Coordinated Transit and Land Use Planning in the Region of Waterloo

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Transportation Research Board
Best Practices: Coordination of Transit, Regional Transportation Planning and Land Use

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Presentation Outline

I. Introduction to the Region of Waterloo
   - Geography, governance, projected growth;

II. Accommodating Regional Growth
   - Limiting outward growth;
   - Stimulating “intensification”

III. Transportation Planning
   - Upgraded and new transit services;

IV. Evidence of Successful Intensification

V. Challenges, Opportunities and Lessons
I. Introduction to the Region of Waterloo

- Located in southern Ontario; ~100km from Toronto;
- Comprised of three cities – Cambridge, Kitchener, and Waterloo – and four townships;
- Current population 510,000; 731,000 by 2031 with commensurate job growth;

North American growth pattern in post-war periods:
II. Accommodating Regional Growth

Planning Objectives:

- **Land use**: minimize consumption of undeveloped land;
- **Environment**: avoid disturbance of significant natural features;
- **Public health**: promote healthy lifestyles, minimize negative environmental conditions;
- **Quality of life**: enhance social / economic vibrancy.

Planning Areas:

- **Housing**: provide sufficient and diverse housing choices;
- **Economy**: support the growth and diversity of Region’s economy;
- **Transportation**: efficiently manage existing modes and provide new infrastructure for movement of persons and goods;

The Regional approach is to intensify employment & housing along CTC.
II. Accommodating Regional Growth

Limiting outward growth:

- **Regional Infrastructure Planning:**
- **Regional Land Use Planning:**
  - Limiting greenfield development through UGB (CSL)
  - ESL, “Greenlands Strategy”
  - Subdivision approvals;

Promoting CTC development:

- Provincial Policy: *Places to Grow*
- Regional Official Plans: *Intensification*
- Engaging Stakeholders:
  - 2005 Housing survey;
  - Reurbanization conference;
  - Region PAC;
  - “Visualizing Densities”
II. Accommodating Regional Growth

III. Transportation Planning

Accommodating travel demands along intensified corridor via:

- **Upgraded transit service: Grand River Transit**
  - Formed in 2000 by merging two city transit systems; Regional control;
  - Improved coordination: supply and planning;
  - Consistent funding, resulting in major system growth:

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2006</th>
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</thead>
<tbody>
<tr>
<td>Ridership</td>
<td>9,000,000</td>
<td>13,700,000</td>
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<tr>
<td>Service hours</td>
<td>349,000</td>
<td>511,000</td>
</tr>
<tr>
<td>Fleet size</td>
<td>140</td>
<td>191</td>
</tr>
<tr>
<td>Average Age</td>
<td>9.2</td>
<td>8.1</td>
</tr>
</tbody>
</table>
III. Transportation Planning

Accommodating travel demands along intensified corridor via:

- **New Operational and Fare Policies:**
  - Free transfers over 90 minute periods;
  - UPASS / corporate programs;
  - Bike racks on buses.

- **New Transit Services:**
  - iXpress service: supplement local service with 33km, 13 stop service on CTC;
  - Funded via Canadian Urban Transportation Showcase Program ($9.5M)
III. Transportation Planning

iXpress Data:

- **Operational:**
  - 15 minute headways in peak period; 30 minutes off peak;
  - TSP at 17 locations; real-time arrivals;
  - AVL, APC, Automated stop announcements;

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III. Transportation Planning

iXpress Data:

- **Ridership and Impacts:**
  - Growth from 2500 to 5500 weekday boardings;
  - Increased *choice* riders;
  - Increased *social mobility*;
III. Transportation Planning

Stimulating Intensification through Transit Infrastructure:

- *Rapid Transit Initiative* EA underway:
  - Two-step process: dedicated ROW, choice of alignment / technology;
  - ROW approved;
  - Several alignments being advanced;
  - Technology selection down to LRT and BRT;
  - Final decision in 2008;
  - Financing from Province, Federal Government (?)

IV. Evidence of Successful Intensification

Conversion of Brownfields to Housing
IV. Evidence of Successful Intensification

University Development

V. Challenges, Opportunities and Lessons

Potential challenges to intensification and increased transit use include:

- Inertia – risk aversion;
- Interaction with municipalities;
- Network configuration;
- Proximity to Toronto / intercity travel.
V. Challenges, Opportunities and Lessons

Land use policies outside of Regional control:

- Zoning;
- Design guidelines;
- Local municipal development charges;
- Parking.

<table>
<thead>
<tr>
<th>Study Areas</th>
<th>Area (ha)</th>
<th>Total Parking (est)</th>
<th>Parking Density (spaces/ha)</th>
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</thead>
<tbody>
<tr>
<td>Downtown Cambridge</td>
<td>28.3</td>
<td>1811</td>
<td>64</td>
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<tr>
<td>Downtown Kitchener</td>
<td>35.0</td>
<td>4714</td>
<td>135</td>
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<tr>
<td>Uptown Waterloo</td>
<td>21.1</td>
<td>1865</td>
<td>89</td>
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</table>

V. Challenges, Opportunities and Lessons

Network Configuration:
V. Challenges, Opportunities and Lessons

Toronto / Regional Travel:

Opportunities specific to Waterloo:
- Provincial policies;
- Enlightened public;
- Appropriate demographics;

Transferable lessons from Waterloo:
- Proactive v. reactive planning;
- Regional Planning;
- Introduction of strong image bus service;
- Coordination amongst all players.
V. Challenges, Opportunities and Lessons

More information:

http://www.grt.ca  – Grand River Transit;
http://www.region.waterloo.on.ca/  – Region of Waterloo;