LTS and Bicycle Accessibility

TAP subgroup meeting 12/07/17
Project Goals

• Determine scalable LTS framework using OSM data
• Apply LTS in national bicycle accessibility calculations
• Develop & present metrics assessing quality of bike access
Review of Methodology

- OpenStreetMap
- Tag roads as LTS 1, 2, 3, and 4
- Calculate accessibility per LTS level
- Compare networks & accessibility data per level
LTS Classifications

• LTS 1: residential streets, off-street / protected bicycle facilities
• LTS 2: tertiary roads, slower streets with some mixed traffic, good bike lanes
• LTS 3: faster streets, secondary roads, maybe some bike lanes
• LTS 4: primary roads, arterials, no bike facilities
LTS 2 Network - Minneapolis
LTS 1 - Accessibility
LTS 2 - Accessibility
LTS 4 - Accessibility
Metrics – LTS 3 versus 2

• “People willing to bike in mixed traffic can reach 10,000 (or 25%) more jobs than people who prefer separated facilities.”

• Access gap – underserved communities stand to gain with low-stress networks

• Identify areas that benefit from low-stress investments
Metrics – LTS 3 versus 2
## Metrics – Neighborhoods

<table>
<thead>
<tr>
<th>Neighbghborhood</th>
<th>LTS 2</th>
<th>LTS 3</th>
<th>LTS 2 vs. 3</th>
<th>LTS 2 vs. 3 pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBSA</td>
<td>16,116</td>
<td>28,841</td>
<td>-12,725</td>
<td>-44%</td>
</tr>
<tr>
<td>City of Minneapolis</td>
<td>80,188</td>
<td>120,171</td>
<td>-39,983</td>
<td>-33%</td>
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<tr>
<td>City of St. Paul</td>
<td>39,321</td>
<td>66,676</td>
<td>-27,355</td>
<td>-41%</td>
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<tr>
<td>Bryn - Mawr</td>
<td>27,871</td>
<td>143,226</td>
<td>-115,355</td>
<td>-81%</td>
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<tr>
<td>Northeast Park</td>
<td>36,094</td>
<td>174,590</td>
<td>-138,496</td>
<td>-79%</td>
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<tr>
<td>Harrison</td>
<td>51,514</td>
<td>201,889</td>
<td>-150,375</td>
<td>-74%</td>
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<tr>
<td>Windom Park</td>
<td>26,683</td>
<td>103,783</td>
<td>-77,100</td>
<td>-74%</td>
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<tr>
<td>Columbia Park</td>
<td>7,790</td>
<td>29,037</td>
<td>-21,247</td>
<td>-73%</td>
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<tr>
<td>Holland</td>
<td>40,303</td>
<td>149,421</td>
<td>-109,118</td>
<td>-73%</td>
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<td>Lind - Bohanon</td>
<td>3,830</td>
<td>13,156</td>
<td>-9,326</td>
<td>-71%</td>
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<td>Bottineau</td>
<td>42,873</td>
<td>146,277</td>
<td>-103,404</td>
<td>-71%</td>
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<tr>
<td>Logan Park</td>
<td>64,353</td>
<td>215,386</td>
<td>-151,033</td>
<td>-70%</td>
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<tr>
<td>Marshall Terrace</td>
<td>23,190</td>
<td>71,762</td>
<td>-48,572</td>
<td>-68%</td>
</tr>
</tbody>
</table>
Project Timeline

• Preliminary results shared with TAP subgroup at December 2017 meeting, followed by comment period (2 wks)
• AO performs remaining test-city calculations (2 wks)
• AO presents draft materials for remaining test cities at TRB TAP 2018 meeting
• AO presents draft materials for full national implementation ca. March 2018
Feedback on LTS results/metrics?

- LTS 3 vs. 2
- Other visuals that may be helpful?
Next Steps

• Incorporate any TAP feedback
• Continue troubleshooting routing
• Expand test calculations to other test-case cities (Washington, D.C., Seattle, Miami, Little Rock)