Making Complet-er Streets More Routine
LTS Connectivity Analysis and Bike-Friendly Resurfacing Pipeline

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New Jersey Complete Streets Summit
October 24, 2017
Delaware Valley Regional Planning Commission (DVRPC)

- Metropolitan Planning Organization (MPO) for the bi-state Philadelphia region

- Geography: 2 States, 9 Counties (including Philadelphia), 351 Municipalities

- Bike/pedestrian efforts:
  - Project and network planning for member governments
  - Circuit/Regional Trails Program coordination
  - Counts and data collection
  - TAP program coordination and project management for PennDOT
## LTS Categories and Rider Types

<table>
<thead>
<tr>
<th>LTS</th>
<th>Comfortable Enough For (Cyclist Type)</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Everyone</td>
<td>• Relaxing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Suitable for children</td>
</tr>
<tr>
<td>2</td>
<td>Interested but Concerned</td>
<td>• Suitable for most adults</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Presenting little traffic stress</td>
</tr>
<tr>
<td>3</td>
<td>Enthused and Confident</td>
<td>• Moderate traffic stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Comfortable for those already riding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>bikes in American cities</td>
</tr>
<tr>
<td>4</td>
<td>Strong and Fearless</td>
<td>• High traffic stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multilane, fast moving traffic</td>
</tr>
</tbody>
</table>

**Sources:**
**DVRPC LTS Connectivity Analysis**

**Step 1:** Calculate LTS for the existing network

**Step 2:** Break out segments and islands by LTS category

**Step 3:** Map the shortest paths between every Census Block and every other Census Block using only low-stress (LTS 1 & 2) segments (if possible)

**Step 4:** Calculate the shortest paths between every Census Block and every other Census Block using LTS 1, 2, and 3 segments

**Step 5:** Compare Steps 3 & 4 — Rank all LTS 3 segments in the network for how many new low-stress connections they would enable

This is the initial priority regional network of in-street facilities
For resurfacing project lists identified 2+ years out
Is the facility a candidate for bike-friendly restriping within the existing cartway? (scope: basically anything that can be done with paint)

• Facility is identified as a regional priority in DVRPC low-stress bike connectivity map
  -or-
  • Facility is identified in county and/or municipal bike plan

Could bicycle improvements be accommodated in the existing cartway with striping or marking changes alone?

Yes

Is the municipality willing to agree to maintain pavement markings (bike markings only) between resurfacings if necessary?

Yes

• This is a good bike-friendly restriping candidate, including bike lane markings or sharrows.
• Consider allocating design funding from TIP bike resurfacing line item.
• If insufficient funds are available in a given year for all such projects, the SEPA Suburban Bike Lanes Working Group will prioritize facilities for design.

No

Not a bike-friendly restriping candidate

Not a bike-friendly restriping candidate, but consider for other project development pipelines

No

• Not a candidate for bike lane markings or sharrows.
• Consider for striped shoulders with bike-friendly grates if cartway permits, and if a regional or county priority.
• If so, consider allocating design funding from TIP bike resurfacing line item.
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