Welcome!

Region of Waterloo
Separated Cycling Network Pilot Project
Public Consultation Centre
December 12 & 14, 2017 | 5:00 – 8:00 p.m.

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About

What?
A connected and continuous network of separated bike lanes within one of the cities in Waterloo Region.

Why?
Project objectives include...

1. Test separated bike lanes along some roads
2. Evaluate different types of separated bike lanes
3. Encourage more people to cycle
4. Connect cycling to destinations
5. Consult with a broad range of stakeholders

Who?
A Project Team with staff from the Region of Waterloo is directing this project. The Project team also includes consultants from WSP Canada Group Ltd. and Paradigm Transportation Solutions Limited.
## Study Process

### Phase 1

<table>
<thead>
<tr>
<th>Task 1</th>
<th>Task 2</th>
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</thead>
<tbody>
<tr>
<td>Initiate project &amp; review background information</td>
<td>Analyze candidate study areas &amp; conduct baseline monitoring program</td>
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</table>

### Phase 2

<table>
<thead>
<tr>
<th>Task 3</th>
<th>Task 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare base plans &amp; preliminary design for pilot network</td>
<td>Implement, monitor &amp; evaluate pilot network</td>
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### Consultation & Engagement

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
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<tbody>
<tr>
<td>Notices</td>
<td>Technical Team Meetings</td>
</tr>
<tr>
<td>Public Consultation Sessions</td>
<td>Project Team Working Group Sessions</td>
</tr>
<tr>
<td>Council Presentations</td>
<td>AT Advisory Committee Presentations</td>
</tr>
<tr>
<td>Local Business Conversations</td>
<td>Property Owner Meetings</td>
</tr>
</tbody>
</table>

August 2017 – March 2018

June 2018 – December 2018
Supporting Policy

Policy & Plans

Provincial Documents

- Ontario

5 key plans
- Provincial Policy Statement
- #CycleON
- OTM Book 18: Cycling Facilities

Regional Documents

- Region of Waterloo

8 key plans
- Official Plan
- Strategic Focus 2015 – 2018
- Transportation & AT Plans

Local Documents

- Kitchener

20 key plans
- Official Plans
- Strategic Plans
- Active Transportation Related Master Plans
- Design Guidelines

Key Themes

1. Provincial guidance making it easier to plan and design
2. Alignment with high-level rapid transit planning and design
3. Regional guidance and support for separated facilities
4. Encouraging promotion and outreach for active transportation
5. Municipal support for infrastructure improvements
6. Design is impacted by context and user and may need to be adapted
Best Practices

Comparable Municipalities

National:
- Calgary
- Hamilton
- London
- Montreal

- Ottawa
- Toronto
- Vancouver

International:
- Copenhagen, Denmark

Key Themes

Maintenance
To encourage year-round cycling, maintenance should be prioritized

Types of Separation
Increasing user comfort and safety through various design treatments and applications

Cost
Cost is influenced by a range of factors and the context of the network

Signage & Pavement Markings
Signage and pavement marking are most effective when used in combination

Width of Space
Optimal width depends on a range of factors but tends to be 1.5m for one-way facilities

Curbs & Impact
Other transportation modes and delivery services impact the design of the facility

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Identifying The Network

1. Identify Preliminary Study Area
   Identifying a “long list” of study areas throughout the cities of Cambridge, Kitchener and Waterloo – a total of 18 study areas were identified in the 3 cities.

2. Identify & Apply Study Area Criteria
   Evaluate the study areas with a set of criteria to identify 1 study area within each of the cities, for a total of 3 study areas.

3. Complete Qualitative Assessment & Select Preferred Study Area
   Identify 1 preferred study area with the greatest potential for achieving overall project objectives.

4. Identify Preferred Separated Bike lane Network
   Identify a connected and continuous system of separated bike lanes within the preferred study area.

5. Select Preferred Design options
   Determine a potential separated bike lane design treatment for the preferred network.
Downtown Kitchener
(Study Area 11)
## Evaluation

### Criteria Overview

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Destination Density</strong></td>
<td>Points of interest, such as grocery stores, convenience stores, hospitals and health centres, malls/plazas, movie theatres, art venues, and regional buildings</td>
</tr>
<tr>
<td><strong>Community Centres</strong></td>
<td>Local community centres</td>
</tr>
<tr>
<td><strong>Transit Access</strong></td>
<td>Points of access (transit stops) for the ION light rail transit and municipal bus routes</td>
</tr>
<tr>
<td><strong>Educational Building Density (excluding post-secondary)</strong></td>
<td>Locations of educational institutions, such as libraries, elementary, junior elementary, private, secondary, and senior elementary</td>
</tr>
<tr>
<td><strong>Proximity to Post-Secondary</strong></td>
<td>Proximity to the nearest major post-secondary institution</td>
</tr>
<tr>
<td><strong>Upcoming Development</strong></td>
<td>Approved and pending applications for subdivisions and condominium developments</td>
</tr>
<tr>
<td><strong>Dwelling Count</strong></td>
<td>Dwelling unit counts by census block as identified by the 2016 census (used as a proxy measure for population)</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>Percentage of inbound trips that are work-related trips</td>
</tr>
<tr>
<td><strong>Active Transportation Access</strong></td>
<td>Existing active transportation access</td>
</tr>
<tr>
<td><strong>Current Cycling Mode Share</strong></td>
<td>Cycling mode share of trips</td>
</tr>
<tr>
<td><strong>Volume of Potential Cyclable Trips</strong></td>
<td>The number of potential cyclable trips</td>
</tr>
</tbody>
</table>
The criteria were applied to the top 3 preliminary study areas to determine how well they “perform”. The lower the score the better they achieve the criteria.

<table>
<thead>
<tr>
<th>Study Area:</th>
<th>Uptown Waterloo (Study Area 17)</th>
<th>Downtown Kitchener (Study Area 11)</th>
<th>Cambridge Centre (Study Area 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank (overall)</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Overall Score (lower is better)</td>
<td>44</td>
<td>46</td>
<td>75</td>
</tr>
<tr>
<td>Active Transportation Access</td>
<td>4</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Community Centres</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Current Cycling Mode Share</td>
<td>3</td>
<td>5</td>
<td>12</td>
</tr>
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<td>4</td>
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<td>7</td>
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<td>1</td>
<td>10</td>
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<td>12</td>
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<td>7</td>
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Best Performing Suit  Suitable Moderately Suitable Low Suitability
The following are some of the reasons why the Uptown Waterloo study area is being recommended as the preferred location for the pilot project.

**Post Secondary Institutions**
Post-Secondary Institutions account for 48,700 full-time students:
- Sir Wilfred Laurier University
- Waterloo’s Conestoga College
- University of Waterloo (adjacent)

**Employment Areas**
Proximity to major employment destinations:
- The Research & Technology Park

**Destinations**
Close to major destinations:
- Conestoga Mall
- King Street Corridor

**AT Routes**
Access to major active transportation routes:
- Iron Horse Trail
- The Great Trail (Trans Canada Trail)
## Separation Options

<table>
<thead>
<tr>
<th>Concrete Barrier Curb</th>
<th>Concrete Delineator</th>
<th>Concrete Roll Curb</th>
<th>Rubber Delineator</th>
<th>Flexible/Fixed Bollards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Barrier (walls)</td>
<td>Planters</td>
<td>Buffer Zone (painted markings)</td>
<td>Grade Separation</td>
<td>Parking</td>
</tr>
</tbody>
</table>

## Selecting Options

Separated bike lanes can take on many forms based on a number of separation criteria and design options. When determining the most appropriate type of separation the following is typically considered:

1. Material and installation cost
2. Winter maintenance implications
3. Driveway access
4. Aesthetic appeal
5. Emergency access
6. Bicycle handling & turning movements
What do you think of the different separation options?  
Please use a sticker to show your level of support or interest in the different separation options.  
1 = Low Interest  
5 = High Interest

<table>
<thead>
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<th>Concrete Barrier Curb</th>
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Monitoring

A monitoring program will be used both before and after the pilot project has been implemented to assess the effectiveness and impact. The following 3 methods will be used:

1. **Count Program**
   - Turning movement counts
   - Midblock volume counts
   - Video collection to capture the volume of bicycles, motor vehicles and pedestrians.

2. **Travel Time & Speed Data**
   - A sampling of travel times and average speed for motorized vehicles will be gathered using wireless receivers to detect signals from mobile phones and determine travel times along the network.

3. **User Surveys**
   - A voluntary survey will be used to gather information about the Separated Bike Lane Network users’ experience including:
     - Trip origin / destination and route,
     - Trip purpose and frequency,
     - Impact of the separated bike lane facility on decision to cycle, and
     - Demographics.
Next Steps

1. Confirm the preferred study area
2. Identify the proposed separated bike lane network and design treatments
3. Present the preferred network and preliminary design treatments
4. Hold additional consultation and engagement to complete preliminary and detailed design to present to Council

Have Your Say!

Please fill out a Comment Sheet...

Leave it in the comment box!  Mail it to us!  E-mail it to us!

Thank you for your involvement. If you have any questions or concerns please contact one of the following:

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