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### **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.

> Bruce Latimer, P. Eng. George Urquhart, P. Eng. Cathy MacDonald Jason MacMillan, C.E.T. Jamieson MacIsaac, C.E.T.

Kelsey DeCoste, E.I.T. Emily Gillis

Trevor Rogers

- Principal

- Senior Project Engineer - Senior Project Engineer Port Hastings - Senior Draftsperson - Technologist

- Surveying/Technologist - Junior Engineer

- Civil Technologist - Geomatic Technologist Tracadie Port Hastings

Port Hawkesbury Port Hawkesbury

Judique Havre Boucher Tracadie

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 1<sup>st</sup> 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 Po1t 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 servicedresidential 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./AECON 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 Ketic 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, Whycocomagh, Afton, Eskasoni and Port Hood Wastewater Treatment Plant Rehabilitation.
- Project Management, Potlotek First Nation Elementary & Junior High School,
  \$2.9 million.
- Village of Whycocomagh 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.

