

FCM 2016 Sustainable Communities Conference Workshop Handout From Crazy to Common Sense – “Radical” Ideas Whose Time Has Come

The sustainability field is constantly changing, and ideas that were considered radical a decade ago are now best practices. This interactive session explores a range of innovative sustainability approaches that are ready for the mainstream. From providing free housing for the homeless, to financing home energy retrofits, to segregating bike lanes, you can take home insights and tools for applying these practices in your own community.

The workshop started with an overview of the municipal sustainability context followed by small group discussions on twelve different topics. Each participant was given the opportunity to choose the three topics of greatest interest to them, and then dive into peer-to-peer discussions on the latest tools, approaches and lessons learned.

This document compiles the 12 handouts developed to guide the small group discussions listed below.

Table #	Topic	Table Hosts
1	ENDING HOMELESSNESS	Jaime Rogers, Medicine Hat Community Housing Society
2	MUNICIPALLY-FINANCED RETROFITS	Aderonke Akande, City of Toronto Marco Iacampo, City of Toronto Leon de Vreede, Town of Bridgewater
3	VENDRE LE BIOGAZ	Louis Bilodeau, Directeur General, Ville de Saint-Hyacinthe
4	ENGAGING BUSINESS IN SUSTAINABILITY	Mike Morrice, Sustainability CoLab Alex Dumesle, Partners in Project Green
5	SUSTAINABLE NEIGHBOURHOODS	Sonya Meek, Toronto and Region Conservation Authority Peter Whitelaw, Modus Planning, Design and Engagement
6	JOINT FIRST NATIONS-MUNICIPAL ECONOMIC DEVELOPMENT	Helen Patterson, Federation of Canadian Municipalities
7	FLEXIBLE WORK ARRANGEMENTS	Ethel Craft, City of Ottawa Robyn M. Bews, WORKshift
8	BROWNFIELD RENEWAL	Stephanie Bohdanow, Federation of Canadian Municipalities Greg Atkinson, City of Windsor Kase DeVries, City of Grande Prairie
9	SHARING ECONOMY	Cheeyng Ho, Whistler Centre for Sustainability
10	VIBRANT PEDESTRIAN SPACES	Krisztina Kassay, City of Vancouver
11	BIKE LANES AND INFRASTRUCTURE	Zlatko Krstulic, City of Ottawa
12	NET ZERO ENERGY HOUSING	Sonja Winkelmann, Canadian Home Builders' Association

TABLE TOPIC	VIVA Vancouver Public Space Program -Transforming Road Spaces into People Places		
TABLE HOST	Krisztina Kassay – City of Vancouver		
HOST EMAIL	vivavancouver@vancouver.ca	HOST TEL.	604-829-4348

1. Summary

What is VIVA Vancouver?

- Established in 2011, VIVA Vancouver is a City of Vancouver program that reclaims and transforms road spaces into vibrant pedestrian spaces.
- In collaboration with community groups, local businesses, and regional partners, VIVA facilitates short-term street closures throughout the year, creating public spaces for walking, lounging, and lunching. In some instances, short term closures turn into long term or permanent public spaces.

What kinds of spaces has VIVA created?

- VIVA spaces include:
 - Parklets, which transform parking spaces into outdoor seating
 - Pavement-to-plaza projects focused on neighbourhood scale gathering spaces
 - Regularly recurring weekly summertime closures of key downtown streets for events
 - Annual design-build competition that transforms a busy downtown street into a summertime plaza

What are VIVA Vancouver’s goals?

- Enhance the city's sense of community and connection
- Encourage active forms of transportation, like walking and cycling
- Benefit local businesses

How are VIVA sites chosen?

- The City of Vancouver’s Transportation 2040 Plan has identified key downtown locations for VIVA to test as public spaces
- Other sites and project ideas come forward from the community
- Proposed sites are assessed for their public life potential before selection
- All projects involve partnerships with community champions

How does VIVA measure project success?

- VIVA has developed a robust monitoring program that includes behavioural mapping, pedestrian counts, duration of stay tracking, and business and intercept surveys

2. Key questions or ideas to consider

- Not all short term public space projects are going to succeed equally. And that’s just fine! Road space adaptation requires experimentation and intelligent failures. It’s all a part of the learning process.
- A common challenge with this kind of work is the perception that the newly introduced public space will result in increased negative social behaviour. To help overcome this challenge, you can:
 - Engage local businesses, community groups, and residents to find project champions and build support
 - Highlight successful case studies and local examples
 - Start with temporary pilot projects, with opportunities for refinement
 - Monitor and document how people use and enjoy the site before and after project implementation, using tools such as behaviour mapping, duration of stay surveys, intercept surveys, and photography
- Another common challenge is the perception that interrupting high-demand corridors to create spaces like plazas is not a viable option. To help overcome this challenge, you can:
 - Understand spectrum of corridor needs, and whether other uses such as transit, goods movement and delivery, servicing, and parking can be accommodated on other routes or within the site design
 - Increase support by making design and implementation a participatory process, e.g. through design competitions
 - Monitor and document how people use and enjoy the site before and after project implementation

3. Resources / Links

- City of Vancouver VIVA Vancouver Program: vancouver.ca/viva
- City of Vancouver Healthy City Strategy: vancouver.ca/healthycity
- City of Vancouver Transportation 2040 Plan: vancouver.ca/transportation2040
- “Finance for Urban Spaces and Places,” 2015. <http://bit.ly/1Nc9AGH>
- New York City Department of Transportation, “The Economic Benefits of Sustainable Streets,” [nd]. <http://on.nyc.gov/1ezXo64>
- New York City Department of Transportation, “Measuring the Street: New Metrics for 21st Century Streets,” 2012. <http://on.nyc.gov/1pRKn8P>
- Transportation Alternatives, “East Village Shoppers Study: A Snapshot of Travel and Spending Patterns of Residents and Visitors in the East Village,” 2012. <http://bit.ly/1TQaU7w>
- University City District, “The Case for Parklets: Measuring the Impact on Sidewalk Vitality and Neighborhood Businesses,” 2013. <http://bit.ly/1Kdv605>

TABLE TOPIC	Ottawa: A Cycling and Transit Success Story		
TABLE HOST	Zlatko Krstulic		
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Summary

Radical Idea- that a synergistic high-quality cycling and transit network can carry more residents to/from Ottawa’s core area than by personal vehicle trips. By 2031 66% of trips into the Core Business District will be made on Transit or by Bike.

Radical Idea- that winter cycling (now a ‘crazy idea to many’) can be normal in the future.

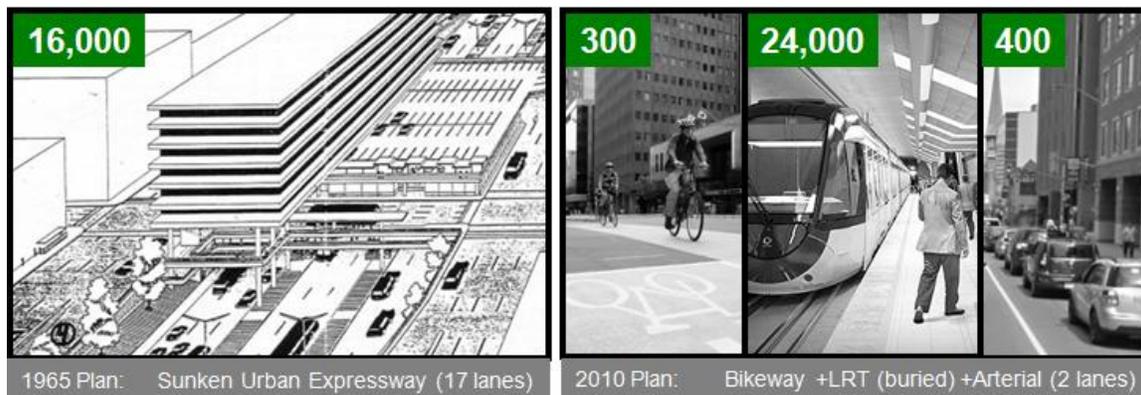


Figure 1- Laurier Ave Distributor plans circa 1965, vs. current implementation for 2018

The city has extensively surveyed resident’s attitudes to cycling. Residents tell us that they want cycling routes that they perceive to be safe (i.e. comfortable and attractive to use). Ottawa is a winter city, with far-flung suburban areas—by combining high quality transit and cycling facilities- more and more residents will see a viable and attractive option to using or owning a personal automobile. Three key enabling initiatives are;

Cycling supportive planning

- ✓ Why?; because land use planning (including density targets) makes a big impact on how close residents are to jobs, services and social amenities – these travel distances must fall within the average cycling range of a typical resident- otherwise we cannot meet future targets for cycling rates

Improved multi-modal options

- ✓ Why?; Because the City is making a major investment in Transit and transit use coupled with cycling provides a more comprehensive transportation alternative for residents (offering cyclists options for winter travel, during bad weather, for some longer trips etc). The impact of each mode (cycling, transit), helps drive usage of the other. There are also many cases where bikes can be used in the first leg of a transit trip- which might otherwise be too long to do by bike alone, or where the transit station is too far for a comfortable walk.

Safe and Comfortable (continuous) Cycling facilities

- ✓ Why?; Because the majority of Ottawa residents do cycle, and would like to cycle more- but they are dissuaded from doing so due to an aversion to cycling amongst heavy or high-speed vehicular traffic. The OCP2013 therefore provides guidelines for safer and more comfortable cycling facilities- which often provide physical separation from traffic where warranted, and where it is feasible to do so.
- ✓ Cycling routes also need to provide continuity. To this end a 'Cross-Town Bikeway' network is included within the OCP2013 initiative which will be prioritized for implementation in order to rapidly build-out a series of key, continuous and comfortable cycling routes across the City.
- ✓

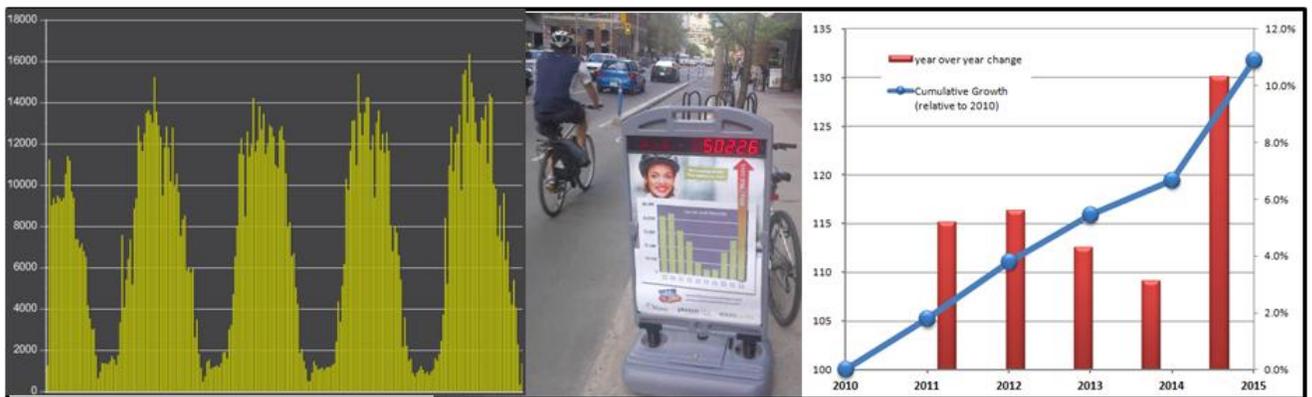
• **Key questions or ideas to consider**

Ideas and tips that municipalities should consider if they are pursuing this course of action:

- Promoting Bike/Ride/Walk, tracking success, showing the full-year benefits

	Transit	Bike	Million Trips/yr
2011	100	16	116
2031	130	30	160

- Tracking cycling growth, promoting success to show increased relevance of Cycling



- **Tips and Suggestions provided in the following background materials:**
 - [Laurier Segregated Facility \(TAC paper\)](#)
 - [Laurier Segregated Facility \(Report to Committee\)](#)
 - [Main Street Segregated Facility \(project Web Page\)](#)
 - [Churchill Complete Street Bike Tracks \(TAC award nomination\)](#)
 - [Ottawa Complete Streets framework \(presentation\)](#)
 - [Ottawa Cycling in the City eNewsletter](#)
 - Ottawa Cycling Data Collection and Promotion (webinar) *available on request*
 - Ottawa Cross-Town Bikeways (presentation) *available on request*
 - Ottawa self-guided Bike Planner Tour *available on request*



AN ACTION PLAN FOR NET ZERO ENERGY HOUSING IN CANADA MOVES FORWARD

- THE ACCELERATION OF NET ZERO -

A Net Zero Energy Housing Council

The Canadian Home Builders' Association (CHBA), the voice of Canada's residential construction industry since 1943, established a Net Zero Energy (NZE) Housing Council in 2014 to guide its efforts in high-performance housing. The 53 Founding Members were selected for their demonstrated competence and experience in NZE or R-2000 housing as well as their knowledge or capability in specialized areas important to advancing NZE housing.

A Net Zero Energy Labelling Program

On September 29, 2015 the CHBA launched a Pilot of the Association's Net Zero Energy (NZE) Labelling Program - continuing CHBA's long history in leading energy efficiency in residential construction. The Program will provide the industry with a clearly defined yet rigorous 2-tiered (NZE and NZE Ready) technical standard that will distinguish and recognize builders and renovators and their NZE homes. To encourage high levels of industry adoption (even with production builders) the program is striving to keep the administrative process simplified. The Pilot will be used to validate both administrative as well as technical details prior to launching "version 1" of the Program in 2016.

Builder and renovator members who want to be part of this exciting development will take training as part of the qualification process. This will help get the necessary knowledge in to the hands of early adopters and accelerate the capacity of builders and renovators to achieve NZE. A network of CHBA NZE Qualified Service Organizations, Energy Advisors and Trainers is being established to work directly with the builders and renovators to design, model, test and inspect the homes, as well as to deliver the training.

To build awareness and understanding of the value of NZE homes and to stimulate market demand, Marketing and Communications initiatives (including the development of a NZE brand, and sales and marketing tools for the builders and renovators) are being developed, with the goal of launching these in conjunction with the full "version 1" of the Program in 2016. To address the initial cost of NZE homes, the development of innovative and effective financing mechanisms are also being explored.

CHBA supports innovation in our industry with the goal of creating a market advantage for builder and renovator members pursuing Net Zero Energy performance. **This Program will help to meet the housing aspirations of Canadians, and renew Canadian leadership in high performance housing.**

KEY PRIORITIES FOR YEAR ONE AND TWO

- **A NZE Labelling Program** to distinguish and recognize NZE/ NZEr homes and the builders/ renovators
- **Marketing & Communications initiatives** to develop the NZE brand, build awareness and understanding of the value of NZE homes, and stimulate market demand
- **Educational initiatives** to bridge the knowledge gap for early adopters and accelerate builder capacity to capitalize on NZE
- **Financing initiatives** to address the initial cost of NZE homes through innovative and effective financing mechanisms

A Full Spectrum of Market Offerings

The CHBA supports a full spectrum of voluntary energy performance levels to provide Canadians with higher performing homes. These programs present a complete market offering that is applicable to custom and production homes, renovations and low-rise MURBs. The CHBA NZE Labelling Program has been designed so that a home could still qualify for NZEr, R-2000, or ENERGY STAR® if NZE isn't achievable for one reason or another.

Compliance with the most current Building Code is required by law for all new homes. The Canadian Building Code continues to increase the minimum energy performance requirements and is updated approximately every 5 years.

Energy Star homes are 20% more energy efficient than homes built to code, R-2000 homes are 50% more energy efficient than homes built to code, and NZE ready homes are approximately 80% more energy efficient than homes built to code. Due to the energy production that is part of a NZE home, its energy performance is 100% better than homes built to code.



This diagram shows the increasing energy performance levels

"Our Nationwide Home Buyer Preference Study confirmed that consumers want and expect an energy efficient home. Our members have a long history in delivering high performance homes and are ready and eager to deliver the next generation of high performance housing to discerning Canadian home buyers. Our Net Zero Energy Labelling Program will provide third party confirmation for both the industry and the consumer."

Kevin Lee, CEO, CHBA

Nationwide Market Preference Study

In 2015 the first nationwide market preference study for the home building industry was conducted. The CHBA report, produced in partnership with Avid Ratings Canada, provides in-depth insight into what homes buyers are looking for – and demonstrates the importance of energy efficiency to today's home buyers. 1,581 new homeowners across six provinces of Canada (BC, AB, SK, MB, ON, NB) participated in the study.

These study results confirm that homeowners expect energy efficient homes. Canadians want their homes to be as tough as they are; to be able to endure Canadian winters with ease! CHBA members will meet the housing aspirations of Canadians, and renew Canadian leadership in high performance housing by offering consumers a "made in Canada" solution: NZE homes!



The top 10 "Must Have" home features identified by the study participants:

1. Walk-in closets
2. Energy efficient appliances
3. Overall energy efficient home
4. High-efficiency windows
5. Kitchen islands
6. Linen closets
7. Open concept kitchens
8. Large windows
9. 2-car garage
10. Walk-in pantry

BECOME A CHBA NZE QUALIFIED BUILDER OR RENOVATOR IN 4 STEPS

1

Membership

Builders and renovators must be a member of the CHBA. Learn more about the benefits of membership from your local HBA.

2

Training

Attend/view a NZE information session/webinar and successfully complete R-2000 and NZE Builder Training. Contact a CHBA NZE Qualified Service Organization for more information.

3

Licenses

Successfully acquire EnerGuide and ENERGY STAR® (ESNH) licenses before you start the home. Once you successfully complete your first R-2000 home, you'll get an R-2000 license. (NOTE: An ESNH licence is only for those wanting the optional ESNH label.)

4

Labels & Certifications

Work with a CHBA NZE Qualified Service Organization to obtain EnerGuide, ESNH (optional), R-2000 and NZE/NZEr labels and certifications for the home.

Once your first NZE/NZEr home is labelled you earn the designation of CHBA NZE Qualified Builder. *Congratulations!*
To maintain this designation, participate in on-going NZE education (TBC during the Program Pilot) and build at least one NZEr home every 3 years.

Homes participating in the PILOT must meet these requirements to receive the CHBA NZE/NZEr Qualified Home designation:

BASE

NRCAN R-2000 v.12

REQUIRED

EnerGuide for Houses
Net Annual Energy Use ≤ 0 GJ (using HOT2000 v.10.51)

Note: Once there's sufficient EA capacity to deliver HOT2000 v.11 across Canada, we'll begin to use it.

NRCAN R-2000 NZE Pilot Requirements

Note: NRCAN will make the required documents and training available to the NZE Qualified EAs and SOs. (R-2000 v.14 DRAFT, the Home Criteria, Technical Procedures and the spreadsheets including the defaults.)

Additional Requirements as specified by the CHBA

- For NZE: Renewable energy design evaluation & installation verification by a NZE Qualified EA.
- For NZEr: Renewable Ready design evaluation & verification by a NZE Qualified EA. (Using the NRCAN Solar Ready Guidelines during the Pilot.)
- Energy monitoring device with real time energy consumption and energy generation information for consumers

OPTIONAL

ENERGY STAR® for New Homes (ESNH) v.12

Performance Path Minimum Requirements

Note: There's no need to submit a separate ESNH file to NRCAN. NRCAN only needs an R-2000 file submitted with a note in the comment field of the file requesting that NRCAN develop the ESNH file to produce an ESNH Label. See the Administrative Process for details.



Net Zero Energy Homes

NZE/NZEr homes offer whole-house comfort, excellent indoor air quality, and superior energy performance using proven advanced technologies and construction practices. The result is a superior quality home that exceeds current and anticipated building code requirements. Each NZE/NZEr home will be verified by government-licensed third-party service organizations and recognized by CHBA for its achievement.

Net Zero Cost

Significant strides have been made over the last 5 to 10 years by industry innovators. This has reduced the additional costs of NZE homes by as much as 50% - and in many cases we're now able to achieve cost neutrality when operating costs are considered. This means that the extra cost of NZE homes can be off-set by the monthly energy savings - at net-zero monthly cost!

**Live in a home that will
LOVE you back.
Net Zero Energy homes... coming soon
to a builder/renovator near you!**

NZE Qualified Service Organizations

Our primary avenue for delivering the NZE Labelling Program will be to utilize the existing expertise and infrastructure of the R-2000 Licensed Service Organizations. CHBA NZE Qualified Service Organizations provide the following services for the CHBA NZE Labelling Program:

- Supporting the builder/renovator to ensure they meet all program requirements, including acquiring NRCAN licenses and successfully completing the required Builder Training.
- Delivering CHBA NZE Builder Training, including administering the exam by a CHBA NZE Qualified Trainer.
- Ensuring the home meets all program requirements, including performing Modelling, Testing and Inspections/Verification by a CHBA NZE Qualified Energy Advisor.

Definitions

A **Net Zero Energy (NZE) home** is one that is designed, modelled and constructed to produce as much energy as it consumes on an annual basis.

- NOT NZE “as operated” – but uses assumptions for occupant consumption. (Plug/occupant loads in NZE homes are between 1/2 to 2/3 of total energy use.)
- The energy produced is a) generated on-site and b) renewable.
- NZE can be achieved via net-metering AND/OR on-site generation and storage.
- It includes all forms of energy (i.e. passive and thermal) including acknowledgment of gas and electrical base loads.

A **NZE Ready (NZEr) home** is a NZE home that has not yet installed the renewables.



Contact Us

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For more information visit www.chba.ca/NZE

TABLE TOPIC	Ending Homelessness in Medicine Hat		
TABLE HOST	Jaime Rogers, Homeless and Housing Development Department Manager Medicine Hat Community Housing Society		
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1. Summary

Our Goal – In 2001, the Medicine Hat Community Housing Society (MHCHS) was designated as the Community Based Organization (CBO) and Community Entity (CE) for Medicine Hat responsible for coordinating and funding provincial and federal efforts in the community aimed at ending homelessness.

This designation places MHCHS in the unique position of being able to coordinate housing options and complementary support services for vulnerable citizens in our city who may be currently homeless or at risk of becoming homeless.

The Radical Idea – In 2009, Medicine Hat became one of the first Canadian cities to commit to ending homelessness using the housing first approach. The housing first approach is a non-compliance based model which focuses on quickly moving people experiencing homelessness into permanent housing. This program does not require treatment or sobriety as a precondition for housing or program participation.

In order to achieve our goals an integrated community plan was developed which works simultaneously with the provincial plan to coordinated efforts using a systematic approach targeting the following objectives and strategies:

Objectives

- **Housing Initiatives & Supports** – MHCHS is a “Management Body” established by Ministerial Order, responsible for administering social housing programs for the government of Alberta under the Alberta Housing Act. The MHCHS also delivers a variety of other subsidized housing options, as well as support services aimed at providing housing stability and preventing homelessness.
- **Homelessness Initiatives** – MHCHS has been established as the Community Based Organization (CBO) and Community Entity (CE) for Medicine Hat, charged with leading and implementing the local Plan to End Homelessness. A CBO (provincial) and CE (federal) is established for the purposes of administering funding from these respective jurisdictions, targeted to initiatives aimed at ending homelessness.

Strategies

- **System Planning** – The full-scale implementation of the system planning approach in the Medicine Hat Homeless Serving System.

- **Housing and Supports** – Ensuring adequate and appropriate programs and housing opportunities are in place to meet priority population needs to end homelessness in Medicine Hat.
- **Systems Integration and Prevention** – Introducing system integration and targeted prevention measures to stop the flow into homelessness and maintain an end to homelessness beyond 2015.
- **Data and Research** – Using data and research to improve and refine our approach.
- **Leadership and Sustainability** – Stepping up as a leader to support the ending homelessness movement in Alberta, Canada and internationally.

Successes – Our community has been working tirelessly for 5 years with the goal of ending homelessness in Medicine Hat. Some of our noted successes include:

Housing Initiatives & Supports

- Subsidized housing and support programs are provided through the organization to help low-income individuals and families who are in need of affordable housing in our community. Over 1000 households are assisted each month.
- MHCHS administers 401 rental supplements in Medicine Hat and Redcliff.
- MHCHS manages a total of 553 units. Of these, 452 fall under the Social Housing program and 101 units fall under the Affordable Housing program.
- An integrated Housing Supports program focuses on increasing housing stability for MHCHS tenants/rent subsidy recipients, to reduce the risk of/prevent homelessness.

Homelessness Initiatives

- Housing First Model is appropriate and works for all demographics and populations.
- Integrated community approach allows agencies to work together and monitor a participant’s progression within the system. This approach allows information to be shared and ensures participants are provided with necessary supports. When participants willingly enter into the system, they become known by name.
- Data collection enables the programs to track wait times, diversion efforts, program caseloads, participant’s time in program, successful exits and program costs. This data is then used to calculate program outcomes and provides necessary documentation to secure future grant funding.
- Centralized intake process, provides a stream-line approach to ensure participants are contacted within an appropriate amount of time and efforts are coordinated to confirm appropriate resources and supports are in place.
- The cost to manage homelessness is significantly higher than the cost to end it. It costs approximately \$134,000 to manage someone’s homelessness and only \$34,000 to house and support them.
- 970 formerly homeless individuals have been housed, including 296 children from April 1, 2009 to January 31, 2015.

Challenges – The Plan to Ending Homelessness in Medicine Hat has had some great successes, however there are still challenges:

- Homelessness initiatives in the community are funded through outcomes based grants provided by the provincial and federal governments, as well as donors.
- 1760 Medicine Hatters are at high risk of homelessness.
- Housing availability does not equate to affordability or appropriateness of the units.
- Vacancy rates are declining and rents are on the rise.

2. Key questions or ideas to consider

1. How to develop a community understanding of the Housing First Philosophy and why it works?
2. What is the role of governments/municipalities in Ending Homelessness?
3. What is your community’s definition of ending homeless and who is your targeted population? How would you identify and connect with this population?
4. What key agencies and strategies would be necessary for your community to identify and implement in the development of a plan to end homelessness?

3. Resources / Links

1. Medicine Hat Community Housing Society program information and materials can be found on our website: www.mhchs.ca
2. 7 Cities on Housing and Homelessness www.7cities.ca
3. The Homeless Hub www.homelesshub.ca
4. The Canadian Alliance to End Homelessness www.caeh.ca
5. OrgCode Consulting Inc. www.orgcode.com

TABLE TOPIC	Property Assessed Clean Energy (PACE) Programs		
TABLE HOST	Leon de Vreede		
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1. Summary

The Town of Bridgewater is has enabled a PACE program for home owners through its Property Assessed Clean Energy Program By-Law. It allows the Town to start offering property owners financing for upgrading the energy efficiency of their homes at a low lending rate (4%). It is a type of local improvement charge (LIC), specifically enabled through the Nova Scotia Municipal Government Act. The PACE charge is applied to the property in the form of a municipal lien, and is repaid to the Town in installments through the property owner’s tax bills over a period of up to 10 years. If the homeowner sells their property before the charge is paid off, the lien obligation becomes the responsibility of the new owner. Summary of the process:



The PACE program administration is still being designed but the plan is to contract it out to an external service provider, likely a private energy firm. Criteria for eligible upgrade types are established by the Town, and may include:

- Insulation
- Caulking / weather stripping / duct & air sealing
- Energy efficient windows and doors
- Heat pumps
- Heat recovery systems
- Solar thermal and electrical systems
- Electric Thermal Storage
- High efficiency wood and pellet stoves

The suitability of upgrades for each qualifying property is assessed through one of two means: (1) the standardized Home Energy Assessment program that already exists in Nova Scotia, or (2) a customized assessment completed by the PACE administrator. The assessment is paid for by the homeowner, and provides them with information on their energy upgrade options. These options are reviewed by the PACE program administrator based on the criteria set by the Town, and the homeowner is offered a contract containing a list of upgrades that the Town will finance if successfully implemented. The homeowner agrees to the upgrades and the PACE administrator commissions and pays for the work,

then invoices the Town for the total cost (labour & materials), which the Town then applies to the property as a lien.

2. Key questions or ideas to consider

- **Legislation:** review your provincial / territorial legislation to make sure you understand how your municipality may apply local improvement charges.
- **Best Practices:** review existing by-laws and best practices from other jurisdictions. We have relied on the work of Sonja Persram (Sustainable Alternatives Consulting, Inc.) and Halifax Regional Municipality’s “Solar City” program in designing ours.
- **Social Value:** Think about who the program is intended to benefit, and structure it accordingly. For example, if your intended clients are mainly low to medium income homeowners, you need to minimize financial and other barriers such as interest rates, and optimize utility incentives to reduce overall costs, in order to encourage these population segments to participate.
- **Risk Mitigation:** think about ways that the PACE program can reduce risks for all parties: the municipality, any potential creditors, the homeowner, the community, and the contractor. The lower the risk for all parties, the lower the likelihood of program failure, and the higher the chance that sustainable energy solutions will be successfully deployed in your community. What impact would a weak or non-existent energy assessment process have for clients who are expecting significant energy savings from their upgrades? If those savings are not realized, what are the repercussions for the municipality and the PACE program? Also, to help assess homeowners’ ability to repay, what evidence do you have that they consistently paid their utility bills and mortgage on time, and that they have not declared bankruptcy?
- **Partnerships:** identify opportunities to partner with energy service organizations and utilities, and to share program costs and promotion with neighbouring municipalities.
- **Administration:** work with your finance department to figure out the administrative impact of hosting a PACE program. We did a detailed assessment to figure the time required to process each application, maintain outstanding liens for up to 10 years, promote the program, and evaluate program effectiveness on an annual basis. Understanding up-front the procedures and time required for each person in your organization helps with buy-in and mitigates potential problems.

3. Resources / Links

- Town of Bridgewater PACE Program By-Law: <http://www.bridgewater.ca/town-council/town-by-laws-and-policies/by-laws/965-chapter-199-property-assessed-clean-energy-pace/file>
- Sustainable Alternatives Consulting, Inc. (Sonja Persram): sonja@sustainable-alternatives.ca, www.sustainable-alternatives.ca

TABLE TOPIC	Using Local Improvement Charges to Finance Energy Works
TABLE HOSTS	Marco Iacampo E: miacamp@toronto.ca / T: 416.392.6063 Aderonke Akande E: aakande@toronto.ca / T: 416.392.5257

1. Summary

In 2014, the City of Toronto launched an innovative program to test the market receptivity towards property-assessed financing for building energy retrofits on private property. The Home Energy Loan Program (HELP) and High-Rise Retrofit Improvement Support (Hi-RIS) (collectively, the 'Program') endeavours to invest \$20 million over a three year pilot period to support the improvement and renewal of 1,000 single family homes and 10 multi-residential building for deep energy and cost savings.

Through the Program, the City provides funding to property owners for energy efficiency retrofits which are repaid via installments on the property tax bill. Unlike traditional financing, the cost of the work is attached to the property, not the property owner, and the financial obligation - as well as energy savings - transfers to successive owners.

Toronto is the first Ontario municipality to design and implement a comprehensive, residential energy and water conservation program that utilizes the Local Improvement Charge (LIC) regulation.

2. Key ideas, questions and lessons learned

i. Program Design Features

The Program design implemented in Toronto emphasizes simplicity and a streamlined pathway to ensuring residential retrofits undertaken by property owners are a success. This approach is embedded within the following design features:

Whole-Building Resource Conservation: Electricity, natural gas and water efficiency are improvement types covered by the Program which has the potential to drive multi-measure retrofit projects to achieve deep utility cost and resources savings.

Attractive Financing: By leveraging the City's financial capacity, the Program is able to extend low interest rates and extended financing terms (up to 20 years) to property owners, in addition to the unique feature of adding the cost of the work as a special assessment on the property (i.e. non-debt financing).

One-Window Service: Property owners are supported every step of the way – from advising on project eligibility, getting connected with an energy professional, accessing relevant utility incentives and attractive financing offered by the City.

Cost-Neutral Administration: As permitted by the regulation, all Program related costs (i.e. marketing, staffing) are recovered directly from participants – without having to rely on the municipal property tax base.

Channel Marketing: Involves forging partnerships with utility companies, industry and community groups, contractors, energy professionals and public officials to leverage their reach and influence to promote the Program.

ii. Program Design Considerations

While municipalities will need to consider their own local markets and needs specific to those jurisdictions, some design considerations include:

- Linking the Program with municipal policy objectives
 - GHG emissions reduction, energy conservation, improve housing affordability
- Identifying target markets and demographic profile
- Sourcing Program funding
 - Capital markets versus public funding
- Defining program eligibility requirements and sectors
 - Energy efficiency, renewable energy, district energy systems
 - Residential, Commercial, Industrial

iii. Advice for other communities working on a similar issue

Know your market: A clear understanding of who your target audience is critical to positioning an energy efficiency retrofit program and marketing it accordingly to drive program uptake.

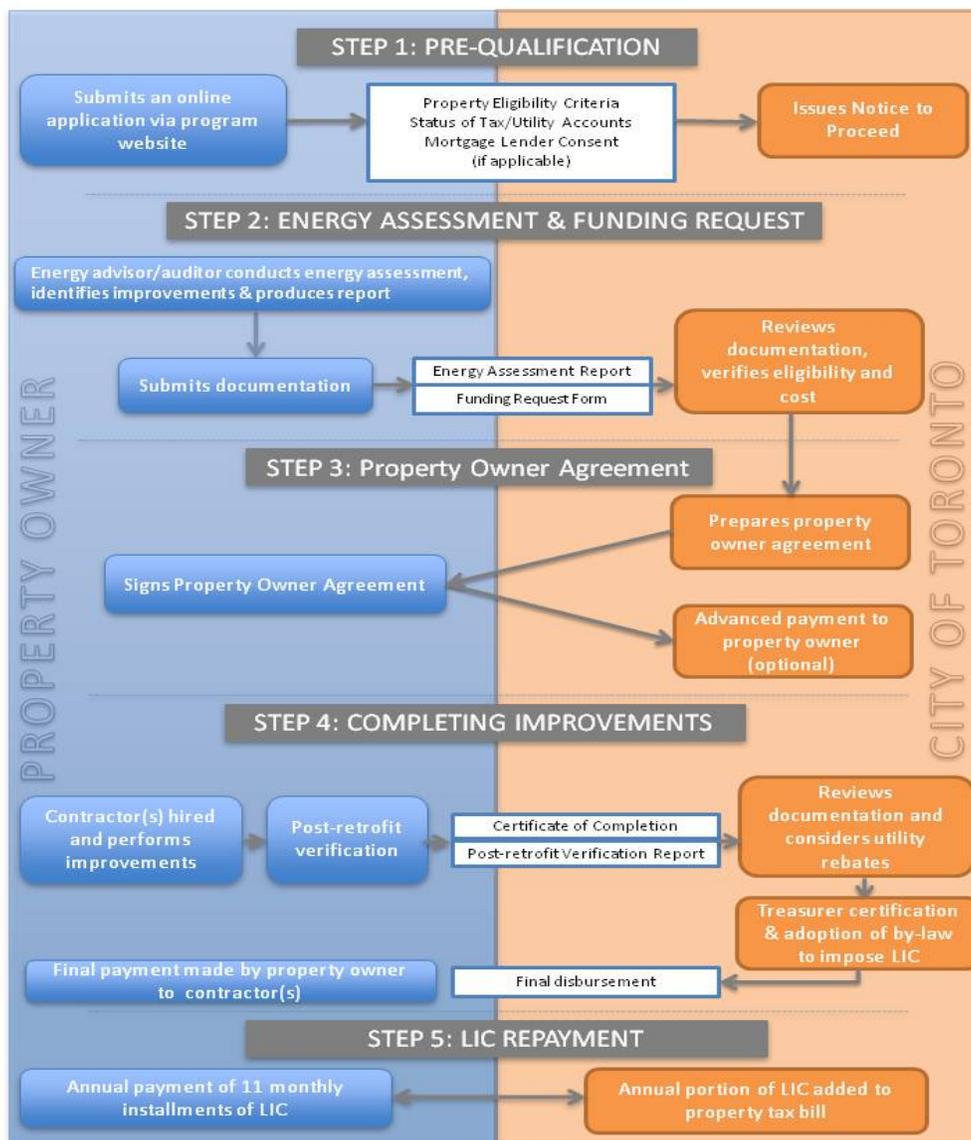
Upsell Co-Benefits: Tailoring program benefits to different audiences and upselling on broad range of benefits to get heard. While reduced energy bills and resource conservation might appeal to some, environmental stewardship or housing durability might be a draw for others.

Channel Partnerships: Establishing business relationships with the utilities, renovation contractors, energy advisors, equipment manufacturers, property owner associations and realtors broadens to leverage Program reach and capitalize on existing networks and relationships.

Cross Organizational Involvement: Program implementation using the LIC regulation requires extensive involvement from multiple parts of the City's organizational structure, including Accounting Services, Revenues Services, City Legal and City Clerk. It is critical that a broad group is engaged to ensure that direction for City Council, program design, legal agreements and program processes adhere to the regulation and work to achieve the program objectives.

3. How it Works – Process Flow Diagram

The process flow diagram below provides an overview of the interaction between the municipality and property owner during the application process:



4. Resources / Links

[Ontario Regulation 586/06 – Local Improvement Charges Priority Lien Status](#)

[Staff Report – Proposed Energy and Water Efficiency Initiative for the Residential Sector](#)

[Website - Home Energy Loan Program](#)

[Website – High-Rise Retrofit Improvement Support Program](#)

SUJET DE LA TABLE	Biométhanisation : où comment transformer un problème de gestion des matières résiduelles en solution rentable et écologique		
NOM DU PRÉSENTATEUR	Louis Bilodeau, directeur général de la Ville de Saint-Hyacinthe		
COURRIEL DU PRÉSENTATEUR	Louis.bilodeau@ville.st-hyacinthe.qc.ca	TÉL. 450 778-8303	

1. Résumé

En cherchant une solution économique et environnementale pour réduire les coûts liés au transport et à la disposition des matières organiques, Saint-Hyacinthe a choisi de miser sur la biométhanisation. C'est l'une des premières villes d'Amérique du Nord à produire du biogaz à partir de matières organiques et à l'utiliser pour alimenter ses véhicules et chauffer ses bâtiments municipaux.

Le montant total de ce projet s'élève maintenant à plus de 85 M\$ financés par la Ville et les gouvernements fédéral et provincial. La Ville et Gaz Métro ont conclu une entente de principe pour l'achat des surplus de gaz naturel renouvelable produit par la Ville, soit jusqu'à 16 millions de mètres cubes par année, pendant 20 ans. La Ville a aussi conclu des ententes pour méthaniser les matières organiques en provenance des bacs bruns de 23 municipalités et celles d'entreprises agroalimentaires à proximité. Grâce aux revenus provenant de ces ententes, Saint-Hyacinthe va, en quelques années, autofinancer les coûts d'installation de ses usines de valorisation des matières organiques et de biométhanisation.

En valorisant leurs matières organiques, les citoyens et entreprises agroalimentaires font un bon geste pour l'environnement. Ils génèrent aussi une nouvelle source de revenus qui servira à améliorer les services offerts ou à réduire la charge fiscale. En effet, quand toute sa filière sera opérationnelle, la Ville en tirera des revenus annuels importants, incluant notamment des économies de plus d'un demi-million de dollars en carburant et en chauffage de véhicules et édifices municipaux.

Le processus complet de transformation des matières organiques par biométhanisation permet à la Ville de générer 50 % de biogaz, 30 % de terreau et 20 % de fertilisant, confirmant la théorie de Lavoisier selon laquelle « rien ne se perd, rien ne se crée, tout se transforme ». Cette démarche s'inscrit tout à fait dans la conception de développement durable de la Ville puisqu'elle allie des intérêts écologiques, économiques et sociaux.

2. Questions/idées clés

La biométhanisation convient-elle à toutes les municipalités? Presque, car chaque municipalité peut adapter son projet en fonction de sa réalité. Elle doit toutefois évaluer le potentiel de la biométhanisation en regard de ses ressources et de la disponibilité des matières organiques.

- Pour implanter un tel projet, la première étape est de faire l'inventaire des matières organiques. Selon les quantités et le type de matières disponibles, il faut ensuite s'informer sur les technologies existantes et évaluer si le projet peut être rentable ou non.
- L'accès aux équipements est maintenant plus facile pour les municipalités, car la voie est maintenant ouverte auprès des distributeurs. Il faut toutefois être prudent, car il existe des équipements de qualité très variable sur le marché.

- Il importe de s'assurer qu'ils sont performants et faits de bons matériaux. Il est préférable de miser sur des équipements extrêmement résistants ayant une durée de vie de 25 ans et qui répondent adéquatement aux besoins du milieu, et ce, en fonction du bilan énergétique.
- Avoir une expertise interne permet de réduire les coûts et de s'assurer d'obtenir le résultat souhaité.
- Les municipalités ont tout intérêt à unir leurs forces pour bâtir un projet d'envergure. Elles peuvent aussi bénéficier de programmes de subvention gouvernementaux. Bref, en jouant bien leurs cartes, de nombreuses municipalités pourraient profiter des avantages indéniables d'une solution gagnante, à savoir la biométhanisation.

3. Ressources/Liens

- Pour plus d'information sur le projet de biométhanisation de la Ville de Saint-Hyacinthe, consultez le site Internet de la Ville à : <http://www.ville.st-hyacinthe.qc.ca>
- Pour visionner une vidéo décrivant le processus : <https://vimeo.com/112702997>
- Pour consulter une brochure informative à ce sujet : [http://www.ville.st-hyacinthe.qc.ca/medias/pdf/accueil/Saint-Hyacinthe Biomethanisation_depliant.pdf](http://www.ville.st-hyacinthe.qc.ca/medias/pdf/accueil/Saint-Hyacinthe_Biomethanisation_depliant.pdf)
- Pour voir une galerie de photos sur ce projet : <http://www.ville.st-hyacinthe.qc.ca/la-ville-en-images.php?Galerie=92>
- Pour toute question générale au sujet de ce projet, veuillez communiquer avec brigitte.masse@ville.st-hyacinthe.qc.ca
- Pour des questions liées au Programme de traitement des matières organiques par biométhanisation et compostage (PTMOBC) du Ministère Développement durable, Environnement et Lutte contre les changements climatiques : <http://www.mddelcc.gouv.qc.ca/programmes/biomethanisation/index.htm>
- Liste des projets en cours via le PTMOBC : <http://www.mddelcc.gouv.qc.ca/programmes/biomethanisation/liste-projets.htm>

TABLE TOPIC	Engaging Businesses in the Low-Carbon Economy : Third Party Innovations
TABLE HOST	Mike Morrice, Executive Director, Sustainability CoLab E: mike@sustainabilitycolab.org / T: 519-603-8996 Alex Dumesle, Sr. Manager, Partners in Project Green (TRCA) E: adumesle@trca.on.ca / T: 416.661.6600 x 5316

SUMMARY

To avoid catastrophic climate change, 195 countries reached an agreement in Paris at COP21 to limit warming to 1.5 degrees Celsius – an ambitious goal that will require fundamental shifts on the ground. In Canada, a change in federal leadership called is making emissions reduction a priority, and in Ontario, Quebec and British Columbia, a price on carbon is in effect or on the immediate horizon. Businesses will need to shift their behaviours in order to thrive in the new low-carbon economy. Similarly, to meet internal GHG reduction targets, municipalities must engage businesses and support them with tools, resources, and services needed to limit environmental impact while ensuring economic prosperity.

Encouragingly, work is already underway to advance the low-carbon economy in communities across Ontario and beyond, with businesses and organizations setting and achieving targets to reduce their own environmental impact, while increasing their profitability and growing the low carbon economy:

- **Sustainability CoLab** has [convened a network](#) of community organizations in 7 jurisdictions across Ontario who are launching and growing *target-based sustainability programs* that connect a network of local businesses setting and achieving sustainability targets. To date, nearly 120 businesses from Durham to Niagara to Ottawa to Waterloo Region comprising an average of 12% of the workforce have collectively set targets to reduce nearly 60,000 tonnes of GHGs – and have reduced nearly 30,000 tonnes.
- TRCA’s **Partners in Project Green** has assembled a [vast community](#) comprised of businesses, governments, institutions, and utilities striving to strengthen and green Toronto Region's economy and beyond. Partners in Project Green aims to drive sustainability actions and innovation, which help businesses overcome challenges in four key areas: 1) Employee Engagement; 2) Energy Performance; 3) Waste Management; 4) Water Stewardship

KEY IDEAS TO CONSIDER: TIPS TO ENGAGE BUSINESSES IN REDUCING THEIR ENVIRONMENTAL IMPACTS

Through the above examples and others like them across Canada, municipalities can meaningfully engage businesses through innovative third-party programs that lead to measurable reductions in environmental impact while preserving (or even improving) economic prosperity. The following ideas, case studies and innovations represent a few of best practices from our experiences on the ground:

Sustainability CoLab

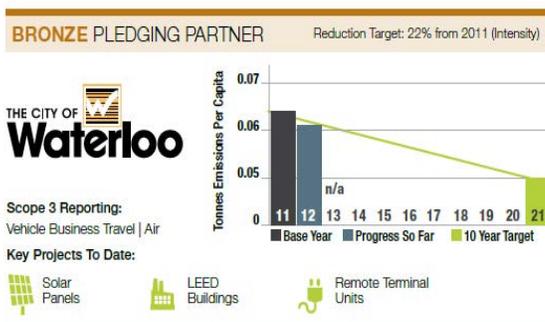


Community Impact: Target-based sustainability programs grow the local low-carbon economy

- **Innovation:** In 2013, CoLab Network member Sustainable Waterloo Region’s *Regional Carbon Initiative* (RCI) worked with the Region of Waterloo’s Community Environmental Fund to provide funding to five RCI member organizations to support setting a GHG reduction target.
- **Impact:** Five organizations in the RCI spent \$70,000 on local energy audits, and invested an additional \$90,000 into sustainability projects
- **Total of \$160,000** invested into the community’s “low-carbon economy”.
- **Set targets to reduce a total of 779 Tonnes of GHGs.**

Public reporting holds businesses to account & raises the minimum bar of sustainability

- **Case Study:** In 2012, Waterloo-based newspaper *The Chronicle* published an article calling on the City of Waterloo, an “Observing Organization” of the RCI to finally set a target to reduce their emissions. Within 6 months of publishing, the City had set a target. <http://www.cambridgetimes.ca/community-story/5890475-city-looks-to-reduce-its-carbon-footprint/>
- **Impact:** Media exposure put pressure on the City of Waterloo, which led to the city setting a target to reduce GHGs to 22% of their 2011 baseline. By 2014, they were on track to achieve this, having reduced 449 tonnes of GHGs.



Partners in Project Green



Open EV Network:

- **Model:** Neutral third-party procurement facilitation, vendor network discounts, and modest subsidies to reduce the barriers preventing the installation of electric vehicle charging technologies, and ultimately, the adoption of electric vehicles.
- **Impact:** 100 charging stations in one year (25% increase in total stations in Ontario)

Materials Exchange

- **Model:** Leveraging an online platform and expert facilitation to promote the exchange of materials between organizations before they become waste.
- **Over 4,000 Tonnes** diverted from landfill since 2013 (everything from pallets, rubber gloves, ash trees, and bamboo waste)



Energy Leaders Consortium

- Model: Peer-to-peer learning involving ~15 businesses (incl. competitors) challenging each other to set energy conservation targets, and helping each other through exceed those targets.
- **Over 7,372 Tonnes/year of GHGs (i.e. 48,800 eMWh/year or \$7.2MM/year) saved since 2012**



People Power Challenge

- Model: Business-to-business competition built on the concepts of gamification that empowers organizations to deepen staff engagement around sustainability.
- **3,800 suggestions + 3,000 projects + 44,000 pledges since 2014**

HOW THE MODEL WORKS: Sustainability CoLab’s four Core Approaches and the virtuous cycle of target-based sustainability programs



Our four Core Approaches provide a foundation for community organizations to convene networks of local businesses that are both: **Inclusive** (they attract a large number of local businesses that pay fees to participate) and **Credible** (participants must have intention to set targets and be on track to achieve them, leading to measurable impact).

Target-based sustainability programs create a “**virtuous cycle**” that leads to greater impact and engagement in the community, accelerating growth in the low-carbon economy:

- Businesses’ actions to achieve sustainability targets reveal the short and long -term value of sustainability (i.e. cost/energy savings, employee retention & productivity, etc.).
- Other businesses are inspired to follow suit & the size, strength and value of the network increases
- Community expectations are raised and businesses are held accountable
- The program receives positive attention and pressures more businesses to join
- This engages a critical mass of local businesses who scale the program’s impact

KEY QUESTIONS TO CONSIDER:

To what extent do the models/ideas captured above resonate with the challenges your municipality is facing?

What will be required in order to scale these and similar innovations to help build the low-carbon economy in cities across Canada?

Resources / Links



Sustainability CoLab supports community organizations to launch and grow target-based sustainability programs. Today, Sustainability CoLab is launching and growing target-based sustainability programs in seven communities across Ontario (Durham Region, Kingston, Niagara Region, Ottawa, Waterloo Region, Sudbury and York Region).

www.sustainabilitycolab.org

- Sustainability CoLab 2014/15 Annual Report: www.sustainabilitycolab.org/report
- 4-minute video about CoLab & the CoLab Network: <https://vimeo.com/131668020>



Initiated by the Toronto Pearson Airport and Toronto and Region Conservation (TRCA), **Partners in Project Green** is a not-for-profit focused on creating the largest eco-business zone in the world.

www.partnersinprojectgreen.com

- Partners in Project Green 2015 Annual Report: partnersinprojectgreen.com/about-us/annual-reports
- Guide to Eco-Business Zone Planning & Development: partnersinprojectgreen.com/resources/guide-to-eco-business-zone-planning-development/

TABLE TOPIC	Neighbourhood-based approach to facilitate urban retrofit implementation – The Sustainable Neighbourhood Retrofit Action Plan (SNAP) Program		
TABLE HOST	Sonya Meek, Senior Manager, Sustainable Neighbourhoods, Toronto and Region Conservation Authority (TRCA)		
HOST EMAIL	smeek@trca.on.ca	HOST TEL.	416-661-6600 x5253

1. Summary

The Problem – Implementation of sustainability plans in older urban areas faces a complex network of challenges. These include: coordination among many players, competing interests, a disengaged public, perceived high costs and reluctance to try new approaches. Compounding the need to find break-through solutions to these challenges is the need to advance implementation of many other plans and strategies addressing a plethora of issues: energy and GHG reduction, grey and green infrastructure renewal, extreme weather related flood protection and community interests.

The Radical Idea – The SNAP Projects take a holistic, neighbourhood-based approach to revitalize older urban areas, providing place-based solutions and directions for achieving greater impact. They consist of integrated neighbourhood action plans and strategic implementation projects, programs and events. SNAPs contribute measureable outcomes towards the implementation of bigger picture plans and strategies. They also find ways to overcome challenges. The SNAP model:

- Delivers on multiple objectives
- Coordinates private and public realm actions
- Leverages planned capital projects for greater value
- Engages communities through local networks using guidance from market research
- Demonstrates and tests innovative approaches
- Fosters delivery partnerships and innovation

TRCA leads the SNAP Program in close collaboration with municipal and community partners. Individual neighbourhood SNAP pilots generate lessons learned and prototypes that can be more broadly applied.

Successes – Within the first five years of the SNAP Program, action plans have been completed and implementation projects underway in five pilot neighbourhoods in Brampton, Mississauga, Toronto, Richmond Hill and Markham. SNAPs have:

- Reimagined public infrastructure renewal projects to achieve multiple sustainability objectives by taking an integrated neighbourhood scale approach and raising innovative funding to support implementation. A number of major park, road and pond projects are complete or underway.
- Reached hard-to-engage homeowners and increased participation in undertaking green home renovation, surplus vegetable harvest donation and skills sharing and landscaping actions through locally tailored, one-window programs.
- Demonstrated new partnerships for privately-owned public space renewal.
- Generated socio-economic benefits, alongside environmental outcomes.
- Leveraged municipal capital budgets to raise over \$2Million dollars for further SNAP project development and implementation.
- Engaged 1000s of people in over 100 programs and events, fostering inter-generational and cross-cultural connections as well as connections between people and nature.

- Formed implementation partnerships involving community groups, social enterprise, private business and government.
- Conducted a Five Year Program Review in 2014 with input from a wide spectrum of partners, and confirmed strong partner support with good feedback for future SNAP work.

Challenges – The SNAP model has had some great successes, however there are still challenges to implementing innovative sustainability projects that have been identified by project teams and during our Program Review:

- Integrated approaches, collaborative arrangements and behaviour change take time
- Perceived cost and effort of multi-objective designs relative to single-purpose quick fixes
- Alignment of various departmental workplans and budgets; ability to take advantage of timely collaborative opportunities
- Pressure for municipalities to deliver consistent programming municipality-wide vs. neighbourhood specific.
- Capacity of community-based delivery partners and groups

Future – TRCA is excited to launch a new SNAP project with the Town of Caledon and we are seeking to expand the program even further. We are working with our partners to advance implementation within the pilot SNAP neighbourhoods, scale up successful programs and consider future SNAPs. We welcome opportunities to share the SNAP approach and collaborate with new partners on innovative urban retrofit initiatives.

2. Key questions or ideas to consider

1. What urban retrofit challenges does your municipality face and how could a neighbourhood approach advance that work? What would you need to get started?
2. What internal approaches could a municipality use to support the implementation of innovative projects and help overcome barriers at a systemic level?
3. How can flexibility be incorporated into annual departmental workplans and budgets to take advantage of timely opportunities for joint projects with other lead departments? How could integrated planning for public infrastructure projects be facilitated in the long term?

3. Resources / Links

1. SNAP publications, videos and program materials can be found on our website: www.sustainableneighbourhoods.ca
2. *SNAP Five Year Program Review 2009-2014 Report, Transforming Neighbourhoods – Place-based solutions and directions for greater impact*: <http://sustainableneighbourhoods.ca/wp/publications/>

TABLE TOPIC	Sustainable Neighbourhood Development		
TABLE HOST	Peter Whitelaw, MCIP – Modus Planning, Design and Engagement		
HOST EMAIL	peter@thinkmodus.ca	HOST TEL.	604-445-0887

1. Summary

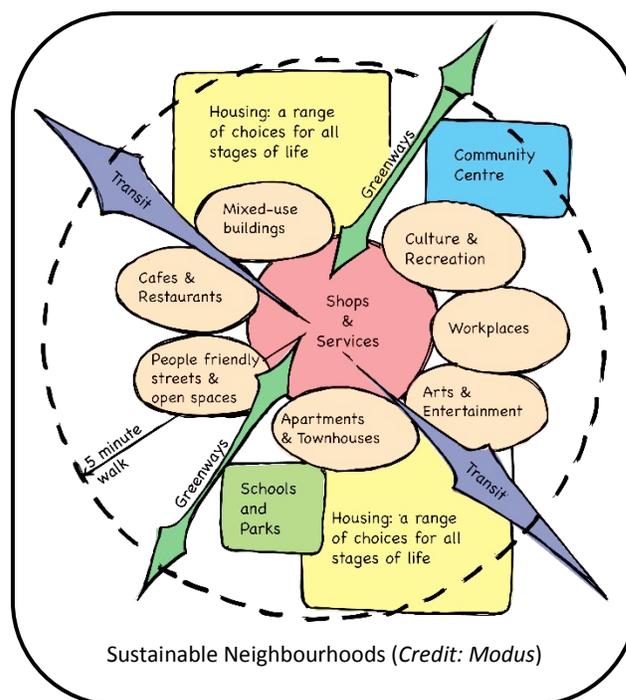
Sustainable neighbourhoods are the neighbourhoods of the future. As the world becomes more and more urbanized, there is a growing need to create great places that contribute to a healthy environment and support a strong community. If we are to build neighbourhoods that meet those needs, their development must be viable, and if they are to last, they must support healthy municipal and household finances. ***The radical and yet simply practical idea is that in order to create sustainable neighbourhoods, we need to support a development model that is both viable and focused on creating lasting environmental, social, and economic value.***

What is a sustainable neighbourhood, and how can I make the case for pursuing this kind of development?

Characteristics are one way to define sustainable neighbourhoods: they are relatively compact, mixed-use communities with good access to transit and incorporating a range of housing, workplaces, parks, amenities, shops, and services. Another way to define them is by their ambitious goals, such as zero waste and net zero carbon, a high degree of housing affordability and diversity, and neutral or positive fiscal impact on the municipal budget.

There is often resistance to this new development paradigm. The key to making the case is to focus on the benefits for each of the key players. Examples include:

- Lifecycle costs of hard infrastructure can be reduced up to 25% (important to local government)
- In conservation design, per lot capital costs can be 33% lower than conventional design; home values in communities with above-average walkability have been found to command a premium of \$4,000 to \$34,000 (developers)
- Dense, mixed-use communities have up to 50% reduced energy use and greenhouse gas (GHG) emissions (environmental interests)
- Installation of a solar hot water system in Halifax results in about \$425/yr savings and anticipated \$20,000 lifetime savings and representing a 7-9% return on investment (social/affordability interests)
- Living in dense, highly connected, mixed-use neighbourhoods reduces the likelihood of obesity significantly (health interests)



What are the major challenges, and how can they be overcome? While the benefits are many, so are the challenges, from established business models and practices to cultural preferences, to policy and tax regimes. There are many specific solutions; however, the overarching solution is to promote a shift in thinking. Rather than the typical narrative of developer pushing high profit development at the expense of the community, (sometimes neutrally) mediated by the local government, sustainable neighbourhood development builds a narrative around working together, where each has an essential role to play in moving a shared agenda forward.

Developers initiate projects and respond to the regulatory, market, and financial context in which they operate. They take on risks and realize a financial return in exchange. Local governments, meanwhile, are charged with realizing the public good, and do so by shaping the regulatory environment and influencing market and financial

factors. In some cases, they champion changes in development practice through regulations, incentives, and other initiatives. The roles of developers and local governments in the transformation are complementary: developers adjust their practices; local governments encourage and facilitate this adjustment. This relationship offers opportunities for the two to collaborate, working together to remove barriers and adopt new practices. The community itself is the third partner: they are after all the source of political support for the local government, and their voices are heard in rezoning hearings, Town Halls and public consultations across the country. Most important, when involved in planning and design, they bring valuable ideas and knowledge about what will work for them. Strategies that address the needs and roles of developers, local governments, and citizens in overcoming key challenges will be most effective at moving the market and our communities towards sustainable outcomes.

Where else in Canada has this been done successfully, and what factors led to that success? While none are perfect, there are a host of recent Canadian case studies that illustrate solutions to the challenges faced in pursuing sustainable neighbourhood development. The solutions include: developing **skills and knowledge** to support and implement sustainable developments; removing **financial** and **regulatory barriers**; approaches to **planning and development** that can increase the likelihood of planning/design success and long-term performance; and how to use **marketing**, and **contracting** to support and drive sustainable neighbourhoods. In a long-term strategy, these could be applied sequentially to lay the groundwork for and then drive the transition to sustainable development.

2. Key questions or ideas to consider

- What is the level of readiness of my community to develop sustainably?
- What are the most important motivations for the key players?
- What are the primary challenges my organization and community face?

3. Resources / Links

On behalf of FCM, Modus developed a guide that provides top-line how-to information about planning and development of sustainable neighbourhoods, providing practical solutions to common challenges. It is available from FCM and includes a number of case studies. Some case studies and top resources include:

- Barton, H.; Marcus Grant; and Richard Guise. *Shaping Neighbourhoods: A Guide for Health, Sustainability and Vitality*. London, UK: Spoon Press, 2003. Print.
- Condon, Patrick. *Seven Rules for Sustainable Communities*. Washington, DC: Island Press, 2010. Print.
- Leinberger, Christopher B. *The Option of Urbanism: Investing in a New American Dream*. Washington, DC: Island Press, 2008. Print.
- Lennertz, Bill and Lutzenhiser, Aarin. *The Charrette Handbook*. Chicago: American Planning Association, 2006.
- Rocky Mountain Institute. *Green Development: Integrating ecology and real estate*. Toronto: John Wiley and Sons, 1998.
- Urban Land Institute. *Getting Density Right: Tools for Creating Vibrant Compact Development*. Washington, DC: Urban Land Institute, 2008. Print.
- Case studies:
 - Le Village, Dieppe, NB
 - Urbanova, Terrebonne, QC
 - PerthWorks, Perth, ON
 - Emerald Hills, Strathcona County, AB
 - Garrison Woods, Calgary, AB
 - SE False Creek, Vancouver, BC

TABLE TOPIC	Joint First Nations-Municipal Economic Development		
TABLE HOST	Helen Patterson, Program Manager, Joint First Nations-Municipal Community Economic Development Initiative (CEDI), Federation of Canadian Municipalities		
HOST EMAIL	hpatterson@fcm.ca	HOST TEL.	613-907-6320

(Français suit)

“Muster your courage; take that leap of faith. If we can pool our resources and our knowledge, we can come up with some unique solutions that we wouldn’t have been able to come up with on our own and that alone is well worth it.”
 Chief Roland Twinn, Sawridge First Nation, AB “

“My experience is it takes time, patience and resilience to build successful partnerships; as municipalities we have a lot to offer and more to receive.”
 Vicki Blanchard, Economic Development Manager, Municipality of Sioux Lookout, ON

WHAT IS JOINT FIRST NATIONS–MUNICIPAL COMMUNITY ECONOMIC DEVELOPMENT?

First Nations and municipalities across the country share many common hopes and challenges. Joint First Nations–Municipal Community Economic Development (CED) brings together neighbouring communities to develop and implement a shared vision for their economic future.

These innovative partnerships promote reconciliation, collaboration and the recognition of common values and goals. They help coordinate local action to address regional issues and build a stronger, more sustainable economy for all.

THE BENEFITS OF JOINT FIRST NATIONS–MUNICIPAL CED INCLUDE:

- A stronger, united voice for engaging with businesses and other orders of government.
- Increased ability to access funding from other orders of government.
- Cost savings and more efficient program delivery.
- More opportunities for local business development and job creation.
- Ability to leverage the unique financial, human and physical resources of each partner.
- Coordinated planning efforts to improve land use, land management and environmental/resource protection.

THE STRONGER TOGETHER TOOLKIT

The Stronger Together Toolkit is a free, step-by-step resource that provides all the information and tools you will need to initiate an effective First Nations–Municipal Community Economic Development partnership. The toolkit was produced by the First Nations–Municipal Community Economic Development Initiative (CEDI), a pilot program jointly delivered by the Federation of Canadian Municipalities (FCM) and Cando.

The toolkit includes:

- Background information and answers to frequently asked questions.
- A detailed, step-by-step guide to initiating and managing a joint First Nations–Municipal CED process.
- A guide to building strong First Nations–municipal relationships.
- Handouts, templates, workshop agendas and other tools for implementing projects in your own community.
- Detailed case studies on how different communities have used the joint First Nations–Municipal CED process to improve the quality of life for their citizens.

COMMUNITY ECONOMIC DEVELOPMENT: SUCCESS STORIES

In Alberta, Sawridge First Nation, the Town of Slave Lake and the Municipal District of Lesser Slave River worked together to develop a joint economic development strategy, a regional growth strategy and a joint communications policy and are working on a regional tourism strategy that includes a focus on First Nations tourism.

In Ontario, Lac Seul First Nation, Kitchenuhmaykoosib Inninuwug and the Municipality of Sioux Lookout are undertaking a feasibility study for a regional food distribution centre to serve northern communities and developing a joint labour market group to address planning for labour needs in the region.

In Quebec, Eagle Village First Nation, the Town of Témiscaming and the Municipality of Kipawa are developing a joint regional tourism strategy.

JOIN US - GET STARTED TODAY

1. **Download** the Stronger Together Toolkit and this brochure from www.fcm.ca/CEDItoolkit.
2. **See “Get Ready”** under Chapter 3 of the Stronger Together Toolkit for tips on how to get joint First Nation-municipal collaboration started in your own region.
3. **Share this brochure** with your colleagues and counterparts in neighbouring First Nations and municipalities.
4. **Discuss the benefits** and opportunities of joint First Nations–Municipal Community Economic Development at an upcoming council or staff meeting.
5. **Find more information** about the First Nations–Municipal Community Economic Development Initiative at www.fcm.ca/CEDI.
6. **Join** the First Nations–Municipal Network on LinkedIn.

CRÉER DES PARTENARIATS DE DÉVELOPPEMENT ÉCONOMIQUE COMMUNAUTAIRE PREMIÈRES NATIONS-MUNICIPALITÉS

«Faites preuve de courage et plongez. En mettant en commun nos ressources et nos connaissances, nous arrivons à créer des solutions uniques que nous n’aurions jamais trouvées par nous-mêmes. En soi, cela en vaut la peine. »

Roland Twinn Chef de la Première Nation de Sawridge (Alberta)

« Si je me fie à mon expérience, il faut du temps, de la patience et de la résilience pour développer des partenariats fructueux. Nous, les municipalités, avons beaucoup à offrir et plus encore à recevoir. »

Vicki Blanchard, gestionnaire du développement économique, Municipalité de Sioux Lookout (Ontario)

QU’EST-CE QUE LE DÉVELOPPEMENT ÉCONOMIQUE COMMUNAUTAIRE CONJOINT PREMIÈRES NATIONS-MUNICIPALITÉS?

Partout au pays, les Premières Nations et les municipalités ont de nombreux espoirs et défis en commun. Le développement économique communautaire (DEC) conjoint Premières Nations-municipalités permet à des collectivités voisines de définir une vision collective de leur avenir économique et de la mettre en place.

Ces partenariats novateurs favorisent la réconciliation, la collaboration et la reconnaissance de valeurs et d’objectifs communs. Ils contribuent à coordonner la prise de mesures à l’échelle locale en vue de régler les enjeux régionaux et de bâtir une économie solide et durable pour tous.

LE DÉVELOPPEMENT ÉCONOMIQUE COMMUNAUTAIRE CONJOINT PREMIÈRES NATIONS-MUNICIPALITÉS COMPORTE DE NOMBREUX AVANTAGES :

- Voix unique et forte auprès des entreprises et des autres ordres de gouvernement.
- Meilleur accès au financement offert par d’autres ordres de gouvernement.
- Réalisation d’économies et prestation plus efficace des programmes.
- Occasions plus nombreuses de créer des entreprises locales et des emplois.
- Capacité de mettre à profit les ressources financières, humaines et physiques propres à chaque partenaire.
- Planification coordonnée en vue d’améliorer l’utilisation et la gestion des terres ainsi que la protection de l’environnement et des ressources.

APERÇU DE LA TROUSSE

La trousse Plus forts ensemble est une ressource étape par étape gratuite qui contient tous les renseignements et les outils dont vous aurez besoin pour nouer des partenariats efficaces en matière de développement économique communautaire Premières Nations-municipalités.

La trousse a été produite dans le cadre de l’Initiative de développement économique communautaire Premières Nations-municipalités (IDEC), un projet pilote réalisé conjointement par la Fédération canadienne des municipalités et Cando.

Elle comprend :

- des renseignements généraux et des réponses aux questions fréquemment posées;
- un guide détaillé par étape en vue de lancer et de gérer un projet de développement économique communautaire conjoint Premières Nations-municipalités;
- un guide pour la création de relations solides entre les Premières Nations et les municipalités.
- de la documentation, des modèles, des ordres du jour d’ateliers et d’autres outils pour vous aider à réaliser des projets dans votre propre collectivité;
- des études de cas approfondies sur la manière dont diverses collectivités ont utilisé le processus de développement économique communautaire conjoint Premières Nations-municipalités pour améliorer la qualité de vie de leurs citoyens;

DÉVELOPPEMENT ÉCONOMIQUE COMMUNAUTAIRE : EXEMPLES DE RÉUSSITE

En Alberta, la Première Nation de Sawridge, la municipalité de Slave Lake et le district municipal de Lesser Slave River ont uni leurs forces pour élaborer une stratégie de développement économique conjointe, une stratégie de croissance régionale et une politique commune de communication. Ils ont aussi amorcé une stratégie touristique régionale qui met l’accent sur le tourisme des Premières Nations.

En Ontario, la Première Nation de Lac Seul, Kitchenuhmaykoosib Inninuwug et la municipalité de Sioux Lookout mènent une étude de faisabilité en vue d’établir un centre régional de distribution alimentaire pour desservir les collectivités nordiques, en plus de former un groupe conjoint sur le marché du travail afin de planifier les besoins en main-d’oeuvre dans la région.

Au Québec, la Première Nation d’Eagle Village, la municipalité de Témiscaming et la municipalité de Kipawa élaborent une stratégie touristique régionale commune.

COMMENCEZ DÈS AUJOURD’HUI!

1. **Téléchargez la trousse** Plus forts ensemble et la présente brochure sur le site www.fcm.ca/trousseIDEC.
2. **Consultez la section** « Se préparer » du chapitre 3 de la trousse Plus forts ensemble pour obtenir des trucs sur les façons d’amorcer la collaboration entre des Premières Nations et des municipalités dans votre région.
3. **Transmettez la brochure** à vos collègues et à vos homologues des Premières Nations et des municipalités avoisinantes.
4. **Examinez les avantages** du développement économique communautaire conjoint et les occasions qu’il procure à l’occasion d’une prochaine réunion du conseil ou du personnel.
5. **Contactez** les responsables de l’Initiative de développement économique communautaire Premières Nations-municipalités pour savoir de quelle manière ils peuvent aider votre collectivité. Les coordonnées figurent à l’adresse www.fcm.ca/IDEC.
6. **Joignez-vous** au Réseau Premières Nations-municipalités sur LinkedIn.



Flexible Work: The Low Carbon Diet

ROBYN BEWS

ROBYN@WORKSHIFTCANADA.COM

403-221-7895

ETHEL CRAFT

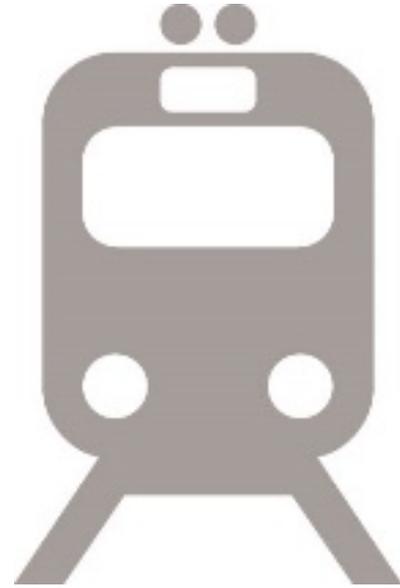
ETHEL.CRAFT@OTTAWA.CA

613-580-2424 EXT 13804

Summary

Since 2009, WORKshift has established itself as the thought leader and authoritative voice on flexible work practices in the Canadian marketplace. WORKshift’s core and only business is dedicated to changing the way people work by encouraging the adoption of flexible work practices and is the only not-for-profit in Canada that is strictly devoted to this end.

WORKshift has become a brand trusted by cities (including Ottawa, Halifax, Calgary and Edmonton) and employers for both excellence in supporting mobile work and creating tangible change. In 2013, WORKshift and the City of Ottawa partnered to deliver WORKshift awareness and education of flexible work to the Ottawa marketplace. Through targeted outreach to major employers WORKshift was positioned as a mitigating measure under Transportation Demand Management (TDM) in light of LRT expansion and construction.



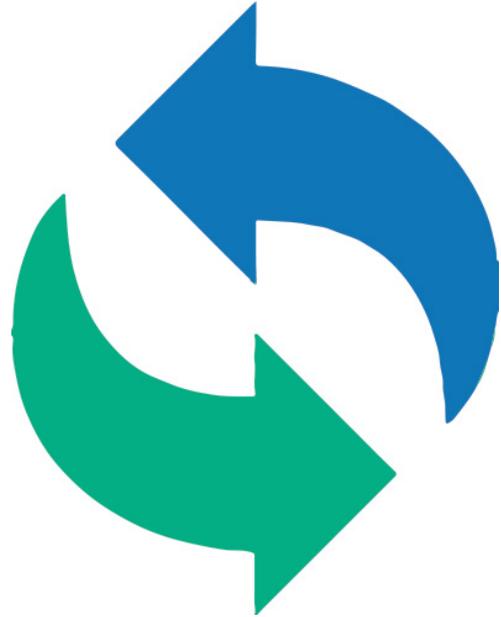
To ignite change, the collaborative approach to outreach included:

- Face to face outreach to major organizations within the city to provide information on construction and mobility
- Offering detailed and up to date traffic and mobility information to help organizations communicate with their employees
- Partnering with key leaders within organizations to provide information and create awareness creates a win-win
- Designating a single point of contact at the City
- Social media and online presence
- Large-scale and well-publicized events and support from the Mayor



Key Highlights to organizations

- Ottawa is in the midst of a remarkable transformation. Between 2013 and 2018, a major investment will be made in Ottawa's infrastructure. Projects include the Confederation Line, the 417/OR 174 widening and a number of upgrades to roads, cycling network, bridges and sewers.
- This will be a coordinated approach; we need your help to reduce demand on road systems that will feel pressure in this "new state of normal."
- Ottawa.ca provides travel and mobility information to manage travel such as: where and when construction is happening, interactive traffic map, twitter updates, new direct to downtown buses, park and ride, carpooling and cycling.
- Many of us will have to adapt the way we commute and do business by traveling during off-peak periods, using less busy routes or trying transit, cycling or walking.
- Outside of transportation, there are other ways to minimize disruption:
 - Make flexible work arrangements to stagger work hours to start and finish before or after peak hours
 - Use technology for mobile work and off-site meetings or use satellite offices.
 - We are encouraging WORKshift for our own staff and asking employers to adopt best practices.



Questions and Ideas to Consider

1. Does your region currently include flexible work as part of its TDM message?
2. What is the definition of WORKshifting?
3. How do you overcome the common misconception that it means teleworking or working from home 5 days a week?

WORKSHOP HANDOUT: From Crazy to Common Sense

“Radical” Ideas Whose Time Has Come

4. How will your own organization respond to potential Federal legislation in favour of flexible working conditions?
5. Is remote/flexible work incorporated into your own organizational structure? If so, how?
6. How could you include WORKshifting in your overall messaging to the employer community?
7. What are the common barriers or objections to remote flexible work?
8. Do you have a champion?
9. What are some benefits of WORKshifting for the Employer and employee?
10. How might the demographic shift from Baby Boomers to Millennials change your organization?
11. What type of support might your organization need to embrace WORKshifting?

Resources and Links

WORKshift

workshiftcanada.com/ottawa

Research and white paper on flexible work

workshiftcanada.com/thefutureofwork

Mandate letter on flexible work *by the Minister of Employment, Workforce Development and Labour Mandate Letter*

primeminister.gc.ca/eng/minister-employment-workforce-development-and-labour-mandate-letter

TABLE TOPIC	Brownfield Renewal and FCM’s LiBRe Program
TABLE HOSTS	Stephanie Bohdanow, Advisor, Knowledge Services, Green Municipal Fund (T: (613) 907-6262 / E: sbohdanow@fcm.ca) Greg Atkinson, Senior Planner - Local Economic Development, City of Windsor, ON (T: (519) 255-6543 ext. 6582 / E: gatkinson@citywindsor.ca) Kase DeVries, Sustainability Coordinator, City of Grande Prairie, AB (T: (780) 830-7437 / E: kdevries@cityofgp.com)

The Leadership in Brownfield Renewal (LiBRe) program is a network of Canadian municipalities that are committed to bringing brownfield sites back into productive use. Offered through FCM's Green Municipal Fund (GMF), the program aims to help municipal practitioners develop knowledge and skills to facilitate brownfield redevelopment. By joining LiBRe, participants will connect with their peers to better understand, navigate and reduce barriers to brownfield redevelopment. Visit www.fcm.ca/libre to access the full suite of LiBRe resources, including guidebooks, case studies and best practices on redeveloping brownfield sites.

Le programme de Leadership en réhabilitation de sites contaminés est un réseau de municipalités canadiennes qui se sont engagées à redonner une vocation productive à leurs sites contaminés. Offert par l'entremise du Fonds municipal vert (FMV) de la FCM, le programme vise à aider les experts municipaux à acquérir des connaissances et des compétences afin de faciliter le réaménagement de sites contaminés. En adhérant au programme, les participants peuvent communiquer avec leurs pairs pour mieux comprendre, réduire ou éviter les obstacles au réaménagement des sites contaminés. Pour accéder à notre gamme de ressources, tel que des guides, études de cas et meilleures pratiques, veuillez consulter notre site web : <http://www.fcm.ca/accueil/programmes/fonds-municipal-vert/commencez-d%C3%A8s-aujourd'hui/le-programme-de-leadership-en-r%C3%A9habilitation-de-sites-contamin%C3%A9s.htm>.

LiBRe Profile: Taking ‘Ownership’ of Brownfield Redevelopment
Greg Atkinson, Senior Planner, City of Windsor, ON

1. Summary

Taking direction from its Brownfield Redevelopment Strategy the City of Windsor took ownership of a former bumper manufacturing facility in 2009 with the objective of facilitating its redevelopment. Six years later the 4.5 hectare (11 acre) brownfield site, which had been vacant for more than 20 years is being returned to productive use.



Timeline

- 2005: Brownfield discussion paper recommends preparation of a comprehensive brownfield redevelopment strategy.
- 2008: Policy review, redevelopment opportunities inventory, City-wide Community Improvement Plan containing financial incentives, and Redevelopment Strategy drafted (with financial assistance from the GMF).
- 2009: City takes ownership of a former bumper manufacturing property following a failed tax sale and commences eviction of illegal tenants, cancellation of significant tax arrears, removal of Federal and Provincial liens, removal of barrels and other waste, and completion of Phase 1, 2 and 3 Environmental Site Assessment studies (completed with financial assistance from the GMF).
- 2010: Council approves the Brownfield Redevelopment Strategy and Community Improvement Plan and budgets approximately \$1.4 million for work related to redevelopment of the property.
- 2012: Expression of interest issued to gauge interest in purchase and redevelopment of the property.
- 2013: Request for proposals issued to identify purchaser (no proposals were received).
- 2014: Fire destroys 1/3 of the 15,400 square metre (165,760 square foot) building.
- 2015: U-Haul purchases the property and begins cleanup and redevelopment.
- 2016: Council considers a \$1.6 million brownfield incentive request.

Cleanup and Redevelopment Plan

Approximately half or 5,400 square metres (58,000 square feet) of the existing industrial building will be renovated for use as a storage facility. Redevelopment plans also call for the construction of new 500 square meter (5,388 square foot) and 230 square metre (2,497 square foot) buildings as well as landscaping and paving, which will serve truck rental operations. A risk assessment and associated environmental work will proceed concurrently with redevelopment efforts throughout 2016 and 2017. The site was purchased partly because of its brownfield status, which fits with U-Haul’s corporate objectives regarding environmental sustainability. The total project budget is \$6,174,174 (USD) or approximately \$8,689,223 (CAD).

Recommended Financial Incentives

Year of Grant	Environmental Study Grants	Tax Assistance Program	Brownfield Fiancial Tax Incentive Program (Provincial)	Brownfield Rehabilitation Grant	Development Charges Exemption	Total Annual Grant Value
1	\$15,000	\$2,652	\$1,158			\$18,810
2	\$10,000	\$63,529	\$27,749		\$29,285	\$130,563
3		\$124,407	\$54,340			\$178,747
4				\$132,919		\$132,919
5				\$132,919		\$132,919
6				\$132,919		\$132,919
7				\$132,919		\$132,919
8				\$132,919		\$132,919
9				\$132,919		\$132,919
10				\$132,919		\$132,919
11				\$132,919		\$132,919
12				\$132,919		\$132,919
13				\$132,919		\$132,919
Totals	\$25,000	\$190,588	\$83,247.45	\$1,329,190	\$29,285	\$1,657,311

2. Key questions or ideas to consider

- Given the economics of a property (e.g. clean value, tax arrears, estimated cleanup costs, potential for redevelopment, demolition or building rehabilitation costs)—is it reasonable to expect the private sector to invest?
- Do administrative staff and political decision makers understand the risks and potential benefits of taking ownership of a brownfield property?
- How much should a municipality invest in the study and cleanup of a brownfield property before expecting the private sector to take over?
- Is there sufficient knowledge and capacity within the local community (i.e. government, property developers, environmental consultants, financiers) to undertake a large-scale brownfield redevelopment?
- Is an expression of interest or request for proposals the most effective way to identify a suitable purchaser for municipally-owned brownfield properties?

3. Resources / Links

- City of Windsor Brownfield Redevelopment Strategy: <http://www.citywindsor.ca/residents/planning/Plans-and-Community-Information/Know-Your-Community/Community-Improvement/Pages/Brownfield-Redevelopment-Community-Improvement-Plan.aspx>

LiBRe Profile: Brownfield Beginnings at the City of Grande Prairie
Kase DeVries, Sustainability Coordinator, City of Grande Prairie, AB

1. Summary

At the time, the idea of developing a brownfield strategy may not have been that “radical” considering many communities in Ontario and British Columbia had been running successful brownfield programs for years; however, the uniqueness to the idea may have been that it was initiated by Council instead of Administration or even the development community.

The City of Grande Prairie is one of Canada’s youngest cities and is blessed with a forward thinking Council that understands the importance of creating a healthy energetic downtown for residents.

As part of Council’s strategic planning process, strengthening our core came up as a key focus area. In December of 2014, Mayor Given commented that “the City has not taken any active steps to encourage remedial action on brownfield sites” and noted there are a number of these sites being abandoned. He suggested there may be a role that the City could play to encourage/support the redevelopment of these sites, especially those contained downtown.

From this comment a motion was made directing Administration to develop a program to support, incent, or otherwise encourage the remediation of brownfield sites within the City. The program would specifically focus on former gas station sites starting with those in our downtown core.

As is the case with many of our new programs, the City of Grande Prairie looked to our big brother Edmonton to get a handle on the concept of a Brownfield Strategy, and what that might look like in an Albertan context. Thankfully, support from FCM guided us to the Leadership in Brownfield Renewal program (LiBRe) which has helped lay the framework and establish the steps required to ensure successful implementation of a brownfield strategy.

The City of Grande Prairie is currently conducting an inventory of former gas stations located within our downtown core. We hope to initiate the brownfield program with a specific focus before moving out of downtown and opening up to a variety of former property uses.

2. Key questions or ideas to consider

What is the provincial legislation guiding contaminated sites and how does it fit into your brownfield strategy?

What possibilities and/or limitations does municipal regulation from the province have on your brownfield strategy?

TABLE TOPIC	The Sharing Economy – Strategies to Advance Community Sustainability		
TABLE HOST	Cheeying Ho		
HOST EMAIL	cho@whistlercentre.ca	HOST TEL.	604 388 8421

Summary

Source: *Local Governments and the Sharing Economy*, one earth, October 2015
<http://www.localgovsharingecon.com/>

We all learned to share in kindergarten, and hopefully that value has remained with us as we continue to share within our family units (shelter, clothing, food, etc.) and beyond. So how do we hold on to this shared value and scale it up so that our communities can utilize Sharing Economy strategies to advance sustainability, rather than using up scarce resources or competing with more regulated tax payers?

The Sharing Economy aims to unlock the idling capacity found in the untapped social, economic, and environmental value of underutilized assets. It promotes access to goods instead of ownership in many, but not all, of its transactions. Technological, economic and social factors all drive the rapid growth of the Sharing Economy.

The Sharing Economy involves a spectrum of actors – from individuals to non-profit and for-profit entities – as well as those that are community and public sector based – that identify with Sharing Economy beliefs and traits in order to exchange a broad range of tangible and intangible assets. There are different forms of exchange including bartering, sharing, renting, trading, borrowing, lending, leasing and swapping, and a range of assets including goods, services, time, capital, experiences and space.

Local governments should care about the Sharing Economy because it could...	But without thoughtful checks, the Sharing Economy could also....
<ul style="list-style-type: none"> Reduce ecological footprints of city inhabitants and wasteful practices Save local government money Create jobs and entrepreneurial opportunities Advance social connectivity and ‘social capital’ Spur social innovation Lower the cost of education, collaboration, and research, and Reduce our need to acquire material things to earn status or social distinction 	<ul style="list-style-type: none"> Appear to reduce overall consumption while simply shifting it from one sector or activity to another Increase ecological and carbon footprints by growing the volume of vehicle traffic, travel, and consumer demand Erode the tax base as more economic transactions take place outside of spheres subject to accountability Negatively impact people not directly involved in Sharing Economy exchanges Push local wages and benefits down Erode the supply of affordable rental housing Exacerbate inequality as status is redefined by access to resources rather than ownership

Below are the main different types of sharing and examples of each.

1. Shared mobility: the access to transportation services shared among users on a short-term, as-needed basis that includes:

Mode	Description
Public transit	The foundation of shared transportation; evolving to integrate real-time technology

Bike and scooter sharing	Municipal, closed-community, or peer-to-peer
Carsharing	Provides members access to a car for short-term rental (mainly on an hourly basis, but some provide daily options or longer). The cars are distributed across a region or city and can be accessed at any time with a reservation. Members are charged on a time or mileage basis. Cars are shared two-way (return), one-way (point-to-point), or peer-to-peer
Ridesharing (vanpooling and carpooling)	Focused on filling empty seats in vehicles in order to optimize occupancy potential. The passenger has a common destination to the driver who has a non-profit motivation (e.g. to partially cover costs)
Ridesourcing (e.g. Uber, Lyft)	On-demand car services where users “source” rides through a mobile app from a pool of private passenger vehicles driven (usually) by a non-professional driver. The apps communicate passenger location to the driver via GPS and charge a distance-based fee. Ridesourcing drivers usually are not already travelling to the same destination as passengers and the driver’s motivation is to earn income.
Taxis	Also adapting with new on-line apps.
Micro-transit	Micro-transit is a form of private transit that relies on big data to plan flexible routes with limited stops and no transfers. Users can pay by the ride, buy multiride packs or sign up for monthly subscriptions. The buses and vans guarantee every rider a seat and have luxury items like wifi

Key questions or ideas to consider:

Rather than considering shared mobility options such as carsharing or ridesourcing in isolation, local governments may be better served by cultivating a shift towards integrated mobility planning. Using this approach, a suite of mobility options – with public transit as the foundation – is considered in conjunction with land use patterns. Shared mobility should be used as a complement to transit and can then be used to fill gaps in the existing public infrastructure and extend its reach.

Local governments can develop partnerships with carsharing and ridesourcing companies to better integrate with transit and to fill transit gaps, especially in suburban or non-urban areas.

2. Shared spaces: sharing of space including short-term rentals, shared housing, and co-working.

Type	Description
Short-term rentals	The renting out of rooms, suites, and entire homes or apartments to visitors for stays typically shorter than 30 days, usually through a web-based platform (e.g. Airbnb)
Shared housing	<ul style="list-style-type: none"> • Coops -residents pay coop membership fee + monthly housing costs) • Co-housing -differs from cooperative housing in that participants purchase (and, subject to cohousing project rules, may sell, or rent out) private, self-contained units as well as a portion of commonly owned and shared facilities • Co-living - un-related adults rent a (large) house or apartment together, usually with similar values or interests, and the ability to access spaces that include a socially stimulating atmosphere and/or luxuries such as music rooms, yoga studios or shared office space.
Co-working	Coworking sites are office workspaces shared by a range of people working on their own independent businesses or projects. Coworkers rent these spaces by the month, day, or hour

Key questions or ideas to consider:

There is mounting evidence that short-term rentals is having a negative impact on availability of rental housing as landlords and homeowners with secondary suites turn to more lucrative short-term rentals. Lack of availability of rental housing also contributes to the escalation of long-term rental housing prices. Ensuring that long-term rental housing is available in the community will continue to be a challenge that local governments need to address. Furthermore, short-term rentals, while helping to diversify the local economy by providing income and business for operators and spreading tourist dollars beyond the traditional hotel accommodation sector, generally do not contribute hotel taxes to the local government to help pay for infrastructure and services used by tourists. Local governments need to determine how to better define, support and/or regulate short-term rentals.

Co-living situations on their own do not necessarily inherently increase sustainability, and therefore co-living spaces need to be planned and designed to incorporate sustainability (e.g. reduced energy, car-sharing, community volunteerism).

While co-working opportunities enhance connection and collaboration among co-workers, there is no clear evidence to show that there are other sustainability benefits such as reduced travel and energy, or increased income.

3. Shared goods: the exchange, sale or loaning of new or used items (e.g. equipment, toys, clothing, furniture, appliances, books, electronics) among different actors, often using online platforms.

Type	Description
Peer-to-peer sharing	Range of sharing transactions between individuals, which may be mediated by an on-line platform (e.g. eBay, Craigslist)
Business-to-business sharing	Occurs between businesses and includes materials and by-product exchanges (e.g. National Industrial Symbiosis Program)
Business-to-peer sharing	Mediated by money rather than exchange (e.g. Amazon), which connects sellers with users
Institution-to-institution	Between government entities, universities or hospitals sharing goods such as equipment, through on-line platforms such as Munirent (equipment and personnel)

Key questions or ideas to consider:

It is important to continue focusing on upstream solutions (reducing consumption) rather than on downstream waste, i.e. to reduce the amount of goods in circulation and to keep those materials in circulation for as long as possible and as accessible to as many people as possible. Local governments can support business-to-business and institution-to-institution sharing, participate in those programs, and promote sharing economy activities by offering underutilized municipal assets.

4. Shared food

Type	Description
Land-sharing	Sharing of backyards, farms and public spaces for food production
‘Idle’ food distribution	Sharing unwanted or excess food between individuals, groups and businesses (including donations to food banks)

Meal sharing	Individuals sharing food in community kitchens, inviting people into their homes to share meals, or ‘meet-ups’ of strangers sharing a meal (e.g. Vizeat)
Kitchen space and equipment sharing	Typically employing a co-op or rental model (e.g. incubator kitchens)
Community supported food production	Such as Community Supported Agriculture (CSA) – share the risks and benefits of farming
Food production in public spaces	Community gardens and orchards

Key questions or ideas to consider:

Food sharing and space/land sharing can present challenges for local governments such as concerns about health and safety issues, zoning regulations. Supporting more local production and distribution of food can advance sustainability by reducing ecological footprint, protecting land for food production, and increase access to food.

5. Shared energy: opportunities for people to collaborate among themselves for energy creation, storage and sharing. Shared energy projects primarily involve solar and wind, and have also expanded to include energy efficiency. (e.g. [Solshare](#))

Key questions or ideas to consider:

Local governments can create municipally-owned renewable or district energy projects, stimulate the renewable energy market through their own purchasing power, or partner with community coop energy projects (e.g. [Trec](#) Renewable Energy Cooperative, which launched [Solar Bonds](#) to finance renewable energy initiatives).

6. Community sharing: amplify the best aspects of the Sharing Economy, working at the local scale to embrace sharing and incorporating sustainability goals.

The following are key traits that distinguish Community Sharing:	Some of the most common types of Community Sharing include
<ul style="list-style-type: none"> · Focused at a local or neighborhood scale · Use of digital technology to lower transaction costs is more modest and less sophisticated · Varied structures - non-profit or informally organized models dominate but can also be for-profit, cooperative or social enterprise · More emphasis is placed on in-person connections · Non-monetized transactions are more dominant e.g. swapping and bartering · Greater, explicit emphasis placed on meeting local needs and sustainability goals 	<ul style="list-style-type: none"> · Community swap meets of clothing, toys, crops, seeds, clothing, baby food, media and more · Community festivals, such as PorchFest · Local lending libraries for tools, clothing, toys, seeds, cars · Timebanking - a reciprocity-based work trading system in which hours are the currency · Repair Cafes/Fix-It Workshops⁶ where people bring broken appliances, clothes, computers and more to be repaired by volunteer ‘fixers’ · Food-related sharing such as food-buying clubs, kitchen shares and community gardens

Key questions or ideas to consider:

Local governments can play a significant role in supporting Community Sharing as a strategy for advancing community sustainability goals such as reducing the ecological footprint, affordable living, workforce development and building healthy, connected communities.