T. DANIEL TWEEL

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January 8, 2021

"HAND DELIVERED"

Island Regulatory & Appeals Commission
ATTN: Mr. Philip Rafuse, Appeals Administrator
134 Kent Street
Charlottetown, PE C1A 1N2

Dear Mr. Rafuse:

RE: Hill-Bay Holdings v. City of Charlottetown
Our File No. 7222-1/TDT

In connection with the foregoing we enclose the following:

1. Copy of an emailed letter and report dated December 30, 2019 from Coles Associates to David Jackson - found at tab 38, Page 227 of the Record filed by the City of Charlottetown;

2. CV of Mr. Nazmi Lawen, our intended expert witness;

3. Copy of a letter of December 31, 2020 from Mr. Lawen to Paula Campbell of our office providing a brief synopsis of Mr. Lawen's past experience and qualifications in the civil engineering field;

4. A letter from Mr. Lawen dated January 6th, 2021, confirming his duty to the Commission.

We will provide the enclosures to the Commission electronically early next week.

We trust this to be satisfactory.

Yours very truly,

P. Campbell

T. Daniel Tweel
TDT/pmc

Encl.
cc. Cox & Palmer, attention David W. Hooley, Q.C.
cc. Client

COLES
Architecture + Engineering + Project Management

85 Fitzroy Street
PO Box 695
Charlottetown, PE
C1A 1R6

Tel (902) 368-2300
Fax (902) 566-3768
www.colesassociates.com
nlawen@colesassociates.com

December 30, 2019

Via Email: smidjackson@gmail.com

Attention: Mr. David Jackson

....
...
...

Dear Mr. Jackson:

Re: Traffic Review - 68 Brackley Point Road - Proposed 14 Unit Townhouses

Introduction

Coles Associates Ltd. was retained by Mr. David Jackson to provide services to carry out an independent Traffic Review and to offer an opinion on the effects of traffic generated by the proposed development on Brackley Point Road.

It is our understanding that the proposed development will consist of 14 single residential townhouses with a mix of 2 and 3 bedrooms. The proposed development will be constructed on a property located on Parcel # 396713 located along the east side at Civic Address 68 Brackley Point Road in Charlottetown.

This letter report presents a brief analysis undertaken in support of this development and to address specific traffic concerns raised by others.

Further to this request, a site visit to the property and adjacent roads was carried out on Thursday, 19 December 2019 to have a better understanding of this site, physical attributes, and traffic conditions on Brackley Point Road near the proposed development.

Figure 1 below is a preliminary plan, drawing no 18239-3, dated October 31, 2019, was prepared by ISE Land Surveying & Engineering. This plan shows the legal boundaries of the property as well as the layout of the proposed townhouses, parking and driveway.

30 December 2019
Via Email: smidjackson@gmail.com
Attention: Mr. David Jackson
Re: Traffic Review - 68 Brackley Point Rod

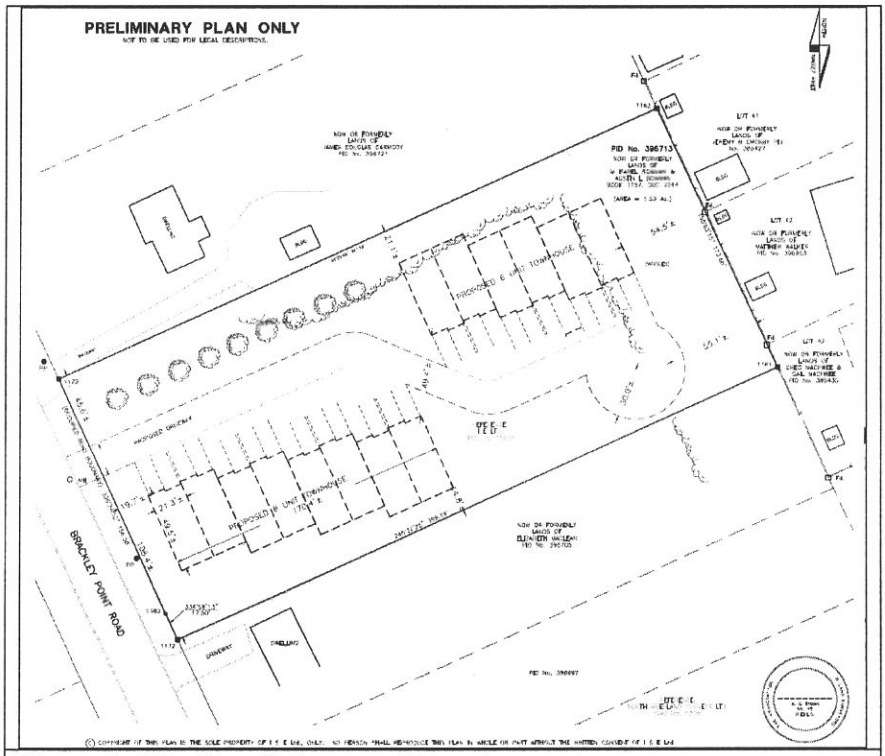


Figure 1: Site Plan & Proposed Development

Existing Traffic Volume

As a part of this review, we carried out a traffic count on Brackley Point Road adjacent to the subject property. The traffic data collection was conduct to provide the basis for the traffic analysis.

Traffic counts were conducted on Monday, December 23, 2019 for the AM peak period (7:00 AM – 9:00 AM) and Noon peak period (12:30 PM – 1:30 PM) by our staff. The breakdown of the traffic counts are summarized in below table:

Location	Direction	Morning Peak	Noon Peak
68 Brackley Point Rd	Northbound	400	350
68 Brackley Point Rd	Southbound	230	360
Total		**630**	**710**

It should be noted that there are variation patterns of the traffic volume on the road in question including seasonal variations, weekday variations and the hourly variations. The traffic count carried on 23 December will result in higher count because of the increased traffic during the

holidays. However, because of the timing and scope of this review, the collected data will be used even though it is higher than regular traffic volume on a typical weekday.

Based on the higher traffic count recorded during the count, peak hour traffic volume was applied to obtain the average daily traffic (ADT) which was estimated to be in the order of 4,800. Brackley Point Road is designated by the City as Collector Road with a maximum speed near the subjected property posted at 50 KPH.

Traffic Generated by Proposed Development

As mentioned above, the proposed Development consists of 14 residential townhouses.

This traffic impact review will follow the latest revision of the Institute of Transportation Engineer's Manual and other applicable Standards. The methodology will comprise of assessing existing conditions, quantifying traffic generated by the proposed development, and analyzing impact of post-development on traffic conditions.

The ITE Manual designates an average trip generation rate for a townhouse of 0.53 trips/unit during the morning peak hour and 0.64 trips/unit during the evening peak hour. However, these average rates are based on observations from larger townhouse developments (average size > 100 units). A review of the empirical data plots contained in the manual suggests that trip generation rates may be slightly higher for smaller townhouses development similar to those planned for the proposed development. Consequently, trip generation rates of 0.6 trips/unit and 0.7 trips/units were conservatively assumed for the morning and evening peak hours, respectively. The following table shows the expected split of traffic entering and leaving the development during these peak periods based on the above rates.

Time Period	Total Trips	Entering	Leaving
Morning Peak Hour	**10**	1.5	8.5
Evening Peak Hour	**13**	9.8	3.1

Impact on Adjacent Road Network

Based on our examination of recent traffic flows recorded Brackley Point Road, the breakdown of all generated trips by the proposed development are expected to be broken down between the development and points north and south based on the current average flow percentages of 55% Northbound and 45% Southbound.

The following table shows how the new trips are expected to be distributed between the various destinations (note that numbers have been rounded off).

	Direction	Morning Peak	Evening Peak
Northbound Brackley Point Road	Entering	1	5
	Leaving	4	2
Southbound Brackley Point Road	Entering	1	4
	Leaving	4	2
Total		**10**	**13**

The Institute of Transportation Engineers (ITE) Recommended Practice for Traffic Impact Studies for Site Development suggests that a traffic impact assessment be undertaken for any development expected to generate more than 100 additional trips during the peak hour. This is considered to be the threshold beyond which the level of service of an existing road may be impacted. Since the proposed development is only expected to generate up to 13 new trips during the evening peak hour, the resulting impact on existing delay and Level of Service is very low and will not be significant.

In general, truck traffic was found to be very low in both directions on Brackley Point Road and was recorded to be on average in the order of 1% of the total traffic volume.

There was no pedestrian traffic during the traffic count.

Current Operations

Level of Service (LOS) is a qualitative measure of how a traffic facility is operating and based on the calculated average vehicle delay in seconds per vehicle. LOS A to LOS F are considered with LOS A representing a delay of less than 10.0 seconds per vehicle and LOS F representing a delay of greater than 50.0 seconds per vehicle. Brackley Point Road appears to be operating near the top LOS with no significant delays observed.

Vehicles entering and exiting existing driveways and future development may experience a short delay during traffic peak hours. This is more to left turning movement and to a lesser extent right turning movement from driveways. However, it should be noted that the delays caused by the left turning movements are not significant (< 16 sec) and it is less than average for a collector road similar to Brackley Point Road.

At this point in time, the additional traffic generated by the development will have no impact on Level of Service on Brackley Point Road.

Driveways

There are currently a total of 21 existing driveways between Duncan Heights and Cedar Avenue. They are all residential driveways with 10 along the east side and 11 along the west side.

The safety impacts of driveways on urban roadways are of interest to public safety. Different driveway types perform differently. The effects of driveways have been investigated by many past

studies and the results showed that commercial driveway has a largest impact on the roadway safety and residential driveway has the lowest safety impacts.

It is our understanding that the Charlottetown Police and Public Works Department have reviewed earlier submissions of the subject development and it was recommended to move the driveway further north to improve sight distances. The latest site plan submission (Figure 1) by the developer incorporated this change and the driveway is currently located as far north as the site conditions allow without impacting the existing trees along the north property line. Based on this recommendation, the present traffic volume on Brackley Point Road, future traffic generated by the development and other factors, it is our professional opinion that the proposed location of the driveway will be adequate for this proposed development.

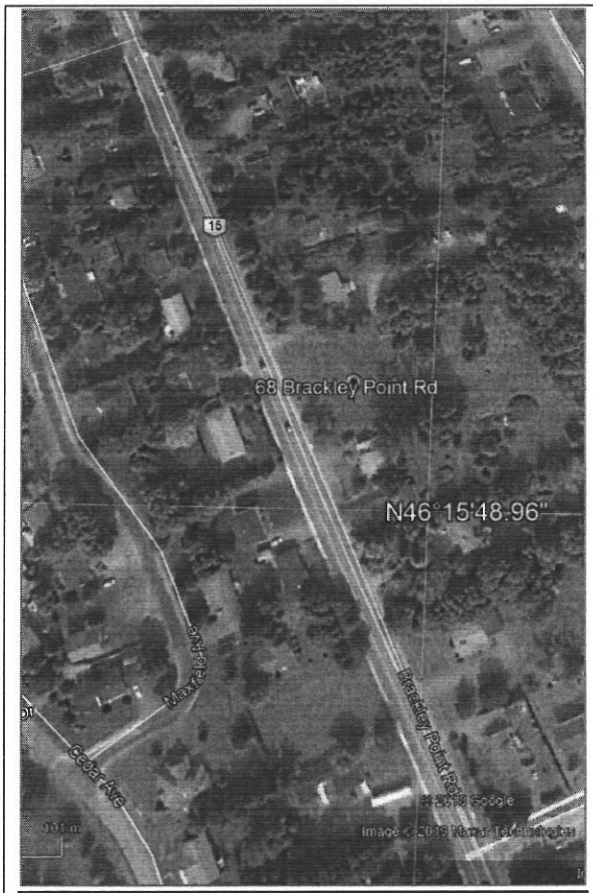


Figure 2: Aerial view showing subject property and existing residential driveways

30 December 2019
Via Email: smidjackson@gmail.com
Attention: Mr. David Jackson
Re: Traffic Review - 68 Brackley Point Rod

Summary

In summary, our review concludes that the additional traffic expected to be generated by the proposed development will not have a noticeable impact on traffic operations on Brackley Point Road.

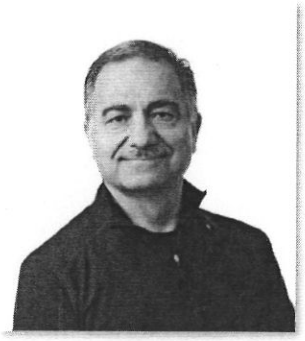
We hope that this report provides you with all the required information which was requested.

Should you have any questions or require further explanation regarding the attached report, please do not hesitate to call the undersigned at your convenience.

Yours very truly,

Coles Associates Ltd.
Per: Nazmi Lawen, FEC, M.A.Sc., P.Eng., PE
/nl

Cc: Mr. Greg Morrison, City of Charlottetown (Via Email: gmorrison@charlottetown.ca)
Mr. Brad MacPherson, (Via Email: brad.macpherson@premieremortgage.ca)



Nazmi Lawen, FEC, M.A.Sc., P.Eng., PE, IntPEI

Principal
Director of Civil & Structural Engineering

Education:
Bachelor of Applied Sciences, Civil Engineering - University of Ottawa, 1982
Master of Applied Sciences, Civil Engineering - University of Ottawa, 1984

Professional Memberships:
Association of Professional Engineers of Prince Edward Island;
Professional Engineers and Geoscientists of Newfoundland and Labrador;
Association of Professional Engineers of Nova Scotia;
Association of Professional Engineers and Geoscientists of New Brunswick;
Professional Engineers Ontario;
The Association of Professional Engineers, Geologists and Geophysicists of Alberta;
The Association of Professional Engineers, Geologists and Geoscientists of British Columbia;
Professional Engineers State of Maine;

American Concrete Institute (Atlantic Chapter);
Canadian Society of Civil Engineers;
Canadian Institute of Steel Construction;
Transportation Association of Canada (TAC);
Canadian Environmental Technology Advancement Centre;
TAC Structures Standing Subcommittee – Member;

Engineers PEI – Past President
Engineers Canada – Past Board Director
Greater Charlottetown Chamber of Commerce – Past Board Director
Engineers Canada Qualifications Board; & Bridging Government Committee

Software Experience:
Lotus SmartSuite;
Microsoft Office Suite;
Autocad Civil 3D 2020;
Various Civil Engineering Design software.

Professional Experience:

1988-	Coles Associates Ltd., Director of Civil & Structural Engineering
1986-87:	Stone and Webster Canada Ltd., Toronto, Ontario Design Engineer
1984-86:	University of Ottawa/National Research Council of Canada, Research Associate

Publications:

- "Construction Practices that Protect Fish Resources", Highways and the Environment, Transportation Association of Canada
- "Correction of Pressure Oscillation in Pneumatic Tubing and its Application to a Building Model", Wind Engineering Journal.

Professional Development:

- "Advancing Decision Making in a Changing Climate", Atlantic Climate Adaptation Solutions Association, St John's, NL,
- "Water & Sewer Infrastructure Systems: Challenges and Solutions" Seminar, Institute for Research in Construction IRC/NRCC, Halifax.
- "Public Private Partnerships: Global and Local" Conference, Canadian Council for Public-Private Partnerships, C2P3, Toronto.
- "Public Private Partnerships: Strategies for Success" Seminar, NECI, Halifax.
- "Privatization and Outsourcing of Maintenance Activities" Seminar, TAC, Montreal.
- "Storm Water and Wastewater Management: SWWM Software" Seminar, Halifax.
- "Highways and the Environment": Symposium, TAC, Charlottetown.
- "Highway Upgrading: Design and Construction", EPIC / Canada Society for Civil Engineer, Fredericton.
- "Precast Prestressed Concrete Girders for Highway Structures: Design and Application" Seminar, Strescon, Halifax.
- Participation in several TAC (Transportation Association of Canada) conferences and seminars.
- Participation in dozens of engineering seminars and industry workshops.

1988 to Present: Coles Associates Ltd.
Director Civil & Structural Engineering

Responsibilities include planning, coordination, design, specification, cost estimating, tendering, construction administration and project management of new construction and renovation of existing facilities. The following list below is a sample of some of the projects:

International Consulting Experience:

- Project Engineer for turnkey design and construction of an agricultural storage facility in Poland - 1996.
- Civil & Structural engineering consultant on McCain Processing Plant, Balcarce, Argentina – 1998
- Civil & Structural engineering consultant on McCain Processing Plant, China, 2003-2005
- Civil & Structural engineering consultant on McCain Processing Plant, India, 2004-2006

Nazmi Lawen
FEC, M.A.Sc., P.Eng., P.E.
Principal
Director of Civil
& Structural Engineering

Planning Studies

- Town of Stratford Wastewater Master Plan
- Inland Flood Risk Mapping and Modeling Study (PEI)
- Charlottetown Eastern Gateway and Waterfront Master Plan
- Charlottetown Area Parking Review and Assessment
- Greater Charlottetown Area Water Supply Study
- University of PEI Water & Fire Services Study
- Charlottetown Parkades Review
- Ag Can Experimental Farm Concept Plan, Charlottetown, PEI
- Charlottetown Waterfront Strategy and Enhancement Study
- BIA Downtown Summerside
- Charlottetown Yacht Club Wave/Wind Protection Planning
- Waterfront Events Centre Feasibility Study, Charlottetown
- Stratford Marina Concept Plan and Feasibility Study
- Stratford Waterfront Hotel & Convention Centre Concept
- 360 Networks Site Assessments – NS and Quebec
- CP Hotel Expansion Concept Plan & Parking Assessment, Charlottetown
- Underground Water Storage Reservoirs Review and Assessment, Charlottetown.
- Traffic Impact Study for the Home Depot / Walmart Development (in association with Fiander Good).
- Funding Proposals for 20 Harbour Authorities in PEI. Preliminary Concepts for Wharf Construction & Cost Estimates;
- Atlantic Provinces Surface Freight Transportation Study. Review and recommendations of transportation system in Atlantic Canada, covering all modes of transportation (road, rail, air and marine) in the region. (in association with Fiander Good)

Transportation:

- Maypoint Double Lane Roundabout, Approaches and related infrastructures, Charlottetown, PEI
- Clinton Subdivision Including Roads and Site Services, Clinton, PEI.
- Fitzroy Parkade 2020 Addition
- Georgetown Rd Widening for Active Transportation, Stratford
- Keppoch Road Widening & Multi-Purpose Trail, Stratford
- Parks Canada – Main Entrances to several park within PEI National Parks
- University Avenue Widening and Associated Work including Roundabout at UPEI Entrance
- Charlottetown Bypass Highway Widening and Ramps Upgrade (between Rt #2 and Brackley Point Road), Charlottetown.
- University of Prince Edward Island Ring Road Reconstruction
- Kensington Rd/Woodward Drive Intersection Signalization and Reconstruction
- University Avenue Upgrades at Peter Pan Intersection Signalization and Construction
- CBC Charlottetown Parking Lot Reconstruction, Charlottetown
- Gower Street Storm Sewer and Sidewalk
- Victoria Park paving and extension to sanitary sewers
- Sherwood Rd/Highway 2 Intersection Traffic Study and Highway Alignment
- Mt Edward Rd/UPEI Entrance Traffic Analysis and Impact Study
- Traffic Analysis and Study for numerous intersections within the City of Charlottetown including: Kensington Rd and Exhibition Drive, Queen and Water Street; Queens Arms Intersection; TCH and Thompson Drive; North River Rd @ Home Depot Intersection; Kensington Road @ Walker Drive; St Peters Road @ Longworth Ave.; University Ave @ Spencer Dr, Charlottetown Mall, Enman Cresc, Browns Court, Belvedere Ave, Nassau St.
- North River Rd/Beach Grove Intersection Reconstruction & Signalization
- Beach Grove Road Construction & Drainage Upgrade
- Trip Generation Study, APM Development Stratford

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Principal
Director of Civil
& Structural Engineering

- Trip Generation Study and Traffic Impact for several multi-unit residential development including 99 Unit on Kensington Road (Chtown), 60 Unit Development on Stratford Road; 24 Units on Maple St (Chtown); Petro Canada on Granville St.(Sside);;
- Traffic Impact Study regarding 120 residential unit development on Roy Boates Drive and Lane Configuration at Granville St Intersection (Sside).
- RCMP Parking Lot & Access Road Restoration
- Access Road to Offloading Terminal, Maritime Electric Co. Ltd
- Fredericton-Moncton Highway, Construction Quantity take off
- Agriculture Canada Research Station, Access Road & Parking Lot
- University Ave/Browns Court Intersection Signalization & Reconstruction
- St Peters/Mt Edward Rd. Intersection Signalization & Reconstruction
- Trans Canada Highway Widening & Reconstruction at North River Causeway
- Souris Food Park Roads and Infrastructure
- North River Road/Trans Canada Highway Intersection
- University Ave/Nassau St. Intersection Signalization
- Western Approach Service Tunnel, Confederation Bridge, PEI

Infrastructure:

- PEI Dept. of Transportation & Infrastructure Renewal - Queens County Highway Depot.
- Charlottetown Water & Sewer Utility - Pollution Control Plant Digesters Upgrades
- Charlottetown Water & Sewer Utility - $18mm Milton Wellfield Development and Associated Work.
- Town of Stratford Fullerton's Creek Wellfield Development and Associated Work
- University of Prince Edward Island Watermain Connection to High pressure Municipal System
- Government of Canada Harrington Farms Greenhouse Site Services
- Underground Pedway and Site Services, Confederation Centre of the Arts and Confederation Court Mall
- Hurds Point Campground Roads, Water & Wastewater Systems
- West Royalty Water and Sewer Systems Expansion
- UPEI Site Services Master Plan
- Confederation Landing Park Repairs and Restoration
- New well field and water system, Balcarce, Argentina
- Love Subdivision Roads and Site Services, Charlottetown
- UPEI Underground Service Tunnel Upgrade
- McCain Food Research Facility Site Services, NB
- New 8" water entrance for the Dial Building at NB Tel, Saint John
- New pump house and 10" fire water loop, Hub Meat Packers, Moncton
- U-Hall Site Services, Charlottetown
- Upgrading of water system to residences/businesses on the TCH & replacement of storm sewer between North River Intersection and North River Causeway
- Storm water System & sidewalk upgrade, Beach Grove Road, Charlottetown
- Water and sewer rehabilitation & upgrade work at the St. Peters Rd/Mt. Edward Rd. intersection
- North River Lagoon Upgrades
- New process waste water collection systems, and the marine outfall at Souris Food Park
- Hunter River Sewer System and Wastewater Treatment Plant

District Energy:

- Charlottetown District Heat Expansion Richmond Street, Phase II.
- Mason St. Replacement, Trigen Energy Corporation, Boston, Ma.
- Charlottetown District Heat Expansion Phase II.
- New District Energy System for Trentonworks in Trenton, N.S.
- Charlottetown District Heat Expansion Phase I.
- District Heat, PE Home-Eric Found Centre ;

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FEC, M.A.Sc., P.Eng., P.E.
Principal
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- Halifax District Energy Study, Halifax, Nova Scotia;
- Storage Tanks
- Upgrade and expansion of the storage tank farm at Rothsay, Truro, NS.
- Code, API 653, environmental and geotechnical assessments of 6 tanks storage facility, Halifax, NS.
- Code, API 653, environmental and geotechnical assessments of 8 tanks storage facility, Montreal.
- New Fuel & Oil storage tanks, McCain Food, Carleton, PEI.
- 140,000 USG AST, new storage tank, piping, foundation and containment system, Florenceville, NB.
- 475,000 USG AST, new water storage tank, piping, foundation and containment system, Coaldale, Alberta.
- Numerous installation of underground and aboveground steel tanks for fuel and water storage designed to meet the environmental standards and applicable codes and regulations.

Residential

- Gower Street Development, Building A, Charlottetown, PE; 32 Unit
- Gower Street Development, Building B, Charlottetown, PE; 28 Unit
- Chestnut Building, Passmore and Chestnut Streets, Charlottetown, PE; 27 Unit
- Passmore Building, Passmore and Chestnut Streets, Charlottetown PE; 18 Unit
- Prince and Grafton Building, Prince Street, Charlottetown, PE; 32 Unit
- Transitional Housing Complex, Charlottetown, PE; 20 Unit
- Creekside 34 and 32 Units Apartment Buildings, Charlottetown
- Richmond Street 22 Unit Condominiums, Charlottetown
- Roseport Condominiums, Charlottetown
- APM 36 Units Spring Park Apartment Building, Charlottetown
- Affordable Housing 23 Unit Apartment Building Charlottetown
- Dedham 60 Unit Apartment Building, Mass
- Rosegate 48 Unit Apartment Building, Mass
- Maypoint Apartments Complex, Charlottetown
- Pitre 6 Unit Family Housing, Summerside
- Grafton St. Housing, Charlottetown
- Various Residences & Housing Projects

Institutional:

- Queen Elizabeth Hospital Renovation(2012 Emergency Care)
- Queen Elizabeth Hospital Expansion (2010 Ambulatory Care Centre)
- Queen Elizabeth Hospital Expansion (2009)
- Hampton Inn Site Services, Dartmouth Crossings
- Marriott Residence Inn Site Services, Moncton
- St Peter's Cathedral New Hall, Charlottetown
- Queen Elizabeth Hospital Expansion (MRI & Lin Accelerator)
- Summerside City Hall, Addition & Renovation;
- Summerside Police Station, Addition & Renovation
- Garden Home Senior Citizen Residence Renovation and Expansion, Charlottetown
- John Sark Memorial School Renovation and Expansion, Lennox Island
- Charlottetown Police Station
- Holland College Renovation, Charlottetown
- Tignish Elementary School
- UPEI Cass Science Building
- Colonel Gray High School Addition and Renovation, Charlottetown
- Western Hospital Addition and Renovation
- Queen Charlotte Junior High School Addition and Renovation
- Community Hospital, O'Leary
- UPEI - AVC Expansion & Renovation
- P.E. Home Heating Plant Addition
- Confederation Centre Wood Chip Boiler

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FEC, M.A.Sc., P.Eng., P.E.
Principal
Director of Civil
& Structural Engineering

- Food Technology Centre, Charlottetown
- Relocatable School Units, PEI
- Moncton Airport U/G Water Reservoir

Processing Plants:

- Acadian Fisheries Lobster Holding & Processing Expansion
- BioCommons Manufacturing Facility, PEI
- Beach Point Fish Processing Plant Infrastructure Upgrade, Mazzetta Co.
- Ocean Choice PEI Live Holding Expansion, Souris
- Aqua Bounty Farms, ERA & IMF Expansion, Fortune
- Island Food Trust Potato Storage Facility, Orwell
- Babineau Sea Foods Plant, Souris
- Shur Gain Plant Addition
- McCain Foods Limited, Coaldale, AL
- Fine Foods Pizza Processing Plant, DeSable
- Canadian Pan Xi Dim Sum Plant,
- Royal Star Seafoods, Tignish
- Green Acres Potato Storage Facility, Phase II & Phase III
- Potato Storage Facility - Poland
- McCain Foods Limited, Carlton, PE
- Water Purification System – Souris
- Leaver Mushroom Plant, Bedeque
- Summerside Seafood Supreme

Office & Commercial:

- PEI Mutual Insurance Co Head Office, Summerside
- Creekside Condominiums Phase I (32 units) and Phase II (33 units)
- Homburg Office Tower, Charlottetown
- ProOil Facilities in Charlottetown and Moncton
- Patterson Terrace Condominiums, Charlottetown
- Kwick Kopy Building Expansion, Charlottetown
- Pownal Parkade Rehabilitation and Retrofit, Charlottetown
- Queens Parkade Concrete Slab Rehabilitation Phase II, Charlottetown
- Parkhill Place Condominiums, Summerside
- First Pro Development – Old Navy & Michaels Retail Shops, Charlottetown
- Delta PE Hotel Underground Parking Garage Concrete Slab Restoration
- Atlantic Tractor & Equipment Facility (CAT Dealership), Charlottetown
- Delta Prince Edward Hotel Windows Replacement
- Summit Medical Centre Addition, Charlottetown
- Seacor Warehouse, Burnside Industrial Park, Dartmouth
- Dept of Fisheries Office, Montague
- ACOA Office Renovation, Charlottetown
- Island Beach Company, Cavendish
- U-Haul Foundation, Charlottetown Facility
- NB Tel Fire Protection Upgrade
- Parks Canada Administration Building, Dalvay
- Hemphill Motors Addition, Summerside
- Pricewaterhouse Cooper Offices, Delta Hotel, Charlottetown
- Summerside Horseman's Club
- Prince County Jail Renovation, Summerside
- Royal Bank New Branch, Charlottetown
- Summerside Beach Resort
- Dynasty Spa Resort, Summerside
- Sherwood Sportsplex Ice Rink Renovation
- Green Gables Post Office, Cavendish
- SCJV Administration Buildings, Borden

Industrial:

- Queen' County Highway Depot, Brackley PE

Nazmi Lawen
FEC, M.A.Sc., P.Eng., P.E.
Principal
Director of Civil
& Structural Engineering

- Wind Turbine Service Lift Certification, Prince Edward Island, Newfoundland, New Brunswick, Ontario, Alberta, British Columbia
- Wind Turbine Foundation Anchors, AWTS
- Stora Paper Mill, Miscellaneous Structural Systems, Port Hawkesbury, NS
- Trigen-Energy from Waste Plant, Renovation
- Maritime Electric Plant, Renovation

Churches:

- Presbyterian Church Addition/Renovation, Summerside
- Saint Dunstan's Basilica Restoration
- Spring Park United Church Renovation
- St. Augustine's Church, South Rustico Renovation
- Our Lady of Assumption Church
- Church of Christ, Charlottetown
- Knights of Columbus Church, Moncton
- Sisters of Precious Blood Monastery, Charlottetown
- Ss Peter and Paul Orthodox Church, Charlottetown

Cultural & Recreational

- Victoria Park Recreation Area
- Canada 1991 Winter Games Fieldhouse Facility
- Cavendish Visitors Information Centre
- Club House - Crowbush Golf Course

Bridges & Wharfs:

- PEI Bridge Inspection Program - 36 Bridges inspected and certified in accordance with OSIM on a bi-annual basis since 2009
- Stanley Bridge Harbour, Rubble Mound Breakwater
- Georgetown Harbour, Wharf Headblock Reconstruction
- North Lake Harbour, Wharf 403 and 404 Reconstruction
- Naufrage Harbour, Wharf 304 Reconstruction
- Souris Harbour Breakwater and Wharf Assessment
- Graham Pond Harbour, Wharf 407 Reconstruction
- Tignish harbor Breakwater 301 Reconstruction
- Tignish Harbour Wharf 408T Reconstruction
- Stanley Bridge Wharf and Breakwater Concepts
- Red Head Harbour Wharf 402 & 403 Reconstruction
- Launching Pond Wharf 402 & Slip 401 Reconstruction
- North Rustico Slip 502 Reconstruction (09)
- North Rustico South Wharf 407 Reconstruction (09)
- Montague Bridge Replacement
- Maritime Electric Pumphouse Wharf
- North River Road Box Culvert Reconstruction
- Wrights Creek Pedestrian Bridge Concept Design
- Ellen's Creek Bridge Repairs & Shore Protection
- Cardigan Wharf Construction
- Lower Montague Wharf Reconstruction
- St Peters Bay Pedestrian Bridge
- North Lake Harbour, Boat Slip Reconstruction
- Transport Canada Marine Terminal and Coast Guard Wharfs & Building Structures Assessment
- Launching Pond Wharf Construction
- North Lake Harbour, Wharf Construction
- Launching Pond Bridge Evaluation and Condition Assessment
- Red Head Harbour South Wharf Construction Phase I and Phase II
- Red Head Harbour North Wharf Breakwater
- North Lake Hydraulic Slip
- French River Wharf Construction
- Higgin's Wharf Upgrade
- Red Head Harbour, Timber Wharf Reconstruction, (Mussel Boats)

- Alberton Harbour Breakwater (Rubble Mound Structure and Floating System)
- Naufrage Wharf Construction (2001)
- Prince County Hospital Overpass
- Coleman Bridge
- Bonshaw Bridge
- North River Bridge
- Hillsborough River Bridge Conceptual Design
- Kensington Grain Elevator Ramp
- Naufrage Harbour Wharf Reconstruction (1990)
- Pinnette Wharf Failure Analysis and Forensic Investigation
- Morel River Bridge Condition Assessment
- Montague Bridge Deck Repairs

Heritage:
- PEI Province House Foundation Restoration
- Kays Building, Brick Envelope & Restoration
- Saint Dunstan's Basilica Renovation
- Charlottetown City Hall Renovation
- Farmers Bank Museum Restoration
- CN Station Assessment Charlottetown

Forensic Investigation:
Directed over 1000 Investigative Engineering projects including Failure Analysis, Water Infiltration, Facility Condition Audit, Code & Standards compliance, Personal Injury Claims, Infrastructure Failure, Marine Structure, Environmental Damages, etc.

A typical investigation assignment would involve the following: compile all facts, review all design documents, visit site to collect necessary information, field observations & documentation, photographs, interview client & owners, carry out analysis, perform inspection & material testing, obtain & review weather reports, review compliance against applicable building codes & current design standards, determine cause of failure, analysis and recommendations, repair recommendations, prepare draft & final reports.

1986 - 1987: Stone and Webster Canada Ltd., Toronto, Ontario
Structural Design Engineer
Design of supporting structures for heavy steam piping systems in nuclear power plants. Static and dynamic analysis of structures using Strudl and Finite Element Analysis Software.

COLES
Architecture + Engineering + Project Management

85 Fitzroy Street
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Tel (902) 368-2300
Fax (902) 566-3768
www.colesassociates.com
Email: info@colesassociates.com

31 December 2020

Via Email: paula@tweellaw.ca

T. Daniel Tweel Law Office & 102458 P.E.I. Inc.
105 Kent Street
PO Box 3160
Charlottetown, PE
C1A 7N9

Attention: Ms Paula Campbell

Dear Ms Campbell:

Re: Brackley Point Road Development - Appeal

Please find below a brief synopsis and select past experience and qualifications in the civil engineering field.

Nazmi Lawen, FEC, M.A.Sc., P.Eng., PE, IntPE
Principal, Director of civil & structural engineering
Coles Associates Ltd

Nazmi Lawen graduated with a Bachelor and a Master of Applied Science degrees in civil engineering from the University of Ottawa. He worked in Ontario for a few years in the same field before starting with Coles Associates as a design engineer. Duties were primarily focused on the design of multi-unit residential, commercial, institutional, recreational, municipal, transportation, bridges, marine work, etc. He was involved in a wide ranging projects from as small as a single family residence to as large as the multimillion dollar project for McCain Food Plant in Borden, the Souris Food Park Civil and Infrastructure Development, and hundreds of other civil projects.

Over the 32 years with the multi-disciplinary Architectural and Engineering firm of Coles Associates, Nazmi developed skills in all aspects of the Civil Engineering field, including municipal, infrastructure, structural, bridges, marine construction, roadways, transportation, forensic engineering. He is responsible for all aspects of civil and structural engineering at Coles. The duties include planning, design, supervision, coordination of all civil and infrastructure projects. This may involve early stage project planning, concept, budgets, then preliminary design, review with regulators, manage services of sub-consultants including topographic & legal surveys, geotechnical engineering, environmental specialists, and other as required. Developing design and tender documents including technical specifications, cost estimates, tender call, review submissions, making recommendations, preparation of contractual documents, and project management during construction phase.

Nazmi served as one of the engineering team to prepare a comprehensive traffic impact study for First Professional Shopping Centers for the WalMart / Home Depot site which also included Old Navy, Michaels, Future Shop Plaza, and old Canadian Tire Stores. Subsequently he provided engineering services for the design of all site infrastructures includes roads, parking lots, traffic signals (Thompson Drive, North River Road and University Ave), traffic controls and site services.

Nazmi was the principal engineer retained by the City of Charlottetown to provide transportation engineering services as it relates to providing conceptual designs and recommendations to improve the old Peter Pan Intersection. The second phase of this project involved the planning and design of the current intersections as well as upgrades to 4 approaches and all site services.
He was subsequently retained by the City of Charlottetown to prepare conceptual design and detailed engineering plans for upgrading University Avenue between Peter Pan Intersection and Belvedere Avenue. This involved comprehensive traffic counts and traffic analysis as required to upgrading the signalized intersections, review geometric alignments of the existing and proposed widening of the Avenue from 2 lanes to 4 lanes plus dedicated left lanes at the 5 signalized intersections including pedestrian crossing at Enman Crescent.

The University Avenue Widening Project was then expanded to include upgrades to the UPEI Entrance at the Charlottetown Farmers Market which was a T intersection causing significant delays with safety concerns to vehicles and pedestrians. This supplementary work required traffic impact assessment, traffic count and analysis, safety assessment, impact on pedestrian traffic, geometric alignment, and site infrastructures. The current Round About was selected as the preferred design which also included a signalized pedestrian traffic at the crossing with the Confederation Trail.

While construction was underway at the new roundabout, UPEI requested a compressive review of the geometric alignment of the Ring Road around the campus, a review of access to the numerous parking lots, assessment of pedestrian crossings, minimize vehicle/pedestrian conflicts, and ensure compliance with current Transportation Design Guidelines and Manuals. Nazmi served as lead engineer to prepare design and tender documents for upgrades and improvements to the Ring Road.

UPEI requested an assessment of all their parking lots with a view to improve vehicles and pedestrians traffic, to maximize parking spaces, address any safety issues, drainage, access control and gates, and review of site infrastructures. The study requires traffic data collection and analysis, evaluation of geometric configuration of each lot, grades, sidewalks, crossings, and other issues. Nazmi was asked to implement the recommendations and upgrades several of the Parking Lots on Campus.

The PEI Provincial Department of Transportation retained Nazmi to provide planning and engineering design services to upgrades the Charlottetown Bypass between the intersection at Route 2 and the intersection at Brackley Point Road. This project involved a comprehensive review of the bypass geometric alignments, widening the highway from 2 lanes to 4 lanes, addition of slip lanes, concrete medians, upgrades to intersections, and site services.

Over the past 30 years, The City of Charlottetown retained Nazmi to provide engineering services to provide assessment and recommendations to the majority of signalized and un-signalized intersections within the city with the objectives to improve vehicular and pedestrian traffic, safety issues, and to ensure that these intersections are complaint with current Traffic Engineering Standards. A sample of these assignments are included in the resume. This resulted in the preparation and tendering of upgrades to numerous intersections within the City – a list of select few are included in the Resume.

In association with the Downtown Business Association, CADC and the City of Charlottetown, Nazmi was the lead engineer on a comprehensive review of the downtown Charlottetown parking facilities including parkades, street parking, lot parking, etc. A comprehensive report complete was prepared with recommendations.

Nazmi was retained by numerous private developers to provided traffic and transportation services including traffic impact studies for new development or expansion to existing developments. Most recently, he prepared traffic impact study for the 100 unit residential complex at Kensington Road near Exhibition Drive.

Two years ago, Parks Canada required upgrades to the entrances to the Cavendish and Stanhope National Parks. This involved redesign of the approach roads horizontal and vertical alignment at 5 entrances to the National Parks also included new design of the Kiosks with specific attention to safety concerns and to improve efficiency during heavy summer traffic.

Nazmi prepared detailed designs for dozens of subdivisions (commercial and residential) including design of roads and site services. The layout the subdivisions, configuration and alignment of the roads, storm water management, environmental and erosion controls, incorporation of active transportation paths, etc. were carried out in conformance to TAC standards and other applicable design manuals. The design of a recent subdivision on the North Shore of PEI required innovative approach to vertical alignment of the roads and subdivision grading to ensure compliance with TAC and PEI TIE requirements for vertical alignment of the road due to the steep slope between Route 6 and the property waterfront boundary.

Most recently, Nazmi was retained by the PEI Transportation, Infrastructure and Energy to provide transportation engineering services to upgrade and improve the vertical and horizontal alignment of Route 13 between Crapaud and Kelly Cross as well as upgrades to a number of driveways on both sides of Route 13 to ensure compliance with latest TAC standards and provincial regulations.

If you have any questions, please contact the undersigned.

Yours very truly,

Coles Associates Ltd.
Per: Nazmi Lawen, M.A.Sc., P.Eng., P.E., F.E.C.
Principal
Director of Civil & Structural Engineering

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CC: Brad MacPherson <brad.macpherson@premieremortgage.ca>

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06 January 2021

T. Daniel Tweel Law Office
105 Kent Street
PO Box 3160
Charlottetown, PE C1A 7N9

Attention: Mr. Daniel Tweel

Dear Mr. Tweel:

RE: Export Report - Hill-Bay Holdings Inc. - City of Charlottetown Development Permit

We are pleased to submit the attached expert report to your office.

We understand that this will be used on an appeal against the decision of the City of Charlottetown to be heard by IRAC upon on January 25th, 2021.

I hereby acknowledge my duty as an expert to advise the Island Regulatory and Appeals Commission impartially on matters within my area of expertise and that duty overrides any duty to the party that has engaged me.

Sincerely,

Coles Associates Ltd.
Per: Nazmi Lawen, M.A.Sc., FEC, P.Eng., PE, IntPE
Principal,
Director of Civil & Structural Engineering

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cc:

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