From Pocket Parks to Complete Streets:
Creating an Integrated Network of Public Places in Quebec City for Sustainable Health

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Presentation Plan

1. Overview of Quebec City and public space design: *The three Ws*
2. Quebec City’s rivers: *Backbones for public spaces*
3. Complete Streets: *Priorities, methodology and implementation*
4. Advantages: *Toward a new urban vision*
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Overview of Quebec City and public space design:

The three Ws
QUEBEC CITY

Organisation des Nations Unies pour l'éducation, la science et la culture

Arrondissement historique du Vieux-Québec inscrit sur la liste du patrimoine mondial en 1985

UNESCO

Quebec

Montreal

Ottawa

Toronto

Boston

New York

Detroit

Washington

150 miles

300 miles

450 miles

600 miles
ALKABILITY
Passages Insolites Public Art Exhibition

© Simon Parent
Plaza Charles-H. Blais, 2016

Plaza Limoilou, 2016

Parklet Limoilou in the Street, 2014

SPOT, 2015

Source: Le Cahier, Marie-Clara Rousseau

©Étienne Dionne
Why Complete Streets?
Aging population, low density urban fabric, social inequities

**Impacts on:**
- Infrastructure planning
- Street redesign
- Parks
- Public spaces
- Sports / recreation facilities
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Quebec City’s rivers: *Backbones for public spaces*
QUEBEC CITY’S RIVERS

- Cap-Rouge River
- Saint-Charles River
- Beauport River
- Montmorency River
- Saint Lawrence River
SAINT LAWRENCE RIVERFRONT

«Return the river to the population»
SAINT LAWRENCE RIVERFRONT

«Return the river to the population»
SAINT LAWRENCE RIVERFRONT

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«Return the river to the population»
SAINT LAWRENCE RIVERFRONT
Active transportation links

Connections with the Promenade Samuel-De Champlain
SAINT LAWRENCE RIVERFRONT
Active transportation links

Sillery Hill before redesign
SAINT LAWRENCE RIVERFRONT

Active transportation links

Sillery Hill after redesign
SAINT LAWRENCE RIVERFRONT

Eastern riverfront

Beauport Bay Recreation Area

Montmorency Falls

10 km
SAINT LAWRENCE RIVERFRONT

Eastern riverfront

Beauport Bay Recreation Area

Montmorency Falls
SAINT CHARLES RIVER

An active transportation corridor

Lac Saint-Charles

30 km

Old Quebec
SAINT CHARLES RIVER

An active transportation corridor

Three Sisters Pedestrian / Cycling Bridge

Pincourt Footbridge

Cartier-Brébeuf Park Footbridge

Buisson Pedestrian / Cycling Bridge
Complete Streets: 
Priorities, methodology and implementation
access to healthy and affordable food

travel

stormwater management

generators

active transportation / public transit

bus rapid transit

three-year capital improvements budget

infrastructure replacement

tree canopy

street resurfacing

air quality

neighbourhood services

universal security

underprivileged neighbourhoods

accessibility

urban heat islands
### PRIORITIES

Diverse planning documents related to **quality of life issues**

<table>
<thead>
<tr>
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<tr>
<td>Roadway design (2008)</td>
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A new approach to urban mobility
«...ensure safe and optimal road sharing between motorists, cyclists, and pedestrians.»

Plan de Mobilité Durable, Québec, 2011

Objectives

<table>
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<th>Year</th>
<th>Objectives</th>
<th>2011</th>
<th>2030</th>
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<tr>
<td></td>
<td>Pedestrians</td>
<td>10%</td>
<td>20%</td>
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<tr>
<td></td>
<td>Cyclists</td>
<td>15%</td>
<td>17%</td>
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<tr>
<td></td>
<td>Cars</td>
<td>71%</td>
<td>57%</td>
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PRIORITIES

**Conventional approach**

**Complete Streets approach**

Source: Google Street View
PRIORITIES

ACTIVE Streets

- Design streets primarily for walking and at a human scale to stimulate transit use.

- Place an importance on physical activity on streets to help improve public health.
PRIORITIES

GREEN Streets

> **Prioritize ecoresponsible interventions to reduce urban heat islands.**

> **Assure that air and water quality are improved and managed in a sustainable manner.**
> **Remain active all year round in complete security.**

> **Consider winter as an important activity generator, so that we can take full advantage of all it has to offer.**
Sustainable health

Place people at the centre of the planning and design process to support residents’ physical, psychological and social well-being.
METHODOLOGY
Multicriteria analysis: Identifying opportunities and priorities

CRITERIA
- Connectivity
- Citizen input
- Number of pedestrians
- Human activity density
- Street right-of-way
- Tree cover
- Population vulnerability
- Master plans
- Cycling network
- Public transportation
- Security
- Educational institutions
METHODOLOGY

Multicriteria analysis: Defining street hierarchies
METHODOLOGY

Multicriteria analysis: Applying additional indicators
METHODOLOGY
An inclusive process

Charrette for the redesign of avenue du Chanoine-Morel, November 15, 2016

Web survey
Participatory design sessions
Public forums
First city in North America to use this software to evaluate opportunities for street redesign in accordance with Complete Streets principles.

Source: Unité mixte de recherche en science urbaine, Québec
IMPLEMENTATION
Rue Saint-Ambroise, 2017

before

<table>
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<tr>
<th>Pedestrian</th>
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<tr>
<td>Car</td>
<td>70%</td>
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after

<table>
<thead>
<tr>
<th>Pedestrian</th>
<th>43%</th>
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<tbody>
<tr>
<td>Car</td>
<td>57%</td>
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$ +13\%$
IMPLEMENTATION
Avenue du Chanoine-Morel, 2019

before

after
IMPLEMENTATION
Rues Saint-Jean/Turnbull, 2017

<table>
<thead>
<tr>
<th>Mode</th>
<th>Before</th>
<th></th>
<th>Mode</th>
<th>After</th>
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<tbody>
<tr>
<td>Pedestrian</td>
<td>34%</td>
<td></td>
<td>Pedestrian</td>
<td>41%</td>
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<tr>
<td>Bus</td>
<td>66%</td>
<td></td>
<td>Bus</td>
<td>59%</td>
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$ + 4\%$
IMPLEMENTATION
Chemin de la Canadière, 2017

before

after

26 % 74 %

49 % 51 %

$ + 39 %
IMPLEMENTATION
Route de l’Église, 2018

before

after

$ + 60 \%
ADVANTAGES

Toward a new urban vision

- Quality of life issues are placed at the heart of the decision-making process

- Creation of living environments that are sensitive to local characteristics and needs

- Inclusive and equitable approach facilitating communication between all actors

- Community health, public security and comfort for all user groups are integrated to enhance urban environments
ADVANTAGES

Toward a new urban vision

• Increased efficiency in a design process which integrates the needs of citizens and municipal stakeholders

• Visual and flexible tool which helps to rapidly identify design priorities and which can be easily updated

• Opportunities are documented, assessed and justified in a transparent process

• Applicable in urban as well as suburban neighbourhoods; adaptable to existing as well as new street designs.

The right investment, at the right spot, at the right time
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