Hanover Route 139 Corridor Study

Project Status – April 2020

Update to Old Colony MPO
April 21, 2020
Hanover Route 139 Corridor Study – Project Scope

- Geographic Scope: Route 139 (Hanover Street and Rockland Street), from Rockland Town Line to Washington Street (Route 53)
- Timeline: October 2019 though June 2020 (anticipated completion)
- Provide comprehensive assessment of existing conditions (traffic volumes and speed, congestion levels (level of service), pavement conditions, lighting, signage, sidewalks and other pedestrian infrastructure, bicycle capacity, and crash history and crash rates)
- Forecast future conditions based on both baseline growth and anticipated development
- Identify deficiencies, and work with stakeholders (Town and MassDOT) on improvement opportunities
- Prepare Final Report detailing findings from Study and recommendations
Hanover Route 139 Corridor Study – Completed to Date

- Traffic data collection (volumes, speeds, and vehicle classification) from Route 139 and side streets, and peak hour turning movement counts at intersections
- Existing and projected morning and afternoon Level of Service (measure of delay) analysis at intersections
- Calculation of existing crash rates (crashes per million entering vehicles), Crash Data 2015 through 2019
- Updates to Old Colony Joint Transportation Committee (JTC), Old Colony Metropolitan Planning Organization (MPO), and Hanover Traffic Safety Committee, and Hanover Residents (Cable Access TV)
<table>
<thead>
<tr>
<th>Location</th>
<th>Average Daily Volume</th>
<th>Speed Limit</th>
<th>85th Percentile Speed</th>
<th>% Heavy Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EB</td>
<td>WB</td>
<td>Total</td>
<td>EB</td>
</tr>
<tr>
<td>Route 139, at Rockland Town Line</td>
<td>5,424</td>
<td>5,310</td>
<td>10,734</td>
<td>35 MPH</td>
</tr>
<tr>
<td>Route 139, west of Plain Street</td>
<td>5,350</td>
<td>5,301</td>
<td>10,651</td>
<td>45 MPH</td>
</tr>
<tr>
<td>Route 139, east of Plain Street</td>
<td>4,887</td>
<td>4,850</td>
<td>9,737</td>
<td>45 MPH</td>
</tr>
<tr>
<td>Route 139, west of Grove Street</td>
<td>4,904</td>
<td>4,807</td>
<td>9,711</td>
<td>40 MPH</td>
</tr>
<tr>
<td>Route 139, east of Grove Street</td>
<td>6,433</td>
<td>6,168</td>
<td>12,601</td>
<td>40 MPH</td>
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<tr>
<td>Route 139, west of Main Street</td>
<td>8,433</td>
<td>8,429</td>
<td>16,862</td>
<td>40 MPH</td>
</tr>
<tr>
<td>Route 139, east of Main Street</td>
<td>7,245</td>
<td>7,825</td>
<td>15,070</td>
<td>40 MPH</td>
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<tr>
<td>Route 139, east of Hanover Street</td>
<td>6,745</td>
<td>6,471</td>
<td>13,216</td>
<td>45 MPH</td>
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</table>
## Hanover Route 139 Corridor Study – Existing Intersection Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Average Daily Entering Volume</th>
<th>AM Peak LOS</th>
<th>PM Peak LOS</th>
<th>Crash Rate (Crashes/MEV)</th>
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</thead>
<tbody>
<tr>
<td>Route 139 at Pleasant Street and Circuit Street</td>
<td>23,167</td>
<td>F</td>
<td>F</td>
<td>0.73</td>
</tr>
<tr>
<td>Route 139 at Plain Street</td>
<td>12,078</td>
<td>F</td>
<td>F</td>
<td>0.73</td>
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<tr>
<td>Route 139 at Circuit Street</td>
<td>13,756</td>
<td>C</td>
<td>C</td>
<td>0.08</td>
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<tr>
<td>Route 139 at Grove Street</td>
<td>14,967</td>
<td>F</td>
<td>F</td>
<td>0.77</td>
</tr>
<tr>
<td>Route 139 at Center Street</td>
<td>18,611</td>
<td>F</td>
<td>D</td>
<td>0.06</td>
</tr>
<tr>
<td>Route 139 at Center Street / Town Hall Drive</td>
<td>18,611</td>
<td>F</td>
<td>F</td>
<td>0.24</td>
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<tr>
<td>Route 139 at Main Street</td>
<td>22,356</td>
<td>F</td>
<td>F</td>
<td>0.44</td>
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<tr>
<td>Route 139 at Spring Street</td>
<td>16,933</td>
<td>F</td>
<td>F</td>
<td>0.16</td>
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<tr>
<td>Route 139 at Hanover Street</td>
<td>16,133</td>
<td>B</td>
<td>C</td>
<td>0.27</td>
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<td>Route 53 at Route 139</td>
<td>32,789</td>
<td>D</td>
<td>E</td>
<td>0.42</td>
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</tbody>
</table>

Crash rate based on MassDOT Crash Data from January 1, 2015 through January 31, 2019. Regional MassDOT District 5 average crash rates are 0.75 for signalized intersections and 0.57 for un-signalized intersections.
Potential Improvements to Hanover Route 139 Corridor
Hanover Street at Plain Street

• Deficiencies Identified
  • Poor Level of Service
  • High Crash Rate
  • High Rate of Crash Severity

• Potential Mitigation
  • Short Term / Lower Cost
    • Close off southern leg of Plain Street connecting Hanover Street to Circuit Street (0.2 miles)
  • Longer Term / Higher Costs
    • Reconstruct Intersection with Roundabout
    • Reconstruct Intersection with Traffic Signals
Hanover Street at Grove Street

• Deficiencies Identified
  • Poor Level of Service
  • High Crash Rate

• Potential Mitigation
  • Longer Term / Higher Cost
    • Reconstruct Intersection with Roundabout
    • Reconstruct Intersection with Traffic Signals
Hanover Street at Center Street / Main Street / Silver Street (Hanover Center)

- Deficiencies Identified
  - Complicated Layout – High Volume of Turning Movements in Concentrated Area
  - High Levels of Congestion During Peak Demand
  - Poor Levels of Service

- Potential Mitigation
  - Longer Term / Higher Cost
    - Signalization of Hanover Street at Main Street and Hanover Street at Center Street (southern leg)
    - Close northern leg of Center Street connecting Hanover Street and Main Street?
    - Access Management / Consolidation of Driveways
Bicycle and Pedestrian Improvements

- Enhanced connections to Colby Phillips Recreational Area and athletic fields and sports courts at Hanover Playground
  - Improves Safety
  - Improves Community Health
  - Reduces reliance on automobile
    - Shared-use side path where sufficient right-of-way is present (western end of corridor)
    - Sharrows in other locations
    - Pedestrian crossing controls at Hanover Street at Pleasant Street and Circuit Street
    - Enhanced pedestrian crossing safety in Hanover Center
      - HAWK signals?
      - Rectangular Rapid Flashing Beacons
Hanover Route 139 Corridor Study – Happening Now and Next Steps

- Continue Engage Public and Solicit Input on Potential Improvements
  - Survey Public on Priority and Interest in Potential Improvements
- Continue to Work with Town on identification of preferred improvement options and scenarios
  - Hanover Town Center
- Consultation with Massachusetts Department of Transportation (MassDOT)
  - Corridor is under jurisdiction of MassDOT
- Development and Presentation of Report
Questions/Thoughts/Suggestions?

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Principal Transportation Planner
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