STAFF RECOMMENDATION: Howard Street to St. Stephens Road - Four Lanes

**Description**
- Optimize existing layout of Seminary Road
- Maintain two through lanes in each direction
- Optimize and synchronize signal timing and phasing
- Traffic flows slightly better
- Upgrade existing crosswalks with safety improvements
- Narrow lane widths to discourage speeding

**Typical Cross Section**

**Intersection Delay**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Time of Day</th>
<th>EXISTING Delay (sec)</th>
<th>Staff Recommendation Delay (sec)</th>
<th>Change (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Howard St &amp; Seminary Rd</td>
<td>AM</td>
<td>28.6</td>
<td>30</td>
<td>+1.4</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>28.8</td>
<td>29.5</td>
<td>+0.7</td>
</tr>
<tr>
<td>St. Stephens Rd &amp; Seminary Rd</td>
<td>AM</td>
<td>8.2</td>
<td>8.6</td>
<td>+0.4</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>6.3</td>
<td>5.3</td>
<td>-1</td>
</tr>
</tbody>
</table>

**Howard and Seminary**
- **Operational Changes:**
  - Removal of slip lane for SB Howard to WB Seminary
  - Revised curb radii to slow turning drivers
  - Consolidated bus stops on SW corner of intersection
  - Synchronized with other signals east to Quaker Ln
- **Average projected delay:**
  - Morning Rush= <35 sec / Evening Rush= <35 sec

**Chapel Hill and Seminary**
- **Operational Changes:**
  - New crosswalk on west leg of intersection
  - Eastbound lane drop east of the intersection, second eastbound lane becomes right turn only.
  - Synchronized signal with Quaker and Howard
- **Average Projected Delay:**
  - Morning Rush= <35 sec / Evening Rush= <35 sec
  - Queues are slightly longer than existing, but still well under capacity

**St. Stephens and Seminary**
- **Operational Changes:**
  - HAWK signal for multi lane crossing at bus stop
  - Advance signage and stop bars
  - Median island

**Performance Assessment**

**Scoring**

<table>
<thead>
<tr>
<th>PERFORMANCE MEASURE</th>
<th>RATING</th>
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<tbody>
<tr>
<td>Pedestrian Safety/Comfort</td>
<td>+1</td>
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<tr>
<td>Filling the Sidewalk Gap</td>
<td>+2</td>
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<tr>
<td>Controlling Speed</td>
<td>0</td>
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<tr>
<td>Preventing Crashes</td>
<td>+1</td>
</tr>
<tr>
<td>Minimizing Vehicle Delay</td>
<td>+2</td>
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<tr>
<td>Accommodating Vehicle Volumes</td>
<td>+2</td>
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<tr>
<td>Adjacent Resident Livability</td>
<td>+1</td>
</tr>
<tr>
<td>Bicyclist Safety/Comfort</td>
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</tbody>
</table>

**Performance Details**

- **Ped Safety/Comfort:** Reduces the number of through-lanes to be crossed on a portion of the roadway, with median islands at uncontrolled crosswalks along with flashing pedestrian signals.
- **Filling the sidewalk gap:** Fills sidewalk gap when space from lane reconfiguration is reappropriated to a temporary sidewalk treatment and sidewalk buffer.
- **Controlling Speed:** Provides minimal improvements in controlling speed with a single through-lane for the eastbound direction, for a little less than half of the segment, which would control speed slightly, but two westbound lanes would still allow passing.
- **Preventing car crashes:** Reduced lanes eastbound for a portion of the corridor, may provide some crash reduction benefits, but are unlikely to reduce angle, sideswipe, or rear-end crashes, especially in the westbound direction.
- **Minimizing vehicle delay:** This alternative optimizes signal operations over the existing conditions. Queue lengths stay the same, slightly improve over exiting conditions in most intersections, except for St. Stephens Road.
- **Accommodating Vehicle Volumes:** This alternative employs signal synchronization to better accommodate vehicle volumes.
- **Adjacent resident livability:** Maintains similar travel times to existing, buffer space in part of the corridor assists cars to pull out of driveways and for residents to feel safer walking along the road.
- **Bicycling Safety/Comfort:** Provides shared lane markings, which provides minimal improvements over existing ability of cyclists to take the lane.