



Economic Development & Planning Committee

Thursday, January 12, 2012, 5:30 pm
City Hall - Council Chambers

Committee Members

Councillor J. Baker, Chair
Councillor T. Blanchard
Councillor L. Bursey
Councillor M. Kalivas
Mayor D. Henderson,
Ex-Officio

Areas of Responsibility
Economic Development
Planning
Chamber of Commerce
DBIA
Heritage Brockville

Museum Board
Library Board
Arts Centre
Tourism

Page

DISCLOSURE OF INTEREST

DELEGATIONS

- | | |
|-------|--|
| 3-16 | 1. Scott Bennett
DBIA Advocacy Committee Chair
Revisions to Noise By-law |
| 17-60 | 2. District Energy
Unsolicited Request for Support of FCM Funding Application |

Mr. Jeff Maxwell, President, TRAK International; Mr. Paul Rossetto, President, Rossbro Green; and Mr. Paul Gregory, Federation of Canadian Municipalities will address the Committee regarding an application for funding of a feasibility study.

STAFF REPORTS

- | | |
|-------|--|
| 61-73 | 1. 2012-009-01
Proposed Zoning By-law Amendment
244 Ormond Street, City of Brockville
Owner: Penny Lynn Knapp |
| 74-79 | 2. 2012-011-01
Proposed Amendment to sign By-law 84-89,
103 Broome Road (Pro Oil Change)
Owner: Pakenham Holdings Limited |
| | 3. Integrated Community Sustainability Plan (ICSP)
Discussion of Recommended Programs (Chapter 5) |

Members are requested to bring their copy of the previously

Economic Development & Planning Committee Minutes
Thursday, January 12, 2012

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STAFF REPORTS

distributed ICSP.

CONSENT AGENDA

ADJOURNMENT



DOWNTOWN
BROCKVILLE

Alive & Vibrant!

November 29th 2011,

Attn: Maureen Pascoe-Merkley
Director of Planning
City of Brockville

Re: Revision to Noise By-Law

Dear Ms. Pascoe-Merkley,

The DBIA Advocacy Committee supported by the DBIA Board of Directors has reviewed the revisions proposed to the Noise By-Law on October 4th 2011. We are asking the City of Brockville's planning department take into consideration additional recommendations.

We would like to recommend that noise be measured in decibels using an approved sound meter supported by a table. We feel this is needed to ensure a regulatory environment conducive to the lively downtown business activity. When businesses have a predictable regulatory environment, they will be more encouraged to invest in business activity. We feel that without a clearly defined By-Law it leaves the interpretation of "reasonable noise" to good deal of subjectivity.

We have researched a number of Canadian Cities Noise by-Laws to use as a guideline to these recommendations. Based on these findings we have attached a revised Noise By-Law with our recommendations to: interpretations of an "approved sound meter", "noise", "sound levels" along with "prohibitions by time, place and sound levels" with a table. Our recommendations are highlighted in grey and the City Planning Departments recommendations are highlighted in yellow and remain the same as submitted on October 4th, 2011.

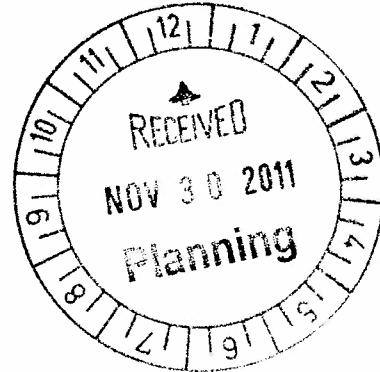
We are asking the City Planning Department and Council to determine if these recommendations are deemed appropriate.

Thank you for your consideration to this matter and please feel free to contact us if you would like to discuss this further.

Sincerely,

Scott Bennett

Chair DBIA Advocacy Committee



City of Brockville

Ontario, Canada



**A By-Law to
Control Noise in the City of Brockville**

By-Law No. ???-2011

Enacted by Council , 2011

THE CORPORATION OF THE CITY OF BROCKVILLE
BY-LAW NUMBER ???-2011

A BY-LAW TO CONTROL NOISE IN THE CITY OF BROCKVILLE
AND TO REPEAL BY-LAW 138-80

WHEREAS it is expedient to exercise the power conferred upon the Council by the most current Environmental Protection Act, as amended, and other statutory authority; and

WHEREAS a recognized body of scientific and technological knowledge exists by which sound may be substantially reduced; and

WHEREAS the people have a right to and should be ensured an environment free from unusual, unnecessary, or excessive sound which may degrade the quality and tranquility of their life or cause nuisance; and

WHEREAS it is the policy of the Council to reduce and control such sound;

NOW THEREFORE, the Council of the Corporation of the City of Brockville enacts as follows:

(1) **Interpretation**

In this by-law,

(a) **"approved sound meter"** shall mean an instrument meeting American National Standard Institute's Standard SI-4-1971 or the most recent revision thereof for Type 1 or Type 2 sound meters, or an instrument and the associated recording and analyzing equipment that will provide equivalent data;

(b) **Construction**
"construction" includes erection, alteration, repair, dismantling, demolition, structural maintenance, painting, moving, land clearing, earth moving, grading, excavating, the laying of pipe and conduit whether above or below ground level, street and highway building, concreting, equipment installation and alteration and the structural installation of construction components and materials in any form or for any purpose, and includes any work in connection therewith;

(c) **Construction Equipment**
"construction equipment" means any equipment or device designed and intended for use in construction or material handling, including but not limited to, air compressors, pile drivers, pneumatic or hydraulic tools, bulldozers, tractors, excavators, trenchers, cranes, derricks, loaders, scrapers, pavers, generators, heaters, fans, boilers, off-highways haulers or trucks, ditchers, compactors and rollers, pumps, concrete mixers, graders or other material handling equipment;

- (d) **Conveyance**
“conveyance” includes a vehicle and any other device employed to transport a person or persons or goods from place to place but does not include any such device or vehicle if operated only within the premises of a person;
- (e) **Council**
“Council” means the Council of the Corporation of the Municipality of Brockville;
- (f) **dBA**
“dBA” means the sound level in decibels obtained when using a sound level meter with the A-weighting;
- (g) **Highway**
“highway” includes a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle designed and intended for, or used by, the general public for the passage of vehicles;
- (h) **Minister**
“Minister” means Minister of the Environment;
- (i) **Ministry**
“Ministry” means Ministry of the Environment;
- (j) **Motor Vehicle**
“motor vehicle” includes an automobile, motorcycle, and any other vehicle propelled or driven otherwise than by muscular power; but does not include the cars of electric or steam railways, or other motor vehicles running only upon rails, or a motorized snow vehicle, traction engine, farm tractor, self-propelled implement of husbandry or road-building machine within the meaning of The Highway Traffic Act;
- (k) **Motorized Conveyance**
“motorized conveyance” means a conveyance propelled or driven otherwise than by muscular, gravitational or wind power;
- (l) **Municipality**
“municipality” means the land within the geographic limit of the Municipality of Brockville;
- (m) **Noise**
“noise” means unwanted sound prohibited in this by-law;
- (n) **Persistent**
“persistent” means continuing to exist or endure over a prolonged period exceeding 15 minutes.

(0) **Point of Reception**

"point of reception" means any point on the premises of a person where sound originating from other than those premises is received;

(p)

"sound level" shall mean the total sound level in decibels of all sound as measured with an approved sound meter with a reference pressure of 20 micro-pascals using the "A" weighted network (scale) at slow response. The unit of measurement shall be defined as dB(A) or dBA.

(2) **Zones**

In this by-law

(a) **Residential Area**

"Residential Area" means those areas of the municipality specified as follows:

"residential area" means any area in the City of Brockville designated for residential use in any by-law in force from time to time passed pursuant to section 34 of the Planning Act, R.S.O. 1990, c.P.13, or any predecessor or successor of that section.

(b) **Quiet Zone**

"Quiet Zone" means those areas of the municipality specified as follows:

"quiet zone" means an area of the municipality so designated by Council in Appendix A of this by-law as a place where quiet is of a particular importance, such as, but not limited to, the immediate vicinity of a hospital.

(c) **Agricultural Area**

"Agricultural Area" means those areas of the municipality specified as follows:

"agricultural area" means any area in the City of Brockville designated for agricultural use in any by-law in force from time to time passed pursuant to section 34 of the Planning Act, R.S.O. 1990, c.P.13, or any predecessor or successor of that section.

2. ADMINISTRATION AND DELEGATION OF AUTHORITY

(1) The Planning Department is responsible for the administration of this by-law.

(2) All Peace Officers, Provincial Offences Officers and Municipal Law Enforcement Officers with the authority to enforce the by-laws of the Municipality are responsible for enforcing the provisions of this by-law.

- (3) The Chief Planning Officer or his/her designate is delegated the authority to grant temporary exemptions to this by-law.

3. GENERAL PROHIBITIONS

No person shall emit or cause or permit the emission of sound resulting from an act listed herein, and which sound is clearly audible at a point of reception:

- (1) Racing of any motorized conveyance other than in a racing event regulated by law.
- (2) The operation of a motor vehicle in such a way that the tires squeal.
- (3) **The operation of a residential air conditioner, pool pump or filter, heat pump or the like that is not in proper working order and exceeds 50 dBA;**
- (4) The operation of any combustion engine or pneumatic device without an effective exhaust or intake muffling device in good working order.
- (5) The operation of a vehicle or a vehicle with a trailer resulting in banging, clanking, squealing or other like sounds due to improperly secured load or equipment, or inadequate maintenance.
- (6) The operation of an engine or motor in, or on, any motor vehicle or item of attached auxiliary equipment for a continuous period exceeding five (5) minutes, while such vehicle is stationary in a Residential Area or a Quiet Zone unless:
 - (i) the original equipment manufacturer specifically recommends a longer idling period for normal and efficient operation of the motor vehicle in which case such recommended period shall not be exceeded; or,
 - (ii) operation of such engine or motor is essential to a basic function of the vehicle or equipment, including but not limited to, operation of ready-mixed concrete trucks, lift platforms and refuse compactors; or,
 - (iii) weather conditions justify the use of heating or refrigerating systems powered by the motor or engine for the safety and welfare of the operator, passengers or animals, or the preservation of perishable cargo, and the vehicle is stationary for purposes of delivery or loading; or,
 - (iv) prevailing low temperatures make longer idling periods necessary immediately after starting the motor or engine; or
 - (v) the idling is for the purpose of cleaning and flushing the radiator and associated circulation system for seasonal change of antifreeze, cleaning of the fuel system, carburetor or the like, when such work is performed other than for profit.

- (7) The operation of a motor vehicle horn or other warning device except where required or authorized by law or in accordance with good safety practices.
- (8) The operation of any item of construction equipment in a Quiet Zone or Residential Area without effective muffling devices in good working order.
- (9) Use of construction equipment shall not create noise likely to cause a nuisance or disturb the inhabitants or exceed 85 dBA when measured at the point of reception.

4. EXEMPTION

Public Safety

Notwithstanding any other provision of this by-law, it shall be lawful during an emergency to emit or cause or permit the emission of sound in connection with emergency measures undertaken:

- (a) for the immediate health, safety or welfare of the inhabitants or any of them; or,
- (b) for the preservation or restoration of property; unless such sound is clearly of a longer duration or nature more disturbing, than is reasonably necessary for the accomplishment of such emergency purpose.

5. GRANT OF EXEMPTION

(1) Application for Temporary Exemption (up to 3 months)

(1) Application

Notwithstanding anything contained in this by-law, any person may make application to the Chief Planning Officer to be granted an exemption from any of the provisions of this by-law.

The application shall be made in writing at least thirty (30) days prior to the event or activity and shall contain, at a minimum, the following information:

- a) the name and address of the applicant;
- b) the name and address of the organization represented by the applicant, if applicable;
- c) a description of the source of sound in respect of which the exemption is sought;
- d) a drawing of the proposed property showing the location of the noise source that is the subject of the exemption and the distance to the nearest residential use that may be effected;

- e) the particular provision or provisions of the by-law from which the exemption is sought;
- f) the period of time, of a duration not in excess of three (3) months, for which the exemption is sought;
- g) the location of the event or activity for which the exemption is sought;
- h) the reason why the exemption should be granted; and,
- i) the applicable fee as set out in the City's Fee By-law.

(2) Decision

In deciding whether to grant the exemption, the Chief Planning Officer or his/her designate may require that notification be given.

The Chief Planning Officer or his/her designate may refuse to grant any exemption or may grant the exemption applied for or any exemption of lesser effect and any exemption granted shall specify the time period, not in excess of three (3) months, during which it is effective and may contain such terms and conditions as the Chief Planning Officer or his/her designate sees fit.

(3) Appeals

Where the Chief Planning Officer or his/her designate refuses to grant an exemption under this section, the Chief Planning Officer or his/her designate shall notify in writing, the applicant and any other person who had requested notification, advising them that they may appeal the decision within ten (10) days of the date of the notice.

This appeal shall be requested in writing accompanied by the applicable fee as set out in the City's Fee By-law to the City Clerk of the Corporation of the City of Brockville. The appropriate standing committee shall hold a hearing pursuant to the provisions of the Statutory Powers Procedure Act within thirty (30) working days of the City Clerk's receipt for a hearing.

Such committee may:

- (a) Issue an exemption;
- (b) Refuse to issue an exemption; or
- (c) Issue an exemption with conditions

The committee's decision on the appeal is final.

(4) Appeal of Conditions of Approval

Where the Chief Planning Officer or his/her designate grants an exemption with conditions under this section, the Chief Planning Officer or his/her designate shall notify in writing, the applicant and any other person who had requested notification,

advising them that they may appeal the decision within ten (10) days of the date of the notice.

This appeal shall be requested in writing accompanied by the applicable fee as set out in the City's Fee By-law to the City Clerk of the Corporation of the City of Brockville. The appropriate standing committee shall hold a hearing pursuant to the provisions of the Statutory Powers Procedure Act within thirty (30) working days of the City Clerk's receipt for a hearing.

Such committee may:

- (a) Dismiss the appeal;
- (b) Amend the conditions of approval; or
- (c) Withdraw the approval and refuse the exemption;

The committee's decision on the appeal is final.

(5) Breach

Breach by the applicant of any of the terms or conditions of any exemption granted shall render the exemption null and void.

(2) Application for Exemption (greater than 3 months)

(1) Application

Notwithstanding anything contained in this by-law, any person may make application to Council to be granted an exemption from any of the provisions of this by-law.

The application shall be made in writing at least sixty (60) days prior to the event or activity and shall contain, at a minimum, the following information:

- a) the name and address of the applicant;
- b) the name and address of the organization represented by the applicant, if applicable;
- c) a description of the source of sound in respect of which the exemption is sought;
- d) a drawing of the proposed property showing the location of the noise source that is the subject of the exemption and the distance to the nearest residential use that may be effected;
- e) the particular provision or provisions of the by-law from which the exemption is sought;
- f) the period of time for which the exemption is sought;
- g) the location of the event or activity for which the exemption is sought;
- h) the reason why the exemption should be granted; and,
- i) the applicable fee as set out in the City's Fee By-law.

(2) Decision

In deciding whether to grant the exemption, notification is to be given to persons within 120.0 metres (393.0 feet) in order to provide those persons in support or opposed to the application an opportunity to be heard and may consider such other matters as Council sees fit.

Council may refuse to grant any exemption or may grant the exemption applied for or any exemption of lesser effect and any exemption granted shall specify the time period during which it is effective and may contain such terms and conditions as Council sees fit.

Council's decision to issue an exemption, refuse to issue an exemption or to set terms and conditions for the exemption is final.

(3) Breach

Breach by the applicant of any of the terms or conditions of any exemption granted shall render the exemption null and void.

6. EXEMPTION OF TRADITIONAL, FESTIVE OR RELIGIOUS ACTIVITIES

Notwithstanding any other provision of this by-law, this by-law does not apply to a person who emits or causes or permits the emission of sound in connection with any of the listed traditional, festive, religious and other activities.

- (1) Festivities in connection with statutory holidays.
- (2) Official City festivities or festivities authorized by the City.
- (3) The use of bells or chimes normally associated with municipal or church activities.
- (4) The collection of Municipal garbage and refuse by or on behalf of the City of Brockville.
- (5) The plowing and removal of snow by or on behalf of the City of Brockville.
- (6) The sanding and salting of roads and sidewalks by or on behalf of the City of Brockville.
- (7) The sweeping of streets by or on behalf of the City of Brockville.
- (8) Any road and sewer maintenance activities by, or on behalf of, the City of Brockville.

7. PROHIBITIONS BY TIME, PLACE AND SOUND LEVELS

(a) No person shall emit or cause or permit the emission of sound resulting from any act listed in Table 1 if clearly audible at a point of reception located in an area of the municipality indicated within a prohibited time shown for such an area.



(b) No person shall make, cause or permit to be made within the City of Brockville a continuous sound with a sound level that, measured at a point of reception on an approved sound meter, exceeds allowable sound levels noted in Table 2.



(c) No person shall make, cause or permit to be made within the City of Brockville a continuous sound or any sound, the sound level of which exceeds a sound level of 75 dbA during the daytime or exceeds a sound level of 70 dbA during the night-time, measured at the point of reception.

8. SEVERABILITY

If a court of competent jurisdiction should declare any section or part of a section of this by-law to be invalid, such section or part of a section shall not be construed as having persuaded or influenced Council to pass the remainder of the by-law and it is hereby declared that the remainder of the by-law shall be valid and shall remain in force.

9. OFFENCE AND PENALTY PROVISIONS

Any person who contravenes any provision of this By-law is guilty of an offence and, upon conviction, is subject to a fine as provided in the *Provincial Offences Act*, as amended, and to any other applicable penalties.

10. SITE SPECIFIC EXEMPTIONS

- 1) That Black & Decker Canada Inc. be granted relief to this by-law with respect to snow plowing at the location known municipally as 100 Central Avenue, Brockville.

Table 1
PROHIBITIONS BY TIME, PLACE and SOUND LEVELS

	Prohibited period of Time, Place and Sound Levels	
	Quiet Zone	Residential Area
1. The detonation of fireworks or explosive devices not used in construction.	At all times	At all times
2. The discharge of firearms.	At all times	At all times
3. The operation of a combustion engine which, (i) is, or (ii) is used in, or (iii) is intended for use in, a toy, or a model or replica of any device, which model or replica has no function other than amusement and which is not a conveyance.	At all times	At all times
4. The operation of any electronic device or group of connected electronic devices incorporating one or more loudspeakers or other electro-mechanical transducers, and intended for the production, reproduction or amplification of sound which may include music.	At all times	B
5. The operation of any auditory signalling device, including but not limited to the ringing of bells or gongs and the blowing of horns or sirens or whistles, or the production, reproduction or amplification of any similar sounds by electronic means, except where required or authorized by law or in accordance with good safety practices.	At all times	D & E
6. The operation of any powered rail car including but not limited to refrigeration cars, locomotives or self-propelled passenger cars, while stationary on property not owned or controlled by a railway governed by the Canada Railway Act.	At all times	B
7. The operation of any motorized conveyance other than on a highway or other place	At all times	B

Prohibited period of Time, Place and Sound Levels

	<u>Quiet Zone</u>	<u>Residential Area</u>
intended for its operation.		
8. The venting, release or pressure relief of air, steam or other gaseous material, product or compound from any autoclave, boiler, pressure vessel, pipe, valve, machine, device or system.	At all times	A
9. Persistent barking, calling or whining or other similar persistent noise making by any domestic pet.	At all times	A
10. The operation of a commercial car wash with air drying equipment.	At all times	D & E
11. Yelling, shouting, hooting, whistling, or singing.	At all times	A
12. The operation of a power assisted hang glider or parafoil.	At all times	D & E
13. The operation of any item of snow making equipment.	At all times	E
14. All selling or advertising by shouting or outcry or amplified sound.	At all times	D & E
15. Loading, unloading, delivering, packing, unpacking, or otherwise handling any containers, products, materials, or refuse, whatsoever, unless necessary for the maintenance of essential services or the moving of private household effects.	D & E	D & E
16. The operation of any equipment in connection with construction.	D & E	D & E
17. The operation or use of any tool for domestic purposes other than snow removal.	C	B
18. The operation of a commercial car wash of a type other than mentioned in item 10.	C	A

Suggested Restricted Times:

- A 23:00 one day to 07:00 next day (09:00 Sundays)
- B 21:00 one day to 07:00 next day (09:00 Sundays)
- C 17:00 one day to 07:00 next day (09:00 Sundays)
- D All day Sundays and Statutory Holidays
- E 19:00 one day to 07:00 next day.

Table 2

PROHIBITIONS BY TIME, PLACE and SOUND LEVELS

Type of Land Use	Time Interval	Maximum Allowable Sound Level (dbA)
Residential	Night-time	45
	Daytime	55
Quiet Zone	Night-time	45
	Daytime	55
Commercial	Night-time	55
	Daytime	60
Industrial	Night-time	65
	Daytime	70

GIVEN UNDER THE SEAL OF THE CORPORATION OF THE
CITY OF BROCKVILLE AND PASSED
THIS DAY OF , A.D., 2011

MAYOR

CLERK

This By-law is approved pursuant to the provision of the Environmental Protection Act, as amended, at Toronto, this day of , 2011.

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The Developers are requesting Council's support in the application to the Federation of Canadian Municipalities. This presentation is for information purposes only at this time. If Council expresses interest in the concept presented, Council will be required to pass a resolution in support of the application for the funding of the feasibility study. Future financial commitments, if any, will be assessed after the feasibility study is reviewed. At this time, there is no financial commitment required from the City of Brockville as the cost feasibility study will be covered by the FCM grant and the Developers.

Presenters:

Jeff Maxwell, President TRAK International
Paul Rossetto, President Rossbro Green
Paul Gregory, Federation of Canadian Municipalities

The study will assess the technical and financial feasibility of a community district energy project, as well as the environmental, social, and economic impacts. Prior to design and construction, we wish to determine and predict how the project will contribute to cleaner air, water and soil and reduce greenhouse gas emissions, and what the cost for this value will be. We seek to explore repeatable business financing mechanisms that will enhance our safe community practice and attract green development rather than the perception of higher risk and cost.

The study will investigate and assess the opportunities and value of capturing residual earth energy, solar and waster thermal energy from energy efficiency process of combined heat and power, geoexchange, warm air exhaust, waste water, and simultaneous process offsets. The prestudy information indicates that great than 50% energy savings compared to the minimum standard through the skilled and reliable used of known green technologies are achievable and a challenging, but reasonable goal for the study.

The study will identify in preliminary design a system that will achieve energy consumption reduction by at least 45% compared to the National Energy Code for Buildings (NEBC) 2011 or which a minimum of 30% of the energy saving will be from energy efficiency measures.

Some of the energy efficient and environmentally beneficial strategies to be considered are;

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The study will investigate the feasibility combined heat and power in the use of natural gas to generate electricity in a more energy efficient, environmentally beneficial and cost effective way. Measure will be the value of partial generation and use of the process heat capture for valued heating applications.

E a

The study will investigate the feasibility and value of a central GeoExchange component to the district energy system and its use as a heating, cooling, and thermal storage component.

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The Study will consider and assess the values of combining solar electricity generation, solar heat collection, waste water and exhaust heat recovery features.

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The team seeks to compare the cost and environmental and energy benefits of a distributed district system compared to that of a conventional system. This will be done by a technical comparison of the methods and modeling of simulated systems and resulting cost and environmental impact factors. Some of the measuring parameters will be energy demand, energy consumption and GHG generation. A comparison will be made of the distribution of high grade energy and low graded energy.

The work will form a course of action based on the verifiable engineering approach and results of a field test.

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The work will involve the drilling, sampling, and thermal conductivity testing of a deep vertical borehole to 500' in what is presently a brownfield site being considered a part of the proposed district energy system. The results of the field test will determine feasibility and parameters of the installation, measures required for ground water protection, ideal construction configuration and functionality for use as a geoexchange thermal storage field.

ii i i i ai

The area of waterfront development in the heart of the City of Brockville proposed for densification that will involve the retrofit of existing municipal buildings, development of new high density multi residential buildings on remediated brownfield, municipal infrastructure modifications and the construction of new private and public buildings and facilities.

- Retrofit of City Hall
- Retrofit of Arts Centre
- Retrofit of Municipal Museum
- Implementation in new 106 Unit Brockville Landings Condo Development
- Implementation in new 15 and 18 Storey condominium developments
- Implementation in New Office building construction and other private and public downtown developments.
- Effect on expanding related technologies on planned municipal projects such as arena and hospital constructions.

Benefits to the Community of Brockville

Reliability and Financial Security

- Protection against future power outages and disruptions, redundant power sources, (the onsite generator and the utility grid)
- Long term predictable and stable power, heat and chilling costs
- Protection against power and gas price increases
- Long term energy savings as utility grid infrastructure costs increase
- 24/7 monitored and operated on site

Environmental

- The Smart Energy Centre© provides heating, cooling, storage and electricity at efficiencies not provided by any other sources.
- The efficiencies of the Smart Energy Centre© provide the same amount of heating, cooling, storage and electricity as a normal system but not with the same rates of harmful environmental pollution.

Economic Benefits

Capital Cost Offsets and Reduction on Maintenance and Energy Cost for Future Downtown Buildings

- No Chiller and Boiler plants required
- No domestic hot water boilers, gas connection or venting.
- No emergency Diesel Generators
- Boiler Maintenance
- Chiller Maintenance
- Better energy rates for both commercial and residential buildings, incentive to shops moving into the area
- Promoting an environmental and progressive community with leading edge technology

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TRAK International is an award winning engineering and construction firm with over 18 years experience in designing and building some of the most energy efficient HVAC systems in North America.



As one of the Harris Companies, TRAK offers complete design/build mechanical engineering and mechanical construction services, as well as ongoing servicing and maintenance of mechanical systems across North America.

TRAK was originally founded in 1991 by Jeff Maxwell and grew into a group of companies operating under the umbrella name TRAK Canada. TRAK initially designed energy efficient systems for schools, healthcare facilities and municipal buildings before specializing in the design/build of mechanical systems for resorts and multi-residential buildings. TRAK's focus on high quality, earth energy based HVAC (heating & cooling) systems has resulted in numerous awards as Canada's leading HVAC and control specialists and gave TRAK the recognition as a leader in this modern HVAC technology.

This recognition attracted the attention of Harris Companies, and in April of 2008 TRAK International Green Energy Resources succeeded TRAK Canada as a new division of Harris Companies. With offices in St. Paul, Minnesota, and Kelowna, British Columbia, the new TRAK International serves the Canadian and US markets.

TRAK operates synchronous as one of the Harris Companies sharing ownership, directing officers, major business systems, and overall market territory. While the present Harris entity came to be in 1948, the foundation of Harris Companies goes back to 1931. Since then we have grown to be one of North America's leading mechanical contractors. Our corporate philosophy and management is uniform, as are our goals. In 2009, Phc News announced Harris Companies as Contractor of the Year (USA). In 2010, Engineering News-Record (enr.com) placed us 13th of the mechanical firms in the United States. In 2011, although we have always designed and built energy efficient systems, we achieved our thematic goal to be a recognized leader in green building and over 50 employees have become LEED professionals. Whether it is a project that requires large bonding, sensitive technical challenges, or the confidence to construct energy efficient and environmentally beneficial systems with rigid deadlines, our customers trust us to demonstrate innovation and excellent performance to get the job done on time and one budget!

4e² EVOLVED ENERGY

Smart Energy Centres



EXECUTIVE SUMMARY

Due to the unprecedented demand for energy over the last century, energy has become a strategic national priority for all major economies. With energy prices dictating economic growth, energy resources are becoming vital to the strategic security of all industrialized nations.

The utilization of sustainable practices is required in order to meet the needs of the current population without compromising the needs of future generations. The creation of sustainable, decentralized, green forms of energy production is the next great revolution in the advancement of modern civilization, similar to the industrial and technology revolutions of the past. 4E² is meeting this demand through GeoExchange and cogeneration systems on a smart energy platform. No other technology is able to meet the efficiency rating of this patented Smart Energy system.

4E²'s innovative green technology allows the cogeneration systems to timely transform energy to its highest value, producing power and thermal energy from a single fuel source. GeoExchange systems increase the efficiency and reduce the operational costs of heating and cooling systems by borrowing energy stored in the earth. Creatively combined, these technologies form Smart Energy Centres which optimize efficiency and fuel utilization.

Both the private and public sectors are increasingly adopting green alternatives in order to become more environmentally responsible and control unpredictable energy costs. The decision to become eco-friendly and implement a 4E² Smart Energy Centre has now become more feasible due to 4E²'s ownership financing options.

4E²'s highly experienced and qualified group of management consists of Rossbro Green, TRAK International and Buttcon Energy Inc. This team is well versed in completing projects of various sizes and complexities and has had extensive experience in aiding various parties achieve their energy objectives through green technology.

We trust the information presented in this proposal will demonstrate that 4E² has the proven resources and systems to provide you with clean, sustainable energy in a cost effective manner.

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1.0 MARKET

Over the last decade the energy saving industry has experienced substantial growth due to several factors such as environmental concerns, increases in energy costs, and improvements in technology.

The consumption of fossil fuels is predicted to double over the next twenty years with additional demand coming from emerging economies such as China and India. Experts predict that at our current consumption rates oil and natural gas supplies will be depleted within decades.¹ The International Energy Agency has predicted that global oil consumption will increase to approximately 113 million barrels per day by 2030.² This estimate, plus factors such as political instability and natural disasters, will result in a dramatic increase in fuel costs in the short term.

According to energy analyst Parker Gallant and University of Guelph's Glenn Fox, Ontario electricity rates are projected to rise 65% by 2015 and 141% by 2030.³ As a result, the private and public sectors are progressively adopting alternative energy sources in order to obtain the numerous economical, environmental and social benefits of the green revolution.

¹ Chea, Terence, "Rising fossil fuel prices boost prospects for renewable energy," Associated Press, 25 June 2008.

² "World Energy Outlook 2008," International Energy Agency.

³ Barrett, Toby, "Things you find out after the Election," The Silo, 21 October 2011.



2.1 COMPANY PROFILE

Rossbro Green a subsidiary of The Rossbro Development Corporation is dedicated to reducing its environmental impact by developing sustainable buildings through the adoption of new green technologies.

Founded in 1978, the Rossbro Development Corporation is involved in real estate development, construction and engineering. Over the past 30 years, their projects have included industrial and commercial buildings, residential condominiums, non-profit housing and seniors communities. Their real estate division has distinguished itself through land acquisition, development, marketing, and construction management on a diversified portfolio of projects.

Since 2000, Rossbro Development Corporation has developed several fundamental senior communities in York Region. These private, innovative projects are part of Rossbro Development's continuing commitment to establishing progressive and vibrant communities.

Currently, Rossbro in conjunction with Button Limited and TRAK International are developing the Residences of Spring Hill in King City, Ontario. This multi-storey seniors condominium will utilize digitally integrated Smart Energy Centres to become the first Green Globe certified condominium in York Region.



Rossbro Green's continuous research into green technologies allows them to integrate the most efficient products into their buildings. These measures help ensure a higher quality of lifestyle as well as respect the environment for future generations. Their mission is to provide innovative responsible green solutions to the both the private and public sectors.

2.2 ROSSBRO GREEN'S EXECUTIVE TEAM

Rossbro Green has a wealth of advisors to provide technical expertise, along with a well balanced mix of ambitious staff and strong leaders. They are motivated by quality but driven by their client's ideas as well. Rossbro Green produces projects that satisfy the needs of all stakeholders. Clients benefit from a professional relationship based on their dedication to meeting their goals and objectives while assuring quality.

Rossbro Green's executive team includes:

Paul Rossetto, President and Chief Executive Officer

Paul Rossetto has extensive experience in acquiring property and overseeing the construction of residential, commercial and industrial structures. He works with local governments to ensure land is developed in compliance with zoning laws and regulations. Under Paul Rossetto's leadership, Rossbro has successfully implemented various sustainable green technologies into their developments.

Matthew Rossetto, Chief Operating Officer

Matthew Rossetto is responsible for evaluating and executing investment opportunities. He works in conjunction with other stakeholders in the planning, construction and implementation of green technologies into various developments in both the private and public sector.



3.1 COMPANY PROFILE

TRAK International is an award winning engineering and construction firm with over eighteen years experience in designing and building some of the most energy efficient and sustainable HVAC systems in North America. TRAK offers complete design/build mechanical engineering and mechanical construction services, as well as ongoing servicing and maintenance of mechanical systems. TRAK is dedicated to utilizing nature to create ongoing community benefits by using honourable, truthful and technically sound practices.

TRAK was originally founded in 1991 by Jeff Maxwell and grew into a group of companies operating under the umbrella name TRAK Canada. TRAK initially designed energy efficient systems for schools, healthcare facilities and municipal buildings before expanding into the design/build of mechanical systems for resorts and multi-residential buildings. TRAK's focus on high quality, earth energy based HVAC (heating & cooling) systems has resulted in numerous awards, as they have become Canada's leading HVAC and control specialists.

TRAK is recognized as a leader in modern HVAC technology due to their design, installation and monitoring of high efficient renewable energy systems. Their innovative commercial and institutional designs have won some of the most prestigious national awards due to their energy effectiveness, including Canada's Energy Efficiency Award for New Buildings in 2000. A key component of TRAK's success is their development of innovative GeoExchange (geothermal or ground source heating and cooling) designs.

This recognition attracted the attention of Harris Companies, and in April of 2008 TRAK International Green Energy Resources succeeded TRAK Canada as a new division of Harris Companies. With offices in St. Paul, Minnesota, and Kelowna, British Columbia, the new TRAK International serves the Canadian and US markets.

TRAK operates synchronous as one of the Harris Companies sharing ownership, directing officers, major business systems, and overall market territory. While the present Harris entity came to be in 1948, the foundation of Harris Companies goes back to 1931. Since then Harris Companies has grown to be one of North America's largest and most trusted mechanical contractors. Harris' market sector includes schools, health care centres, data centres, nuclear facilities and public venues, among other industrial and commercial customers. Their service span includes the design, build, install, service, control, and maintenance of piping, plumbing, heating, ventilating and air conditioning systems.

TRAK International has had extensive experience in retrofitting schools, arenas, medical facilities and factories with their GeoExchange systems. The increasing demand for these systems is a result of the direct energy and operating savings they produce. Since 1989, TRAK has completed over 500 industrial and commercial projects involving mechanical, electrical and controls, as well as over 200 energy use related studies. For a list of TRAK International's past and present clients, please refer to Appendix A.

3.2 TRAK INTERNATIONAL'S EXECUTIVE TEAM

Jeff Maxwell, P.Eng., LEED AP BD+C, President of TRAK International

Jeff Maxwell has over twenty years of experience in designing large scale GeoExchange based HVAC systems. Jeff incorporates numerous environmentally friendly technologies into the GeoExchange system design, including solar “free” heating and cooling, energy recovery from waste water and exhaust streams, and building controls. His innovative designs have helped create some of the most energy efficient buildings. Jeff Maxwell’s role will be the conceptual design of the overall systems.

Greg Hosch, LEED AP, President and CEO of Harris Companies, CEO of TRAK International

After graduating from Iowa State University with a Bachelor of Science degree in construction engineering, Greg joined Harris Companies in 1989 as a Project Engineer. Quickly moving up the ranks, Greg transitioned into estimating, project management, and then became Division Manager of Service and Special Projects in 1998. In 2001, Greg was promoted to Vice President, Senior Vice President in 2004, and President in 2005. Since becoming CEO of Harris Companies in 2007 at the age of 36, Greg Hosch has made and continues to make a significant difference. Under his watch as current President and CEO, Harris has grown considerably in recent years in both sales and overall size.

In an economic recession, Harris has achieved tremendous growth largely due to Greg’s strategic initiatives and goal of increasing the opportunities for employees and company value for the shareholders. In addition to the numerous awards and accolades presented to Harris Companies, Greg has been recognized as one of the “40 Under Forty” by *Minneapolis/St. Paul Business Journal* and one of the “Minnesotans on the Move” by *Finance & Commerce* for 2011. In 2009, Greg was honoured as one of the “40 under 40” by *Building Design and Construction Magazine*. He is also a member of the Young Presidents’ Organization twin cities chapter, serves on the board of trustees for St. Thomas Academy in Mendota Heights, and has been featured in several local media outlets and national trade publications for his continued role in the growth and development of the mechanical construction industry. Through Greg’s innovation, determination, and encouragement, Harris has moved from a Twin Cities based service provider, into a nationally recognized mechanical contractor.

Steve Lutz, PE, HFPD, LEED AP BD+C

Steve Lutz is manager of US operations of TRAK International. He is responsible for design and project management of US projects, and will assist in the design and project management of Canadian projects as required.

Sabine Maxwell, M.Sc., B.Ed., LEED Green Associate

Sabine Maxwell aids senior management in various aspects of operating TRAK International. With her interest in the environment and green buildings, her primary responsibility will be to coordinate the LEED Certification process as the LEED Administrator.



3.3 COMPANY PROFILE

Harris was founded in 1948 as a plumbing and heating construction company. From office buildings to bio-tech labs, hospitals to industrial plants, Harris utilizes their extensive construction experience to work on a wide range of commercial, institutional and industrial projects.

With offices in five strategically located states and a key site in Canada, Harris Companies has become one of the largest and most trusted mechanical contractors in the United States. Harris Companies provides service in plumbing, process piping, HVAC, refrigeration, controls, service, bundled energy solutions, specialty fabrication, pre-construction services, special projects, engineering, safety, GeoExchange systems, exhaust air heat recovery, solar heat collection, free heating and cooling, radiant floor heating, energy efficient lights, EMS controls, and sustainability/LEED certification.

Harris is the parent company for the following companies:

- ❖ **Harris Mechanical**
St. Paul, MN
- ❖ **Harris Mechanical Intermountain**
Salt Lake City, UT
- ❖ **Harris Mechanical Southwest**
Phoenix, AZ
- ❖ **HiMEC Mechanical**
Rochester, MN
- ❖ **HiMEC Conveyors**
Rochester, MN
- ❖ **Superior Air Handling**
Clearfield, UT
- ❖ **Wasatach Controls**
Salt Lake City, UT
- ❖ **TRAK International**
St. Paul, MN & Kelowna, BC

Whether it is a project that requires large bonding, sensitive technical challenges, or the confidence to construct energy efficient and environmentally beneficial systems with rigid deadlines, their customers trust them to demonstrate innovation and excellent performance to get the job done on time and on budget.

In 2009, PHC News announced Harris Companies as Contractor of the Year (USA). In 2010, Engineering News-Record (enr.com) placed them 13th of the mechanical firms in the United States. In 2011, they were acknowledged as a leader in green buildings having over 50 employees certified as LEED professionals and taking part in numerous projects that have received LEED certification.

Harris' licensed professionals have years of experience and keep up to date with changing technology. Every year, they train and certify in areas such as health care, safety and productivity. As a result, they are among the safest, most efficient and creative workers in the industry.

3.4 GEOEXCHANGE SYSTEMS

"TRAK GeoExchange based systems borrow energy from nature and then return it in a renewable, sustainable, and environmentally friendly way. It creates a healthier living, learning and working environment for all of us through a process that makes economic sense."

- Jeff Maxwell, President of TRAK International

GeoExchange systems operate by utilizing the ground to store energy and then strategically recycling it. This system is substantially more cost efficient than consuming new fuel.

Energy management software coordinates the energy transfer with the building's needs, as well as various heat recovery and heat rejection opportunities that occur over a day, or even a year.

Within a few feet of the earth, the ground temperature for much of the populated world remains relatively constant at about 6 degrees C (43 degrees F) to 10 degrees C (50 degrees F). GeoExchange heat pump systems can efficiently utilize this ground energy for heating purposes for less than half the energy of conventional systems. During the cooling season, heat energy is returned to the ground for less than 10% of the cost of traditional cooling systems. Since GeoExchange systems operate by moving heat from or to the earth they burn no fossil fuels. By utilizing an inexhaustible source of clean renewable energy this approach has a corrective effect on global climate change.



GeoExchange systems have three subsystems:

- A vertical loop ground field;
- A geothermal heat pump that moves energy from the ground field to the building (heating mode) or from the building to the ground field (cooling mode);
- A distribution system within the building for delivering heating and cooling to the various sections as required.

TRAK's GeoExchange system incorporates a series of vertical buried pipes that are often installed under the building, beneath parking lots, or below green areas. Through these buried plastic pipes, the closed vertical loop systems circulate water with an environmentally safe antifreeze solution. This fluid absorbs heat from the ground during the winter and transfers it to distribution systems inside the building. In the summer, the process is reversed with heat from the building being returned to the ground.

**TRAK's GeoExchange approach is superior to the common trade practice and is
50% better in terms of overall operation cost than other heat pump designs**

TRAK typically utilizes wet rotary drilling rigs to bore the holes 45-138 meters (150-450 feet) deep. A single loop of polyethylene pipe with a U-bend at the bottom is inserted before the shaft is back filled and grouted. Each vertical pipe is then connected to a horizontal underground pipe that carries fluid in a closed system to and from the indoor heat pump's exchanger unit. While vertical loops are more expensive to install, they require less piping than horizontal loops as the earth's temperature is more stable farther below the surface.

Heat pumps are a vital component of the GeoExchange systems as they transfer heat energy from one location (the source) to another location (the sink). They are composed of a compressor, a condenser, an expansion valve and an evaporator. Simplified, in heating mode the ground is the heat source and the building acts as the heat sink, while in cooling mode the source and the sink are reversed. Within larger buildings, there are various other heat sources, such as waste water and building exhaust, and other heat sinks such as domestic hot water and pool heating.

TRAK heat pumps are custom made to suit each individual project. Using only industrial quality components, TRAK heat pumps are built to last. They are crafted by union employees at TRAK International's manufacturing facility located in Zumbrota, MN.

Free heating and cooling techniques use the ground loop, heat recovery coils, solar heat recovery, or any form of waste heat for free ventilation heating. It is considered "free" when very little work is required in order to obtain the energy. In the shoulder seasons, the provision of the ground loop enables free heating and cooling for a very minimal cost of circulating a fluid.

The greatest value of free heating and cooling use is that it is indifferent to sliding fuel costs and encourages healthy ventilation rates.

TRAK often utilizes solar energy to regenerate the ground loop on a daily, seasonal and yearly basis. This technology reduces size and provision costs of a GeoExchange field and improves overall system efficiency.

An HVAC system's ability to provide comfort and energy savings depends heavily upon controls. TRAK EMS Controls are built on Windows based software that utilizes DDC or PLC controllers. Only common industrial quality components are used and there is no proprietary licensing required. Sensors for monitoring, trending, and troubleshooting help minimize energy use while maintaining indoor comfort. Building controls can be accessed remotely and alarms are used to alert system operators of potential issues before they turn into larger problems.

Please refer to Appendix B for detailed information regarding TRAK's previous GeoExchange projects.



4.1 COMPANY PROFILE

Buttcon Energy Inc. a subsidiary of Button Limited, is a privately owned Canadian company that designs, builds and operates on-site cogeneration power plants for industrial and commercial clients. These facilities supply heating, cooling and electricity to a dedicated host facility allowing companies to benefit from on-site power savings while remaining focused on their core business activities.

Buttcon Energy Inc. is experienced in building 500KW to 100MW centres. They have successfully implemented their cogeneration system in numerous locations across Ontario, including the GO Transit Bus Facility. This project utilized natural gas to generate electricity as well as heating and cooling. See *Appendix C: Buttcon Energy Inc.'s Previous Cogeneration Projects* for additional information regarding this and other projects.

4.2 EXECUTIVE TEAM

Buttcon Energy Inc. (BEI) combines their technical and operating expertise with the construction and project management experience of Buttcon Construction Ltd.'s thirty plus years of business.

Michael A. Butt, P. Eng., Chairman and CEO of Buttcon Limited

Michael Butt is Chairman and CEO of Buttcon Limited as well as controlling shareholder since 1979. He was Chairman of the Greater Toronto Airport Authority (GTAA) from 1997 to 2004, past Chairman of both the Ontario General Contractors Association (OGCA) and Canadian Construction Association (CCA) and a member of the Ontario Business Advisory Council (OBAC) as well as the Canadian Society for Civil Engineers. Michael has also been Director of Aecon Enterprises from 1995 to present and is currently Chairman of their Audit Committee and a member of their Human Resources Committee.

Craig Clydesdale, President and CEO of Buttcon Energy Inc.

Craig Clydesdale currently acts as the President and CEO of Buttcon Energy Inc. Craig has extensive experience in providing clients with efficient and reliable cogeneration power systems. From the early stages of the project Craig is involved with the conception and design of the system. His knowledge of green technology has enabled clients achieve their green objectives in a cost effective manner.



4.3 COMPANY PROFILE

Buttcon Limited is a 100% employee owned Canadian general contracting company that has been in operation since 1979. Since its inception, Buttcon has shown steady revenue growth with annual volumes exceeding \$150 million. They are recognized for their high quality workmanship and innovative solutions. Buttcon Limited operates on the partnering principle with the goal of ensuring every project is completed as quickly and cost effectively as possible and to the highest quality standards. All stakeholders benefit from Buttcon's management skills, detailed procedures, and commitment to excellence.

Clients receive the attention and expertise of Buttcon's cohesive, highly experienced executive team who believe in a hands on approach and maintaining direct involvement in each project. This allows them to better serve clients and help protect the interests of all project stakeholders. There is no substitute for experienced professionals who promptly resolve issues and effectively control the thousands of activities involved in each project, delivering superior results with the strictest attention to detail.

Buttcon Limited brings to every project an array of professional talent, an extensive network of qualified and reliable labour, material and equipment resources, and the financial resources to successfully complete a variety of projects. Their ongoing investigation and implementation of methods to improve project performance translates into results that exceed clients' expectations. Buttcon's excellent financial and bonding resources assure owners of their ability to complete even the most extensive projects. Their financial strength also allows them to perform successfully even during difficult market conditions.

Please refer to Appendix E for information regarding Buttcon Limited's previous educational facility projects.

4.4 COGENERATION SYSTEMS

Cogeneration, also known as combined heat and power (CHP) is a very efficient, clean, and reliable approach to generating power and thermal energy from a single fuel source (i.e. natural gas). Cogeneration plants recover the “waste heat” that is otherwise discarded from conventional power generation to produce thermal energy.



“Cogeneration is a reliable energy source because it provides power even when the transmission or distribution system fails. Currently, many power outages are a result of the electrical distribution system or the transmission system, which wouldn't be a problem with cogeneration. In addition, the heat produced can be used for industrial purposes, instead of it being lost.”⁴

Cogeneration power facilities achieve electrical efficiencies of 70% to 90%, which is a dramatic improvement over the average 33% efficiency of conventional fossil fuelled power plants.

THE COGENERATION ADVANTAGE ONE UNIT OF GAS PRODUCES TWO OUTPUTS: HEAT AND ELECTRICITY

Cost of peak power from grid	\$100/hr
Cost of transmission and distribution	\$ 30/hr
Total cost of peak grid power	\$130/hr
Cost to operate cogeneration	\$ 90/hr
Net benefit	\$ 40/hr
Plus value of 1 MW of heat per hour	\$ 75/hr
Total Benefit	\$115/hr

- On peak hours - the cogeneration system will be operating
- Off peak hours - the cogeneration system will be shut off and inexpensive power will be purchased from the grid. Please see Appendix D for the *Typical Daily Power Price Curve*.

⁴ Henvey, Tania, “The Potential for Cogeneration in Ontario’s Open Market,” Electricity Today, Issue 0802.

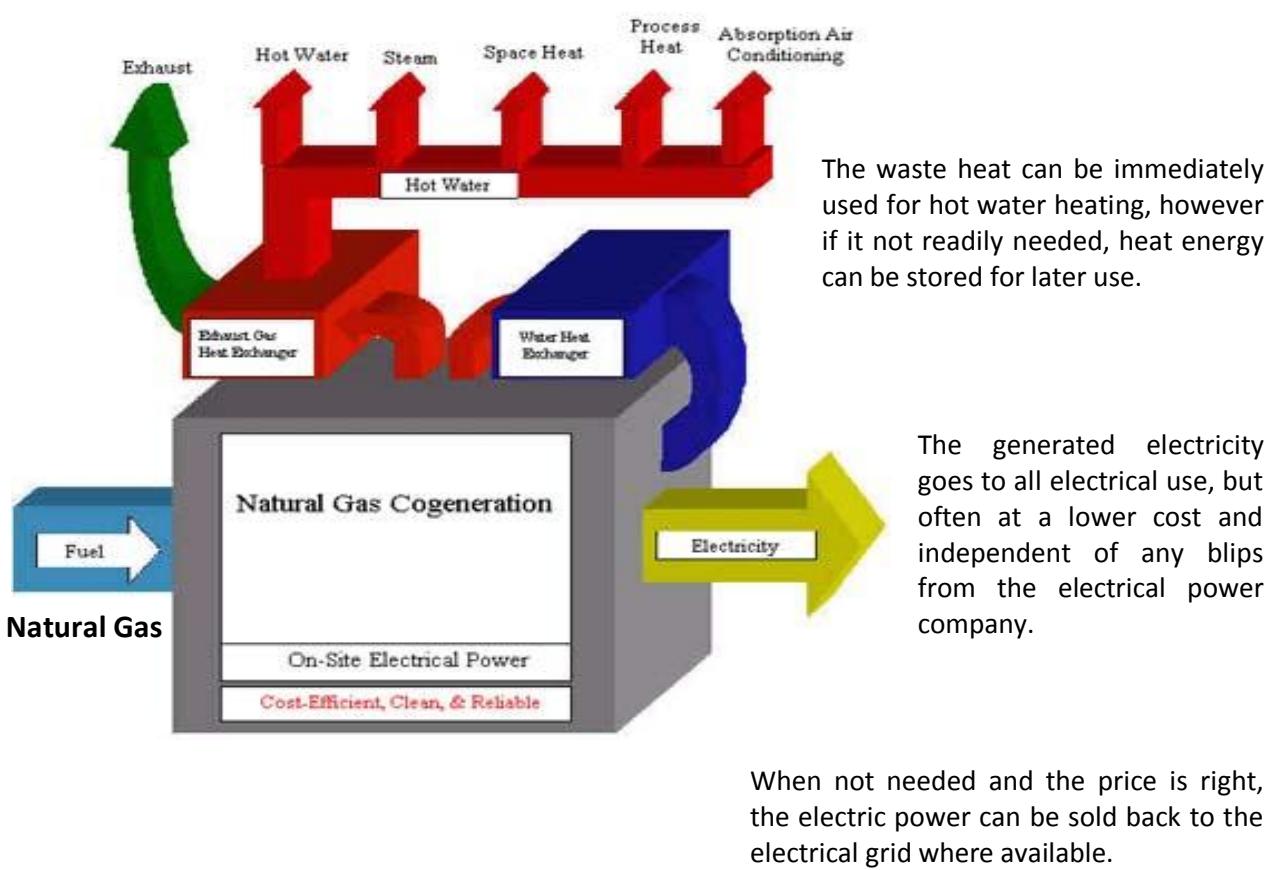
5.0 SMART ENERGY CENTRES

4E²'s Smart Energy Centres are the combination of GeoExchange and cogeneration technology. These centres produce energy; electrical and thermal, including heating and cooling. Smart Energy Centers provide full commercial power and energy backup using a variety of generation sources including natural gas based cogeneration. These centers are fully automated and freestanding facilities and provide real time internet based management via operators and management stakeholders.

Smart Energy Centers are fully synchronized with the provincial grid, thus ensuring a seamless transition between both systems, allowing economic benefit from load displacement and power sales to the Ontario market.

Smart Energy Centers provide:

- Power and energy; energy output can range from 0.5 megawatts up to 50 megawatts
- Reliability and security; securing host client's essential services
- Financial Savings; hedging long term energy pricing through on-site production
- Environmental Benefits; such as L.E.E.D. points and GHG offset credits



Central Heat Pumps

The central heat pumps provide exceptional chilling temperatures for all of a building's cooling needs. At the same time these pumps also create heat for hot water, pool heating, or simultaneous space heating.

Combined Heat and Power Plants

The portability of Smart Energy Centres offers numerous benefits for various areas of applications for distributed energy production. The Smart Energy Centres are facility specific and component scalable with modular concepts for maximum efficiency and use of waste heat.

Smart Energy Centres systems run quietly and cleanly, and are rated to be located in industrial or residential areas. Typically the centres are sited on a concrete pad adjacent to the customer's host facility. There are few structural requirements for the facilities and the equipment requires minimal space. The systems can be assembled either inside a structure or come in a pre-assembled unit.



The Engine and Generator (Genset)

The Genset utilized by 4E² is the MWM [Deutz] CHP Natural Gas Engine of series TCG 2020 V12.

CHP data:



- Electric power: 1200 kW
- Thermal output: 1210 kW
- Fuel consumption: 2782 kW
- Electrical efficiency: 43.1 %
- Thermal efficiency: 43.5 %
- Fuel: Natural Gas
- Voltage: 600 V
- Frequency: 60 Hz
- NOx 500 mg/m³

With an open combustion chamber, the technologically leading medium size and large engines from MWM [Deutz] can be used as a combined heat and power plant (CHP Plant) to convert natural gas as well as any special gas types (such as sewage gas, landfill gas, biogas, mine gas, and cooking gas) to electricity, heat and/or cooling. These engines have a higher efficiency than conventional engines utilized in power generation plants, resulting in lower fuel consumption and emissions for customers.

- At 64,000 hours, this Genset offers the longest time before engine replacement, allowing the proponent to maximize the engine for an extra 4,000 hours of operation resulting in more revenue.
- These natural gas engines have the highest electrical efficiency in their class.
- Caterpillar USA has recently announced its intention to purchase controlling interest of MWM which will facilitate an easier process for import and use of the generators

SG Software and Web Monitoring

The Smart Energy Centre hardware is driven by Buttcon Energy Inc.'s software control and monitoring system which is proprietary to Buttcon Energy Inc. This state of the art internet based computer technology remotely manages, monitors and dispatches generating control systems that create secure, reliable, financial and environmental benefits for host client sites.

Buttcon has developed software application to provide online monitoring control and maintenance for each system that 4E² operates. These systems are fully integrated with the on-site engine generator control panel to monitor engine systems, shutdowns and alarms. Furthermore, it provides twenty four-seven access to the engineers at a fraction of the cost to an on-site engineer. The economic benefit of off site operation is particularly high in remote locations.

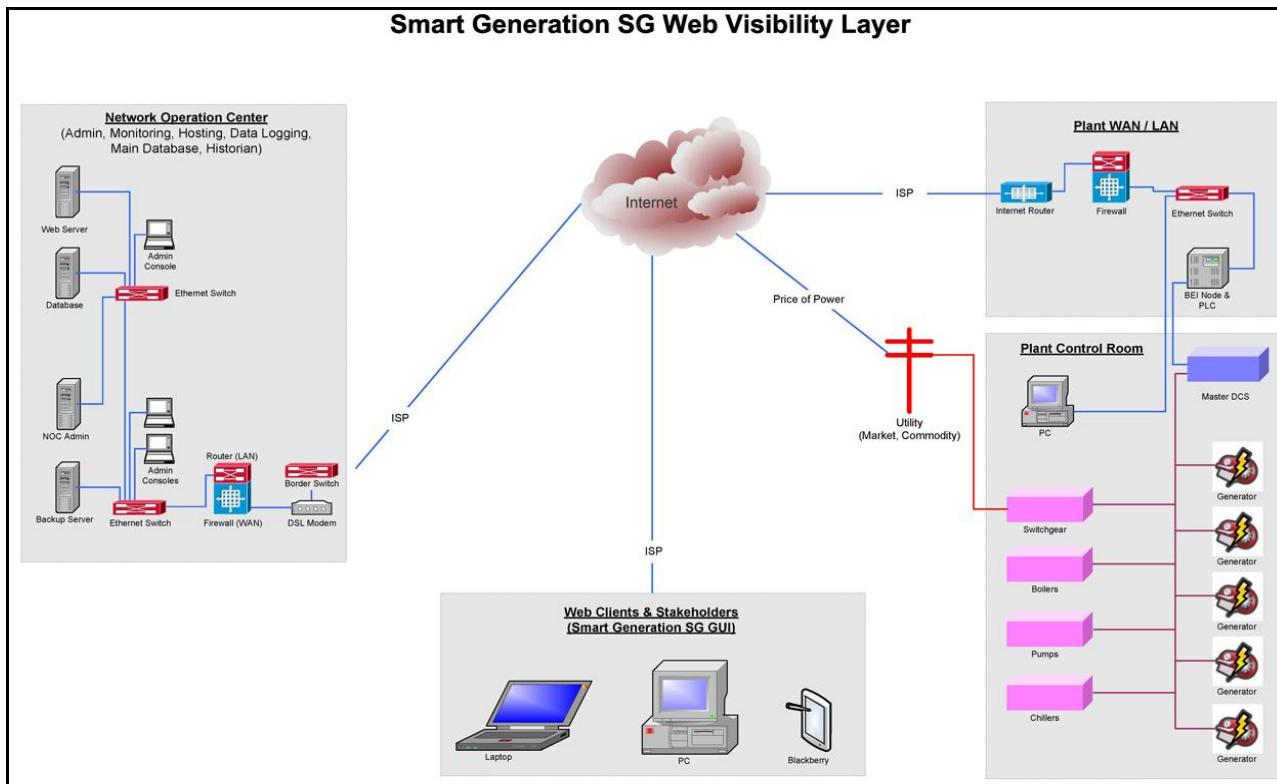
Online Monitoring, Control and Maintenance

Through this software application; online monitoring can be managed on devices that include desktop computers to hand held devices. The unique aspects of this application enable up to 90% of the maintenance to be conducted remotely. A database is generated to collect information for billing, safety and operations. Real time commodity pricing and weather information assist to manage and tune the plant, or even shut down the plant in case of a natural disaster or weather emergency. However, in almost every situation the plant will continue to run after the grid has gone down. This will enable the centre to continue running without interruption, or even be used as an emergency shelter in the case of a major disaster.



The password protected web interface can be accessed by wireless devices such as Blackberries, including access to webcams installed in each power plant, thus enabling operation managers to monitor any plant from any location that has an available cellular connection. Output can be tuned, maintenance can be performed, or the entire plant can be shut down in case of emergency.

This optimization software controls generator operation based on facility load and on local utility gas and electricity rates, including time of use rates.



The management and control software is monitored online in real time through a dedicated, fully secure, password protected website. The site:

- Meters the generator output to the facility and to the grid with instant reporting that is compiled in a database to produce daily, weekly, monthly and yearly reporting
- Monitors weather and commodity prices. Operators can adjust the power plant according to monitored conditions to provide maximum efficiency of the system
- Monitors general generator functions, warnings, faults and alarms including gas leaks and fire alarms
- Power metering
- Monitors the current HOEP price which is linked to price for power sold to the grid provided by the system
- Monitors NOx, Sox and CO² emissions
- Monitors the heating and cooling loop
- Monitors commercial dispatch set points for power export and load displacement

6.0 SERVICES PROVIDED BY 4E²

4E² will design, build, own, and operate the energy systems and provide clients with:

- Pre-construction energy consulting;
- Design consultation with project stakeholders;
- Purchasing, financing and installation of Smart Energy Centre equipment and balance of plant requirements;
- Liaison with local utility and related regulatory agencies;
- Construction management;
- Administration of LEED applications;
- Remote operations and control software system;
- Maintenance and training;
- 24/7 real time system optimization, monitoring, data collection and reporting;
- Real-time monitoring - online access by selected stakeholders to systems operations web site;
- Real time Blackberry alarms, alerts and notifications to selected stakeholders;
- Measurement, verification and reporting;

6.1 LEED CERTIFICATION

4E² will administer the Leadership in Energy and Environmental Design (LEED) applications and coordinate with all consultants in regards to achieving LEED certification. Numerous members of 4E²'s management team hold the LEED AP BD+C designation and are well versed in the process of obtaining LEED certification. This experience is extremely valuable in ensuring the appropriate LEED certification is obtained.

There are numerous benefits to obtaining LEED Certification including but not limited to:

- Healthier environments for occupants
- LEED certified buildings cost less to operate and maintain
- Decrease consumption of natural resources

The following educational facilities have realized the importance of obtaining LEED certification and have built or are planning to develop LEED certified buildings:

- Laurentian University
- University of Victoria's Medical Sciences Building
- University of British Columbia's Life Sciences Centre
- University of Toronto's Mississauga Campus
- University of Calgary
- University of Western

7.0 BENEFITS OF SMART ENERGY CENTRES

Benefits of Smart Energy Centres:

- **Economical**
 - Predictable and stable hydro costs
 - Protection against future hydro price increases
 - A less expensive power source during peak period prices
 - No time of use penalties or restrictions
- **Environmental**
 - Cogeneration and geothermal are an environmentally certified, efficient and clean power
 - Increased efficiency resulting in lower emission of CO² and green house gases
 - LEED Certification
- **Energy Reliability and Security**
 - The on-site power system eliminates the risk of blackouts – secure reliable power supply
 - Dependable high quality, virtually uninterrupted power 24/7
 - Less system downtown, improved equipment life cycle
 - Real time access to data
- **Occupant Life Quality Improvements**
 - Larger fresh air quantities - health values
 - Reduced absenteeism
- **Eliminates Noisy Equipment**
 - Unable to hear or smell the ground loops beneath the ground due to the elimination of cooling towers
 - Quieter spaces - no compressor noise and vibration
- **Improved Life Safety**
 - Lower temperatures (below skin burning)
 - Lower pressures
 - No indoor CO² gas emissions
 - Lower gas explosion risk
 - Improved water quality factors
- **Free Air-Conditioning/ Humidity Control**

7.1 ECONOMICAL BENEFITS

The initial cost increase to implement the Smart Energy Centers is followed by a substantial and ongoing cost saving due to the energy efficiency achieved with this technology. The development of more cost effective installation methods have allowed these systems to become more affordable, increasing the motivation of businesses to become more eco-friendly.

"The long-term energy cost savings for the environmentally friendly heating system can be substantial. The fixed charge for the geoexchange system combined with the significant reduction in energy to run geoexchange equipment results in an initial cost that is competitive with conventional energy. The cost becomes even more favourable as commodity prices increase. With electricity prices hitting all time highs and with further increases expected, savings will continue to increase in the future."⁵

Fuel savings are a key factor in the increase in demand for clean energy systems. The utilization of geothermal heating and cooling energy is essential in order to lower operational expenses as energy costs are projected to continue to increase substantially over the next decade. Due to the use of natural energy stored in the earth, cogeneration and geothermal energy is not subject to rising unpredictable price changes.

Smart Energy Centers operate more efficiently than ordinary heating and air conditioning systems, they:

- Efficiently utilize ground energy for heating purposes for **less than half the cost** of natural gas
- During the cooling season, heat energy is returned to the ground for **less than 10% of the cost of traditional cooling systems**
- Have the lowest operating and maintenance costs relative to other systems. Future energy and maintenance cost savings mean more funds can be put into reserve for future updates.

It is estimated that as a result of TRAK's specially designed heat pumps, TRAK's GeoExchange systems is able to achieve savings three to four times more than normal units, and are twice as effective as other geothermal systems. TRAK International designs and builds the 60 ton module heat pumps they utilize in their systems at their own plant. This allows them to custom design the pumps for their specific application.

TRAK's GeoExchange approach is superior to the common trade practice and is 50% better in terms of overall operation cost than other heat pump designs

Additional savings are obtained in larger projects that have life expectancies of thirty years plus due to economies of scale. In addition, the Government of Canada recognizes the importance of geothermal and cogeneration technology in order to ensure sustainability for the future. Thus, they have implemented eco-Energy grants and Green House Gas (GHG) offset credits to individuals who take advantage of these systems.

Without Smart Energy Centres individuals are:

- Subject to price volatility on both gas and electricity
- Subject to price increases related to utility transmission and distribution infrastructure
- Subject to time of use penalties

⁵ "Geoexchange heating and cooling creates long-term heating cost savings for townhouse/condo development near Victoria," Media Release, 17 March 2008.

7.2 ENVIRONMENTAL BENEFITS

Global warming and the diminishing supply of our natural resources, including fossil fuels, demonstrates the need for our society to utilize GeoExchange and cogeneration systems to ensure sustainability for the future.

4E²'s Smart Energy Centres will allow one to reduce their carbon footprint by taking advantage of the earth's natural resources. The energy beneath the ground is limitless, easy to access, always available and non-polluting. These systems share energy with the earth, thus they are a truly renewable energy source.

The combination of GeoExchange and cogeneration technology provides a unique opportunity for building owners to contribute to correcting society's current environmental problems. Furthermore, Smart Energy Centres are in line with Canada's International commitment to reducing greenhouse gas emissions.

8.0 FUTURE OF GEOEXCHANGE AND COGENERATION SYSTEMS

The demand for GeoExchange and cogeneration technology will continue to increase due to the cost efficiency associated with these systems. Users who take advantage of these innovative green technologies will benefit in the long run as fuel and electricity costs are expected to continue to increase. 4E²'s Smart Energy Centres will provide users with independence from energy utilities and global fluctuations in energy costs.

4E² is committed to developing and building the most efficient, reliable and environmentally conscious technology in a cost effective manner to ensure sustainability for future generations. 4E² is both highly experienced and skilled in providing both the private and public sectors electrical and thermal energy through the innovative green solutions presented in this proposal – profitably.

APPENDIX A: TRAK'S PAST AND PRESENT CLIENTS

INDUSTRY

- Abitibi-Price Inc., Mission Mill, Thunder Bay, Ontario
- Placer Dome Canada Limited, Campbell Mine, Balmertown, Ontario
- Provincial Papers, Thunder Bay, Ontario
- Saskatchewan Minerals (division of Goldcorp Inc.), Ingebritg Lake, Saskatchewan

EDUCATION SECTOR

- Connel & Ponsford District School Area Board, Pickle Lake, Ontario
- Dryden Board of Education, Dryden Ontario
- Dryden District Roman Catholic Separate School Board, Dryden, Ontario
- Hearst Board of Education, Hearst, Ontario
- Horton High School Ground Loop, St John, New Brunswick
- Kenora District Board of Education, Kenora, Ontario
- Lakehead Board of Education, Thunder Bay, Ontario
- Lakehead University, Thunder Bay, Ontario
- Nakina District School Area Board, Nakina, Ontario
- Northern District School Area Board, Armstrong, Ontario
- Northern Nishnawbe Education Council
- Rainy River/Fort Frances Roman Catholic Separate School Board, Fort Frances, ON
- Red Lake Board of Education, Red Lake, Ontario
- Red Lake Roman Catholic Separate School Board, Red Lake, Ontario
- Thunder Bay District Roman Catholic Separate School Board, Thunder Bay, Ontario

COMMUNITY/MUNICIPAL/GOVERNMENT/MULTI-RESIDENTIAL

- Atlantic Avenue Water Pollution Control Plant, Thunder Bay, Ontario
- Canadian Cuban Resorts, Cuba/Thunder Bay, Ontario
- City of Thunder Bay, Thunder Bay, Ontario
- Health Canada, Ottawa, Ontario
- Elk Lake Nature Centre, Elk Lake, Ontario
- Howey Bay Mine District Heating System Study, Red Lake, Ontario
- Ontario Ministry of Energy, Toronto, Ontario
- Ontario Ministry of the Environment, Toronto, Ontario
- North Western Ontario Chamber of Commerce, Thunder Bay, Ontario
- Ontario Hydro, Thunder Bay, Ear Falls, Manitou Falls, Ontario
- Pointe of View Discovery Bay Resort, Kelowna, British Columbia
- Port Arthur (Ramada Inn) Hotel Life Safety, Thunder Bay, Ontario
- Thunder Bay Chamber of Commerce, Thunder Bay, Ontario
- Town of Sioux Lookout, Sioux Lookout, Ontario
- Township of Emo, Emo, Ontario
- Township of Golden, Golden, Ontario
- Township of Red Lake, Red Lake, Ontario
- Vintage Hills Golf Community, West Bank, British Columbia

HEALTH CARE

- Canadian Institute for the Blind, Thunder Bay, Ontario
- Dawson Court/Grandview Lodge Fire Safety, Thunder Bay, Ontario
- Margaret Cochenour Memorial Hospital, Red Lake, Ontario
- North Park Nursing Home, North York, Ontario
- Northwood Manor Long Term Care, Red Lake, Ontario
- Sioux Lookout District Health Centre, Sioux Lookout, Ontario

FIRST NATIONS

- Bearskin Lake First Nation, Bearskin Lake, Ontario
- Big Trout Lake First Nation, Big Trout Lake, Ontario
- Cat Lake Nursing Station, Cat Lake Ontario
- Kingfisher Lake First Nation School, Arena, Day Care, Generating Station Heat Recovery System Review, Kingfisher Lake, Ontario
- Lac Seul First Nation, Lac Seul, Ontario
- Muskrat Dam Lake First Nation, Muskrat Dam, Ontario
- Northern Nishnawbe Education Council, Sioux Lookout, Ontario
- Sandy Lake First Nation, Sandy Lake, Ontario
- Shibogama Tribal Council, Sioux Lookout, Ontario
- Stanjikoming First Nation, Stanjikoming, Ontario
- Wapekeka Diesel Generating Station, Wapekeka, Ontario
- Webequie First Nation, Webequie, Ontario
- Whitefish Bay First Nation Arena, Whitefish Bay, Ontario
- Wunnumin Lake School/Day Care, Wunnumin Lake, Ontario

APPENDIX B: TRAK INTERNATIONAL'S PREVIOUS GEOEXCHANGE PROJECTS

❖ ST. JOSEPH'S ELEMENTARY SCHOOL – ROSEMOUNT, MINNESOTA

Services: Designed GeoExchange, plumbing, piping and HVAC systems, and provided heat pumps.

Completion: 2009

In 2007, the Church of St. Joseph began construction on a new 44,000 square foot addition to their existing building to house their education program. The project was originally under design using conventional gas fired DX mechanical systems. However, the church pastor had a passion for GeoExchange systems. After the church was presented with two water-to-air heat pump system options, the project architect brought in TRAK International to present their unique GeoExchange system to the construction team. The TRAK system which was eventually employed at the school uses central plant water-to-water heat pumps, with four-pipe individual zone fan coil arrangements and several energy recycling components.



A church or school is an ideal candidate for implementing a GeoExchange system because they will own and operate the building for many years. The increased initial construction costs generally result in an increased monthly mortgage payment. Nevertheless, the monthly utility expense savings garnered by installing a high performance, energy efficient mechanical system is usually greater than that of the added principal to the mortgage. This cash flow scenario results in a positive cash flow situation from day one.

TRAK provided the plumbing, piping, HVAC and GeoExchange design for this 44,000 square foot K-8 school addition to their existing sanctuary and administration space. The school addition includes eleven classrooms, a library, a two-story gymnasium, a kitchen and a large social area.

The installed system has two nominal 60 ton heat pumps that provide simultaneous heating and cooling for the space. The system also has one nominal 10 ton heat pump providing domestic hot water. 40 solar panels provide a "free" direct heating, source heat for the heat pumps, or recharging of the ground loop depending upon which control sequence is initiated.

Each fan coil has a TRAK Energy Device (TED box) that incorporates incoming hot and chilled water supply piping, and supplies outgoing piping to the fan coils. The TED box switches the system from heating to cooling based upon inputs from the zone temperature control sensors.

Two heat recovery coils are in the building relief air streams to capture energy from the warm air before it leaves the building. The heat recovery coils can be used to "blow off" system heat if needed to maximize the efficiency of the system as a whole.

❖ SUMMIT ELEMENTARY SCHOOL – CASPER, WYOMING

Services: Designed GeoExchange and piping systems, and provided heat pumps.

Completion: 2010

TRAK designed and built the plumbing and energy efficient HVAC systems for Summit Elementary School in Casper, Wyoming. The property features a 210 ton central TRAK GeoExchange system, providing 100% of the school's heating, cooling and domestic hot water heating.

Very quiet operation in the occupied spaces and various heat recovery methods create and sustain the ideal indoor learning environment.

"I'm loving this system. I have never been so comfortable in a building – I am usually freezing -- not this one, it's great!"

- Anne LaPlante, Ed.D., Principal of Summit Elementary School

TRAK provided the piping and GeoExchange design for this 64,000 sq. ft. K-5 school. The school includes twenty-five classrooms, a two-story village/community center, music and performance area and an administrative wing.

The installed system has three nominal 60 ton heat pumps that provide simultaneous heating and cooling for the space. The system also has one nominal 30 ton heat pump providing domestic hot water.

34 solar panels provide "free" direct heating, source heat for the heat pumps, or recharging of the ground loop depending upon which control sequence is initiated.

Each fan coil has a TRAK Energy Device (TED box) that incorporates incoming hot and chilled water supply piping, and supplies outgoing piping to the fan coils. The TED box switches the system from heating to cooling based upon inputs from the zone temperature control sensors.

Five heat recovery coils are in the building relief air streams to capture energy from the warm air before it leaves the building. The heat recovery coils can be used to "blow off" system heat if needed to maximize the efficiency of the system as a whole.



❖ PACIFIC SANDS BEACH RESORT – TOFINO, BRITISH COLUMBIA

Services: Provided a 90 ton GeoExchange system to provide eco-friendly heating, cooling and domestic hot water. Each villa features no tanks and no compressors so the occupants can hear the surf. TRAK EMS controls were also installed.

Completion: 2003



Pacific Sands Beach Resort is on the West Coast of Vancouver Island, just a few kilometres from the world famous Pacific Rim National Park. In the last 20 plus years Pacific Sands Beach Resort has expanded from 17 cottage and lodge units to 77 villas and suites along with a major guest services lodge building upgrade. In 2002, the resort added 22 luxury ocean front suites incorporating North America's first combined district potable water HVAC system.

Methods of construction that offered ecological benefit to the resort were embraced on many levels in the major addition that started in 2002. With respect to the mechanical systems, this meant low flush toilets were used exclusively throughout the units and of course the total reliance on the geothermal heating system.

The mechanical design and GeoExchange solution was provided by TRAK. TRAK Canada of Kelowna, B.C. did the engineering, project management and GeoExchange duties. Features in the mechanical package include radiant in-floor heating, increased ventilation rates, space cooling and "instantaneous" and virtually unlimited hot and cold water at the taps.

❖ BIELENBERG SPORTS CENTRE – WOODBURY, MINNESOTA

Services: Designed GeoExchange, plumbing, piping and HVAC systems and provided heat pumps.

This retrofit included the installation of TRAK's GeoExchange water-to-water heat pump system in place of the former 14 year old refrigeration ice making plant.

The installed system has four nominal 6 ton heat pumps dedicated to the source loop providing 12°F-15°F degree chilled glycol water for two arena floors. The system also has two nominal 60 ton heat pumps dedicated to the load loop that provide 145°F hot glycol water for space ventilation heating, resurfacer ice melting, sub-floor heating, and ice resurfacer and domestic water heating.

❖ EAGAN CIVIC ARENA – EAGAN, MINNESOTA

Services: Designed GeoExchange, plumbing, piping and HVAC systems. Provided heat pumps, as well as managed the GeoExchange well drilling and parking lot paving contracts.

Completion: 2010

The City of Eagan and TRAK International had an existing service agreement for maintenance of the Government Center and Civic Arena prior to the new construction. TRAK approached the City with the idea of upgrading the mechanical systems in its facility with high performance equipment.

This project included the installation of the GeoExchange water-to-water heat pump system in place of the existing refrigeration ice making plant. The installed system has four nominal 60 ton heat pumps dedicated to the source loop providing 12°F-15°F degree chilled glycol water for two arena floors. The system also has two nominal 60 ton heat pumps dedicated to the load loop that provide 145°F hot glycol water for space ventilation heating, resurfacer ice melting, sub-floor heating, and ice resurfacer and domestic water heating.



On the Civic Arena project, TRAK's involvement contributed to the project's success in several ways:

- Federal Grant – As part of our project development activities, TRAK drafted a Federal Energy Conservation grant application on behalf of the City, and enabled it to receive \$1,338,000 in federal funds for the project. These funds allowed the City to expand the project scope and incorporate additional capital improvements.
- Energy Modeling– TRAK provided a comprehensive energy, life cycle, and deferred maintenance financial model that helped the project obtain City approval.
- Logistics Planning – The Civic Arena is a major revenue source for the City so construction activities needed to be planned without down time. TRAK accomplished this with careful planning and sequencing of central plant construction activities. TRAK's new mechanical design called for retrofitting the gas-fired HVAC equipment in the administrative and locker room areas. TRAK coordinated work in administrative areas so that disruptions were minimized.
- Schedule Management – From City approval to completion, TRAK designed and built the Eagan project in 5 months. This aggressive schedule was monitored and managed by TRAK through weekly on-site progress meetings.

Upon completion, the Eagan Civic Arena project was delivered successfully on-time, on-budget and without any disruption to scheduled events.

APPENDIX C: BUTTCON ENERGY INC.'S PREVIOUS COGENERATION PROJECTS

Site	Description
Go Transit Bus Depot Streetsville, Ontario	<ul style="list-style-type: none"> • 1.2 MW cogeneration facility • Client – Go Transit • Constructed by Buttcon • Operated by Buttcon
Go Transit Bus Depot Oshawa, Ontario	<ul style="list-style-type: none"> • 1.2 MW tri-generation facility • Client – Go Transit • Constructed by Buttcon • Operated by Buttcon • Commissioning date August 2012
Holly 6 Generating Station	<ul style="list-style-type: none"> • 4.5 MW electrical generating facility • Client – TGG Pipeline Ltd. • Constructed by Buttcon • Operated by Buttcon
Caesars Windsor Casino	<ul style="list-style-type: none"> • 4.5 MW electrical generating facility • Client – TGG Pipeline Ltd. • Constructed by Buttcon • Operated by Buttcon
Sundog, Wyoming	<ul style="list-style-type: none"> • 8 MW • Client - Anadarko • Designed and operated by Buttcon
Doty Mountain, Louisiana	<ul style="list-style-type: none"> • 8 MW • Client - Anadarko • Designed and operated by Buttcon

❖ GO TRANSIT BUS DEPOT – STREETSVILLE, ONTARIO

The Streetsville Go Transit cogeneration plant supplies electricity to the site and power grid, as well as the under floor heating. This provides Go Transit with thousands of dollars in annual savings on heating costs as the plant provides 100% of the bus depot's heating needs by capturing and cycling the heat directly from the generator. Furthermore, the additional excess heat produced is used under outdoor sidewalks to keep the walk ways free of snow in the winter.



Streetsville Go Transit Site Interior



Streetsville Go Transit Site Exterior

Benefits to GO Transit:

- Operational savings (over 25 years)
- Energy reliability and security
 - Essential service
 - Supply, price volatility and quality
- Environmental
 - LEED Points
 - Green House Gas (GHG) offset credits
 - Alternative energy integration
 - Solar, wind and renewable fuel

Additional benefits as a result of the GO Transit's Cogeneration Plant:**National Benefits:**

- Green House Gas (GHG) offset credits
- Federal Government is looking for 'made in Canada' solutions to reduce Canada's GHG emissions

Provincial Benefits:

- Provide the Province with local power generation for a constrained regions
- Qualifies for provincial initiatives that encourage local generation
 - DR3
 - ELRP
 - Conservation Demand Management (CDM)

Local Benefits:

- The Energy Centre injects generation which improves local power quality and peak time reliability
- The Energy Centre creates new generation for the local wires company to add to their distribution mix
- Provides real time digital visibility and access to the generator at time of high power demand
- Energy Centre is an environmentally clean facility

❖ CAESARS WINDSOR CASINO

Buttcon provided the OLG with a high efficiency energy center at the Caesars Casino in Windsor, Ontario. This Energy Center produces reliable clean, green electrical and thermal energy while reducing carbon dioxide and associated gasses creating valuable GHG credits for the Governments. Furthermore, OLG is able to sell their surplus electricity to the grid and/or third parties.



Benefits:

- 66% of the electrical power produced by the Energy Center is sold to the public power grid providing much needed local generation to improve power quality and reliability in the City of Windsor.
- The system relieved pressure on 7 megawatt substation currently serving Casino Windsor facility, reducing risk of blackouts to the casino, residents and businesses.

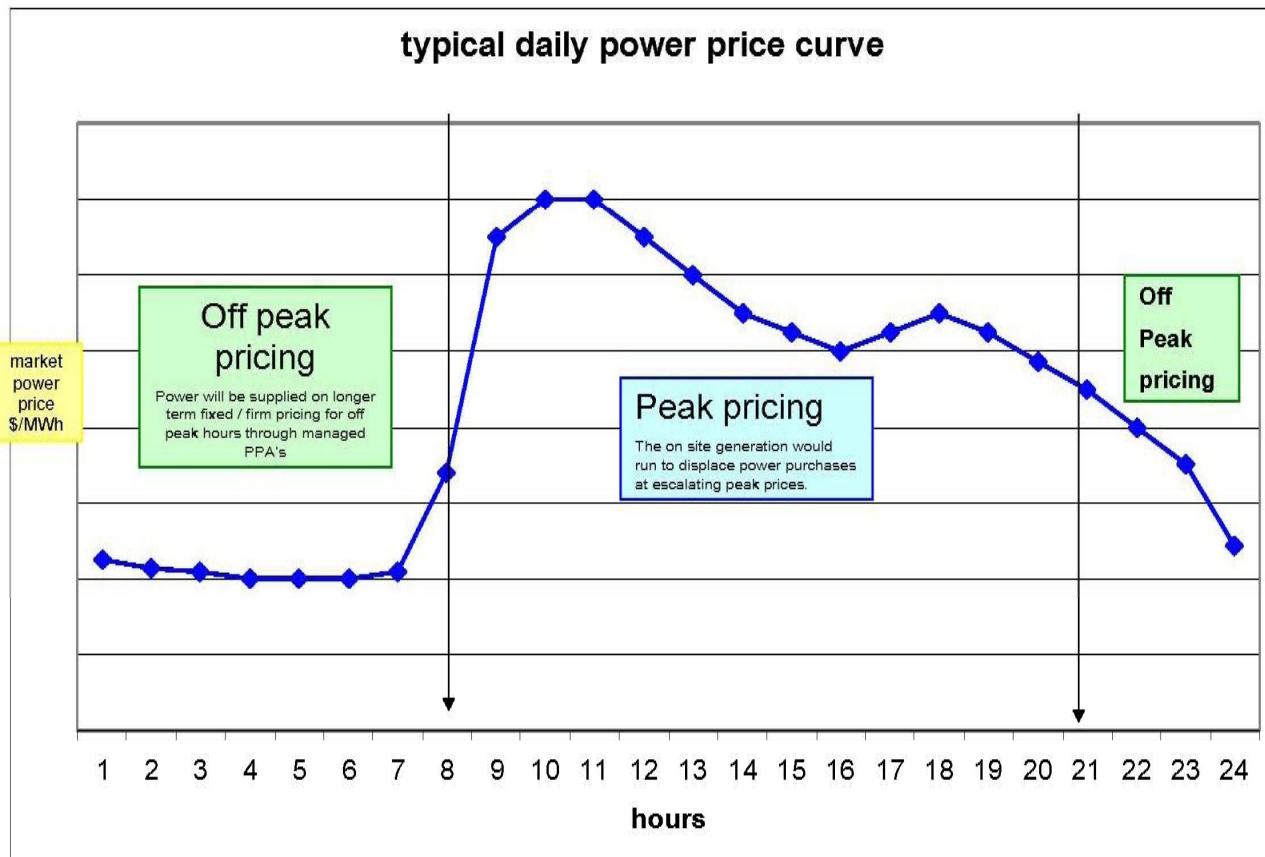
Through the cogeneration system Buttcon provided OLG with:

- A guaranteed energy supply
- On time and on budget
- Integrated team approach
- Transparent business model between all stakeholders

APPENDIX D: TYPICAL DAILY POWER PRICE CURVE



Embedded Energy Inc.



APPENDIX E: BUTTCOM LIMITED'S PREVIOUS EDUCATIONAL FACILITY PROJECTS

EDUCATIONAL FACILITIES COMPLETED BY BUTTCOM LIMITED:

Educational Facility	Value
Carleton Technology and Training Centre	7.6M
Central Peel Secondary School	9M
Cedarbridge Academy Prospect, Bermuda	90M
Humberwood Centre Development	22M
Michael Power High School	8M
Our Lady of Grace	3.2M
Regina Pacis, Catholic High School	1.2M
Sheridan College – Sheridan Centre for Animation and Emerging Technologies	12.5M
Sir Adam Beck Multi-Use Facility	9.1M
Sir Wilfrid Laurier University Student Union Building	3.3M
St. Basil The Great College School	20M
St. Benedict Catholic High School	25M
St. Gregory Elementary School	6.5M
St. Maria Goretti Elementary School	6.25M
Sutton Multi-Use Development	12M
York Catholic District School Board Education Centre	17.2M

❖ CARLTON TECHNOLOGY AND TRAINING CENTRE – OTTAWA ONTARIO

This design build finance project features a sophisticated mechanical system using heat pumps connected to the University's ground water well loop. The heating is supplemented by perimeter radiation from the hot water/stream line. Underground access is provided to the existing pedestrian tunnel networks.

❖ CENTRAL PEEL SECONDARY SCHOOL – BRAMPTON, ONTARIO

Owner: Peel Board of Education

The 177,000 square foot school required a complete upgrade and expansion to accommodate a growing student population. Proper co-ordination with school board administrators and sub-trades minimized distributions through pre-arranged layout areas for materials and tighter delivery schedules. Emergency exits, signage and other ordinary life safety systems were kept fully functional throughout the construction process, the project was completed a full year ahead of the original schedule and without undue disruptions to students and school activities.

❖ CADARBRIDGE ACADEMY SENIOR SCHOOL – DEVONSHIRE BERMUDA

Owner: Ministry of Works and Engineering

This 260,000 square foot, state of the art educational facility was designed by Bermuda's Ministry of Works and Engineering, Parks and Housing as the first step in Bermuda's master plan to revamp their entire education system.

The first of two, this facility satisfies a comprehensive curriculum of secondary level education. The large complex, one of the largest ever in Bermuda, comprises a full range of sophisticated instructional facilities and speciality facilities for business, science, recreation, vocational training, nutrition, theatre and the arts.

❖ HUMBERWOOD CENTRE – ETOBICOKE, ONTARIO

Located on 11.5 acres of environmentally sensitive land, the Humberwood Centre consists of a new 212,300 square foot, three-storey building with two elementary schools, a public library, community centre, community hall and a triple gymnasium.

“...While achieving cost and scheduling objectives are a high priority with every construction management project, both of these projects with Buttcon Limited have involved what we would consider to be extraordinary expectations met under unusually challenging budgetary and time circumstances. Buttcon’s performance as managers and constructors has been excellent by all accounts...”

— Ken Fukusbima, Associate, Moffat Kinoshita Architects

❖ LAKEHEAD UNIVERSITY STUDENT RESIDENCE – ORILLIA ONTARIO

Construction Value: 17.8M

This existing project was awarded to Buttcon through a Design Build Services proposal. This project will include the new construction of a 270 bed student residence at Lakehead University's Orillia Campus. This project will attain LEED platinum certification upon its completion.

❖ ST. BASIL THE GREAT COLLEGE SCHOOL – TORONTO, ONTARIO

Owner: Toronto Catholic District School Board

This construction management project included two other secondary schools. Due to government budget constraints, Buttcon was faced with the challenge of finding cost savings of 1.9M to go ahead with the project originally valued at 22M. Buttcon was able to achieve 1.3M of the 1.9M savings through value added services such as multi-contract awards to sub-trades for all three schools. Buttcon also found cost savings in design and material selections.

❖ MICHAEL POWER/ ST. JOSEPH HIGH SCHOOL – ETOBICOKE, ONTARIO

Owner: Metropolitan Separate School Board

Buttcon was retained to oversee this construction management turned gross upset price project, M.S.S.B.'s mandate was to update the existing Vincent Massey College to accommodate immediate and future requirements, with budget spending left to the discretion of the architects and construction managers.

Using modified design build approach, Buttcon redevelopment the flagship facility of the City of Etobicoke's Catholic education system, incorporating a plan to accommodate 600 students from the neighbouring elementary school, St. Helen's, for a one year period while their new facility was being reconstructed in downtown Toronto.

Buttcon devised a budget schedule for each addition and each phase of the retrofit. A priority number was assigned to each phase to establish cost allocation. As tenders were received, any cost savings were applied to additional retrofits and submitted to the owner for approval. As a result, all but a few minor areas of the 184,000 square foot school were re-modeled and the school was ready to receive students ahead of the original date.

❖ SIR ADAM BECK MULTI-USE FACILITY – ETOBICOKE, ONTARIO

The Toronto District School Board, The City of Toronto Public Library Board, The City of Toronto Parks and Recreation - Etobicoke office and the Alderwood Action after School Day Care Centre entered a joint agreement to construct this multi-use facility. The partnership offered a unique opportunity for member to share resources, achieve economies and deliver enhanced services for the benefit of the local and greater community.

Buttcon was awarded the construction management of this unique structure which was designed to blend with the surrounding community of Etobicoke and existing structures within the area. The 80,000 square foot facility includes an elementary school, day care, public library and restorations to an existing Olympic sized swimming pool that was built around and included within the new structure.

Planning and construction were all coordinated around an existing school still in operation, thus Buttcon's strong commitment to site safety was never more important, and it retained a top priority at all times. Specially designed safety procedures, flag-people and security personnel were all implemented.

❖ ST. BENEDICT CATHOLIC SECONDARY SCHOOL – CAMBRIDGE, ONTARIO

Owner: Waterloo Region Roman Catholic Separate School Board

The 155,000 square foot mixed use facility includes a centralized public library, childcare facilities with exterior tennis courts and a new baseball field. This design build project included construction and long term financing, which was the first private financing of a school approved by the Ministry of Education and Training.

❖ SUTTON MULTI-USE DEVELOPMENT – SUTTON, ONTARIO

This 124,000 square foot construction management project included two schools, a pool, library and gym under one roof. This construction management project was a joint agreement between the York Region Roman Catholic Separate School Board, York Region Board of Education, the Corporation of the Town of Georgina and the Georgina Public Library.

❖ YORK CATHOLIC DISTRICT SCHOOL BOARD EDUCATION CENTRE – AURORA, ONTARIO

Owner: York Catholic District School Board

This 175,000 square foot facility consolidates under one roof all of the School Board's administrative and shop operations, previously housed in three separated buildings throughout York Region.

Buttcon recommended several cost alternatives and was able to work with modification in design to complete the project on time and within budget.

"... Buttcon was the key player in creating a 'consortium' for the purpose of designing, as well as financing the project. The building was successfully completed within the budget and time parameters established for the project. We are quite pleased with our new facilities and quite pleased with the working relationship that we enjoyed with Buttcon – especially with respect to the collaborative approach they assumed in designing the building to meet our specific needs."

– Frank S. Bobesich, Director of Education

APPENDIX F: CONTACT INFORMATION

❖ Rossbro Green



Address: 420 Millway Avenue
Vaughan, Ontario
L4K 3V8
Contact: Matthew Rossetto
Phone: 905-761-6244 ext 225
Fax: 905-761-6244
E-mail: matthew.r@rossbrogroupp.com

❖ TRAK International



Address: 102-171 Commercial Drive
Kelowna, British Columbia
V1X 7W2
Contact: Jeff Maxwell
Phone: 250-491-8460
Fax: 250-491-8642
E-mail: jmaxwell@trakge.com

❖ Buttcon Energy Inc.



Address: 8000 Jane Street, Tower B
Concord, Ontario
L4K 5B8
Contact: Craig Clydesdale
Phone: 905-907-4242
Fax: 905-907-8096
E-mail: craig@buttconenergy.com

30Dec2011

**REPORT TO THE ECONOMIC DEVELOPMENT PLANNING COMMITTEE –
12 JANUARY 2012**

2012-009-01

**PROPOSED ZONING BY-LAW AMENDMENT
244 ORMOND STREET, CITY OF BROCKVILLE
OWNER: PENNY LYNN KNAPP**

**M. PASCOE MERKLEY
DIRECTOR OF PLANNING
ANDREW MCGINNIS
PLANNER II**

RECOMMENDATION

THAT Council for the Corporation of the City of Brockville approves the request to amend City of Brockville Zoning By-law 194-94, to rezone lands with municipal address 244 Ormond Street from R3-General Residential Zone to R5-Multiple Residential Site Specific Zone to permit four (4) dwelling units on the subject property with a minimum of four (4) on-site parking spaces, and recognition of existing lot area, frontage and setbacks.

PURPOSE

The purpose of this report is to provide recommendations for amendment to City of Brockville Zoning By-law 194-94 respecting the property at 244 Ormond Street.

BACKGROUND

Ms. Penny Knapp, owner of 244 Ormond Street, has made application for an amendment to Zoning By-law 194-94 to permit the addition of one (1) residential unit within the dwelling located at 244 Ormond Street. Sometime in the past, a fourth dwelling unit was created without obtaining the proper approvals or a building permit. The requested amendment to the Zoning By-law would permit four (4) dwelling units on the subject property, thereby bringing the fourth dwelling unit into conformity with Zoning By-law 194-94 only. Requirements under the Building Code and Fire Code must be addressed through the appropriate departments for approval.

ANALYSIS:

The subject property is located on the west side of Ormond Street, two (2) properties north of the Amy Street intersection. The building on the subject property is a two and a half storey detached building with carport.

The sketch submitted with the application and photos of the subject site are attached as **Schedule “A”** to this report.

Proposed Amendment to Zoning By-law 194-94
244 Ormond Street, City of Brockville
Owners: Penny Knapp
File: D14-151

Official Plan and Zoning Information

Official Plan Designation (In Force): Residential
Official Plan Designation
(New Plan adopted by Council June 14, 2011): Neighbourhood Area
Existing Zoning: R3-General Residential Zone
Requested Zoning: R5- Multiple Residential Site Specific Zone to allow for the increase in density (fourth unit), and recognition of existing lot area, frontage, setbacks and parking.

Site Characteristics:

Total Area: 754.0 m² and (8,116.0 ft²).
Frontage (Ormond Street): 16.8 m (55.0 ft.)
Depth: 33.5 m (110.0 ft.)

The site is occupied by an existing residential dwelling with attached porch and carport. 4 parking spaces that are in compliance are provided in the driveway and carport. Should the addition of the fourth unit in the existing building be approved through the rezoning, the owners are required to provide 6 parking spaces. Therefore a reduction is requested.

Surrounding Land Uses:

The lands immediately to the north are zoned R2-Single Unit Residential Zone, occupied by a single detached dwelling. The lands north of this R2 Zone are zoned C2-General Commercial Zone and are occupied by a mix of residential and commercial uses.

The lands immediately to the east (opposite side of Ormond Street) are zoned R2-Single Unit Residential Zone and are occupied by single detached dwellings.

The lands immediately to the south are zoned R2-Single Unit Residential Zone and are occupied by single detached dwellings fronting on Ormond Street and Amy Street.

The lands immediately west are zoned R2-Single Unit Residential Zone and are occupied by single detached dwellings with frontage on Amy Street.

Public Participation

The application requesting a Zoning Amendment has proceeded though the normal review process. On 6 December 2011, a Public Meeting was held by the Economic Development and Planning Committee. Notice of the Public Meeting was advertised in

Proposed Amendment to Zoning By-law 194-94**244 Ormond Street, City of Brockville****Owners: Penny Knapp****File: D14-151**

the Brockville Recorder and Times Newspaper on 10 November 2011 and was circulated to property owners within 120.0 metres (400.0 feet) of the subject property. In addition, a sign was posted on the subject property advising that the lands are the subject of an Application for Amendment to the City of Brockville Zoning By-law 194-94. Comments from City Departments and affected agencies were also solicited.

Comments Received

Written comments received to-date are summarized below and discussed further in this report.

1. Brent Caskenette, Chief Building Official - City of Brockville

No concerns provided the necessary building permits for the creation of the fourth unit are obtained.

- 2 Paul McMunn - Environmental Services Department (*memo dated November 15, 2011*)

No concerns with this application.

3. Greg Healy, Fire Prevention Officer (*memo dated November 14, 2011*)

No fire safety concerns at this time.

The minutes of the Public Meeting are attached as **Schedule “B”**.

POLICY IMPLICATION**Provincial Policy Considerations:**

A Provincial Policy Statement (PPS) 2005 has been issued under the authority of Section 3 of the Planning Act. The PPS provides policy direction on matters of Provincial interest related to land use planning and development. Section 3 of the Planning Act further directs that Council decisions affecting planning matters “shall be consistent with” the Provincial Policy Statement.

Part V of the PPS sets out various policies which describe the areas of Provincial interest. Not all policies in the PPS are relevant to the planning matter under consideration, and thus, only those relevant portions will be referenced below.

Section 1.1.3.3 states that “Planning Authorities shall identify and promote opportunities for intensification and redevelopment where this can be accommodated taking into

Proposed Amendment to Zoning By-law 194-94**244 Ormond Street, City of Brockville****Owners: Penny Knapp****File: D14-151**

account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs."

Section 1.4.3 states among others, that planning authorities shall provide for an appropriate range of housing types and densities to meet projected requirements of current and future residents of the *regional market area* by:

- a. establishing and implementing minimum targets for the provision of housing which is *affordable to low and moderate income households*.
- b. permitting and facilitating:
 2. all forms of *residential intensification* and *redevelopment* in accordance with policy 1.1.3.3;
- e. establishing development standards for *residential intensification*, *redevelopment* and new residential development which minimize the cost of housing and facilitate compact form, while maintaining appropriate levels of public health and safety.

The application currently being considered consists of recognizing an existing situation. Four (4) dwelling units have existed in this location for some time according to the applicant. Zoning currently in place permits a maximum of three (3) dwelling units and therefore an amendment to recognize the fourth (4th) unit is being requested.

The proposed use does not involve loss of natural resources or create adverse impacts on public health and safety. The proposed use increases the use of existing municipal infrastructure and public services while increasing the availability of housing. There is no conflict between the Provincial Policy Statement and the proposed addition of one dwelling unit to 244 Ormond Street.

Current Official Plan Consideration:

The proposed amendment to Zoning By-law 194-94 involves increasing the permitted density of the property but the primary residential use remains the same. Accordingly, no change to the Official Plan is required.

Section IV-Goals and Objectives, Sub-Section 4.1-Residential, identifies various residential goals and objectives which include: a variety of housing types; balance between ownership and rental accommodation and affordable housing to the residents.

Section V-General Development Policies addresses development which is fully serviced with municipal services and which represents logical development within the City.

Proposed Amendment to Zoning By-law 194-94

244 Ormond Street, City of Brockville

Owners: Penny Knapp

File: D14-151

Section VI-Land Use Policies, Sub-Section 6.2-Residential Districts addresses residential development within established residential areas on full municipal services with access to public roadways and municipal facilities.

Section VI, Sub-Sections 6.2.2, 6.2.3 and 6.2.4 provide for densities as follows:

Low Density Residential: up to 25 units per net hectare (10 units per net acre)

Medium Density Residential: up to 100 units per net hectare (40 units per net acre)

High Density Residential: up to 160 units per net hectare (65 units per net acre)

The residential buildings currently surrounding the subject site are primarily low density residential. The proposed density for 244 Ormond Street would be 53.3 units per net hectare (21.5 units per net acre). The density would therefore increase from a low density residential building to a medium density building.

The proposed increase in density is not anticipated to create a situation contrary to the requirements for medium density development as it is to be located in an existing dwelling and has been occurring for some time.

New Official Plan adopted by Council June 14, 2011

The New Official Plan, adopted by Council June 14, 2011, provides guidance on how to manage future growth, development, and change within the City of Brockville. However, it should be noted, that while the proposed Official Plan represents Council's intent, it has no legal status at this time. The Official Plan adopted 14 June 2011 still requires approval by the Province.

The Official Plan adopted by Council June 14, 2011 designates the subject property as "Neighbourhood Area".

The New Official Plan's goals are to create a sustainable City in terms of health and vitality, that is economically viable and diverse, has high quality city services and amenities, and is well planned.

Section 2.3 outlines strategic planning themes that include a "Sustainable, Healthy, and Vital City – Objectives", "An Economically Strong and Diverse City", "A High Quality of City Services and Amenities", and "A Well-Planned Responsive City".

The proposed intensification achieves the above objectives. The proposal legally intensifies an existing, serviced lot within the urban area; and, is located within walking distance of a number of amenities, services, and recreational facilities that meet residents' daily needs.

Proposed Amendment to Zoning By-law 194-94**244 Ormond Street, City of Brockville****Owners: Penny Knapp****File: D14-151**

Sections 4.3.1 and 4.3.2 outline multiple dwelling types that are to be permitted and encouraged within the Neighbourhood Area. Small-scale apartments are one of the dwelling types listed. These sections continue by stating, among others, that intensification, infilling and redevelopment of existing underutilized parcels shall be encouraged.

Section 4.3.3 outlines among others that medium density residential uses shall be compatible with adjacent uses relating to height, density, massing of the building and character.

The proposed development satisfies all the criteria required within the New Official Plan. As no change to the external façade of the building is proposed, there will be little to no impact on adjacent property owners as all policies are being adhered to.

Zoning By-law Considerations:

The subject property is currently zoned R3-General Residential Zone. The proposed amendment would recognize a fourth (4th) dwelling unit on the subject lands. The following items should be discussed with regard to the proposed Amendment to Zoning By-law 194-94:

1. Density:

The density of the subject property, containing the proposed four (4) units would be 53.3 units per net hectare (21.5 units per net acre). The addition of one (1) dwelling unit, by definition, brings the building classification from a triplex to an apartment dwelling.

The subject property is currently zoned R3-General Residential Zone. In order to accommodate a fourth dwelling unit, the subject property must be rezoned to R5-Multiple Residential Zone. The density range for this zone is 38 - 74 units per hectare (16 – 30 units per acre).

A change of the density of the subject property from R3 Zone to R5 Zone represents a jump of two (2) density classifications. However, being an increase in density in an area where the dwellings are predominantly zoned R2 – Single Unit Residential Zone and are, for the most part, occupied by single detached dwellings with the exception of a few businesses within close proximity on Central Avenue, the proposal will have minimal impact on the surrounding neighbourhood with the addition of the new residential unit. This has been proven over the years as the unit has been in existence for some time and no complaints have been lodged relating to the fourth unit.

Proposed Amendment to Zoning By-law 194-94**244 Ormond Street, City of Brockville****Owners: Penny Knapp****File: D14-151****2. Lot Area and Frontage:**

Zoning by-law 194-94 requires a minimum lot area of 1000.0 m² (10,765 ft²) and a minimum lot frontage of 25.0 metres (85 feet) to permit an apartment dwelling. The proposed amendment is requesting reductions to these minimums. The lot frontage is proposed to be reduced by 32.8% (16.8 metres or 55.0 feet) and the lot area by 24.6% (754.0 m² or 8,116.0 ft²). Both requests are significant decreases to the minimum requirements; however, represent intensification which is consistent with the current Official Plan, the Proposed Official Plan and the Provincial Policy Statement.

3. Parking availability and Number of Spaces:

Zoning By-law 194-94 requires parking at a rate of 1.5 parking spaces per dwelling unit. Said parking spaces are required to measure 2.75 m (9.02 ft) by 5.5 m (18.5 ft). The proposed use requires a minimum of six (6) on-site parking spaces. There are four (4) legal on-site parking spaces on site. During the Public Meeting, the applicant stated that only two (2) of the current tenants have vehicles. However, in the future, this situation may change and all tenants may drive. In this case, staff believes that a ratio of 1 parking space for each dwelling unit is acceptable and recommend that a minimum of four (4) parking spaces be maintained at all times.

Based on the above, Staff believes that a modification to the existing zoning to recognize the existing conditions is supportable. Should the recommendation be accepted by Council, the zone would read similar to the following:

'R5-X4-1

The uses permitted in the R5-X4-1 Zone shall be limited to an apartment dwelling containing up to a maximum of four (4) dwelling units.

The zone provisions for the R5-X4-1 Zone shall be as follows:

Minimum Lot Area	754.0 m ² (8,116.0 ft ²)
Minimum Lot Frontage	16.8 m (55.0 ft)
Number of Parking Spaces Per Dwelling Unit	1 space

All other existing setbacks be recognized on the date of passing of the by-law.

Proposed Amendment to Zoning By-law 194-94
244 Ormond Street, City of Brockville
Owners: Penny Knapp
File: D14-151

FINANCIAL CONSIDERATIONS

All costs associated with the development of the property are the responsibility of the Owner.

CONCLUSION

Following review of the PPS and Official Plan, as well as the submissions received respecting the request for zoning amendment for 244 Ormond Street, it is reasonable to create a site-specific zone to allow an apartment dwelling containing up to four (4) dwelling units to be permitted with a minimum of four (4) on-site parking spaces being maintained, a lot area of 754.0 m² (8,116.0 ft²), a lot frontage of 16.8 m (55.0 feet), and all other existing setbacks being recognized on the date of passing of the by-law. This is reflected in the recommendation at the beginning of this report.



M. Maureen Pascoe-Merkley, MCIP, RPP
Director of Planning

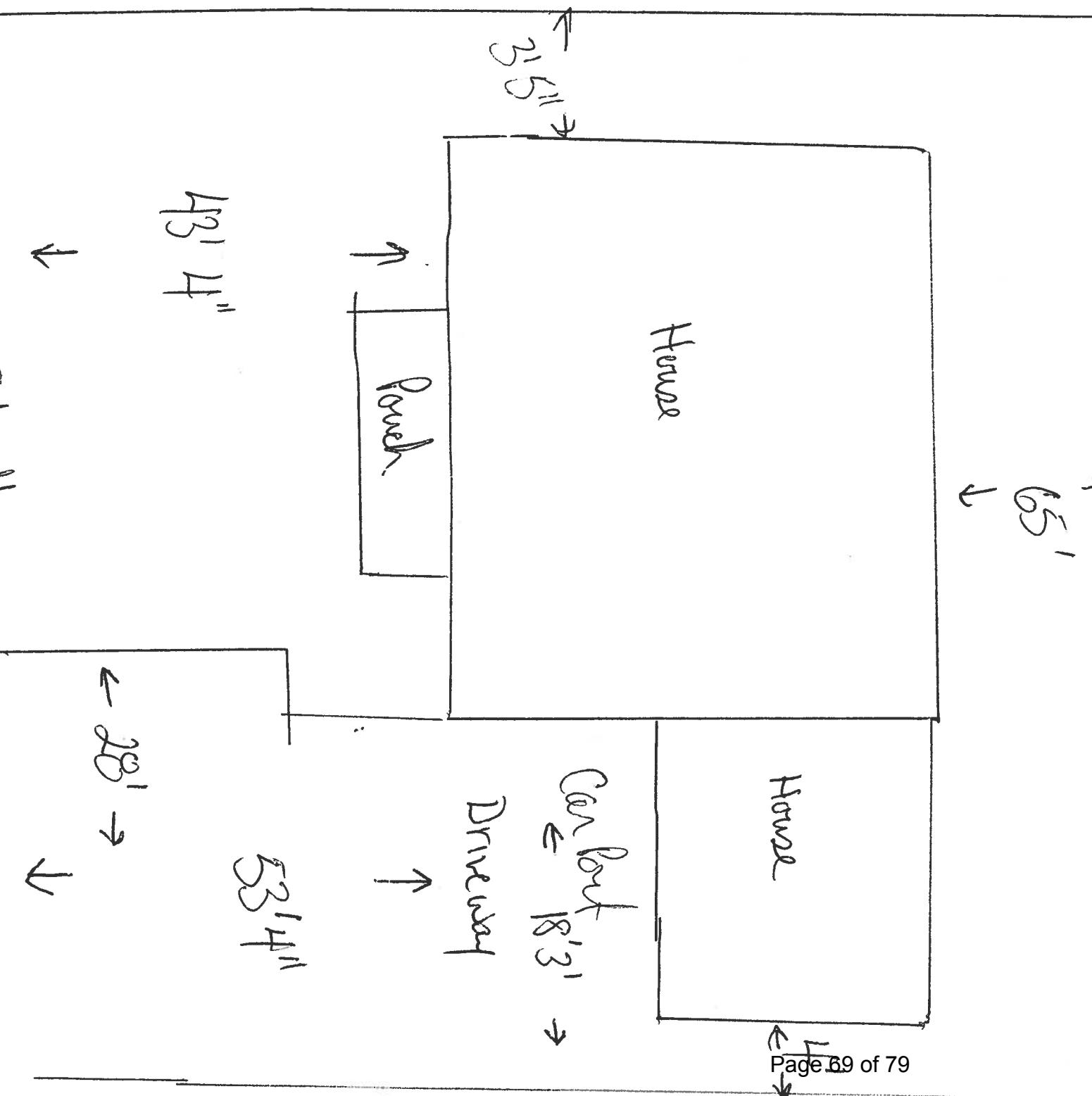


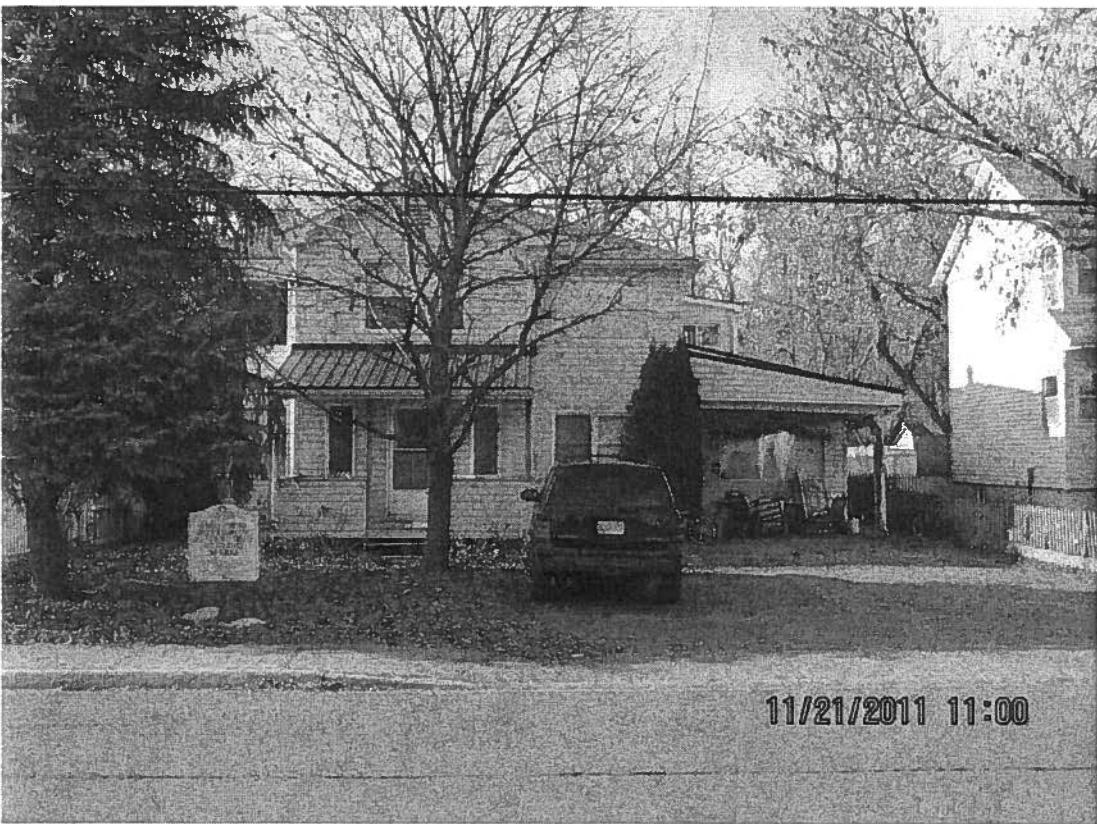
Andrew McGinnis, MCIP, RPP
Planner II



B. Casselman
City Manager

SCHEDULE "A" TO REPORT 2012-009-01





SCHEDULE "B" TO REPORT 2012-009-01



BROCKVILLE

CITY OF THE 1000 ISLANDS

PUBLIC MEETING MINUTES

Public Meeting Economic Development & Planning Committee

Tuesday, December 06, 2011, 6:00 PM
City Hall, Council Chambers

Roll Call

Committee Members:

Councillor J. Baker, Chair
Councillor L. Bursey
Councillor M. Kalivas
Councillor Mayor D. Henderson, Ex-Officio

Staff:

Mr. J. Faurschou, Planner I
Ms. D. Livingstone, Deputy City Clerk (Recording Secretary)
Mr. A. McGinnis, Planner II
Ms. M. Pascoe Merkley, Director of Planning
Mr. D. Paul, Director of Economic Development

Others:

Councillor Elect T. Blanchard

STAFF REPORTS

2011-135-12
Proposed Zoning By-law Amendment
244 Ormond Street, Brockville
Owner: Penny Knapp

Moved by: Councillor Kalivas
Seconded by: Councillor Bursey

THAT Report 2011-135-12 be received as information and that a report on this matter be prepared by staff for consideration of the Economic Development Planning Committee at a future meeting.

CARRIED

Councillor Baker, Chair, announced the Public Meeting.

Mr. McGinnis, Planner II, announced that Notice of the Public Meeting for Staff Report No. 2011-135-12 was given in the Recorder and Times Newspaper on November 10, 2011, and a notice

was sent to surrounding property owners within 120m (400 feet) of the subject property and a sign was placed on the property.

Councillor Baker reviewed the procedures for the Public Meeting.

Councillor Baker asked that any person wanting further notice of the passage of the proposed amendment should give their full name, address and postal code to the Secretary prior to leaving the meeting.

Councillor Baker called on the Planner to explain the purpose of the Public Meeting and the nature of the application.

Mr. McGinnis reviewed the revised amendment to the Zoning By-law 194-94. The amendment would recognize the addition of one residential unit within the existing triplex and would change the zoning from R3- General Residential to R5-Multiple Residential Site Specific Zone. The change would increase permitted density, recognize an existing lot area of 754m² with a frontage of 16.8m, all existing setbacks, and permit a reduction in parking to 4 spaces.

Chair Baker then opened the floor to the Committee for questions and comments.

The following persons spoke in support of the application:

Mr. Joseph Wison
RR 2, Airport Road
Elizabethtown-Kitley
KA0 1T0

Mr. Wilson is a private contractor and plumber, who has worked on the unit.

Councillor Elect Blanchard asked Mr. Wilson to explain his relationship to the property.

Mr. Wilson explained that being a contractor and licensed plumber he has seen the building's infrastructure and knows the tenants maintain the property and is familiar with the neighbours.

Ms. Knapp, Owner of 244 Ormond Street, Brockville indicated that she was not aware of the property not being zoned for a fourth unit. Ms. Knapp explained that she had a real estate agent look at the property and became aware that a permit is required. Ms. Knapp is here to establish the proper zoning on the property. She has lived there since the 1980's and acquired the building which had four units in 1991.

Chair Baker asked Mr. McGinnis for clarification as to why the Chief Building Inspector was requesting an inspection. Mr. McGinnis relayed that Mr. Caskenette is asking for the inspection to insure it is safe and has all applicable permits under the Ontario Building Code. Mr. McGinnis noted that any building deficiencies will be required to be remediated.

Ms. Knapp noted that parking required for existing tenants is for four (4) cars as two (2) tenants do not have vehicles. Mr. McGinnis clarified that the requirement is for six (6) parking spaces and currently four (4) are available. Schedule "A" to Report 2011-135-12 illustrates the existing parking; legal parking in carport, and 3 in front.

Ms. Knapp pointed out that the driveway is 28 feet long and can accommodate more than four (4) vehicles.

No persons spoke in opposition of the application.

Chair Baker closed the public meeting at 6:12 p.m.

**10 JANUARY 2012
REPORT TO THE ECONOMIC DEVELOPMENT PLANNING COMMITTEE
12 JANUARY 2012**

2012-011-01

**PROPOSED AMENDMENT TO SIGN BY-LAW 84-89
103 BROOME ROAD
PRO OIL CHANGE
OWNER: PAKENHAM HOLDINGS LIMITED**

**M. PASCOE MERKLEY
DIRECTOR OF PLANNING
ANDREW MCGINNIS
PLANNER II**

RECOMMENDATION:

1. THAT Sign By-law 84-89 be amended to allow the recently approved ground sign with electronic message board to be constructed on the Parkedale Avenue street frontage rather than the Broome Road street frontage located at Pro Oil Change, 103 Broome Road, City of Brockville; and,
2. THAT the existing Site Plan Control Agreement be amended to specify the Owner's responsibility, financially and otherwise, to remove or relocate the sign in the future when the City undertakes to extend (eastward) the watermain located on the north side of Parkedale Avenue at Broome Road.

PURPOSE:

The purpose of this report is to report on a further application for Amendment to City of Brockville Sign By-law 84-89, received from Mr. Joe Norton, acting as Agent for Pakenham Holdings Limited, owner of Pro Oil Change identified with municipal address 103 Broome Road, City of Brockville.

The application requests that City of Brockville By-law Number 080-2011 be amended to allow a ground sign to be constructed on the Parkedale Avenue street frontage rather than the Broome Road street frontage located at Pro Oil Change, 103 Broome Road, City of Brockville.

BACKGROUND:

An application for Amendment to City of Brockville Sign By-law 84-89 was received from Mr. Joe Norton, agent for Pakenham Holdings Limited, owners of the subject property located at 103 Broome Road, City of Brockville, on 25 August 2011.

The initial request was to allow for the construction of an electronic message board located on the Broome Road frontage at 103 Broome Road.

On 11 October 2011, Council for the City of Brockville approved the request to amend Sign By-law 84-89 by By-law Number 080-2011. Said By-law read as follows "One ground sign shall be permitted to be erected on the Broome Road frontage of the property with

Proposed Amendment to Sign By-law 84-89

Applicant: Joe Norton – Pro Oil Change

Owner: Pakenham Holdings Limited

municipal address 103 Broome Road; said sign to include an electronic message board, with a maximum sign area of 4.64 m² (50.0 ft²) per side."

Following approval, the applicant applied for and received a building permit for the sign to be located at the Broome Road entrance of the property. Upon inspection, it was noted that the slab for the proposed sign was actually poured at the corner of Parkedale Avenue and Broome Road and not in the location approved by by-law. It was further discovered that this slab was located approximately 1.5 metres (5.0 feet) within a City of Brockville watermain easement.

ANALYSIS:

Schedules "A" and "B" to this report identifies the new location, the City of Brockville easement and photographs of the existing property showing the slab that has been previously poured. This sign is proposed to be used to identify Pro Oil Change and to provide an area for periodic messages. The sign shall not overhang the City lands.

Schedule "C" to this report illustrates the proposed sign, including dimensions for the proposed sign. Construction materials and construction details were subject to review have been approved by the Chief Building Official.

POLICY IMPLICATIONS:

The proposed sign design and new location was circulated to the Operations Department, Planning Department Building Division and the Ministry of Transportation. No objections to the amended location were received.

City of Brockville Environmental Services Department was contacted and a response of "no concern" was provided, conditional upon a written agreement between the property owner and the City of Brockville that should extension of this watermain occur, any removal/relocation requirement pertaining to this sign is at the expense of the Owner.

FINANCIAL CONSIDERATIONS:

All costs associated with this application and further requirements are the responsibility of the Applicant.

CONCLUSION:

The Planning Department, Operations Department, Environmental Services Department, Building Division and the Ministry of Transportation, have no objections to the proposed

Proposed Amendment to Sign By-law 84-89

Applicant: Joe Norton – Pro Oil Change

Owner: Pakenham Holdings Limited

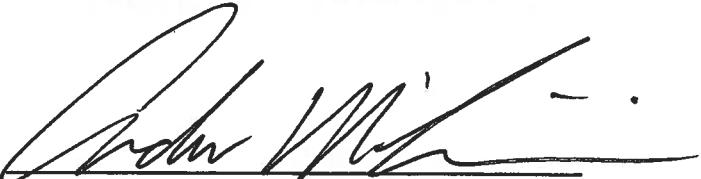
amendment to Sign By-law 84-89. The proposed location, although different than previously approved, is not expected to pose any problems in terms of sightlines and driver distraction is expected to be relatively low. However, as noted previously in this report, the slab for the sign has been located within the City of Brockville watermain easement. Should this watermain need to be extended in the future, all cost with the relocation/removal of the sign will be born by the property owner.

Therefore, staff believes that the existing Site Plan Control Agreement needs to be amended and requires that the new agreement be registered on title. This clause will advise the Owner, and any future owners, that any and all cost associated with the relocation/removal of this sign is at their expense.

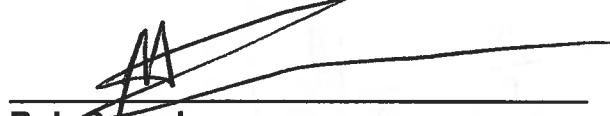
This conclusion is provided in the recommendations section of this report.



M. Maureen Pascoe Merkley, MCIP, RPP
Director of Planning

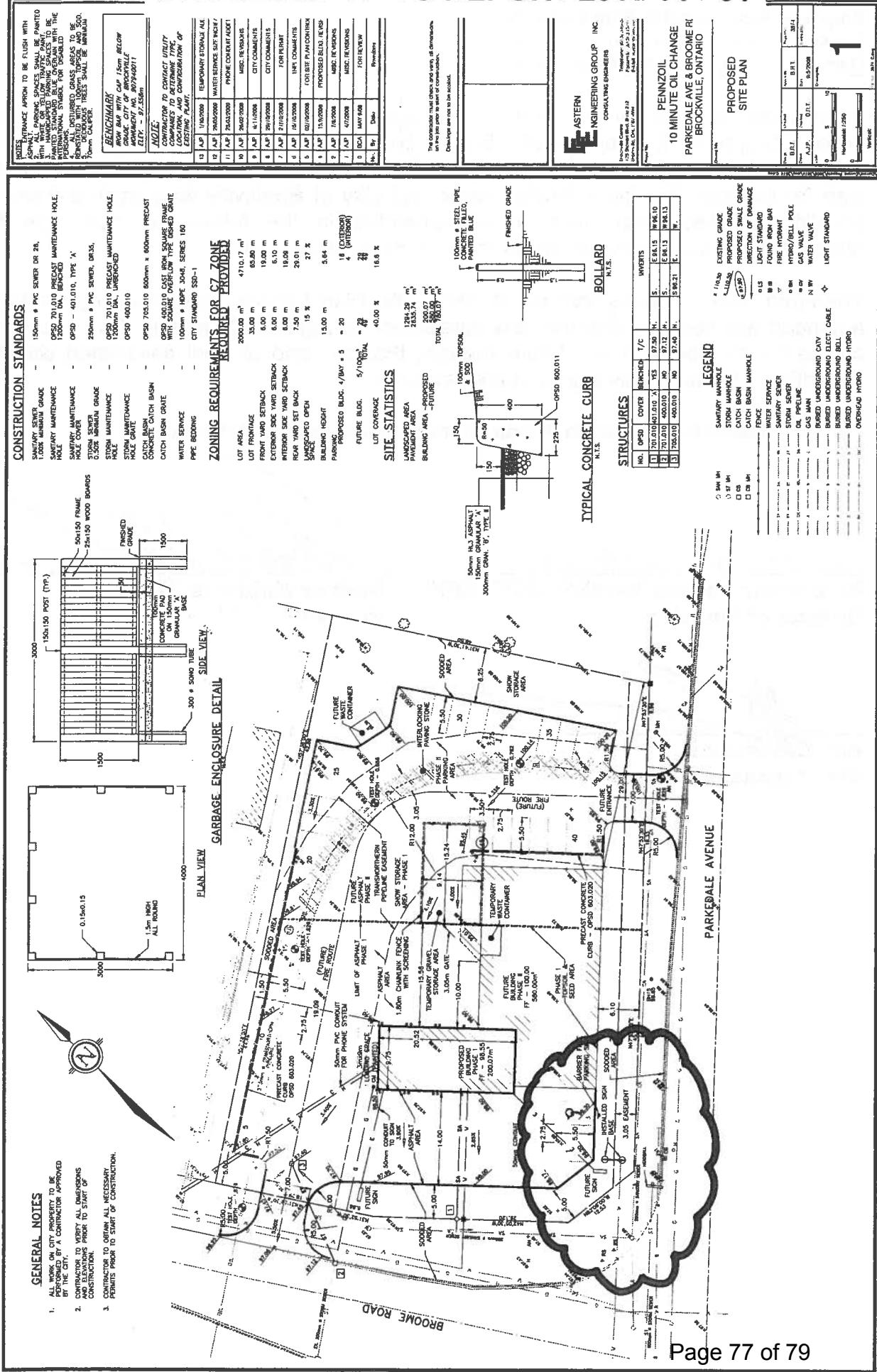


Andrew McGinnis, MCIP, RPP
Planner II



Bob Casselman
City Manager

SCHEDULE "A" TO REPORT 2012-011-01



SCHEDULE "B" TO REPORT 2012-011-01





Zip Signs Ltd.
5040 North Service Road
Burlington, Ontario L7L 5R

SCHEDULE "C" TO REPORT 2012-011-01

