



Proposal to Environment Canada: Community Action and Awareness Fund

Project Crossroads: #Climate justice science, for trees and for people.

Proof of concept: #AcerPx Project Crossroads in Knightsbridge, October 2020
Results and impacts contributed to Brampton Sustainable Neighbourhood Action Program

Environmental Action Committee

City of Mississauga

Presented: December 8, 2020

Prepared: Catherine Soplet, Building Up Our Neighbourhoods

With: Alice Casselman, B.Sc.(Hons), M.O.Ed., Founder and President

ACER (Association for Canadian Educational Resources)

About this presentation: Requests

REQUESTS:

- **Refer delegation to City Council on December 9, 2020 to request a Letter of Support for ACER's Proposal to Environment Canada: Climate Action and Awareness Fund.**
 - **Peel Region delegation for Letter of Support is scheduled for December 10.**
- **Refer to staff to establish a process with public school boards to extend One Million Trees program by providing mulch for school yard use in "Mulch, Measure and MOR" units, by students and residents.**
 - **Deliver hands-on STEM to strengthen student academic talent**
 - **Engage public schools with residents of all ages and backgrounds.**
- **Refer to staff for Climate Change Plan and Equity and Inclusion Committee**
 - **Explore ACER programs with equity staff and ECO schools to see benefits of outdoor and cross-curricular activity, framed to foster equity and inclusion.**

About this presentation: Rationale

- **Introduce: Project Crossroads: "*Climate justice science, for trees and for people*"**
Proposal to Environment Canada under Climate Action and Awareness Fund
Period running four years, from 2021-2025: Total Value \$ 1,477,588
- **Proof of Concept:**
How ACER targets planting sites to foster equity, in Mississauga and in Peel
 - **Presentation slides to Peel Poverty Reduction Strategy Committee – 2021 Priorities Session on November 27. 2020**
 - **Results and Impacts to deliver Project Crossroads in Knightsbridge, October 2020**
- **Pandemic Protocol to deliver ACER programs in 2020:**
 - **Planting for Change, November 2020 in Malton**
 - **Mulch, Measure and MOR to extend municipal One Million Trees programs**
- **Collecting annual data, for carbon calculation, for use in GHG offset**
- **Further Background: About ACER programs, and**
Founder Alice Casselman, B.Sc.(Hons), M.O.Ed.

www.acer-acre.ca/project-crossroads

ACER's Project Crossroads



Volunteers
Family "bubbles"

.... and students



Interested in tree planting, measuring, and monitoring?
Get started with Mulch, Measure, and MOR!

RESULTS: October 2020, under COVID

- 5 planting events in 3 Knightsbridge locations
- 71 volunteers, include secondary students
- 153 large trees + native pollinator/bird shrubs (biomass equivalent to 1840 x 1-gallon 18" trees)

Impact:

- Measure-Mulch-MOR units w/ training videos
- Extend Million Trees program for mulch delivery
- Animate non-profit agency ecosystem
- Introduce Carbon Calculation for GHG emission

Project Crossroads is a Proof-in-Concept for application Environment Canada under CAAF:

<https://bit.ly/ACER-Proposal-CAAF-11-2020>

Climate Action and Awareness Fund



Total Proposal value: \$ 1,472,588

EC-CAAF: \$ 816,712

In-Kind: \$ 655,876

Four years:
2021-2021



Project Crossroads: Climate justice science, for trees and for people supports health and wellbeing of communities with significant exposure to climate risk through:

- * action on climate change adaptation**
- * risk reduction and**
- * Greenhouse Gas (GHG) mitigation.**

By 2025, ACER will engage more than 2000 people from all ages and backgrounds, to plant 7,500 native tree indicator species for climate change research.

After Year 4, more than 18 T of Carbon will have been sequestered where people most need shade. Carbon capture will increase as tree canopies grow.

Using civic engagement and proven “Everyday Scientist” research protocols, ACER will develop high-exposure communities with knowledge, tools, and skills that engage residents of all ages and backgrounds in climate action to mitigate heat by planting cooling indicator species shade trees and annual recording Smithsonian data for climate change research.

ACER targets planting sites to foster equity

In 2019, ACER prioritized equity sites in Peel

In 2020, COVID caseload worsened unmet needs

**Next three
Slides presented
to “2021 Priorities”
PPRSC Meeting
November 27, 2020**

2019 Insight:

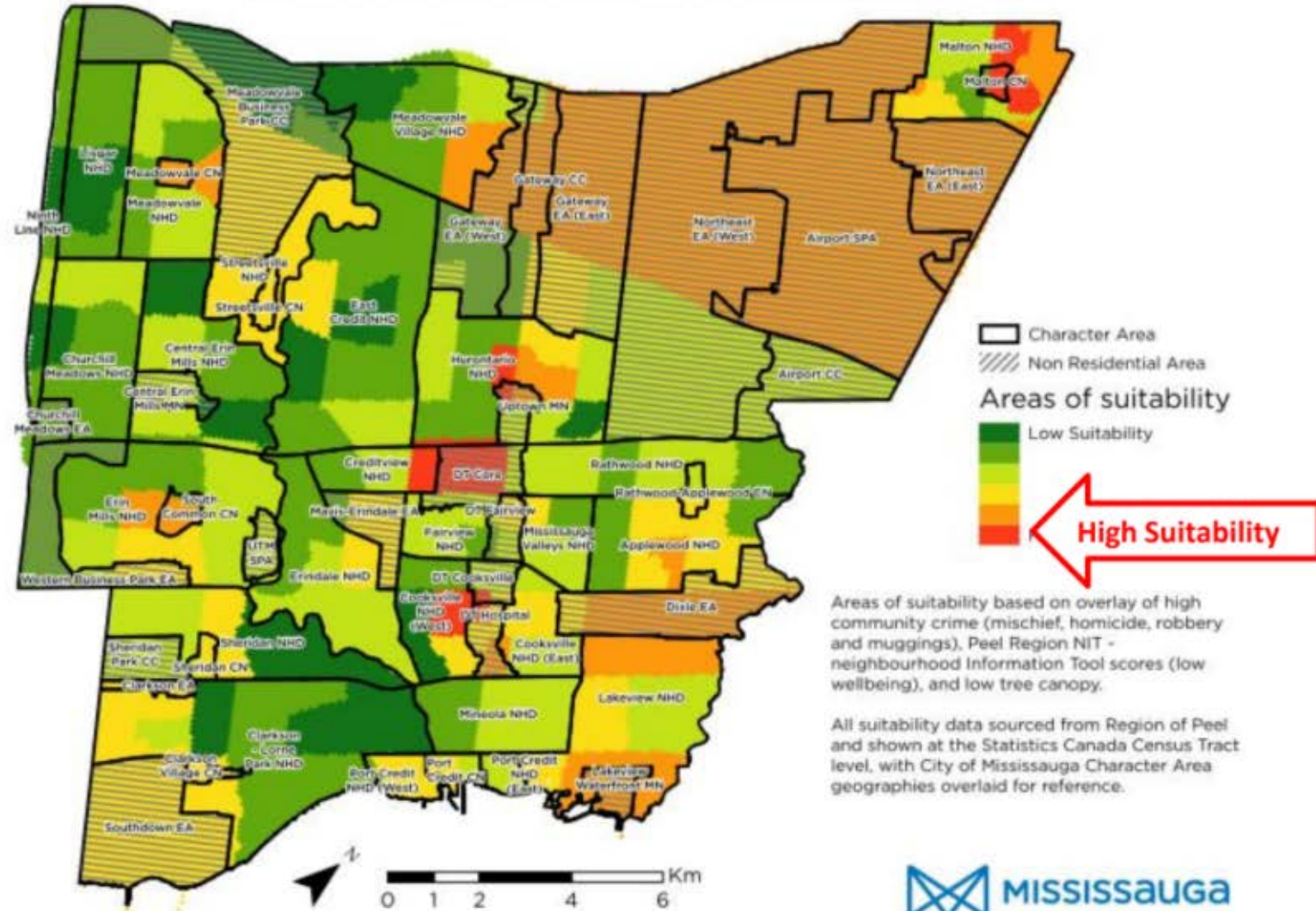
- Low tree canopy overlays with vulnerable social data.
- ACER moved P4C community tree planting for climate research from schoolyards to where students and families live.

2020 Innovation:

- Pandemic Learning: ACER pivots to digital delivery
- NFP Agency embedded ecosystems benefit from outdoor/ on-line/ remote activity to reconnect digitally and in the field with client students and families.

Where to plant for Anti-Racism Action Program: City of Mississauga overlays StatCan vulnerability data

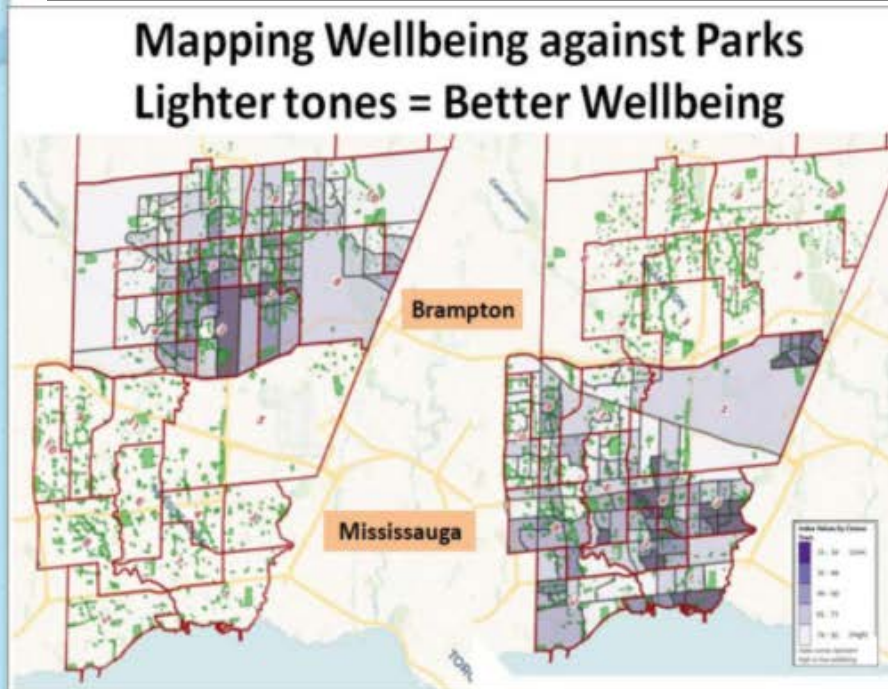
Slides presented
"2021 Priorities"
PPRSC Meeting
November 27, 2020



Climate Justice is at risk in Peel

New Immigrant is less likely to reside with easy access to Tree Canopy

Climate Change is a Crisis



Peel Region
Neighbourhood Information Tool

Racism is a Crisis

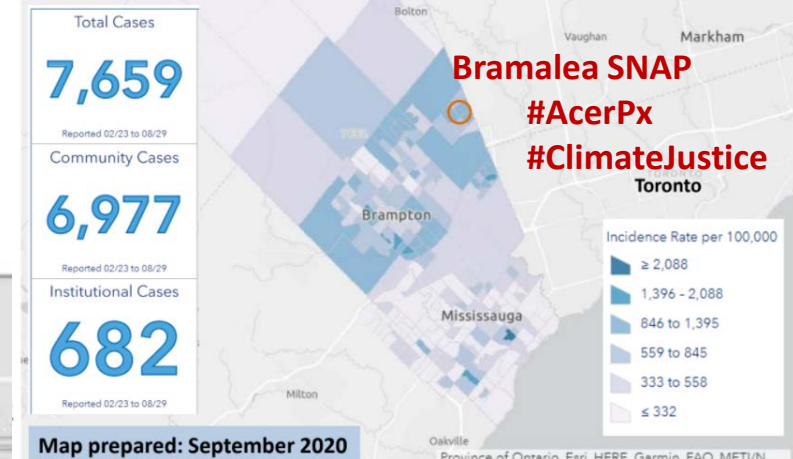


Recent Immigrants in Peel
by Dissemination Area (2016)
Peel Newcomer Strategy Group
Collective Impact Report (2019)

Covid-19 is a Crisis

Where to plant for Project Crossroads:
Region of Peel – Public Health COVID-19 Dashboard

COVID-19 Caseload by Postal Code



In 2019 Knightsbridge targeted for
urban reforestation via community
tree planting for climate change research

In 2020, COVID had disproportionate
high impact in same areas.

#AcerPx #Knightsbridge

"Climate justice science, for trees and for people."

Where to plant for Project Crossroads: City of Brampton overlays low trees w/ vulnerability

Bramalea SNAP (Google Maps)

Bramalea SS
Earncliffe Sr. PS
Eastbourne Drive PS
Fallingdale PS
Folkstone PS
Cardinal Newman Catholic Elem.
Georges Vanier Catholic

Bramalea Schools

Int PS
ie Senior PS
r SS
ird PS
PS
-D'arc Catholic ES
Greenbriar MS
Glenora BC

Project Crossroads: Planting for Change

Community Tree Planting in Bramalea SNAP Areas

(Sustainable Development Action Plan - Urban Revitalization)

Collaboration of ACER Canada (Association of Canadian Educational Resources)
City of Brampton Toronto and Regional Conservation Authority (TRCA)



Compare this map of Bramalea SNAP to
Peel Region Public Health: COVID-19 Mapping Dashboard

ACER Canada

Project Crossroads: Planting for Change - "Climate justice science, for trees and for people." [Read more...](#)

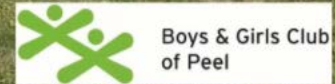
Toronto and Region Conservation Authority (TRCA), City of Brampton, Region of Peel and Healthy Communities Initiative are working closely with neighbourhood community leaders, residents and businesses to develop a Sustainable Neighbourhood Action Program (SNAP) for Bramalea. [Read more at TRCA site...](#)

Working Dates for Bramalea SNAP area community tree planting with ACER Canada - Subject to Conditions

Wednesday, October 7, 2020 | 9 a.m. to 2 p.m. | Peel Living (10 Knightsbridge Road, Brampton)
Saturday, October 17, 2020 | 10 a.m. to 12 p.m. | Folkstone Park (830 Clark Boulevard, Brampton)
Saturday, October 24, 2020 | 10 a.m. to 12 p.m. | Capreit Towers (11 Knightsbridge Road, Brampton)



Embedded Agency Ecosystem



Volunteers
Family "bubbles"

... and students

ACER thanks Knightsbridge residents for welcoming Project Crossroads ...
ACER thanks Knightsbridge residents for welcoming Project Crossroads trees, to contribute much-needed cooling shade and sustained climate ...
us4.campaign-archive.com

Slides presented
"2021 Priorities"
PPRSC Meeting
November 27, 2020



St. Anthony School
St. Jean Brebeuf Separate School
Ste-Jeanne-D'arc Catholic ES
Ste. Marguerite Bourgeoys Separate
St. Jean de Brebeuf ES
St. John Bosco School
St. John Fisher Catholic School
St. Thomas Aquinas SS
Tall Pines School
Williams Parkway Sr. PS



ACER Canada funded by Arbor Day Foundation, under TD Green Space Program

P4C Planting for Change: Establish New Trees

A schoolyard program to establish outdoor learning and research across the curriculum and grades, teaches many skills to develop tree stewards. A suite of indicator tree species is selected and installed for long term maintenance, to annually measure, report and share data for analysis. A sense of shared ownership reduces vandalism.

Since 2008, P4C planted 60+ schools. Morning Star Middle School planted November 2020, before frost, with ACER-designed with Covid-adapted Planting Protocols meeting Peel Health restrictions that was tested and approved by Mississauga, Brampton, TRCA and CVC on August 6, 2020.



Using Planting 4 Change program, ACER is the preferred agency for City of Mississauga – One Million Trees



Malton - Middle School planting in November 2020

Mulch, Measure and MOR – For 1 Million Trees

Measuring Our Resources 2020 with ACER's Covid-19 protocols

ACER is finding free mulch for school yard trees as first step to help teachers get outdoors. Why?

1. Civic engagement (1 Million Trees)
2. To provide a real and relevant activity outdoors
3. To put Snow Boots on trees to insulate their roots for survival!
4. To provide FOLLOW UP activities with on-line component

FOLLOW UP ACTIVITIES:

OUTSIDE :

- Hands On - add measurement of dbh, silhouettes and bark photos to help identify the species

INSIDE:

- Online – confirm ID, map trees, use carbon calculator for Carbon stored and CO2 absorbed in Kg. then tons for reporting.

Hands On Measurements: Annual Data





TAG CHART:
Left to right:

Site
Season
Year
Tree Number

[illegible]

HEALTH CHECK
A: Alive/Healthy
D: Dead/Dying
HB: Heavily browsed
I: Sick/Infested
LB: Lightly browsed
NB: No browsed
BS: Basal sprouting
Tag M: Tag missing
Tree M: Tree missing

5.3



ACER
ASSOCIATION FOR CANADIAN
EDUCATIONAL RESOURCES

Diameter at
Breast Height
(1.3 metres)

DBH

A caption for this picture



Questions ?

Thank YOU for the opportunity today to share our work!



www.acer-acer.ca

Alice Casselman

Cell 905-601-7685

Introducing Alice Casselman, B.Sc.(Hons), M.O.Ed.^{5.3}

- Ontario Teacher (Retired)
Founding Director, Outward Bound (ON)
- Science Department Head
Etobicoke School of the Arts
- Published author and ecology scientist
- 1987 - Founded ACER Canada to create relevant Canadian-based textbooks
- Humber Arboretum demonstrates five projects for climate change research
- Asset-Based Community Development



September 26, 2020 – Fridays for Future marched to UN for first Youth Summit on Climate Change. ACER launches Project Crossroads in Peel Region.



Programs

One Million Trees

Project Crossroads-Bramalea Oct. 2020

Planting for Change adapts for urban reforestation in areas of low tree canopy where residents experience heat vulnerability and higher impact of extreme weather.

Planting for Change (P4C)

We create planting sites in schoolyards and train students to monitor tree growth. The school becomes a part of our climate change monitoring network.

Riparian Rangers (RR)

Plantings along watercourses
Partners choose sites and species
Long term monitoring of 10%

Measuring Our Resources (MOR)

We teach volunteers how to inventory the existing trees on their property for our climate change monitoring network.

Youth Stewardship Project (HYS)

Local youth are trained to restore and monitor natural areas of ecological concern through partnership initiatives.

Go Global (GG)

We train community volunteers to monitor one-hectare forest sites in our international network to track changes in biodiversity over time.

Tracking for Success (T4S)

We measure survival rates of trees to add value to our partners' plantings.



Tree Caching Trails (TCT)

Our mobile application for trails and schoolyards encourages individuals to learn more about their natural surroundings by scanning coded tree tags.

Est.
1987

ACER creates living labs on public school yards with Planting 4 Change program.

ACER is the preferred agency for City of Mississauga – One Million Trees.