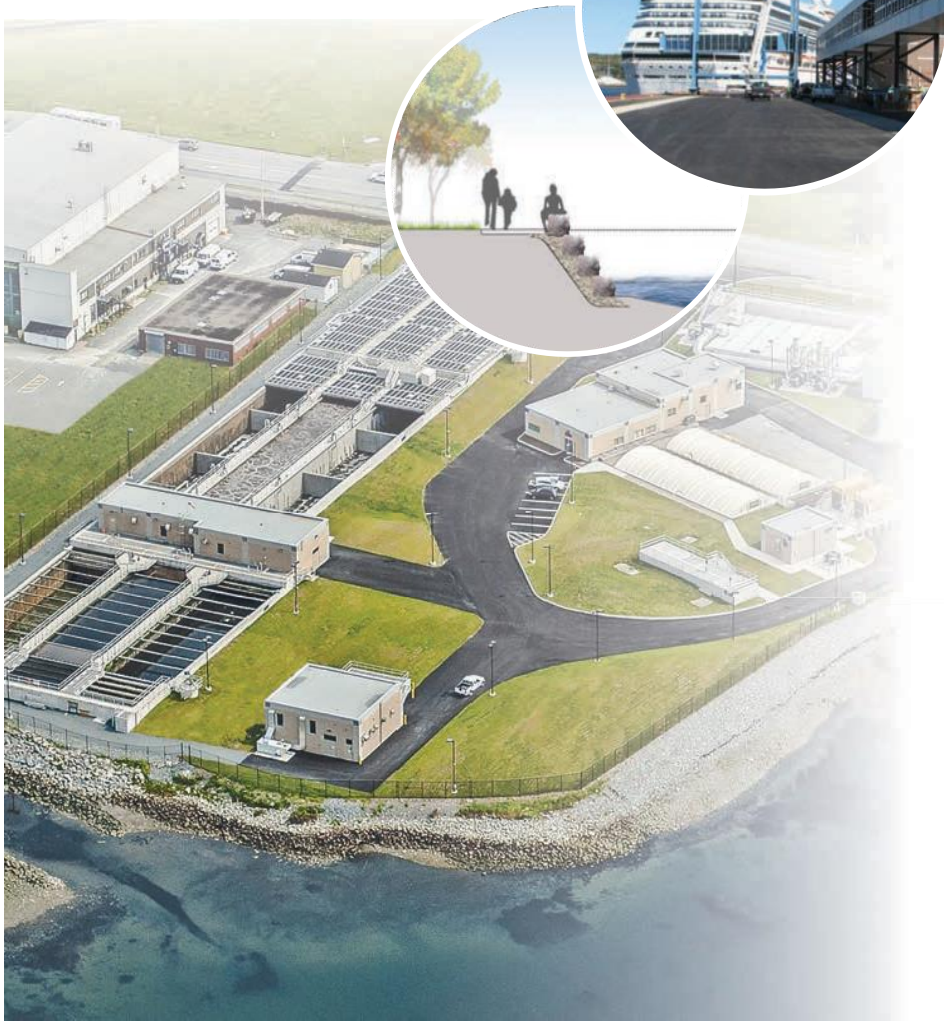
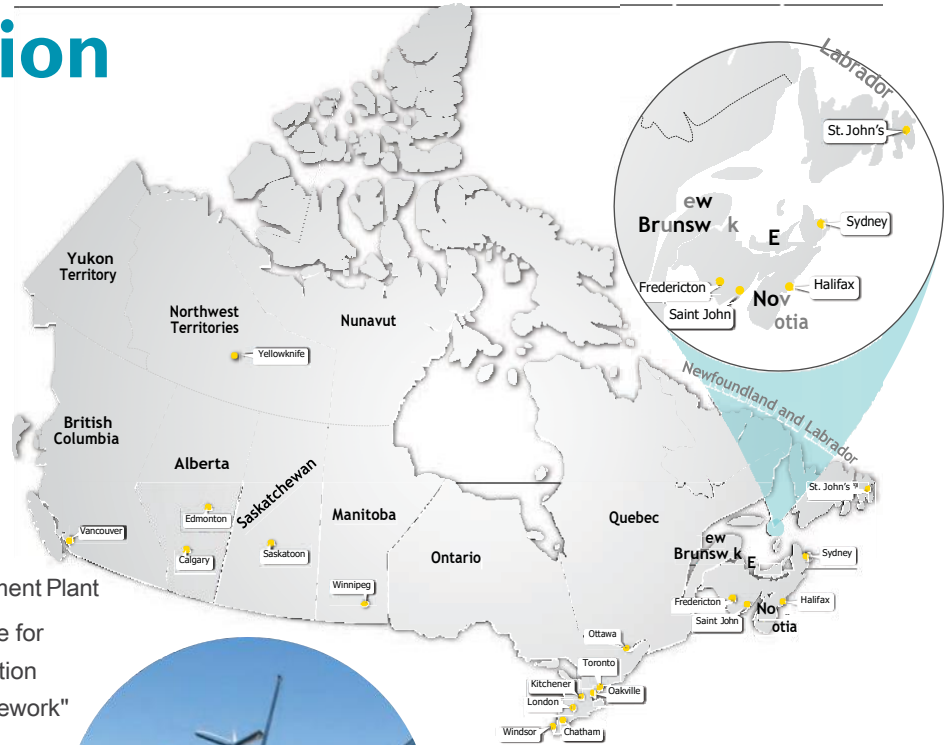
- Atmospheric Services
- Environmental Management Programs
- Environmental Planning
- Environmental Risk Identification and Evaluation and Groundwater Management
- Integrated Environmental Construction Services
- Natural Resource Management
- Remediation and Risk Control

FACILITIES

- Structural Engineering
- Systems Engineering

Eastern Canada Recognition

- Lieutenant Governor's Award for Excellence in Engineering
- Amherst Wastewater Treatment Facility
- Otter Lake Resource Management Facility
- Sydney Community Water Supply System
- UPS Large Business Award
- Atlantic Canada Water Works Association Project of the Year, Glace Bay Water Treatment Plant
- 11 Building the Business Case for Modernized Planning Legislation and Provincial Planning Framework" Planning Excellence Award



Purposeful Design

We are committed to sustainability and the environment, and we look for leading-edge approaches to engaging and building a supportable community with social and economic diversity.

Utilizing insights from a wide range of stakeholders, we take economic, environmental, infrastructure and social considerations into our plans and policies.

The result: **superior solutions, coherent and effective projects, and better communities.**

w.dillon.ca .877.934.556

© 2019 Dillon Consulting Limited.



HISTORY

Dumac Energy Limited was incorporated in 1983 to offer engineering services to Atlantic Canada. We specialize in building sciences, providing engineering design services in the mechanical, electrical and industrial disciplines. The Firm provides a complete engineering package to its Clients beginning with the conceptual design stage, through the preparation of detailed engineering drawings and specifications, and finally contract management and construction administration phase of the project.

Dumac Energy has established a solid reputation in the industry by concentrating on providing engineering designs which blend technologies that have a proven track record with new leading edge solutions where applicable. We believe that sustainable design is the way of the future and buildings which cost less, work better and are in harmony with their surroundings will become the norm in our industry. To this end, we are members of the Canadian Green Building Council which stresses leadership in energy and environmental design (LEED).

The Firm consists of a base of fifteen full time employees including electrical, mechanical and industrial engineers with interdisciplinary support staff proficient in building systems design and construction. Computer aided design (CAD) and Revit programs are used extensively, allowing the production of engineering drawings in an efficient and cost effective manner.

PRINCIPALS AND SENIOR STAFF

D.M. Dumaresq, P.Eng., Registered Electrical Engineer, President
D.G. LeBlanc, P.Eng., Registered Industrial Engineer
M.G. Doyle, P.Eng., Registered Mechanical Engineer
M.F. Eisnor, P.Eng., Registered Mechanical Engineer
N.B. Pettipas, P.Eng., Registered Electrical Engineer

FIELDS OF SPECIALIZATION

Building Sciences

- Heating Ventilation and Air Conditioning (HVAC) Systems
- Plumbing and Drainage Systems
- Fire Protection Systems
- Building Automation and Control Systems
- Lighting Systems
- Power Distribution Systems
- Power Distribution Systems
- Fire Alarm and Life Safety Systems
- Communication Systems Structured Wiring
- Security and Building Access Control Systems
- Closed Circuit Television Systems
- Energy Audits

EXPERIENCE

Typical Scope and Range of our Projects:

- Acadia Science Complex Renewal – 45,000 square foot renovation/addition to science building -labs and lecture theatre at Acadia University
- South Peninsula Elementary School – 65,000 sq. ft. P-6 school incorporating the latest technologies.
- Yarmouth Elementary School – 54,000 sq. ft. P-6 school incorporating the latest technologies.
- Bridgetown P-12 School – 91,000 sq. ft. P-12 school incorporating the latest technologies.
- Wallace McCain Learning Commons – 13,000 square foot learning centre - Dalhousie University
- Margaret Norrie McCain Centre – Centre for teaching, learning and research , Mount Saint Vincent University
- Bedford High School – 160,000 sq. ft. high school incorporating the latest technologies.
- Pier 21 – Additions and Alterations – to the Canadian Museum of Immigration.
- NSCC – Electrical Distribution Upgrades – Various Campuses.
- Bluenose Academy – 90,000 sq. ft. P-9 school incorporating the latest technologies.
- Westmorland Institution – a new 50-bed minimum security building, Dorchester, NB.
- Yarmouth Consolidated Memorial High School – 104,000 sq. ft. high school.
- Villa St. Joseph du Lac – 90,000 sq. ft. long term care facility, Yarmouth, NS.
- Ross Farm Learning Centre – 17,500 sq. ft. Administration Teaching Building.
- Government House Restoration – complete mechanical and electrical renovation to Canada’s oldest occupied Government resident.
- Nova Scotia Justice Facility Security Systems Upgrades – closed circuit television, access control and intercom systems in 12 locations throughout Nova Scotia.
- Ecole Secondaire de Sommet – 72,000 sq. ft. high school incorporating the latest technologies.
- Cobequid Community Health Centre – 125,000sq. ft. medical facility.
- Tideview Terrace – 82,000 sq. ft. long term care facility, Digby, NS.
- St. Marguerite Bourgeoys Parish – 12,500 sq. ft. New Catholic Church.
- Juno Tower – 180,000 sq. ft. multi-purpose facility containing residential spaces, kitchens, cafeteria, office spaces and meeting rooms.
- Maritime Helicopter Training Centre – 3 level building housing state-of-the-art trainers and mission simulators for the military.
- Kings Mutual Century Centre – sports and recreation facility including 1200 seat ice arena, curling rink, walking track and gymnasium.
- Dartmouth High School – complete renovations and technology upgrades for a 150,000 sq. ft. high school.
- Scotiabank – new and renovated bank branches throughout Nova Scotia.
- McCain Centre – Mount Saint Vincent – 40,000 sq. ft. teaching, learning and research building.
- NSCC Akerley Campus – 20,000 sq. ft. – new administration wing.
- St. John’s Anglican Church – 15,000 sq. ft. new Anglican church.
- Nova Institution for Women – 14-Bed minimum security building, Truro, NS.
- The Meadows – 100,000 sq. ft. long term care facility, Yarmouth, NS.
- Prince Andrew High School – complete renovations and technology upgrades for a 146,000 sq. ft. high school.
- St. Margaret’s Centre – sport and recreation facility including 900 seat ice surface, gymnasium and community spaces.
- White Point Beach Lodge – rebuild of this iconic lodge in Liverpool.



1801 Hollis Street, Suite 1500
Halifax NS, B3J 3N4
Phone: (902) 422-2000
Fax: (902) 422-1919
Email: info@eastpoint.ca
Web: www.eastpoint.ca



EASTPOINT PROFILE

EastPoint is a Halifax based multi-discipline engineering and architecture firm that is the successor of Whitman Benn consulting engineers that was originated in 1933. EastPoint is located on the 15th floor of the 1801 Hollis Street building in downtown Halifax and is owned by its management and senior employees. The company creates value for clients through the application of technologies, alliances and innovative partnerships. It provides engineering and project management services to an array of clients including institutional, commercial, government and industrial clients and we have registered professionals in the remaining provinces.

Through the delivery of more than 10,000 projects, this team has developed an approach to project delivery that embraces integrated design and construction solutions. The company is built around the premise that design and construction require a capacity to conceive, create and build solutions that address clients' specific requirements. No two situations are ever the

same and the leadership team at EastPoint is very aware of this fact. The senior personnel have worked together as a team for more than 20 years, and our Nova Scotian involvement on recent projects has resulted in an accumulation of knowledge of costs, processes, regulatory issues, environmental concerns and technical solutions.

EastPoint's current staff of nearly 50 professionals includes Civil, Marine, Structural, Mechanical, Electrical and Municipal Engineers with a complement of Architects, CAD and Administration support staff. EastPoint is noted for its ability to manage a total Project Team from within its own staff and selected sub consultants. Our approach to the implementation of projects has proven many times to be superior in lowering costs, maintaining schedules, improving communications and ensuring quality for our Clients. EastPoint is a quality oriented firm practicing to ISO 9001 standards and produces drawings using the latest versions of AutoCAD and REVIT.

KEY CONTACTS

- Aubrey Palmeter, MBA, P.Eng. – President & CEO; aubrey.palmeter@eastpoint.ca
- Hugh Reid, P.Eng. – SVP & Engineering Manager; hugh.reid@eastpoint.ca
- Bruce Tuck, MBA, P.Eng. – SVP & Structural Engineer; bruce.tuck@eastpoint.ca
- Nick Tobin, P.Eng. – VP Buildings & Infrastructure; nick.tobin@eastpoint.ca
- Brent MacDonald, P.Eng. – VP Power & Energy; brent.macdonald@eastpoint.ca
- Andy Noble, P.Eng. – VP Civil/Municipal; andy.noble@eastpoint.ca
- Jim Marriott, NSAA, MRAIC – VP Architecture jim.marriott@eastpoint.ca
- Ben Ferguson, P.Eng. – VP Business Development ben.ferguson@eastpoint.ca



MARKET SECTORS

- Buildings & Facilities
- Industrial & Manufacturing
- Onshore/Offshore Oil & Gas
- Energy & Power
- Marine
- Municipal



A&E SERVICES

MECHANICAL

- Heating, Ventilation and Air Conditioning (HVAC) Systems
- Plumbing and Drainage
- Fire Protection
- Building Automation and Controls
- Central Heating & Cooling Plants
- Process Piping

ELECTRICAL

- Power Distribution
- Lighting
- Fire Alarm and Life Safety
- Communication Structured Wiring
- Security & Building Access Control
- Closed Circuit Television

STRUCTURAL

- Structural Steel Design
- Concrete/Timber Design
- Floor Slabs
- Retaining Walls
- Building Envelopes & Roofs
- Lifting Device Construction

CIVIL

- Roads, Highways and Bridges
- Stormwater Management
- Sanitary Sewer Design
- Site Grading
- Parking Lots
- Wastewater Treatment Plants

MARINE

- Offshore Structures
- Wharfs & Jetties
- Breakwater Structures
- Fendering Systems
- Dredging
- Sheet Pile Design

SUSTAINABILITY

- LEED® Facilitation
- Energy Modeling
- LEED® Best Practice & Fundamental Commissioning
- Performance Monitoring & Testing



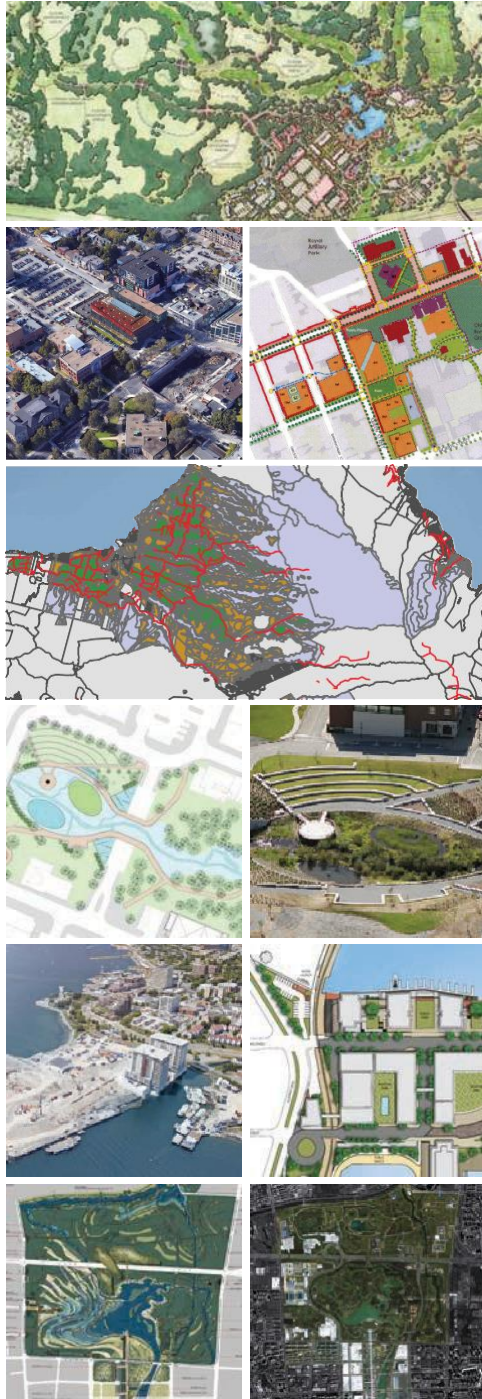


PLANNING SERVICES LTD

edm.ca

info@edm.ca
T: 1 (902) 425-7900
F: 1 (902) 425-7990

2111 Maitland Street, Suite 300
Halifax, NS B3K 2Z8



EDM Planning Services Ltd. is a transdisciplinary consultancy, creating comprehensive strategies and plans that fully integrate spatial, environmental, engineering and economic criteria.

EDM is, first and foremost, a strategic planning firm, managing projects big and small from concept through to construction. While many of our community design solutions are highly technical, we recognize that planning is fundamentally about people and relationships.

EDM brings together the skills of regional and urban planners, civil and environmental engineers, and landscape architects to create comprehensive and sustainable solutions to land use and urban development challenges. Established in 1993, EDM has a track record in large-scale master planning, especially plans and strategies that address and solve complex environmental, social and engineering challenges, including brownfields, parks and waterfronts, sustainable developments, and commercial and industrial development.

EDM's approach is client-driven. Solutions are designed collaboratively with our clients to achieve their vision. We work with our clients to strategically plan and manage projects for cost-savings and to identify and remove obstacles. We are out in front on behalf of our clients, presenting their ideas to other levels of government and the public, creating community designs that have broad support. Where needed, we partner with other firms and individuals to create the best professional team for the job to keep projects on schedule and within approved budgets.

EDM strives to develop projects that are politically feasible, economically viable and socially and environmentally responsible.

*25 Years of Sustainable
Community Planning and
Design*



EDM

PLANNING SERVICES LTD

edm.ca

info@edm.ca
 T: 1 (902) 425-7900
 F: 1 (902) 425-7990

2111 Maitland Street, Suite 300
 Halifax, NS B3K 2Z8

Over the years, EDM has developed expertise in four core areas:



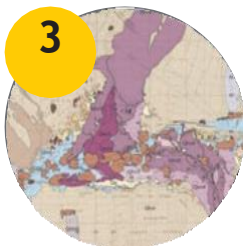
PLANNING, DESIGN + ENGINEERING

We are a small boutique firm of planning and engineering professionals working in a highly collaborative manner to solve complex and unique development challenges. We have more projects that have been built, rather than plans that collect dust on the shelf; we have more planning documents that remain relevant and in active use, rather than trendy documents that are bypassed by the next fad; and our Clients have trusted us with, and we have delivered on the region's largest and most complex projects.



DEVELOPMENT APPROVALS, COORDINATION + MANAGEMENT

Our planners, designers, and engineers know the approval processes inside and out. Whether you are a municipality looking for a new planning document or a developer requiring a major amendment to policies and regulations or a subdivision approval for a single lot, we can advise you on the options available and guide you through the process.



GEODESIGN + GIS ANALYSIS

EDM is a leader in the use of Geographic Information Systems (GIS) in the provision of planning services. EDM uses GIS to assemble, organize, rank, and overlay information on the composition, nature, and qualities of place in our master planning exercises. EDM has used and developed this method over 20 years, and have published several of our suitability models for environmental protection, including models for water quality protection and a model for wetland protection and master planning.



WATER + ECOLOGICAL DESIGN

From inception, EDM has engaged in creating projects that incorporate ecological design into the development mandate. We are the designers of Solar Aquatics™ sewage treatment facilities, constructed wetlands, national park master plans, and other award winning ecological projects, both locally and abroad. We deliver ecological outcomes that are incorporated seamlessly into the project design and budget. Grassy Brook in Dartmouth Crossing runs through the largest retail development complex east of Montreal and for the past eight years has also been one of the top two fish spawning streams in the province of Nova Scotia.



Head Office

41 Forward Ave.
Halifax, Nova Scotia
B3P 1S3

Phone: (902) 404-5375
Fax: (902) 446-9645

Automation Office

60 Payzant Ave.
Dartmouth, Nova Scotia
B3B 1Z6

Phone: (902) 405-4133
Fax: (902) 405-4134

Mailing Address

PO Box 22150
RPO 7071 Bayers Rd.
Halifax, Nova Scotia
B3L 4T7

E-mail

edward@emwgi.com

Website

www.emwgi.com



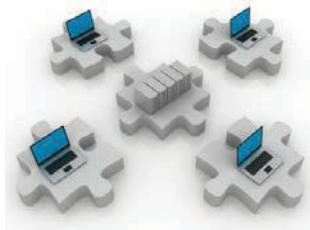
ABOUT US

EMW Group Inc. is a registered professional electrical engineering firm that specializes in electrical, mechanical, and automation services. With extensive hands-on experience, we design, consult, program, commission, start up, troubleshoot and provide 24/7 onsite service.

OUR SERVICES

Consulting

- Project management
- Preliminary design
- Preventive maintenance
- Detailed design
- System audits and troubleshooting
- Onsite commissioning and start-up
- System monitoring
- Application development
- Documentation and AutoCAD services
- Full-time, onsite engineering personnel



System Integration

EMW Group Inc. employs a consistent methodology to systems integration based on an engineering approach. Solutions orientated, EMW Group Inc. has the ability to integrate equipment data from multiple processes and platforms.

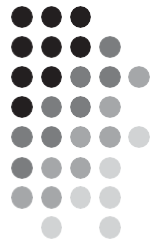
Turnkey

EMW Group Inc. offers complete turnkey automation solutions. The turnkey approach to project development improves efficiency by ensuring a completely integrated design is created and implemented from job initiation to commissioning.



Automation

EMW Group Inc. specializes in computer control of industrial processes. We are experts in utilizing motion control, safety system technologies, PLC, HMI, and instrumentation systems programming. We supply documentation, wiring schematics, manuals, product data sheets, bills of materials, etc. Our on/off site technical personnel perform commissioning ensuring a trouble-free start-up and operation.



Data Management

The key to improving production is to use real time data to measure performance and to know exactly how your process is performing. EMW Group Inc. will design, implement and add value to the data management infrastructure, making information available across the organization, to anyone, anywhere with secure access.



Electrical Services

EMW Group Inc. uses experienced electrical engineers capable of delivering projects from complete electrical design to complex systems integration.

Mechanical Services

EMW Group Inc. provides mechanical design services for a variety of industries using industry leading software.



EXPERIENCE AND EXPERTISE

EMW Group Inc. provides innovative, cutting-edge solutions to a wide variety of problems found in industries such as food-processing, manufacturing, municipal, and marine.

Principle Fields of Activity

- Electrical Engineering
- HMI, PLC, RTU, etc. Programming
- Robotics and Automation Engineering
- System Integration
- Instrumentation
- Data Systems
- Commissioning, Start up and Training
- Mechanical Engineering
- Marine Electrical Services
- Hands-on Troubleshooting
- Logistics Engineering
- Monitoring and Alarm Systems
- Vision Measurement and Diagnostics
- Industrial Communication Networks
- Motion Control
- Process Control
- SPC - Six Sigma
- Safety System Technologies
- Safety Audit

INDUSTRIES WE SERVE

EMW Group Inc. provides services to a variety of industries:

- Forestry
- Food Processing
- Municipal
- Mining
- Manufacturing
- Oil/Refining/Chemical Process
- Power Generation
- Pulp & Paper
- Pumping Stations and Treatment Plants
- Rubber
- Marine
- Communication sector
- Fibreglass
- Textile
- Research and Development





Englobe Corp. is a consulting engineering and environmental firm that provides professional services in the fields of Construction Materials Engineering, Geotechnical Engineering and Environmental Engineering and Sciences. Formerly Maritime Testing, our firm has joined with Englobe, a national firm that employs more than 1,600 people.

Our Nova Scotia Office and Laboratory is located in Dartmouth:

Office: 97 Troop Avenue, Dartmouth, NS
Telephone: 902.468.6486
Facsimile: 902.468.4919

Email:	General	dartmouth@englobecorp.com
	Environmental (Doreen Chenard)	doreen.chenard@englobecorp.com
	Geotechnical (Scott Simms)	scott.simms@englobecorp.com
	Materials (Peter Salah)	peter.salah@englobecorp.com

Englobe offers consulting, inspection, testing and design services through the following three teams: **Environmental, Geotechnical and Materials.**

OUR ENVIRONMENTAL TEAM offers the following services:

- + Phase I, II, and III Environmental Site Assessments (ESA);
- + Environmental remediation of sites contaminated with petroleum hydrocarbons, heavy metals, PCB's, PAHs, asbestos, mould and other contaminants and hazardous materials;
- + Environmental risk assessments, testing and remedial action plans;
- + Radon assessment and mitigation design
- + Indoor air quality assessments, testing and remedial action plans;
- + Asbestos sample analysis, air monitoring, project supervision, building inventories;
- + Hazardous materials surveys and abatement supervision; and
- + Investigations of microbial contamination including AIHA EMPAT participant environmental microbiology laboratory service.

Frequently our Environmental and Geotechnical teams work together on re-development projects including brownfield sites. We offer full service re-development support including pre-demolition hazardous materials surveys, subsurface environmental investigations, environmental remediation and risk assessments, and environmental management plans, we also offer design recommendations to mitigate environmental costs and implications of developments projects.

OUR GEOTECHNICAL TEAM offers consulting engineering and professional services encompassing onshore and nearshore site investigation, foundation design and monitoring capabilities. Site investigations have been provided to government and industry clients for the design and construction of subdivision projects, multi-level residential/commercial buildings, landfill and treatment plant facilities, bridges, and land reclamation projects. Foundation design including driven and cast-in-place piles, spread or strip footings and mat foundations have been developed for various projects. Geotechnical monitoring services have been provided to determine fill and structural settlement; groundwater percolation and flow; soil frost development and heave; slope stability and creep; soil erosion; transportation and scour; soil chemistry and contaminant leachate dispersion. Geotechnical laboratory testing and inspection services include:

- + Bearing capacity evaluation, footing inspections, drainage installation and backfill inspection;
- + Building site and roadway development services;
- + Pile installation, inspections and testing;
- + Failure analysis and expert witness services;
- + Soil strength parameter testing;
- + Evaluation of stabilized/solidified impacted soil mixtures;
- + Soil evaluation for use in low-permeable soil and bentonite-amended soil liners;
- + Groundwater analysis and flow rate evaluations, percolation and permeability testing, filter design; and
- + Slope stability

Englobe is a recognized innovative leader in provision of materials engineering, testing and inspection services to the consulting and construction industry. These services enhance those provided by our Geotechnical Team. Our Dartmouth testing laboratory was the first in Nova Scotia to receive Canadian Standards Association (CSA) Certification (Category II with additional tests). Englobe provides consulting engineering, testing and inspection services in areas of construction materials (concrete, asphalt concrete, aggregates, soils and rock). Our laboratories provide a broad range of ASTM and Canadian Association (CSA) testing services to residential and commercial developers, road builders and resource industries.

OUR MATERIALS TEAM coupled with in-house geotechnical expertise can provide preliminary site evaluation, design, design specification, construction administration, and quality control services. In addition, consulting and professional engineering services are available for evaluation and rehabilitation of older structures such as parking garages, wharves, bridges, etc. Materials consulting engineering, testing and inspection services are available in the following areas:

- + Asphalt concrete technology including EPS quality control and quality assurance and Superpave mix design;
- + Portland cement concrete technology including concrete mix designs and trial batches, Alkali Aggregate Reactivity testing, Rapid Chloride Penetration testing, Hardened Air Voids evaluation, delamination surveys and quality control/quality assurance of prestressed beam and precast box-culverts and pipes;
- + Soils and aggregates technology including pit and quarry development, petrography, and landfill and sewage treatment lagoon cell construction; and
- + Pavement evaluation and design including flexible and rigid pavement design, pavement distress surveys, non-destructive Benkelman beams strength testing, California Profilograph pavement smoothness testing, and High Speed smoothness profiler.

our firm

EXP provides professional, technical and strategic services related to the world's built and natural environments in six key practice areas: Buildings, Earth & Environment, Energy, Industrial, Infrastructure, and Sustainability.

Today, over 3,000 creative professionals across North America provide the experience and expertise needed to deliver successful projects for our clients. Having provided 70 years of service in Atlantic Canada, we have diversified the range of specialized knowledge we offer. With 200 employees across the Region, we are fortunate to have a deep bench of resources. You have access to highly experienced and creative local professionals so the right people provide the right solution.

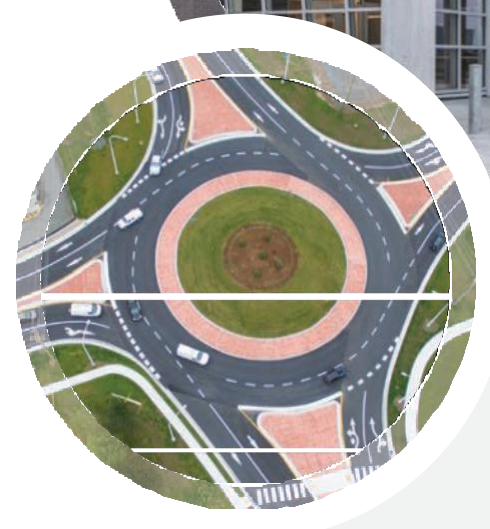
we're on a mission

Our mission is to understand, innovate, partner and deliver for our clients. We get there by meeting your diverse needs and sharing a passion for excellence.

Our vision is to create vibrant, sustainable communities. With a commitment to our employees, we create trusting and enduring relationships, ensure effective operations and financial strength, and act in a socially responsible manner.

market sectors

- | | |
|-------------------------|---------------------------|
| Air Quality & Emissions | Instrumentation & Control |
| Architecture | Lab Planning |
| Automation & Control | Landscape Architecture |
| Chemical | Lighting |
| Civil | Materials |
| Commissioning | Mechanical & Plumbing |
| Construction Management | Municipal |
| Contract Administration | Pipeline Services |
| Ecology | Quality Assurance |
| Electrical | Quality Management |
| Environmental | Security |
| Fire & Life Safety | Structural |
| Geotechnical | Surveying & Geomatics |
| GIS | Sustainable Development |
| Hydrogeology | Traffic |
| Hydrology | Transportation Planning |
| Industrial Hygiene | Urban Planning |





what we do

Buildings

- Civic and Cultural
- Commercial and Retail
- Education
- Entertainment and Sports
- Federal
- Health Care
- Hospitality and Gaming
- Long Term Care/Seniors Housing
- Justice and correctional
- Recreational
- Science and Technology
- Mission Critical
- Telecommunications
- University and Education
- Institutional

Energy

- Hydroelectric
- Nuclear
- Petrochemical
- Pipelines
- Renewables & Alternative Energy
- Transmission & Distribution

Industrial

- Chemical
- Food Processing
- Forest Products
- Manufacturing
- Mining

Earth & Environmental

- Air Quality & Emissions
- Compliance Audits & Reports
- Dewatering Assessments & Mitigation
- Ecological Services
- Environment Impact Assessments
- Environmental & Regulatory Support
- Environmental Site Assessments
- Expert Witness & Peer Review
- Geotechnical
- Ground Water Supply & Development
- Hazardous Materials Management
- Health and Safety
- Materials Testing & Inspection
- Occupational Hygiene
- Pavement Design
- Program Management
- Project Management
- Remedial Action & Mitigation Plans
- Risk Assessment
- Site Remediation
- Sustainable Development
- Water Supply Assessments

Sustainability

- LEED* Facilitation and Documentation
- Energy Modeling
- Energy Audits
- Condition Audits
- Commissioning

Infrastructure

- Bridge Design
- Bridge Inspection
- Civil
- Economic Impact Studies
- Highways / Transportation
- Hydroelectricity
- Hydrology
- Land Development
- Life-Cycle Cost Analysis
- Marine Engineering
- Municipal Infrastructure
- Pipeline Services
- Port & Harbour Development Studies
- Port Planning
- Surveying & Geomatics
- Transmission & Distribution Networks
- Transportation
- Waste Management
- Water & Waste Water Treatment
- Water Resources
- Wharf and Marine Structures
- Wharf Inspections and Assessments

atlantic region – office locations

NOVA SCOTIA	90 Lovett Lake Court, Suite 401 Halifax, NS B3S 0H6 1.902.453.5555	301 Alexandra Street, Suite A Sydney, NS B1S 2E8 1.902.562.2394	
NEW BRUNSWICK	1133 Regent Street, Suite 300 Fredericton, NB E3B 3Z2 1.506.452.9000	602 Rothesay Avenue Saint John, NB E2H 2H1 1.506.646.8020	40 Henri Dunant Street Moncton, NB E1E 1E5 1.506.857.8889
NEWFOUNDLAND & ABRADOR	60 Pippy Place, Suite 200 St. John's, NL A1B 4H7 1.709.579.2027		

With thousands of knowledgeable professionals in our offices across North America and around the world, we have the experience and expertise to deliver exponential possibilities to our clients.

buildings • energy • earth & environment • industrial • infrastructure • sustainability



COMPANY PROFILE

F.C. O'Neill, Scriven & Assoc's Limited (ONSA) is a Consulting Engineering Firm headquartered in Halifax that specializes in the Electrical and Mechanical Building Sciences. As such, it is the Firm of longest standing in Nova Scotia. Throughout Atlantic Canada, their services have been employed in more than 9,000 commissions spanning 65 years. The complexity and diversity encountered has developed the experience essential for quality services and successful projects.

A talented and experienced team of professional Engineers, backed by Technologists, enables the Firm to successfully tackle highly sophisticated projects requiring a multi-disciplined approach. A history of work with energy related projects has given the Company a knowledge and reputation for achieving maximum energy efficiency. More recently, the Firm has been selected for a number of commissions where sustainable and integrated design have been a prerequisite.

ONSA's fields of activity include: electrical power generation and distribution, lighting/illumination, security systems, communications, plumbing, heating, ventilation, air conditioning, controls, refrigeration, fire protection, central heating and cooling plants, construction supervision, and investigations/reports.

Indicative of the Company's ability to meet this broad range of needs, it has successfully carried out the design of energy control systems in public buildings, and mechanical and electrical design in offices, hospitals, hotels, marine facilities, publishing plants, schools, colleges, universities, traffic control systems, penitentiaries, aircraft hangars, convention and entertainment facilities, and manufacturing and processing plants, to name a few.

ONSA is a member of the Canada Green Building Council (CaGBC) under the "Green Building Specialist" category and has recently been accepted by Efficiency Nova Scotia as a service provider for their Building Optimization Program. ONSA provides building commissioning, re-commissioning and retro-commissioning services, as well as LEED consulting and energy modelling services. ONSA staff are well trained in the use of the Model National Energy Code of Canada for Buildings (MNECB)-1997 and the more recent National Energy Code of Canada for Buildings (NECB)-2011, ASHRAE 90.1, eQuest, Carrier's Hourly Analysis Program (HAP), CanQuest, EnergyPlus, GLD for Geothermal Applications, EnergyPro for VRF system applications, energy simulation software such as EE4, and NRCAN software such as RetScreen.

EXPERIENCE

The following summarizes ONSA's credentials in the Residential, Commercial, Institutional and Light Industrial sectors.

Mechanical Expertise

- Plumbing
- Heating
- Air & Water Filtration
- Ventilation
- Air Conditioning
- Dust Collection
- Seawater Cooling
- Refrigeration
- District Energy Systems
- Building Audits/Assessments
- Life Cycle Cost (LCC) Analysis
- Analysis
- Fire Protection
- Heat Recovery Systems
- Medical Gases
- Feasibility Studies
- Indoor Air Quality (IAQ) Investigations
- Design Compliance Reviews
- Construction Administration
- Controls
- De-humidification
- Geothermal Systems
- Humidification
- Equipment and Systems Start-up and Commissioning

Electrical Expertise

- Power Generation
- Building Audits/Assessments
- Traffic Control
- Life Cycle Cost (LCC) Analysis
- Building Lighting
- Design Compliance Reviews
- Security System (Card Access, CCRV)
- Equipment and Systems Start-up and Commissioning
- Communication Systems (Telephone, Voice, Data)
- Light Rendering
- Power Distribution
- Short Circuit Analysis
- Fire Alarm Systems
- Nurse Call Systems
- Cable Television Systems
- Insurance Investigations
- Construction Administration
- Emergency Generators

Sustainability Expertise

- Commissioning/Re-Commissioning/Retro-Commissioning
- Green Building/Sustainable Design/LEED Design
- Energy Management/Energy Conservation
- LEED Consulting
- Energy Modelling

Typical Scope and Range of Projects

- ❖ **TD Call Centre, Dieppe, New Brunswick**
- ❖ **Innovative Care Flexible Facilities, Dartmouth General Hospital**
- ❖ **UPEI Dalton Hall, Charlottetown, Prince Edward Island**
- ❖ **St. FX University – Brian Mulroney Hall, Antigonish, N.S.**
- ❖ **Saint Mary's University – New Arena, Halifax, N.S.**
- ❖ **Precision Biologic, Dartmouth, N.S.**
- ❖ **Dalhousie University – Collaborative Health Education Building, Halifax, N.S.**
- ❖ **Tusket Municipal Building, Tusket, N.S.**
- ❖ **Acadia University - Biology Building. Wolfville, N.S.**
- ❖ **Canada Games Centre - Fitness, Aquatic & Recreation Facility. Halifax, N.S.**
- ❖ **Canadian Coast Guard Headquarters at the Bedford Institute of Oceanography. Dartmouth, N.S.**
- ❖ **Cape Breton District Health Authority - Cancer Treatment Centre Expansion. Sydney, N.S.**
- ❖ **Cape Breton University - Centre for Sustainability in Energy & the Environment. Sydney, N.S.**
- ❖ **Casino Nova Scotia - 95,000 ft² over land and 30,000 ft² over a Halifax Harbour facility that includes two restaurants, an entertainment lounge, a retail area, a special events room with a stage and adjoining servery, a pre-function room, a gaming area, and a VIP lounge. Halifax, N.S.**
- ❖ **CFB Gagetown Fitness Facility. CFB Gagetown, N.B.**
- ❖ **Dalhousie University - Life Sciences Research Institute. Halifax, N.S.**
- ❖ **Dalhousie University - Steele Ocean Sciences Building. Halifax, N.S.**
- ❖ **Dorchester Penitentiary - Central Heating Plant Natural Gas Conversion. Dorchester, N.B.**
- ❖ **Emera Centre - Ice Arena and Community Centre. North Sydney, N.S.**
- ❖ **Halifax Infirmary Emergency Department – Charles V. Keating Wing. Halifax, N.S.**
- ❖ **Health Park Office Complex – Five Storey Medical Office Building. Sydney, N.S.**
- ❖ **Horton District High School - 174,000 ft² high-tech teaching facility for high school students housing classrooms, computer labs, a theatre, and a gymnasium. The building utilizes state-of-the-art geothermal energy to heat and cool the facility. Greenwich, N.S.**
- ❖ **Joggins Fossil Cliffs. Joggins, N.S.**
- ❖ **Membertou K-9 School. Membertou First Nation, N.S.**
- ❖ **Nova Scotia Community College - IT Campus Renovations/Upgrade. Halifax, N.S.**
- ❖ **Nova Scotia Community College - Waterfront Campus and the Centre for the Built Environment. Dartmouth, N.S.**
- ❖ **Saint Mary's University - Atrium Building. Halifax, N.S.**
- ❖ **Saint Mary's University - Homburg Centre for Health & Wellness. Halifax, N.S.**

ONSA STAFF

The Firm includes personnel with specialized credentials such as a lighting designer who is certified by the National Council on Qualifications for the Lighting Professions (LC designation), two engineers who hold the Registered Communication Distribution Designer (RCDD) designation, three C.E.T.'s who are LEED Accredited Professionals and a mechanical engineer who holds a Master's Degree in Fire Protection Engineering.

Engineers

G. Scott Moore, P. Eng. President, Mechanical Engineer
 R. Glen Rockett, P. Eng. Vice President, Secretary, Electrical Engineer
 David L. Parkinson, M.S., P. Eng. Vice President, Mechanical Engineer
 J. Peter Scriven, P. Eng. Mechanical Engineer
 Allan A MacDonald, P. Eng., RCDD. Electrical Engineer
 Trent D. Moore, P. Eng. Mechanical Engineer
 Jean-Pierre Savoie, P. Eng., RCDD | DCDC Electrical Engineer
 David G. Inglis, P. Eng. Mechanical Engineer
 Craig L. Bona, P. Eng. Electrical Engineer
 Michael R. Ramsis, P. Eng. Mechanical Engineer
 Kyle R. Tutty, P. Eng. Electrical Engineer
 Ben Reinhart, P. Eng. Mechanical Engineer
 Carolyn E. Risley, M. Eng., P. Eng. Mechanical Engineer
 Ben Doucet, Engineer-in-Training Electrical Engineer
 Mahmuda Tanni, Engineer-in-Training Electrical Engineer
 Jacob DeLong, Engineer-in-Training Mechanical Engineer
 Tyler Jenkins, Engineer-in-Training Mechanical Engineer
 Phil Mullin, Engineer-in-Training Electrical Engineer

ONSA has three offices - Halifax (head office) and Sydney, Nova Scotia and Moncton, New Brunswick.

Please visit our website at www.onsa.ca.

Fundy Engineering & Consulting Ltd.

CORPORATE HISTORY

Fundy Engineering & Consulting Ltd. is one of the largest employee- owned, full-service multi-disciplinary engineering-consulting companies serving Atlantic Canada and New England. In 2019, we will celebrate 30 years in operation as a small to medium-sized firm. Since incorporation in 1989, Fundy Engineering has grown to a staff of over 30 employees comprised of professional engineers, geoscientists, scientists, and technical and support personnel, and has completed in excess of 13,500 projects for clients in the private and public sectors with budgets ranging from a few thousand to several million dollars. We are proud to call the Maritimes home and take personal satisfaction for the success of the clients that we work for.

CORPORATE VISION

Serving Our Clients' Needs First

This is Fundy Engineering's corporate vision and we apply it to all projects, big and small! We have built our strong business foundation on diversity and innovation, using an organic and holistic approach to problem solving, working in close association with our clients, and having a strong team-effort. We understand that our clients deserve top-quality service, on-time product delivery, and rates that are competitive and reasonable. Our staff is dedicated to providing you with technically-sound solutions and believes that the best method for repeat business is through "Serving Our Clients' Needs First".

AREAS OF PRACTICE

- Building Systems (Mechanical & Electrical) Engineering
- Geotechnical Engineering
- Environmental Engineering
- Project Management Services
- Bio-Resources Engineering

OFFICE LOCATIONS

New Brunswick
27 Wellington Row
Saint John, NB
E2L 3H4
(506) 635-1566

Nova Scotia
PO Box 25083
Halifax, NS
B3M 4H4
(902) 492-1550

Prince Edward Island
945AA Upper Meadowbank Rd
Clyde River, PE
C0A 1H1
(902) 675-4885

Email: fundy@fundyeng.com

Website: www.fundyeng.com

Toll Free: 1-877-635-1566

SERVICES OVERVIEW

BUILDING SYSTEMS SERVICES

- Heating, Ventilation, and Air-Conditioning (HVAC) design and inspection
- plumbing system design
- fire protection system design
- controls and instrumentation design
- refrigeration systems design and inspection
- mechanical systems building inspections
- on-site wastewater treatment design
- indoor air quality assessments
- code compliance and design inspection services for design / build projects and property condition assessments
- building energy audits
- analysis of power consumption for demand, power factor, and harmonics
- lighting, power, and communications design
- process control
- electrical systems building inspections
- electric heating design
- fire alarm system design
- security and closed circuit television design
- telecommunications distribution design
- theatre lighting and power design

GEOTECHNICAL ENGINEERING SERVICES

- site investigations for civil structures and earthworks
- slope stability design, monitoring, and investigation
- retaining structure design and investigation
- foundation design for spread footings and piles
- pile-driving inspection
- steel and concrete design
- pre-blast structural surveys
- blast design, control, and monitoring
- contract specification services and site supervision
- materials testing for concrete, soil, steel, and asphalt
- marine structures design and investigation
- forensic investigations and expert testimony

ENVIRONMENTAL ENGINEERING SERVICES

- environmental sustainability and green initiatives
- environmental impact assessments
- environmental permitting, project permitting, and project management
- Phase I, Phase II, and Phase III ESAs
- LEED® project certification
- indoor air quality investigations
- habitat assessment and ecological surveys
- watercourse and wetland classification and delineation
- risk assessment
- water supply source assessments
- groundwater sampling, monitoring, and interpretation
- groundwater remediation
- site professional services (site remediation)

PROJECT MANAGEMENT SERVICES

- defining a project's objectives
- identifying activities and resources required to meet the stated objectives
- establishing sequencing relationships for project activities
- setting time estimates for project activities
- determining project completion milestones
- comparing project scheduling objectives
- determining resource requirements to meet the stated objectives

BIO-RESOURCES ENGINEERING SERVICES

- aquaculture site inspections
- research and development planning
- marine containment and mooring design
- site selection and evaluation
- equipment and plant process design
- operation planning
- new species development
- economic feasibility studies
- post-harvest handling and service
- water supply and waste handling
- wastewater treatment design and assessment
- wharf assessment and design
- new enterprise planning

Local **KNOWLEDGE**

Local **TALENT**

Local **SOLUTIONS**



GEMTEC

www.gemtec.ca

Nova Scotia Office

GEMTEC Limited
300 Horseshoe Lake Drive, Suite 303
Halifax, Nova Scotia B3S0B7

\. 902.832.5999
.g 902.832.5929
◆ halifax@gemtec.ca

About Us

Whether you are building on it, or digging through it, GEMTEC knows the ground.

Since 1986, GEMTEC has grown from a small New Brunswick geotechnical engineering, materials testing and environmental engineering firm into a leading multidisciplinary company with offices and CCIL-certified laboratories across Eastern and Atlantic Canada. Employee-owned with more than 150 engineers, scientists, technical personnel and support staff, GEMTEC is founded on the solid technical expertise and experience of our highly educated and skilled specialists. For over 30 years, we have served our clients and the public interest with honesty and respect, while providing cost-effective and innovative solutions.

GEMTEC is built on a solid foundation of experience, knowledge and integrity. Build on GEMTEC.



Our Services

Civil Engineering

Municipal

- Water supply and distribution
- wastewater collection and treatment
- Stormwater management and flood plain mapping
- Parking lot layout and design
- Municipal road design and bridge rehabilitation / replacement
- Subdivision servicing and design
- Topographical surveying

Geotechnical Engineering

- Geotechnical/subsurface investigations
- Soil and rock mechanics
- Consolidation testing and analysis
- Slope stability assessments and remediation
- Engineered fill design

Environmental Engineering

- Phase one environmental site assessments (ESA)
- Phase two environmental site assessments (ESA)
- Contaminant delineation and remediation
- Environmental screening
- Landfill design

Pavement Engineering

- Surface distress mapping and condition surveys
- Subsurface investigations
- Pavement structural evaluation
- Design of new and rehabilitated pavement structures using AASHTO, MTO, Asphalt Institute, ACPA and other
- Laboratory materials testing

Hydrogeological Services

- Groundwater quality and quantity assessments
- Hydrogeologic and terrain analysis
- "Permit to Take Water" applications with

Materials Testing & Inspection

Field Services

- Compaction testing for soil, aggregate, and asphalt (MTG-certified)
- Foundation subgrade assessments
- Blast monitoring
- Concrete testing (MTO/ACI/CCIL-certified)
- Frost-protection inspections

Marine Services

- Dredging assessment
- Collaborative structural, electrical, and mechanical design
- Specification preparation, tendering, and contract award
- Public, regulator, and stakeholder consultations
- Coastal engineering and modelling

- Forensic investigations for foundations
- Foundation design
- Pile foundation design and dynamic pile (PDA) testing
- Pile-drivability analysis (WEAP)
- Shear-wave velocity testing

- Underground storage tank removal
- Brownfield redevelopment
- Sewer-use compliance testing
- Septic system design
- Grading and drainage plans
- Consultation for construction in regulated areas (e.g., flood plains)

- Forensic evaluation of premature distress or failures
- Pavement management and preservation treatment selection
- Life-cycle costing
- Evaluation of pavement texture and friction
- Ground penetrating radar surveys

- Ministry of the Environment and Climate Change (MOECC)
- Water sampling and analysis
- Hydrogeological studies for land

Field Services

- Footing formwork inspections
- Dynamic pile (PDA) testing
- Rebar inspections
- Dowel and rebar pull-out testing
- Pile-driving inspections
- Asphalt and concrete coring
- Construction QA/QC

Transportation

- Alignment selection
- Constraint mapping
- Stakeholder consultation
- Geometric design
- Asphalt and concrete mix design, and pavement assessment
- Drainage design
- Watercourse crossing with fish passage
- Wildlife crossing
- Intersection and interchange design
- Concrete trial mix, and damage consultation

- Geophysical surveys, analysis, and data modelling
- Seismic and liquefaction assessments
- Mining pre-feasibility and feasibility assessment
- Geological study

- Hydrogeologic Engineering:
- **Water** supply assessment
- Pump test design and analysis
- Wellfield/watershed protection study
- Environmental management in mining
- Mine closure and reclamation

- Seasonal Load Restriction evaluation
- Registered with Ontario Ministry of Transportation (MTO) under the Registry, Appraisal and Qualification System (RAQS) for all High complexity Pavement Engineering specialties

- severances and rural subdivision developments

- Water well supply studies

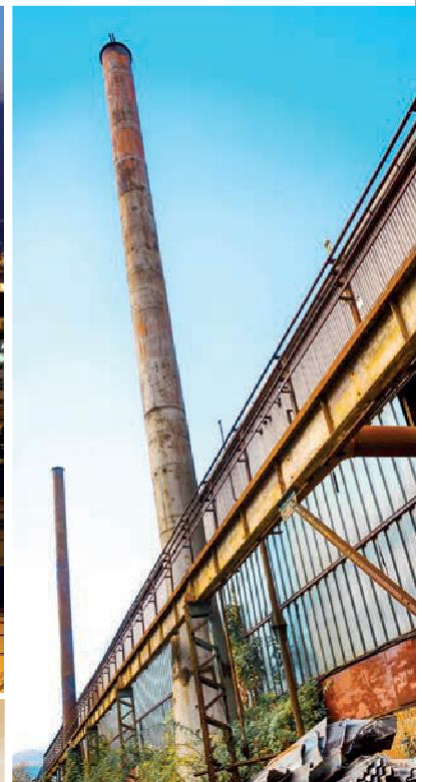
Laboratory Materials Testing

- Asphaltic concrete
- Concrete (MTO/CCIL-certified)
- Soils and aggregate testing (MTO/CCIL-certified)
- Consolidation testing
- Estimation of percolation rate ("T" time)
- Grout and mortar testing



GHD

One of the world's leading engineering, environmental, and construction services companies



GHD at-a-glance



90+ years in operation

5 global markets

75+ service lines

Proudly **employee** owned

**Together with our clients,
we create lasting community benefit**



200+ offices worldwide

10K+ people

130+ countries

1.5B 2018 revenue (USD)

About GHD

GHD is proud to be supporting our public and private clients throughout Atlantic Canada for over 30 years in the markets of water, energy and resources, environment, property and buildings, and transportation. Driven by a client-service led culture, we connect the knowledge, skill, and experience of our people with innovative practices, technical capabilities, and robust systems to create lasting community benefits.

Contact us

We'd like to add value to your project, please give us a call today!

Fredericton 1 506 458 1248
Halifax 1 902 468 1248
St. John's 1 709 364 5353

www.ghd.com

Local Atlantic Canada Solutions

Atlantic Canada is unique in the world. Its people, geography, and challenges are particular to this place alone. So when your Atlantic Canada project needs support, you want local solutions from people who understand that distinctiveness, and care about the land as much as you do.

Golder brings extensive experience to the Atlantic Canada region, as we've worked in the area since the company was formed in the 1960s.

Golder offers a range of environmental, geotechnical and oceanographic services for projects in the oil and gas, power, infrastructure, manufacturing, and mining sectors.

Ground Engineering

From mines and tunnels, to tailings dams and highways, Golder has provided Ground Engineering services to clients all over the world.

- Geotechnical engineering
- Soil and rock mechanics
- Tunneling



Environmental Management and Compliance

Whether it's an oil refinery, offshore platform, mine operation, LNG facility or power generating facility, you want to minimize risks to your business, comply with relevant legislation, and be a good corporate citizen. Golder can help you achieve these objectives with:

- Air quality and noise monitoring
- Waste management planning
- Industrial hygiene monitoring and assessments
- Wastewater treatment and monitoring
- Compliance auditing

Environmental and Social Assessment

Golder has considerable experience with Environmental and Social Impact Assessments (ESIA) to help ensure your project complies with relevant local, national and international regulations.

- Environmental, ecological, human health risk assessment
- Permitting and stakeholder engagement
- Compliance and environmental effects monitoring
- Hydrogeology
- Terrestrial ecology
- Freshwater resources
- Species at risk
- Land and resource use
- Labour and economy assessments

LOCAL ATLANTIC CANADA SOLUTIONS

Oil and Gas Sector

Developing and managing onshore and offshore oil and gas projects can present challenges. Not only are operators faced with daunting engineering hurdles, but a project can only proceed once environmental requirements have been met. At Golder we have the experience and capability to integrate environmental services into the engineering design and construction processes for oil and gas projects.

- Environmental assessment, permitting
- Air, noise, HAZMAT
- Marine biology
- Oceanography
- Human health
- Cultural resources
- First Nations consultation
- Geotechnical and geohazard services

Power Sector

Power projects often present complex technical challenges, which require innovative solutions that meet technical and business goals. Golder provides technically proficient environmental and engineering consulting services for all phases of power project development.

- Site selection and constraint analysis
- Geology, geomorphology, hydrogeological assessments
- Permitting
- Environmental impact assessment
- Plant decommissioning

Golder has permanently established offices in Dartmouth and St. John's to better serve our clients throughout Atlantic Canada, and we are committed to the long term, sustainable growth of these offices. Our Atlantic Canada team is comprised of members of the community who understand local needs and care about local growth and development. We work with you to provide home-grown solutions for your challenges.

Real Estate Sector

Investment in real estate is realized for your business and community when you can be mindful of the environmental risks and your capital. Golder serves a wide spectrum of real estate needs by providing solutions that mesh seamlessly with the changing needs of the real estate industry.

- Property condition assessment
- Phase I, II, III ESA
- Risk assessment
- Site remediation
- Brownfield development
- HAZMAT assessment / remediation

Mining Sector

No matter your project location, mining operators know that it is critical to look at the big picture, as all stages and decisions in the mine life cycle are connected. Golder provides the foundation for successful and sustainable mining operations using proven approaches developed from our experience with mining projects around the world.

- Environmental assessment, monitoring, permitting
- Mine design and development
- Water management
- Mine waste management
- Tailings dam assessments
- Mine engineering / evaluation
NC 43-101

Transportation Sector

Whether it's roads, railways, tunnels, airports or ports, Golder's engineers and scientists are helping plan, design and build some of the world's most challenging transportation infrastructure.

Global needs for repair, expansion and construction of transportation infrastructure are increasingly becoming more complex. So are the engineering and environmental solutions required to accommodate these transportation challenges.

- Soil and rock mechanics
- Foundation engineering
- Ground improvement
- Earthworks/Construction services
- Marine geotechnical engineering

For more information, please contact:

Dartmouth Office

Belinda Culgin
Tel : (902) 466-1668
belinda_culgin@golder.com

St. John's Office

Andrew Peach
Tel : (709) 722-2695
andrew_peach@golder.com





HARBOURSIDE

Group of Companies



HARBOURSIDE GROUP OF COMPANIES

The Harbourside Group of Companies, comprised of Harbourside Engineering Consultants (HEC), Harbourside Transportation Consultants (HTC) and Harbourside Geotechnical Consultants (HGC), is a full service heavy civil infrastructure design firm with office locations

in Dartmouth, Nova Scotia, Charlottetown, Prince Edward Island, Hamilton, Ontario and St. John's, Newfoundland. The Group of Companies have been established to provide

an

exceptionally high level product to our clients by working in a collaborative manner to tackle the most challenging and complicated projects.



Established in 2008, HEC specializes in the design, project management

and construction implementation of heavy civil infrastructure projects with emphasis on bridges, marine structures and construction engineering. In over

8 years of operation, Harbourside Engineering

Consultants have grown to boast a team of 31 technical and 4

administrative staff and have completed, or are currently involved in the design and management of over 900 projects with an estimated

capital cost of over \$1 billion dollars. The two founding partners of the firm have spent the last 18 years developing a broad

spectrum of experience both

in the design

and construction of new structures and

the assessment

, rehabilitation/upgrading, and demolition of existing structures.



Since 2014,

HTC specializes

in the analysis,

design,

project management, public consultation and

construction implementation

of transportation infrastructure projects, with an emphasis

on traffic analysis, transportation planning and transportation design

including highway, signalized

intersections, inter

changes and roundabouts. HTC's team of 7

technical staff

have completed or are currently

involved in

various transportation planning

and

traffic engineering projects. HTC is experienced

in the industry

and hard soft

ware

are tools for

transportation planning

and traffic analysis. HTC's Senior Civil Design

have experience in a variety of fields of transportation infrastructure design, including

civil design, road

alignment / profile design, intersection and roundabout

design, site

inspection, cost estimating and Project Management.



Recently established as part of the Harbourside Group of Companies,

HGC specializes in geotechnical engineering in
of construction, transportation, and heavy civil
infrastructure projects with an emphasis on highway, b
ridges, marine structures, and construction engineering. HGC st
rives to provide exceptional service for its clients by comb
ining modern geotechnical analysis techniques with
sound engineering fundamentals to develop practical
solutions. The principals of HGC are known for their ability to tackle ch
allenging and complicated geotechnical engineering projects. They h
ave completed numerous site investigations, design and construction engineering
projects, and foundation testing
and instrumentation programs.



Solving your toughest challenges

Your needs are changing rapidly, and your challenges are transforming the way you operate. You need a partner who is proactive, one who can identify the larger, long-term issues affecting you. With over six decades of business and technical experience in the infrastructure, energy, and mining sectors, we know your business. We bring our best thinking and teams to solve your toughest challenges in infrastructure, energy, and mining. To help you transform the world.

We respond quickly with solutions that are smarter, more efficient, and innovative. We draw upon our 9,000 staff with experience in over 150 countries to challenge the status quo and create positive change for our clients, our employees, and the communities we serve.

Together we can build positive change. Contact us at hatch.com.



Eastern Canada

Halifax | Sydney | Moncton | Saint John | Fredericton | St. John's | Montréal

Offices throughout Canada, the United States and Globally.



InterTalk™ Critical Information Systems

371 Cutler Avenue

Dartmouth, Nova Scotia B3B 0J5

Website: www.intertalksystems.com

Email: info@intertalksystems.com

Phone: 1-902-468-5998

INTERTALK INTEGRATED DISPATCH AND CONTROL CONSOLE

InterTalk™ is a console system is at the core of your operations. With its advanced IP architecture, InterTalk lets you see and control your communications infrastructure. InterTalk connects your world: radio, telephone, analog, digital, social media - whatever you use, InterTalk's flexible design enables you to strike the right balance between what to see, when to see it, and what to do about it. Whether it is public safety, transportation, critical infrastructure, government, or private enterprise, InterTalk allows effortless, powerful, and continuous management of your critical information. InterTalk is engineered to the highest standards of availability, and is simply the most complete console system available.

POWERFUL COMMUNICATIONS INTEGRATION

InterTalk is a complete suite of cooperating applications: a console system, a voter, an advanced archival logging recorder, a conventional transmitter steerer, a page encoder, and more. Combined with our development capabilities for integrating with 3rd party systems for CAD, AVL, GIS, NMS, SCADA, and others, InterTalk gives you an industry-leading solution that can be tailored to meet your exact requirements.

DATA SECURITY

InterTalk recognizes the growing importance of protecting your organization's sensitive data, as evidenced by our ISO 27001:2013 certification for Information Security Management Systems. Combined with our ISO 9001:2008 certification for Quality Management Systems, these two accreditations further reinforce InterTalk's standing as a global industry leader in console system quality and information security.

TYPICAL PROJECTS

Our products have been in use for over 30 years across North America, and are currently deployed within law enforcement, fire departments, government infrastructure, private and public enterprises, utilities, railway, and general logistics and transportation applications. Our team of dedicated Engineers oversee our projects from start to finish, ensuring our customers receive an exact-fit system that completely satisfies their operational requirements.

J.W. COWIE ENGINEERING LIMITED

CONSULTING STRUCTURAL, ARCHITECTURAL & FORENSIC ENGINEERING

J. W. Cowie Engineering Limited (Cowie Engineering) was incorporated in 1972 and is owned by James W. Cowie, M. Eng., P. Eng., of Halifax, Nova Scotia. The firm specializes in the investigation and restoration of building structures, including new and historic buildings.

The scope of services provided by Cowie Engineering includes structural and building envelope investigative services as well as multi-discipline investigative consulting services when the firm acts as Prime Consultant. Typically, following the investigative phase of the consulting services, Cowie Engineering acts as Prime Consultant in the preparation of multi-discipline design drawings and specifications, cost estimating, and preparing contract documents for tendering. During construction, Cowie Engineering administers the contract on behalf of the owner and provides on-site inspection and testing services.

Cowie Engineering provides consulting services throughout the four Atlantic Provinces and Ontario. Consulting engineering service has also been provided in USA and Britain. In Britain, consulting engineering service was provided through J.W. Cowie Engineering (U.K.) Limited, a subsidiary company of Cowie Engineering, Halifax, Nova Scotia.

The following is a listing of some of the typical projects in which Cowie Engineering has provided consulting engineering service. Many of the projects involved litigation in which James W. Cowie, M. Eng., P. Eng., and key Cowie Engineering employee professional engineers provided evidence and expert opinions.

MASONRY STRUCTURES - Investigation and Restoration Design

Province House (Historic) – Charlottetown, PE
American Consulate General' sBldg, Stone
Masonry Exterior Walls – 360 University Ave. - Toronto, ON
425 (Union Hotel) & 431 Davis Dr. - Newmarket, ON
Addition to Jacob Hespeler Secondary School – Cambridge, ON
105 Unit, Eight Storey Apartment Bldg – Halifax, NS
Kays Bros. Building (Historic) – Charlottetown, PE
Exterior Walls of Municipal Bldg – Bridgewater, NS
Administration Bldg – Shubenacadie Wildlife Park, NS
Oxford Theatre – Halifax, NS
Office, Commercial & Factory Bldg Complex - Stoney Creek, ON
The Oland Centre - StFX University - Antigonish, NS
4-Story Historic Building - Yarmouth, NS
St. Philippe/St. Jacques Church - Egmont Bay, PEI
Old Post Office Building (Historic) – Truro, NS
Truro Civic Building (Historic) – Truro, NS
Provincial Building – Hollis Street, Halifax, NS
South Pavilion, Halifax Port Corp. – Halifax, NS
Alderney Manor – Apt Bldg – Dartmouth, NS
Scott Maritimes Limited – All Walls on All Bldgs
Convoy Place-Three Condominium Bldgs-Halifax, NS
Forest Hills Tower – Apt Bldg – Fredericton NB
LeMarchant Towers – Apt Bldg – Halifax, NS
RCMP "H" Division Headquarters Bldg–Halifax, NS
M.A.P.P. Bldg, Main Postal Stn – St. John's, NF
Public Archives of Nova Scotia – Halifax, NS
Harbour Island Hotel – Tampa, Florida
Brentwood Towers – Apt Bldg – St. John's, NF
St. Mary's Basilica – Halifax, NS
Oxford Court - Condominium – Halifax, NS
Lions Senior Citizens Tower– Moncton, NB
Admiralty Place - Condominium – Dartmouth, NS
MacMillan Bldg – Office Bldg – Charlottetown, PEI
Clinton Building – Office Bldg – Halifax, NS
Sportsplex – Dartmouth, NS
Toronto Hydro Distribution Station –Toronto, ON
R.H. Davis Building – Yarmouth, NS

200 FT High Radial Clay Brick Masonry Chimney
- VG Hospital, Halifax, NS
200 FT High Radial Clay Brick Masonry Chimney
– NS Hospital, Dartmouth, NS
Ingels Residence–Toronto, ON (Legal Precedent)
Marian Hall, UPEI – Charlottetown, PEI
Concrete Block Masonry Walls of K-12 School
– Port Saunders, NL
Collapse of Stone Masonry Musket Gallery, Prince of Wales
Martello Tower, Point Pleasant Park-Halifax, NS
Russell Street Centre – Halifax, NS
Osgoode Hall (Historic) – Queen St. West, Toronto, ON
Twenty-Storey Condominium – Scarborough, ON
Kenworth Acres – St. Catherine's, ON
Charlottetown Airport Control Tower – PEI
Saint Andrew's United Church – Halifax, NS
Northwood Manor – Halifax, NS
394 Bloor St. West (Historic) – Office Bldg – Toronto
Sherwood Apartment Building – Halifax, NS
North Sydney Shopping Mall – North Sydney, NS
The Oaklands - Apt Bldg – Avenue Road, Toronto, ON
Ten Storey Condominium - Kitchener, ON
St. Matthew's United Church – Halifax, NS
Airport Hotel – Halifax International Airport
2175 Queen St East – Office Bldg – Toronto, ON
First Baptist Church Halifax – Oxford St, Halifax, NS
Cumming Hall, NS Agricultural College (Historic)
– Truro, NS
Knightsridge Fire Station – Halifax, NS
Truro Mall – Truro, NS
Founders Hall – Charlottetown, PEI
Shirreff Hall, Dalhousie University – Halifax, NS
Strait Richmond Hospital – Evanston, NS
Queens Gate Condominium – Bedford, NS
Six Storey Office Bldg, Bedford Institute of
Oceanography – Bedford, NS

TORONTO:

www.cowieengineering.ca

HALIFAX (HEAD OFFICE)

c/o Konsolidated Structural
2968 Dundas Street West
Toronto, Ontario M6P 1Y8
Tel: (416) 487-4113

jwcowie@eastlink.ca

J.W. Cowie Engineering Limited
1046 Barrington Street, Suite 200
Halifax, Nova Scotia B3H 2R1
Tel: (902) 422-4493
Fax: (902) 422-5066

J.W. COWIE ENGINEERING LIMITED

STEEL & REINFORCED CONCRETE STRUCTURES – Investigation and Restoration Design

Northwood Manor – Floor Slabs, Halifax, NS
Esso Aviat Aircraft Hangar, L.B. Pearson Int'l Airport
Kensington Court – Halifax, NS
Refloating Sunken Caisson – Bedford, NS
Firewall – Sheds 22 & 23, Halifax Port Corp.
AST Residence Building – Halifax, NS
Seton Academic Centre – MSVU – Halifax, NS
Ten Industrial Buildings–Burnside Industrial Park, NS
Insitu/Precast Concrete Storage Silos-NS & PEI
Village Shopping Centre – St. John's, NF
South Shore Shopping Centre – Bridgewater, NS
Associated Freezers– Dartmouth, NS
Clarenville High School – Clarenville, NF
Damaged/Collapsed Steel & Concrete
Highway Bridges – Province of Nova Scotia
Elizabeth Towers – St. John's, NF
Baxter Foods Limited – Dartmouth, NS
Canopies for Gas Stations – Several Oil Companies
Dolphin Collapse – Canso, NS
Collapse of Aircraft Hanger – Halifax International Airport
Jetty NN – CFAD – Bedford, NS
K-Mart Plaza – Torbay Road, St. John's, NF
Wood Motors Ford Building – Halifax, NS
Captain William Spry Community Centre – Halifax, NS
Commercial Building Complex – Brampton, ON
Piercy's Supplies – Dartmouth, NS
Pioneer Fisheries – Tignish, PE
Restoration of Public In-Ground Swimming Pool
- Cole Harbour, NS
Jaz Aircraft Hangar – Hfx Stanfield Int'l Airport – Enfield, NS

Elevated Parking Structure – Yarmouth, NS
Wind Turbine Tower RC Base 13-Digby, NS
Building 301, Osborne Head Gunnery Range
Convoy Place – Parking Garage – Halifax, NS
Edmundston Forum – Edmundston, NB
McGregor Bedding – New Glasgow, NS
Colchester Vocational School – Truro, NS
Numerous Buildings – CFB Goose Bay, Labrador
Yarmouth Regional Hospital – Yarmouth, NS
Mitchell's Enviro Centre – Halifax, NS
Shubenacadie District School – Shubenacadie, NS
Barrington Tower-Scotia Square – Halifax, NS
Collapsed Three-Storey Tilt-Up R. C. Wall Panel,
Halifax North Mainland High School
LCBO Warehouse – Toronto, ON
Seasons Motor Inn – Dartmouth, NS
Windsor Fire Station – Windsor, NS
Accident Investigation – CREIT Archives Bldg, NS
Accident Investigation-Lingan Thermal Power Generating Station
Replacement of Numerous House Foundations Due to Oil Spills
Maritime Building – New Glasgow, NS
Exterior Insulated Wall Panels, Willie O' Ree Place, Fredericton, NB
Demolition of Simpson Hall, Former Nurses
Residence, NS Hospital – Dartmouth, NS
Demolition of Coburg Tower, Church Bldg & House – Coburg Rd.,
Hfx, NS
Parking Deck, Melville Gardens - NS
Bell Aliant Telephone Exchange Bldg – Wentworth St at Queens St.,
Dartmouth, NS

TIMBER STRUCTURES - Investigation and Restoration Design

DeGarthe Buildings - Peggy's Cove, NS
Wharf Collapse - Yarmouth, NS
Admiralty House - C.F.B. Stadacona
Cedar Shingle Failure Investigation, Parker House –
Masons Pt., NS
Fire Damage Investigation – Fundy Shore Market, Parrsboro, NS
Fire Damaged Building, Pictou Advocate & Publishing Company –
George Street, Pictou, NS
Green Lantern Building – Halifax, NS
Bonny Lea Farm (School) – Chester, NS
Centennial School – Port Hawkesbury, NS
Core Storage Buildings – Stellarton, NS
Library/Administration Building – Atlantic School of Theology –
Halifax, NS
C.F.B. Greenwood – Officers' Mess – Greenwood, NS
Rockingham United Church – Halifax, NS
Bridgewater Memorial Arena – Bridgewater, NS
Collapse of Three-Storey Apartment Building – Highfield Park,
Dartmouth, NS
Fibre Cement Lap Siding, Four Storey Apt Bldg - Elmsdale, NS
Fibre Cement Lap Siding & Window Installations, Large
Nursing Home – Cape Breton, NS
Numerous Houses

Collapse of Four-Storey Apartment Building – Highfield Park,
Dartmouth, NS
C.F.B. Cornwallis, Failure of New Floating Dock – Granville Ferry,
Annapolis County, NS
Fisheries Products International - Restoration of Timber Roof
Trusses – Riverport, NS
Mic Mac Amateur Aquatic Club - Collapse and Restoration of Roof
– Dartmouth, NS
Wallace Fisheries – Wallace, NS
Odeon Theatre Collapse – Yarmouth, NS
Four Corners Housing Cooperative – Yarmouth, NS
Seaboard Bed & Breakfast – Lawrencetown, NS
Evergreen Condominium Corporation - Dartmouth, NS
Numerous One & Two Storey Timber Framed Structures- Collapsed
Due to Inadequate Lateral Bracing
Ottawa House – Parrsboro, NS
Masonic Lodge Bldg – Middleton, NS
Milton Christian Church – Milton, Queens Co., NS
Houses, Decks & Balconies
NS Islamic Community Centre - Kearney Lake Rd., HRM, NS
Historic Barn, Yeo Ship Building Museum – Green Park, Port Hill, PE
96 Unit Apartment Bldg, Bridgewater, NS

TORONTO:

www.cowieengineering.ca

HALIFAX (HEAD OFFICE)

c/o Konsolidated Structural
2968 Dundas Street West
Toronto, Ontario M6P 1Y8
Tel: (416) 487-4113

jwcowie@eastlink.ca

J.W. Cowie Engineering Limited
1046 Barrington Street, Suite 200
Halifax, Nova Scotia B3H 2R1
Tel: (902) 422-4493
Fax: (902) 422-5066



YOUR BUILDING PARTNER IN ATLANTIC CANADA

PROUD MEMBERS
CONSULTING ENGINEERS NOVA SCOTIA



902.468.5000



lindsayconstruction.ca



Lindsay Construction

BUILDING RELATIONSHIPS AS MUCH AS STRUCTURES

Lindsay Construction is an Atlantic Canadian company built on trust, integrity, and quality. We build exceptional things - including our relationships - with no job too big or too small for our expertise.

Since 1959 we've constructed some of Atlantic Canada's biggest projects and built our communities at the same time. With offices in Nova Scotia, New Brunswick and Newfoundland we approach every job whether civil, industrial, commercial, or institutional - with integrity and pride.

- **Design Build**
- **Construction Management**
- **General Contracting**

Visit us at
lindsayconstruction.ca



Award Winner



Halifax (902) 420 9800 St. John's (709) 700 2139
Calgary (403) 536 0301 CDN/US (800) 659 6619
www.consultPINTO.com

civil • structural • mediation/arbitration
risk evaluation • failure investigations & reports

Malcolm PINTO Engineering Ltd. is an established, structural engineering consulting practice having served national and international clients across government, public, and private sectors since 1987. Over the years, we have built significant confidence in our clients who have come to expect that our team will save money, outperform benchmarks, and deliver value on every project. PINTO has completed many high profile, challenging projects in the commercial, retail, marine, healthcare, recreational, residential, transportation, and institutional sectors, samples of which are detailed in the following pages. In addition, PINTO has developed and implemented a comprehensive ISO 9001:2015 Quality Management System in order to continuously improve the quality of services we provide to our valued clients. This is a testament to our team's ability and commitment to work together to tackle challenging projects, be innovative in our approach to problems, and provide the highest quality service.

See the following pages for a few examples of PINTO project success stories



www.consultPINTO.com



Bridges • Buildings • Marine Heritage Restoration & Renovation Feasibility Studies & Reports

HEALTH CARE



**Dartmouth General Hospital Addition
Dartmouth, Nova Scotia**

Role: Primary Structural Engineering Consultant

- New structural steel and cast-in place concrete addition onto existing hospital as part of an \$85 million renovation
- Hospital fully occupied and operational during construction process
- Open concept atrium area with natural lighting

EDUCATION



Tatamagouche School • Tatamagouche, Nova Scotia

Role: Primary Structural Engineering Consultant

- New structural steel building with open concept cafeteria and structural truss pedway
- An estimated \$16.6 million, two storey P-12 school
- LEED building for sustainability

EDUCATION



South Dartmouth School • Dartmouth, Nova Scotia

Role: Primary Structural Engineering Consultant

- New structural steel building with composite floor design for increased economy
- An estimated \$17.5 million, two storey P-9 school with 24 multi-purpose learning rooms
- LEED building for sustainability

RECREATION



Dartmouth Multi-Pad Arena • Dartmouth, Nova Scotia

Role: Primary Structural Engineering Consultant

- New structural steel and load-bearing block building complete with four ice rink slabs
- Long-span pre-engineered steel frames spanning over all four rinks
- LEED building for sustainability



BUILDINGS



'The Trillium' • Halifax, Nova Scotia

Role: Primary Structural Engineering Consultant

- Luxury \$30 million, 23 storey mixed-use development in heart of downtown
- 3 levels of underground parking
- **Awarded 2010 Nova Scotia Lieutenant Governor General's award for Excellence in Engineering**

BUILDINGS



Icon Bay Tower • Halifax, Nova Scotia

Role: Primary Structural Engineering Consultant

- Luxury 22 storey mixed-use development overlooking Bedford Basin
- 4 storey integrated, landscaped podium structure
- Structural steel rooftop penthouse
- Scheduled for completion in 2016

MARINE



**Woodside Ferry Terminal Pontoon
Dartmouth, Nova Scotia**

Role: Primary Structural Engineering Consultant

- \$3.2 million design-build pontoon replacement
- First reinforced concrete pontoon in Atlantic Canada
- Insulation filled compartments for longevity
- Waterproofing impregnated concrete

MARINE



**National Gypsum Dock Rehabilitation
Dartmouth, Nova Scotia**

Role: Primary Structural Engineering Consultant

- Condition assessment and reports on existing beams, decks, cells, & sheet/H-piles
- Design & detailing for beam/corbel/deck replacements and repairs in harsh marine environment



BRIDGES



Princess Margaret Bridge Rehabilitation • Fredericton, New Brunswick

Role: Primary Structural Engineering Consultant

- \$88 million rehabilitation of 55 year old, 1.1 kilometer long two-lane bridge over the Saint John River
- Independent analysis using 3D finite element software as well as independent calculations to ensure all design work carried out in accordance with good industry practice, technical specifications, and standards of latest Bridge Code.
- PINTO responsible to review the following: longitudinal pre-stressed and transverse post-tensioned bridge deck panels, refurbishment and strengthening of the 22 bridge piers, strengthening of the steel piles, strengthening of steel truss and plate girders and connections, design of the bridge steel and laminated bearings, and steel/concrete traffic barriers

“Thank you for your innovation, dedication and commitment over the years. We highly recommend your team for any aspect of structural design or consulting. We find you reliable, efficient and extremely knowledgeable.”

—Wadih Fares, P. Eng.
W. M. Fares and Associates Incorporated

For more information contact us by phone or email

Halifax (902) 420 9800
Calgary (403) 536 0301
St. John’s (709) 700 2139
CDN/US (800) 659 6619

info@consultPINTO.com
www.consultPINTO.com





MCA CONSULTANTS

ENGINEERS - PROJECT MANAGEMENT

MCA Consultants is an engineering firm based in Atlantic Canada with offices in Charlottetown, Prince Edward Island, and Halifax, Nova Scotia. Founded in 1997, we have quickly earned our reputation for providing complete Engineering Consulting & Project Management Services for Commercial, Institutional and Industrial Clients throughout Canada.

MCA Consultants provides services for a wide range of market sectors including:

Mechanical Building Utilities Design

- HVAC
- Plumbing
- Fire Protection
- Automatic Controls
- Geothermal Systems

Mechanical Process Facilities Design

- Biopharm Clean Utilities - Compressed Air/Purified Water/Clean Steam
- Lab and Specialty Gases
- Clean Room Ventilation and Pressurization Strategies
- Process Drainage
- Industrial Refrigeration
- Steam Systems
- Chilled Water
- Process Piping Systems

Recreational Facilities Specialties

- Arena Ice Rink Refrigeration Systems
- Swimming Pool HVAC and Pool Filtration
- Integrated Facility Heat Recovery and Reclaim Systems

Contract Administration & Project Management Services

- Project Feasibility Studies
- Project Scheduling
- Budget Preparation and Tracking
- Project Tendering
- Contract Administration and Change Control

At MCA Consultants, we work with numerous architects and developers as integral project team members in various roles including Project Managers, Lead Mechanical Design Consultants, and Specialty Process Utilities & Geothermal Consultants. In order to do our best work, MCA Consultants works completely as a team both within our offices, as well as side-by-side with outside industry partners.

Steven Ramsay, P.Eng, PMP, CEM, President of the Halifax office, has been engaged in detailed and complex comprehensive projects for 20 years, graduating from the University of New Brunswick in 1998 with a Bachelor of Science in Engineering. He has worked on small and large scale commercial, institutional and industrial projects both in Canada and internationally; he has worked out of offices in Prince Edward Island, New Brunswick, and Nova Scotia.

Steven has earned a reputation for being easy to talk to and for relating to customer needs and requirements. He has gained an extensive knowledge of ventilation, plumbing, sprinkler, heating and building automation/integration system design both as an engineering design consultant and as a construction contractor. His specialization in the Energy Efficiency markets have uniquely allowed Steven to bridge the gap between government program developers and clients who wish to take their projects to the forefront of possibilities.

At MCA Consultants we always put ourselves in the shoes of our clients, and approach each design and management challenge as if it was our own project and investment. We take personal pride in our work, and always push ourselves at every turn to provide the best to our clients. All our work is completely custom. There are no boxed solutions here, and we never treat any project with a "one size fits all" approach.

We work hard to determine the appropriate technologies, system configurations, renewable and non-renewable resources, plus various other solutions to maximize system efficiency and achieve sustainable design. We always factor capital costs, long term maintenance implications, and availability of natural resources with all designs. Simply put, we have the thorough understanding and strong background to deliver fully integrated and superior energy performance with our designs.

Some of the innovative processes that we implement into our designs include:

Energy Efficiency Measures

Best use practices for heat recovery/transfer systems, geothermal & heat pump sources, exceeding local regulatory & environmental benchmarks, utilization of existing heating systems to maximize performance, plus ener-

Reliability and Maintenance Measures

Utilizing centralized heating/cooling plant strategies, optimizing existing equipment, and enforcing a high-standard and using only proven reliable equipment.

Environmental Measures

Utilizing water conserving plumbing fixtures, implementing environmentally friendly refrigerants, optimizing heating systems to minimize greenhouse emissions, and advanced digital energy management control systems.

Budgeting and Cost Controls

Use of systems & equipment from multiple sources, avoiding proprietary systems when possible, and ensuring MCA team members are trained and continually educated on the most sustainable design practices and technologies available.

Contact us today to set up a meeting or to have a quick chat. We're always looking for the next project that will prove why we believe we have the best team to meet any challenge.



MCW Maricor is one of Atlantic Canada's largest mechanical, electrical and energy engineering firms and we are supported by a nationwide network of MCW companies which have a solid reputation of delivering sound results.

Acquired by MCW in 2007, MCW Maricor is a full service facility engineering firm specializing in the fields of mechanical and electrical engineering design, energy efficiency and conservation, and sustainable development. Our roots in Atlantic Canada date back to 1956 with a continuous expansion of our services since that time. We have extensive experience and expertise in offering engineering services for all types of institutional, medical, educational, commercial and industrial building projects.

Since 1964, the MCW Group of Companies (MCW) has built a solid reputation for the delivery of Professional Consulting Engineering Services, Energy Management Services, and Engineering Development Services. By the very nature of the solutions provided, MCW help to create the environments required for Clients to live, educate, work, play and heal.

Our diverse array of Clients have always brought us their toughest challenges and most exciting dreams, knowing that we will customize our designs and services to address their needs in a manner which will allow them to succeed and prosper. This success and prosperity is enhanced through the delivery of our services in a manner consistent with MCW's philosophy of sustainability, and our Clients' desire to reduce their environmental footprint.

Wholly owned by 19 active Canadian partners, MCW employs in excess of 300 people across Canada and has offices in Moncton, Saint John, Halifax, Truro, Toronto, Winnipeg, Vancouver and Ottawa.

Through satisfied clients we have created a company atmosphere where loyalty, accuracy & diligence are fostered and rewarded. This motivates us to align our goals with that of the organization and enlists us to expand our client relationships with the various MCW Companies.

Our staff works with our clients to develop comprehensive short and long range plans which meet their energy goals, reduce their greenhouse gas emissions and, more importantly, fit into their capabilities to implement the results and reap the benefits.

Our service offering is designed to be implemented to meet the needs of our clients. Each service offering is tailored to allow us to best integrate our solutions within our client's organizations by leveraging their existing knowledge, capabilities and resources for sound results. Our engineers have both the experience and expertise to understand your needs, both as a business partner and a technical expert.

Our basic corporate philosophy is to provide innovative and cost effective engineering services with particular emphasis on service to our Clients. This philosophy is put into practice as follows:

- Each **office** is staffed with a group of experienced and highly skilled engineers, technologists and support staff, under the direct supervision of one of the firm's partners.
- Each **project** is designated the direct responsibility of one of the firm's senior personnel to ensure that the design will incorporate the firm's extensive experience.
- Design criteria are based on the "integrated design process" and the principles of "value engineering".
- Energy efficient and cost effective design solutions are developed with particular emphasis on the unique operational and performance requirements of each individual project.
- Project schedules and deadlines are strictly enforced.

As a leading edge consultant, the MCW Group of Companies has embodied the principles of partnership, innovation and flexibility within all its offices to ensure excellence of service and design.

Halifax
902-876-3182

Truro
902-893-8455

Moncton
506-857-8880

Saint John
506-642-5711

30 Duke Street
Suite 1
Truro, NS B2N 1A2
Phone (902) 893-8455



7051 Bayers Road
Suite 102
Halifax, NS B3L 2C1

Phone (902) 876-3182

**Bruce L. Thompson, P. Eng.,
Principal**
bthompson@mcw.com

Education:

Bachelor of Electrical Engineering (1979) Nova Scotia Technical College
Bachelor of Science in Engineering (1976) Dalhousie University
Diploma in Engineering (1976) Dalhousie University

Professional Associations:

Registered Professional Engineer – Provinces of Nova Scotia, New Brunswick, Newfoundland and Labrador
Consulting Engineering Association of Nova Scotia
Associate Member of the Illuminating Engineering Society
American Society of Heating, Refrigeration and Air Conditioning Engineers

**Ross S. Penner, P. Eng.
Associate**
rpenner@mcw.com

Education:

Bachelor of Engineering - Mechanical (2010) Dalhousie University
Diploma in Engineering (2008) Nova Scotia Agricultural College

Professional Associations:

Registered Professional Engineer of Nova Scotia
American Society of Heating, Refrigeration and Air Conditioning Engineers
National Fire Protection Association
LEED™ Green Associate

**Ted Loucks, P. Eng., MBA, LEED™,
Partner**
tloucks@mcw.com

Education:

Masters of Business Administration (2003) Dalhousie University
Bachelor of Science in Mechanical Engineering (1990) University of Waterloo

Professional Associations:

Registered Professional Engineer – Provinces of Nova Scotia, Ontario
LEED™ Accredited Professional
American Society of Heating, Refrigeration and Air Conditioning Engineers
Canadian Wind Energy Association

Mina M. George, P. Eng.
mgeorge@mcw.com

Education:

Bachelor of Electrical & Computer Engineering (2002) Dalhousie University
Bachelor of Science in Psychology, (1998) Dalhousie University

Professional Associations:

Registered Professional Engineer – Provinces of Nova Scotia, British Columbia

ENERGY, WATER & INFRASTRUCTURE



INNOVATION RELIABILITY PERFORMANCE



Innovation | Reliability | Performance

Meco is an industry leader offering civil, geotechnical, Hydrotechnical and project management services with a focus on energy, water and infrastructure.

Meco has nearly two decades experience in energy and infrastructure; planning design, maintenance and management. We have an eclectic portfolio of experience with water utilities and renewable energy, including hydro, wind and non-conventional sources, as well as related heavy civil and instrumentation projects.

Meco provides exceptional engineering and geoscience consulting services through a time-proven strategy, incorporating the three essential ingredients of effective and efficient project delivery: innovation, reliability, and performance. These ingredients—combined with outstanding customer service—make Meco a trusted extension of your

Mitchelmore Engineering Company Ltd.

109 Ilsley Avenue, Unit #14
Dartmouth, Nova Scotia
B3B 1S8

Telephone: 902.444.3131
Toll Free: 1.877.434.3131 | Fax: 902.404.7777

E-mail: Info@mecoengineers.com
Website: www.mecoengineers.com

Meco Services Include:

► Dam Safety Management

Meco provides design, construction and maintenance services related to the safe operation and management of dams and associated hydraulic structures including:

- Dam safety reviews
- Geotechnical analysis and design
- Designs and modifications
- Installation and interpretation of monitoring equipment
- Flood studies and development of regional hydrologic models
- HEC-RAS modeling
- Operations and maintenance plans
- Low flow studies
- Dam break and inundation mapping
- Emergency preparedness planning

►► Project Management

Meco uses risk management models to define client goals and objectives, which in turn guide project delivery. Our project management model means we regularly interact with our client and seek input at all stages for needs re-assessment and resource availability. Our services include:

- Conceptual planning and feasibility studies
- Construction specifications & tender documents
- Costing and scheduling
- Construction Supervision

►► Civil Engineering

Meco offers civil and geotechnical services in the marine, municipal, structural, infrastructure and energy sectors. Our blend of geotechnical, hydraulic and structural skills have allowed us to be innovative across a broad sector of these industries including:

- Embankment and concrete dams
- Hydroelectric facilities and feasibility studies
- Shallow and deep foundations
- Wharf and breakwater design
- Ground anchors and soil nailing
- Retaining walls and slope stabilization
- Blast monitoring
- Construction QA/QC inspection services

►► Geotechnical Engineering

Meco provides comprehensive geotechnical services, including reconnaissance, preliminary and final investigations, and geotechnical modeling for foundations, slopes and embankments and including:

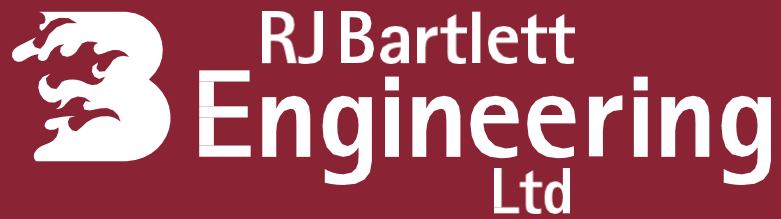
- Site investigations and soil characterization
- Soil and rock remediation
- Risk and hazard assessment
- Blast vibration monitoring and assessment
- Foundation design and recommendations
- Settlement analysis
- Rock slope engineering and slope stability
- Retaining wall design

►► Water Resources Engineering

Meco provides comprehensive hydrotechnical services for river, reservoir, water, wastewater and stormwater projects. Our services include:

- Flood frequency analysis
- River and reservoir routing analysis
- Fish ladders and channel design
- Resource management services
- Hydraulic design of concrete & steel structures
- Flood plain analysis
- Dam failure modelling
- Stilling basins, weirs and culverts





FREDERICTON OFFICE

1133 Regent Street,
Suite 113
Fredericton, NB
Canada E3B3Z2
Phone: (506) 459-3070

HALIFAX OFFICE

1046 Barrington Street,
Third Floor
Halifax, NS
Canada B3H 2R1
Phone: (902) 496-3070

GENERAL EMAIL
rjbel@rjbartlett.com

WWW.RJBARTLETT.COM

SERVICES

FIRE PROTECTION SYSTEMS – Fire Alarm – Fire Suppression – Smoke Management

- Design
- Inspection and Evaluation
- Construction Supervision
- Commissioning

BUILDING AND FIRE CODE CONSULTING

- Drawing Review
- Inspections
- Third Party Review
- Equivalencies/Performance-Based Solutions
- Product/Materials Evaluation
- Negotiations
- Authority Approvals

FIRE HAZARD ANALYSIS

- Identification and Evaluation of Hazards
- Risk Analysis
- Fire Modeling

FIRE SAFETY PLANNING

- Fire Safety Committees
- Emergency Procedures
- Fire Drill Procedures
- Control of Fire Hazards
- Fire Safety Systems and Maintenance
- Drawings
- Training



INVESTIGATIVE ENGINEERING –

Origin and Cause Investigations

- Reconstruction
- Expert Testimony
- Subrogation Considerations
- Research/Laboratory Testing
- Storage of Evidence

FIRE PROTECTION SYSTEMS COMMISSIONING

- Integrated Testing of Systems
- Commissioning Plans
- On-Site Commissioning

TESTING AND INSPECTION SERVICES

- On-Site Inspections of Fire Stops
- Testing of Spray-Applied Fire Resistive Materials

TECHNICAL TRAINING –

Seminars – Workshops

- Fire Protection Systems
- Building and Fire Codes
- Fire Safety Planning
- Fire Science Applications
- Performance-Based Solutions



ervant, Dunb ack, cKenzie & MacDonald Ltd.
NOVA SCOTIA LAND SURVEYORS & CONSULTING ENGINEERS

36 Oland Crescent
Bayers Lake Business Park
Halifax, Nova Scotia
B3S 1C6

Phone (902) 455 1537 Email rlandry@sdmm.ca
Fax (902) 455 8479 Website www.sdmm.ca

RAYMOND A. LANDRY
M.A.Sc., P.Eng., LEED Green Associate
CHRISTOPHER J. FORAN
P.Eng.
GEOFFREY K. MacLEAN
P.Eng.
RACHAEL W. KYTE
P.Eng., LEED Green Associate
ALEXANDER W. PULSIFER
P.Eng.
BLAKE . TRASK
P.Eng., .SLS

DANIEL S. GERARD
P.Eng., NSLS
CARL K. HARTLEN
NSLS
H. JAMES McINTOSH
P.Eng., NSLS, CLS
KEVIN A. ROBB
NSLS
MICHAEL S. TANNER
NSLS
ADAM J. PATTERSON
P.Eng., NSLS

CORPORATE PROFILE

SDMM provides a wide range of professional engineering, surveying and other geomatics services to local and national clients throughout Atlantic Canada. SDMM, its predecessor companies and associated practices have provided professional services throughout eastern Canada since 1875.

The company is Nova Scotia owned and managed by a professional staff who offers consulting and technical services to its private, commercial, industrial and government clients. SDMM presently has a permanent staff of 30 people. All professional staff members are professional engineers and/or land surveyors, licensed to practice in Nova Scotia and on Canada Lands throughout Canada.

The company’s engineering focus is primarily on municipal engineering, building civil site services and land development. Conceptual planning, construction cost estimates, drainage studies and detailed design of roads and services are part of the engineering services offered to our clients. During the construction stage, project management is provided through the preparation of tender documents, inspections, as-built data collection, testing, monitoring, record drawings and certification.

SDMM has a strong background in and a long history providing professional land surveying services. Our company has surveyed large tracts of rural woodlands, large subdivisions for both residential and commercial developments, complex land assemblies in urban centres, corridor surveys for gas pipelines and transmission lines. We also have extensive experience in construction surveys, condominium surveys, accident surveys, topographic surveys, easement surveys, crown land surveys and boundary litigation.

The technical and professional staff use state-of-the-art, electronic field and office equipment to ensure that all assignments are executed in the most accurate and cost-efficient manner possible. The company owns and utilizes the latest models of electronic theodolites (total stations), Global Navigation Satellite Systems (GNSS), 3D High Definition Laser Scanning (HDS) and Unmanned Aerial System for photogrammetry as primary, high-accuracy data collectors.

Our computing facilities are supported by an extensive suite of software including the latest versions of Autodesk Infrastructure Design Suite, Autodesk Building Design Suite, ClearEdge3D EdgeWise, Leica Geo-Office, Leica Cyclone, Leica JetStream, & Leica Cloudworx. Electronic files & final products can be supplied to the client in a wide variety of 2D & 3D formats.

As a member firm of a consortium of maritime owned companies, SDMM provided the surveying services to Maritimes and Northeast Pipeline for the Sable Offshore Energy Project.

PROFESSIONAL SERVICES

SDMM has a well-respected reputation of providing the highest quality of cadastral topographic and engineering surveys. This well founded recognition is based on many years of being a leader in the land survey profession through maintaining dedicated and well-experienced land surveyors and surveying engineers in our company. SDMM continues to stay current with the ever-changing legislation and regulations that affect land development. We employ qualified technical staff and use the latest technical equipment and computer software for the benefit of our clients.

We apply the same corporate philosophy to our professional municipal/civil engineering servicing. Under the direct control and supervision of our professional engineers, SDMM has successfully completed many engineering projects. These projects include concept plans and drainage studies for building sites, campuses and large subdivisions; On-site sewage system design and master plan preparation (QP services); the design of roads, storm, sanitary and water services in both serviced and un-serviced subdivisions as required; along with commercial site servicing and grading design. Our professional staff has carried out all aspects of construction management and inspection for both serviced and un-serviced subdivisions, including the preparation of record drawings and final certification reports.

ENGINEERING SERVICES

DESIGN/DEVELOPMENT

- ✓ Concept Subdivision Plans
- ✓ Development Agreement Applications
- ✓ Tentative Subdivision Plans
- ✓ Final Subdivision Plans
- ✓ Subdivision Drainage Plans
- ✓ Stormwater Management Plans
- ✓ Erosion & Sedimentation Control Plans
- ✓ Preliminary & Detailed Road and Street Design
- ✓ Water Main, Sanitary, & Storm Sewer Design
- ✓ Sanitary Sewer Pumping Station Design
- ✓ Preliminary & Detailed Design Cost Estimates
- ✓ Tender Document Preparation & Evaluation
- ✓ Subdivision On-site Sewage System Master Plans
- ✓ On-site System Malfunction Investigation and Design
- ✓ Land Based Sewage Treatment
- ✓ NSDEL Application for Approvals

CONSTRUCTION INSPECTION & CERTIFICATION

- ✓ Full time on-site Inspection Services & Contract Administration
- ✓ As-built field data collection & Record Drawing Certification
- ✓ Detailed Construction Cost Certification
- ✓ HRWC Water Main Digital File Preparation
- ✓ Water and Sewer Services Testing Verification & Certification
- ✓ Water and Sewer Service Lateral Card Preparation
- ✓ QP1 and QP2 On-site Sewage System Inspection & Certification
- ✓ NSDEL letters of Certification
- ✓ HRWC letters of Certification
- ✓ HRM letters of Certification

BUILDING SITE SERVICES

- ✓ Parking area Layout, Grading and Storm Sewer Servicing Design
- ✓ Driveway Entrance, Concrete Curb & Sidewalk Layout & Design
- ✓ Water and Sewer Services from Building to Municipal Services
- ✓ Construction Inspection Services and Electronic Data Collection
- ✓ Record Drawing Preparation
- ✓ Sprinkler Service Inspection & Certification
- ✓ Water Bacteria Samples
- ✓ Building Layout & Location Certification
- ✓ Hydrant flow testing
- ✓ Construction Management Plans

SURVEYING SERVICES

CADASTRAL SURVEYING

- ✓ Boundary surveys
- ✓ Subdivision surveys
- ✓ Condominium surveys
- ✓ Surveyor's Location Certificates
- ✓ Lot grading surveys
- ✓ Lease space surveys

ENGINEERING SURVEYS

- ✓ Topographic surveys
- ✓ Construction surveys
- ✓ Route surveys
- ✓ Accident surveys
- ✓ Lot grading surveys
- ✓ Hydrographic surveys
- ✓ Subsidence monitoring

SPECIALITY SERVICES

- ✓ 3D high definition laser scanning
- ✓ GPS Surveying
- ✓ Aerial Imaging
- ✓ Aerial Surveys
- ✓ Volume calculations
- ✓ Building gridline layout
- ✓ Land title research
- ✓ Precise control networks
- ✓ Cell tower site surveys
- ✓ Large format table digitizing
- ✓ Expert testimony for litigation
- ✓ Alternate dispute resolution
- ✓ CAD drafting and plotting
- ✓ ASCII file preparation
- ✓ Scan-to-BIM Modeling (Revit)
- ✓ Scan-to-CAD Modeling (AutoCAD)
- ✓ Factory/Plant Modelling
- ✓ Infrastructure Modelling
- ✓ As-built drawings and Models
- ✓ Progressive Construction Scanning
- ✓ Asset Management
- ✓ Matterport Virtual Tours



Purdy's Wharf, Halifax NS

National **experience.** Local **confidence.**

Smith + Andersen is a trusted Canadian consulting engineering firm with offices in **HALIFAX, OTTAWA, TORONTO, LONDON, WINNIPEG, EDMONTON, CALGARY, KELOWNA, and VANCOUVER.**

Founded in 1965, Smith + Andersen is one of Canada's most respected engineering firms.

What does it take to be a **LEADING INTEGRATED ENGINEERING FIRM?**

The **vision** to be the consulting engineering firm of choice, recognized and respected for our professional delivery of creative engineering designs.

A **supportive and collaborative atmosphere** of trust, integrity and honesty in each of our nine offices across Canada.

A **reliable, responsive, and proactive** team of more than 500 staff.

The **hard-earned confidence** of private and public clients across the country.

A clear command of each of our disciplines – **mechanical, electrical, telecommunications, security, audiovisual, lighting, and building automation systems.**

A commitment to providing **quality, innovative designs** that work for every project delivery method – from **Integrated Project Delivery** to **Private Public Partnerships.**

Responsible, sustainable design solutions on every project, often alongside our sustainability consulting firm, **Footprint.**

Employees who feel **empowered** to do great work.

That's what makes us **different.** That's what makes us **Smith + Andersen.**

OUR SERVICES:

- + Mechanical Engineering
- + Electrical Engineering
- + Communications Design
- + Security Design
- + Audiovisual Design
- + Lighting Design
- + Building Automation Systems Design
- + Intelligent Integrated Systems Design



Solutions for every kind of **built environment**.

TRANSPORTATION: Airports // Bus and Train Stations
// Parking Facilities.

SPORTS + RECREATION: Aquatics facilities // Arenas
// Fitness Centres // Recreation Centres // Stadiums

RESIDENTIAL: Custom Homes // Multi-Unit Residential
// Retirement Housing // Student Housing

RESEARCH + STUDIES: Electrical Power System Analysis
// Reserve Fund Studies // Technical Audits

PUBLIC SPACES: Community Centres // Parks
// Places of Worship // Public Squares

OFFICE: Commercial Tenant Spaces // High-rise Office Towers
// Low-rise Office Complexes

MISSION CRITICAL: Computer Rooms // Large Data Centres
// Operations Centres // Technical Spaces

INDUSTRIAL: Distribution Centres // Laboratory Facilities //
Manufacturing // Pharmaceutical Facilities // Utilities
// Vehicle Storage and Service Stations // Warehouses

HOSPITALITY: Convention Centres // Food Service // Hotels
// Resorts // Restaurants // Wineries

HEALTHCARE: Hospitals // Clinical Laboratories //
Health Clinics // Long Term Care // Mental Health Facilities

EDUCATION: Elementary // Secondary // Post-Secondary
// Private & Independent // Teaching Laboratories

COMMERCE: Banks // Retail Stores // Shopping Centres

CIVIC: Correctional Facilities // Courthouses // EMS //
Fire Stations // Libraries // Municipal Buildings
// Police Stations

ARTS, CULTURE AND ENTERTAINMENT: Art Galleries // Casinos
// Media // Museums // Performance Spaces



OFFICE ADDRESS

1969 Upper Water Street, Suite 1905
Halifax, NS B3J 3R7

T: 902.440.0981
F: 416.487.9104



SNC • LAVALIN

Building what matters

Building What Matters

SNC-Lavalin Inc. opened its first office in Atlantic Canada more than 45 years ago, providing multi-discipline engineering, project management, security and threat risk assessment consulting services from our offices in Halifax, Antigonish, Moncton (NB), and Mount Pearl (NL). With a regional engineering staff of more than 200, SNCL combines these core services with its financing and operations and maintenance capabilities to provide complete design, build, own and operated project solutions.

History

Founded in 1911, SNC-Lavalin Inc. is one of the leading engineering and construction groups in the world and a major player in the ownership of infrastructure. From offices in over 50 countries, SNCL's employees are proud to build what matters.

Our teams provide multi-discipline services to clients in a variety of industry sectors including national defense, provincial and municipal governments, health care, mining and metallurgy, infrastructure and power. SNCL combines these services with its financing and operations and maintenance capabilities to provide complete design, build, own and operated project solutions.

SNCL maintains exceptionally high standards for health and safety, ethics and compliance and environmental protection, and is committed to delivering quality projects on budget and on schedule to the complete satisfaction of its clients.

SNCL's Atlantic Offices are ISO 9001:2015 accredited.

Our values keep us anchored and on track. They speak to how we run our business, how we express ourselves as a group and how we engage with our stakeholders and inspire their trust.

Key Personnel

- › **Regional Director**
David Haley, P.Eng., FEC, EP
- › **Vice-President – Operations Support**
Cliff Johnston, M.Sc., P.Eng.
- › **Office Manager**
Lori Shand

Office Locations - Atlantic

- › **SNC-Lavalin Inc.**
Suite 200
5657 Spring Garden Road
Halifax (NS) B3J 3R4
Tel: 902.492.4544 | Fax: 902.492.4540
- › **SNC-Lavalin Inc.**
65 Beech Hill Road
Antigonish (NS) B2G 2P9
Tel: 902.863.1220 | Fax: 902.863.3225
- › **SNC-Lavalin Inc.**
1090 Topsail Road
Mount Pearl (NL) A1N 5E7
Tel: 709.368.0118 | Fax: 709.368.5341
- › **SNC-Lavalin Inc. Brun-Way Highways Operations Inc.**
1754 Route 640
Fredericton (NB) E3C 2B2
Tel: 506.474.7750 | Fax: 506.474.7752

Multi-Discipline Engineering

Our local multi-disciplinary team approach enables us to offer our clients a full range of engineering services including project management, contracting and consulting. We maintain core civil, structural, environmental and mechanical and electrical engineering capabilities. Our service lines are summarized below:

Infrastructure

Services provided to clients include heavy civil design and construction management, power, light rail transit systems, ports and marine, airport design, oil and gas, shipyards and manufacturing.



Municipal

We have extensive experience in the design of municipal infrastructure with recent projects in the Atlantic Provinces. Typical projects include: site development, sanitary and stormwater sewers, watermains, flow monitoring, inflow/infiltration studies, capacity analysis, hydraulic modeling, pumping stations and culverts.

Institutional

We have been providing hospital, educational, university, Architects and research facilities with engineering services on an ongoing basis for many years. Design services included building design and renovations, infrastructure upgrades, laboratories, health centers and clinic consolidations.



VIEW FROM CORNER OF SPRING GARDEN ROAD & QUEEN STREET.

National Defence Infrastructure

We are a leading provider of engineering services in support of the Department of National Defence infrastructure. We have completed a wide range of projects at Canada Forces Bases across Canada. Projects include building renovations, new construction, utilities, upgrades and assessments, environmental assessment and cleanup and monitoring. SNCL maintains specialist expertise in threat risk assessments and security system design.

Green Buildings

We have in-house staff who are accredited professionals in Leadership in Energy and Environmental Design (LEED). Services provided include energy performance assessment and analysis, code compliance and investigation, commissioning and sustainable development

Design-Build and P3 Services

We offer a complete "concept to completion" delivery of design-build and public private partnership projects. We will be fully accountable for architecture, engineering, construction, commissioning and operation of building and infrastructure projects. We can also offer financing and concession options.



SNC • LAVALIN



infrastructurecom@snclavalin.com

snclavalin.com

Building Atlantic Canada together

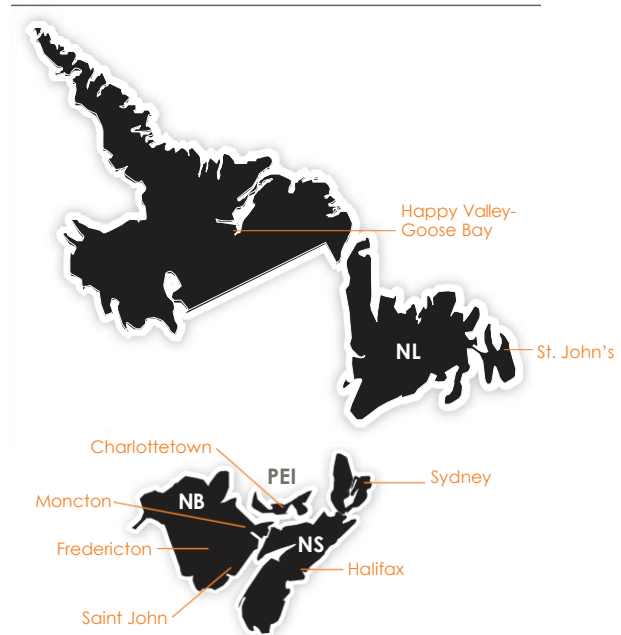


We create communities throughout Atlantic Canada together

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

We care about the communities we serve—because they're our communities too. As the largest professional consulting firm in Atlantic Canada, our eight office locations are home to more than 750 staff. Our strong local presence allows us to assess what's needed and connect our expertise, to appreciate nuances and envision what's never been considered, and to bring together diverse perspectives and collaborate toward shared success.

We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe. Stantec trades on the TSE and NYSE under the symbol STN. Visit us at stantec.com or find us on social media.



office locations

50
Years in Business in
Atlantic Canada

No. 1
Top 100 A/E Firms
BD&C 2017

ISO 9001
Certified Quality
Management System

No. 1
Integrated A/E Firm
ENR 2017

Our services in Atlantic Canada include

Architecture

- Architecture Design
- Commercial Program Development
- Facilities Planning and Operations
- Interior Design
- Planning
- Visioning Brands Experience

Buildings Engineering

- Compliance Services
- Control System Integration
- Electrical Engineering
- Energy Analysis
- Facilities Engineering
- Facilities Assessment and Indoor Environment
- Functional Programming and Planning
- Industrial Process Engineering and Equipment Layout
- Mechanical Engineering
- Performance Engineering
- Site Selection and Feasibility Studies
- Structural Engineering
- Work Productivity and Optimization

Environmental Services

- Archaeology
- Assessment, Permitting and Compliance
- Atmospheric Environmental
- Ecosystem Restoration
- Editorial Production and Management
- Engineering, Feasibility and Design
- Environment, Health and Safety
- Environment Risk Assessment and Toxicology
- External Training, e-Learning and Technical Writing
- Freshwater and Marine
- Fuel Systems Engineering
- GIS and Information Management
- Human Environment: Traditional Land and Consultation
- Hydrogeology
- Paleontology
- Site Management and Remediation
- Surface Water
- Sustainability
- Technical Graphics
- Terrestrial Ecosystem

Geotechnical and Materials Engineering

- Abandoned Mine Land Studies
- Construction Observation
- Drilling, Sampling and Instrumentation Services
- Geologic Studies
- Geotechnical Analyses
- Geotechnical Structure Design
- Marine / Waterfront Engineering
- Risk and Uncertainty Engineering
- Seismic Engineering
- Soils and Materials Laboratory Testing

Oil & Gas Engineering

- Conceptual Engineering Services
- Detailed Engineering / Design
- Field Services
- Integrity Services
- Measurement
- Pipeline Design and Routing (Pipeline Survey)
- Regulatory
- Safety Services

Power Engineering

- Application Engineering
- Capital Cost Estimates
- Consulting / Feasibility Studies
- Conceptual / Planning
- Detailed Engineering / Design
- Plant Services
- Start-up and Commissioning

Transportation Infrastructure Engineering

- Conceptual / Planning
- Detailed Engineering / Design
- Infrastructure Asset Management
- Operations and Maintenance
- Pavement and Data Collection
- Ports & Marine Engineering

Water and Wastewater Engineering

- Conveyance
- Wastewater Management
- Water Resources Infrastructure
- Water Resources Planning & Management
- Water Treatment

For a full range of our capabilities, visit stantec.com/services



COMPANY PROFILE

Strait Engineering Limited registered to practice Consulting Engineering in Nova Scotia in 1983. Its Principal, has over 40 years of experience in consulting engineering service to various levels of government, industry & private enterprise. The firm markets its services in Nova Scotia and offers a range of services from conceptual planning to preliminary engineering and design through to project management.

Strait Engineering Limited has been able to respond to a wide variety of client needs. Staff works closely with their clients to achieve practical and professionally sound results. Since staff reside throughout Eastern Nova Scotia, personnel are never far from your project.

Memberships: Member of American Water Works Association
Member of Consulting Engineers of Nova Scotia
Member of Engineers Nova Scotia
Member of Local Chambers of Commerce

STAFF

THE STAFF:	H. Basil Mattie, P. Eng.	- Principal	Tracadie
	Bruce Latimer, P. Eng.	- Senior Project Engineer	Port Hastings
	George Urquhart, P. Eng.	- Senior Project Engineer	Port Hastings
	Cathy MacDonald	- Senior Draftsperson	Port Hawkesbury
	Jason MacMillan, C.E.T.	- Technologist	Port Hawkesbury
	Jamieson MacIsaac, C.E.T.	- Surveying/Technologist	Judique
	Kelsey DeCoste, E.I.T.	- Junior Engineer	Havre Boucher
	Emily Gillis	- Civil Technologist	Tracadie
	Trevor Rogers	- Geomatic Technologist	New France

REPRESENTATIVE SERVICES

Municipal Infrastructure

- Pollution Control Studies
- Water supply, treatment and distribution
- Sewage collection, treatment and disposal
- Streets, community facilities
- Storm and sanitary sewers
- Sidewalks and streetscapes
- Solid waste management facilities
- C&D debris disposal facilities
- Sewage sludge storage facilities

Industrial and Commercial Building

- Conceptual planning and layout
- Site evaluation and design
- Detail design, specifications and project management.
- Structural assessment
- Site municipal services

Marine Facilities

- Bathymetric surveys
- Inspection and remedial works of existing wharf and slipways
- Erosion investigations and revetments.
- Designs for upgrading and expansion of facilities
- Marina facilities

Construction/ Project Management

- Construction supervision/inspection
- Project Management/Contract Administration
- Engineering site surveys/layout
- As-Built drawings/O&M manuals

Topographic and Hydrographic Surveys

- Detailed site surveys - GPS and total station
- Quantity surveys with computer modelling
- Bathymetric surveys using GPS and Echosounder Equipment
- Material stockpile surveys
- Construction layout: roads, buildings, infrastructure services

Waterfront Development

- Preliminary and detail site evaluation
- Conceptual planning and cost estimates
- Detail design and construction inspection
- Regulatory review and approvals
- Shoreline stabilization/protection

Environmental Control

- Environmental surveys
- Water pollution control
- Environmental monitoring
- Phase I, environmental site assessment
- Regulatory review and approvals
- Erosion and sedimentation control plans

Industrial Parks

- Site evaluation and conceptual planning
- Topographic surveys
- Servicing strategy
- Detail design and project management

Agricultural

- Building designs
- Farm assessments
- Manure storage
- Design of grain handling and storage facilities

Subdivision Development

- Site evaluation and conceptual planning
- Topographic surveys
- Servicing strategy
- Detail design and contract administration
- Regulatory approvals

Structural Evaluation and Design

- Structural evaluation for upgrading, repair, expansion
- Detail concrete, steel and wood designs
- National Building Code through CD-ROM
- Building/structure layouts
- Bridges, abutments and retaining structure design

Roads, Streets and Parking Lots

- Site assessment and surveys
- Geometric design and specifications
- Project Management/Construction Inspection
- Curb/gutter/storm sewers
- Sidewalks, street lighting and streetscapes

Onsite Wastewater Disposal Systems

- Soil category classification
- System selection/design
- Regulatory review and approvals
- Appeal process assistance

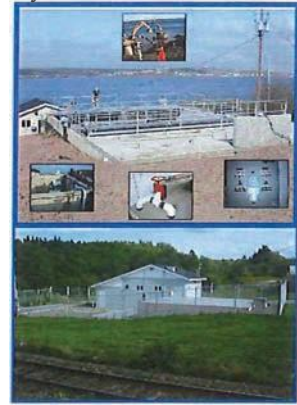
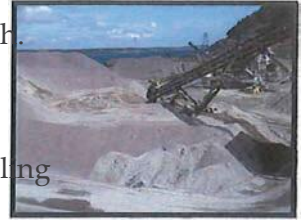
REPRESENTATIVE PROJECTS

- Design and Project Management for numerous Sidewalk and Streetscape projects which included curb and gutter, storm sewers, decorative street lighting and rest areas with accessories. Projects included town of Port Hawkesbury, Guysborough Sheet Harbour, Town of Antigonish, County of Antigonish, Villages of Port Hood, Louisdale, Debert, Valley, Canso, Baddeck, Cheticamp, St. Peters and Eskasoni.
- Design and Project Management for the street rebuild of Pitt and Nepean Streets in the Town of Port Hawkesbury. The project included a complete rebuild including replacement of municipal services (water, sewer and storm sewer), replacement of street gravels and asphalt, as well as concrete curb and gutter and sidewalk. Street improvements such as rest areas and tree planting was also made part of the project.
- Design and Project Management of Sewage Treatment Plant for Mabou in the Municipality of the County of Inverness.
- Conceptual development, site investigation, detailed design and project management for 1st phase; Richmond County - Town of Port Hawkesbury Joint Industrial Park Development.
- Design and Project Management of SBR Wastewater Treatment Facility for Port Hood in the Municipality of the County of Inverness. Project awarded ACWWA project of the year for community of less than 5,000 people.
- Design Services for Cabot Links/Cabot Cliffs Golf Courses, Inverness, NS included topographic surveys, layout of buildings, greens, tee blocks, sprinkler heads, roads, and parking lots, access roads, design of water and wastewater infrastructure services and ancillaries.
- Design and Project Management for a \$2.0M water and sewer extension project in Port Hood, Inverness County.



REPRESENTATIVE PROJECTS CONT'D.

- Wharf inspections, recommended repairs/upgrading with cost estimates and bathymetric surveys at many harbours in Eastern Nova Scotia and Cape Breton.
- GPS survey layout for Canal Bridge Replacement Project in the Town of Antigonish.
- Ongoing GPS survey services for Martin Marietta Materials which has included monthly stockpile quantity surveys, layout for new crusher and conveyor foundations, site pick-up and layout for wharf replacement project, layout of connector roads, settling ponds, etc.
- Detailed design and project management for various phases and upgrading for Industrial Parks; Antigonish County, Town of Mulgrave, Town of Canso and Richmond County Marine Park.
- Numerous water and wastewater servicing extension projects in several communities for the Municipality of the County of Richmond.
- Design and Project Management for reconstruction of the Town of Port Hawkesbury Baseball and Football/ Soccer fields.
- Ongoing consulting services for Eskasoni First Nation which has included several phases of serviced residential subdivisions, sidewalk and storm water construction, watermain replacement, water treatment upgrades, above ground water storage reservoir, water and wastewater extensions, bridge replacement, coastal protection, and several site topographical surveys.
- Topographic survey and detailed design for expansion of the Richmond County Construction & Demolition Debris Disposal Facility.
- Topographic survey and detailed design of a 2-cell Construction & Demolition Debris Disposal Facility for the Municipality of the County of Victoria.
- Lead Consultant in association with Baird & Associates for Mira Gut Sedimentation Study and Coastal Erosion Study at Middle Head Peninsula, Keltic Lodge.
- Sub-Consultant to TranSystems Inc./AECOM for Strait of Canso Port Master Plan Study.
- Preliminary engineering, pre-design and design of STP upgrades for Potlotek First Nation, conversion of Facultative Lagoon into an Aerated Sewage Lagoon.
- Pre-Design, process selection, site selection for a new STP and outfall for Pictou Landing First Nation.
- Project Management of the team of specialists for the preliminary Environmental Assessment of the Keltic Petrochemical Inc. complex at Goldboro.
- Site investigation, conceptual development and cost estimates for Industrial Parks; Pictou Landing First Nation, Inverness County and Town of Antigonish.
- Project Management for a \$3.5M water system upgrade and extension project for the community of Little Narrows, Victoria County.
- Project Management for the \$3.0M Water Source, Treatment, Storage and Distribution system for Ingonish Beach, Victoria County.
- Pre-Design, design, project management and construction inspection for wastewater treatment plant replacement projects for the Village of St. Peter's, Town of Mulgrave, community of Port Hood and community of Paq'tnkek First Nation, where new SBR sewage treatment plants were designed and constructed.



REPRESENTATIVE PROJECTS CONT'D.

- Project Management for the design and installation of \$5.3M worth of water and wastewater extensions; wastewater pumping stations, water booster station and storage reservoir at Port Hastings, NS.
- Project Engineering for renovation and expansion of Strait Area Yacht Club marina and building.
- Design and Project Management for \$5.5 million development at Mulgrave Marine Terminal.
- Preliminary engineering, conceptual planning & detail design of road, water, wastewater and storm water for subdivision and access road, Port Hawkesbury.
- Potlotek First Nation Water System Upgrade including extension and looping, elevated storage tank and replacement of existing water treatment plant.
- Topographic Surveys and Layout for the Natural Gas Pipeline, Strait Crossing Project.
- Cheticamp, Guysborough, Mabou, Port Hawkesbury, Grand Etang Harbour, Canso Waterfront Planning and Development Projects.
- Site evaluation, design and environmental approval for Newpark Environmental Services drilling mud bioremediation facility.
- Design and Project Management for Arrow L.M. Industrial Building (35,000 sq. ft.); Port Hawkesbury Industrial Building (33,000 sq. ft.) and Gasco Industrial Building (Mulgrave 40,000 sq. ft.).
- Havre Boucher, Port Hood, Canso, Inverness, and Guysborough Pollution Control Studies.
- Communities of Coalburn, Guysborough and Grand Etang wastewater servicing studies.
- Shoreline erosion investigation, Pictou Landing.
- Fortress of Louisbourg highway redesign and watermain replacement.
- Lower South River, Pictou Landing, Whycomomagh, Afton, Eskasoni and Port Hood Wastewater Treatment Plant Rehabilitation.
- Project Management, Potlotek First Nation Elementary & Junior High School, \$2.9 million.
- Village of Whycomomagh Water and Wastewater Servicing, \$4M.
- Parkhurst and Ceilidh Ridge Residential Subdivisions.
- Conceptual design, detailed design, tendering, layout and construction inspection for subdivision development projects at Potlotek, Pictou Landing and Paq'tnkek First Nations Communities.
- Site design and environmental approval for T.E. Boyle Composting Facility utilizing 9,000 tonnes of feedstock from pulp wood processing, fish waste, farm waste etc.
- Structural design for Glenora Distillery Complex.





CORPORATE PROFILE

Since 1995, Strum has been providing integrated services to land developers, corporate entities, and energy clients across Atlantic Canada. With a staff of 50 engineers, surveyors, environmental scientists, and technicians, Strum has on-going projects across Atlantic Canada as well as Quebec, Alberta, and British Columbia. In each of our key Industry offerings, we strive to deliver Client oriented Solutions that Make Sense!



Strum provides Civil Design and Land Development services for a wide range of commercial developers. From approvals and permits to conceptual and final design, Strum ensures expert advisory on proposed development and re-development projects aimed at optimizing commercial site value. Strum will coordinate all aspects of approvals and conduct Legal and Topographic Surveying. Development projects include single lots to 47 acre commercial developments providing access infrastructure, underground services, site staking, and construction inspection.

A leader in Environmental Impact Assessment, Strum excels at coordinating Federal and Provincial Approvals on large projects. Our specialists conduct biophysical assessments such as wetland and stream characterization, species at risk, benthic and fish studies, and bird inventories. Our team will undertake compensation planning, conduct Environment Effects Monitoring and develop Environmental Protection Plans tailored to your project's unique situation, ensuring timely Regulatory Compliance.

Currently, Strum is combining its environmental and engineering capabilities as an integral part of commercial, Mining, and Alternative Energy projects. Strum projects include a number of land development projects including a 45 million dollar DND Armoury, several office towers, a multi-tenant commercial development, and mining projects in Labrador. Other projects include a marine terminal, an LNG pipeline project in Alberta, commercial wind projects, coordination of the Maritimes Link EIA, and several GPS based Municipal Database Inventories.



Strum offers Contaminated Site Assessment in support of acquisitions, divestitures, or ongoing property development. Working for banks, lenders, and commercial clients, we provide Phased Site Assessment, clean-up supervision at contaminated sites, and Hazardous Materials management. Strum has expertise in Brownfield characterization and development, applying risk assessment and other Remedial capabilities to achieve environmental site closure, while preparing the site for redevelopment.

Strum provides a coordinated, hands-on approach to meeting our client needs. We call it, Taking Charge!

Head Office

Railside, 1355 Bedford Hwy.
Bedford, NS B4A 1C5
t. 902.835.5560 (24/7)
f. 902.835.5574

Antigonish Office

3-A Vincent's Way
Antigonish, NS B2G 2X3
t. 902.863.1465 (24/7)
f. 902.863.1389

Moncton Office

45 Price Street
Moncton, NB E1A 3R1
t. 1.855.770.5560 (24/7)
f. 902.835.5574

Deer Lake Office

101 Nicholsville Road
Deer Lake, NL A8A 1V5
t. 1.855.770.5560 (24/7)
f. 902.835.5574

www.strum.com info@strum.com



OUR SERVICES

Strum Consulting has earned a reputation for excellence, offering specialized technical expertise and custom-tailored solutions which are both practical and innovative. We have also strengthened our capabilities by acquiring HJS Consulting in Antigonish to complement our Civil Engineering services and to add Surveying to our existing services. Strum specializes in the following services:

Environmental Approvals

- Environmental assessments and permits/approvals (Federal & Provincial)
- Wetland assessment and delineation
- Watercourse alteration permitting
- Watershed assessments
- Marine and Freshwater habitat assessments
- Surveys for species of conservation concern
- Baseline ecological characterizations

Civil Engineering

- Residential subdivision development
- Design of water mains, sanitary, and storm sewer piping
- ICI (industrial/commercial/institutional) developments
- Water/wastewater design, and regulatory approvals
- On-Site Sewage Disposal Design
- Access road design, grading plans, overhead conflicts, and transportation studies for wind developments
- Design and project support for Biomass Developments

Contaminated Site Assessment and Remediation

- Phase I, II, and III ESA
- Site Compliance Evaluation
- AST/UST Investigation and Clean Up
- Emergency Spill Response
- Domestic Oil Spill Clean-up
- Contaminant Sampling and Modelling
- Remedial Action Plan Development
- Site Management/Risk Management Planning
- Qualitative/Quantitative Risk Assessment
- Hazardous Materials Assessment
- Soil, Water, and Air Monitoring and Reporting
- Closure and Compliance Management
- Licensed Site Professionals

Surveying

- Subdivision Layout and Surveys
- Topographic and LiDAR Surveys
- Boundary Retracement Surveys
- Condominium Surveys
- Hydro-graphic Surveys
- Leasehold Surveys
- Quarry Surveys and Stockpile Quantities (volumetric Surveys)
- Construction Site Stakeout
- Digital Terrain Modeling
- Deformation Surveys
- Establishing Positional Control Networks
- High Precision Levelling

RECENT PROJECTS

- Maritime Link
- South Canoe Wind Project
- Mount Cameron Estates Residential Development
- Melford Marine Terminal
- Remediation of a Mine Site in Wabush
- GIS Development and Attribute Survey for Halifax Water services in Burnside
- Hazardous Materials Assessment and Abatement, CFB Gagetown

Going beyond the expected

With a global network of 60,000 engineers, scientists and project managers spanning six continents, Wood applies ingenuity and innovative technologies to provide balanced solutions that meet your specific business priorities.

Sydney

500 Kings Road
Suite 208, Cabot House
Sydney, NS B1S 1B1
Tel: +1 902 564 1110

Dartmouth

50 Troop Avenue
Unit 300
Dartmouth NS B3B 1Z1
Tel: +1 902 468 2848

woodplc.com



A global leader in engineering, project and technical services to industrial, energy, process and utility markets.



Global footprint

160+

Year history

\$10bn+

Revenue

60,000

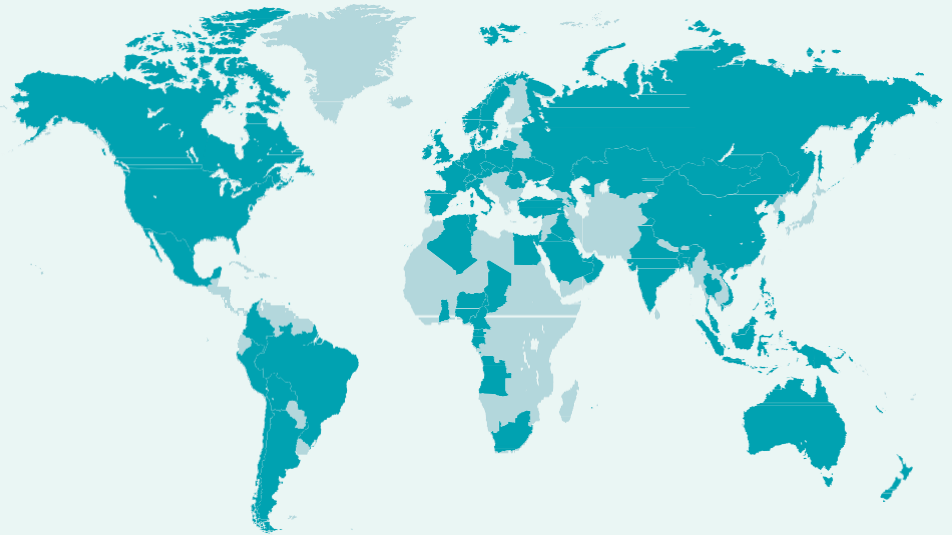
Employees

60+

Countries

400+

Offices



We have a global network of skilled professionals, delivering on our reputation for integrity and assurance.

Sectors and markets we operate in:



Infrastructure



Meeting complex infrastructure demands with cost-effective, flexible and sustainable solutions that increase mobility and enhance connectivity.



Industrial and manufacturing

Offering efficient and innovative lifecycle services to aerospace, automotive, food and beverage, life sciences and pulp and paper industries.



Government

Providing value-driven environmental and engineering solutions for local, regional, national and multi-country government agencies worldwide.



Mining

Delivering project-specific services for mining and minerals projects across a wide range of commodities from concept through closure.



Power

Applying ingenuity and leading technology to provide turnkey solutions for all segments of the power generation market.



Oil and gas

Helping major operators, independents, new entrants and nationals get the most from their investments at every stage of the product pipeline.

woodplc.com





Woods Engineering Inc
Cell (902) 293 8593
35 Fraser Drive
H RM NS
BOJ 2LO

COMPANY

Woods Engineering Inc. is a Nova Scotia company with authorization from Engineers Nova Scotia to provide engineering services to the public and is a member of the Consulting Engineers of Nova Scotia. Woods Engineering maintains the requisite Professional Liability Insurance and Commercial General Liability Insurance: meeting the requirements for Standing Offers with Nova Scotia Power and Halifax Department of Transport and Infrastructure.

Primary fields of engineering include: electrical engineering and renewable energy, as well as project management. Clients include: Nova Scotia Power, Manitoba Hydro, Northwest Territories Power Corporation, **ABB** Inc., other consulting firms, as well as commercial ventures and local property managers.

Recent projects include commercial and COMFIT solar photo voltaic projects in Nova Scotia and New Brunswick, and work on more traditional hydro electric stations for Nova Scotia Power Inc. and Manitoba Hydro. Other local work includes a Fire Alarm and Panic Alarm system upgrading for the historic Town of Amhurst Dominion Building (Town Hall) and project management for a 1000 m² Industrial building for **ABB** Inc. in Bridgewater, Nova Scotia.

PRESIDENT

John C. Woods P.En g., Ph.D., FEC

Education

- Ph.D. Mechanical Engineering (Renewable Energy) | 2017
- Master of Science , Electrical Engineering | 1986
- Bachelor of Science, Electrical Engineering | 1983

AFFILIATIONS

- Engineers Nova Scotia
- Engineers and Geoscientists New Brunswick
- Consulting Engineers of Nova Scotia
- Fellow of Engineers Canada FEC (2011)
- Institute of Electrical and Electronic Engineers IEEE
- American Society of Mechanical Engineers ASME
- Canadian Construction Document Committee CCDC-ACEC Representative
- Maritime Energy Association
- Canadian Green Building Council



PV Solar Projects

One of six arrays on each of two Net Zero Energy Buildings in Dartmouth , one with 77 kW and the other with 83 kW of PV solar.
2018



Fire Alarm and Panic Alarm Systems

Fire Alarm and Panic Alarm systems for the Historic Dominion Building which serves as the Town Hall in Amhurst , Nova Scotia.
2018

ABB Turbocharging Plant

Project Management for 1000 m² new purpose-built facility in Bridgewater to replace ABB's smaller and out of date Lunenburg plant. Project delivered on time and in budget. 2018



Manitoba Hydro Kelsey Airport

Lead electrical engineer for complete replacement of medium intensity runway lighting, including **LED** runway and apron lighting .
2017

EXAMPLE PROJECTS : WOODS Engineering Inc.



WSP in Atlantic Canada

Our WSP Atlantic Team and approach gives our clients peace of mind that they will be taken care of from project start to finish. We are dedicated to the success of our local communities supported by our extensive national and international resources. Our staff are technical experts and strategic advisors including engineers, technicians, scientists, architects, planners, surveyors, and environmental specialists, as well as other design program and construction management professionals.

PLANNING, LANDSCAPE ARCHITECTURE & URBAN DESIGN

- Municipal Planning
- Land Development and Approvals
- Active Transportation
- Urban Redevelopment
- Sustainability
- Planning Site Assessment
- Rendering Services
- Recreation Assessments
- Community Engagement

GEOMATICS

- Location Certificates (Real Property Reports)
- Municipal Land Surveying
- Construction Survey
- Oil and Gas Survey
- Pipeline Projects
- Integrity Surveys
- GIS and Remote Sensing
- 3-D Laser Scanning

ENVIRONMENT & GEOTECH

- Natural Sciences, Biological Surveys and Monitoring
- Environmental Permitting and Planning
- Environmental Impact Assessments
- Environmental Site Assessments (Phase 1,2,3), Remediation, Risk Management and Site Closure
- Hydrogeology and Water Supply Assessments
- Hazardous Materials Assessment and Management
- Waste Audits, Management, Landfill Monitoring
- Geotechnical Investigations, Inspections and Materials Testing
- Retaining Wall Design, Slope Stability Assessments
- Asphalt and Concrete Pavement Design and Assessment

BUILDINGS

- Engineering
 - Mechanical
 - Fire Protection
 - Electrical
 - Civil
 - Structural
 - Infrastructure
- Sustainability (LEED, Green Globes, WELL, Fitwel)
 - Energy Modelling
 - Building Commissioning (new/existing)
 - Energy Auditing

BUILDING SCIENCES

- New Construction
 - Façade Engineering
 - Roofing and Waterproofing
 - Sustainability Design
 - Enclosure Engineering
- Existing Buildings
 - Building Condition Assessments, Reserve Fund Studies
 - Evaluation, Field Testing and Diagnostics
 - Remedial Design and Tender
 - Construction Review and Contact Administration





TELECOMMUNICATIONS

Tower Structural Analysis and Design
 Tower Inspection (Pre and Post Work)
 Tower Inspection
 (Regular Maintenance to S37)
 Site Development Plan
 Antenna Mount/Array Design
 Reinforcement Design
 Rooftop Installation Design
 Record Drawings and As-builts

TRANSPORTATION

Site Access Review
 Site Circulation and Parking Studies
 Traffic Engineering
 and Traffic Impact Studies
 Traffic Signal Design
 Transportation Planning
 Roads and Highways
 Transit and Rail
 Bridges and Civil Engineering Structures
 Road Safety

MUNICIPAL INFRASTRUCTURE

Residential and Commercial
 Land Development
 Drinking Water Transmission,
 Distribution, Pumping and Storage
 Wastewater Collections, Treatment,
 Re-use and Disposal
 Water Resources
 Bridges, Tunnels and Culverts
 Community Energy
 and District Energy Plans
 Climate Adaptation and Resiliency
 Infrastructure Management Planning
 Construction Administration
 and Inspection

PROJECT MANAGEMENT

Advisory
 – Strategic, Project or Program
 Development Analysis and Advice
 – Impact and Cost-benefit Assessments
 Project Management
 – Project Planning
 – Stakeholder Engagement
 – Procurement and Contract Management
 – Cost Control
 – Design Management
 – Risk Management
 – Construction Monitoring
 – Commissioning and Closeout

ASSET MANAGEMENT

Strategic Asset Management
 – ISO 55000 Assessments
 – Asset Management Policy and Strategy
 – Asset Management Plans
 – P3 Advisory Services
 – Asset Valuation
 – Asset Performance Measures
 and Assessment
 – Network Management/Outsourced
 AM Office
 – Financial Planning
 – Infrastructure Financial Modelling
 – Levels of Service Definition
 Specialist Services
 – Inventory Data Collection
 – Condition Assessments
 – Performance Modelling
 – Cross Asset Optimization
 – Project Prioritization
 – Infrastructure Risk + Resiliency
 – Climate Change
 Asset Management Education
 and Training



Atlantic Region

www.blackandmcdonald.com

Nova Scotia (902) 468-3101

New Brunswick (506) 547-8070

Newfoundland (709) 747-1406

Black&McDonald

Multi-Trade Construction and Services



**A Tradition of Quality
.....Since 1921**



FACULTY OF ENGINEERING



Training world class engineers in Nova Scotia

Engineering programs and co-op options in:

- Chemical
- Civil
- Electrical
- Environmental
- Industrial
- Mechanical
- Mineral Resources

Master and PhD level graduate degrees are offered in each discipline, plus: Engineering Mathematics and Internetworking.

dal.ca/engineering | 902.494.8431



CONSULTING ENGINEERS FNV SC TI

... 613, St. 'M', Half, N v Sc t , C 3]2 7 Tl h 9 2 611325 F c 1 9 2 611321

WWW.CONS