6. Presentation and Q & A: Performance Measure Assessment – Review of VISSIM and other Performance Assessments

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Agenda

• Review status of Performance Measures Workbook
• Summary Table
• Multimodal Transportation Assessment
  – VISSIM modeling tool
  – Overview of some performance measures
• Sampling of some performance measures
• ~20 minutes for Q&A
Status of Performance Measure Assessments

- We will follow up with additional Performance Measures at the Thursday Charrette meeting
- CTF members also have post-it notes to take with your Performance Measure workbooks

- Please review the Performance Measures and write individual Post-Its with:
  - Questions
  - Concerns
  - Ideas for revisions
  - Etc.
- Post-Its will be used in group discussion exercise at Thursday meeting
1a. Streetside Functionality for Pedestrian Activity

<table>
<thead>
<tr>
<th>Street Concept Alternative</th>
<th>Study Area Segment</th>
<th>Average Sidewalk Width (feet)</th>
<th>Average Difference in Sidewalk Width Compared with ITE Guidance (feet)</th>
<th>Length of Sidewalk &quot;Weave&quot; (feet)</th>
<th>Summary Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Lane (Minimize Direct Building Impacts)</td>
<td>Full Length</td>
<td>14.86</td>
<td>-1.47</td>
<td>531</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>West of Martin</td>
<td>15.35</td>
<td>-1.53</td>
<td>40</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>East of Martin</td>
<td>14.55</td>
<td>-1.44</td>
<td>491</td>
<td>+</td>
</tr>
<tr>
<td>4-Lane (Minimize Property Impacts)</td>
<td>Full Length</td>
<td>15.44</td>
<td>-1.59</td>
<td>113</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>West of Martin</td>
<td>15.66</td>
<td>-1.55</td>
<td>75</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>East of Martin</td>
<td>15.30</td>
<td>-1.62</td>
<td>38</td>
<td>++</td>
</tr>
<tr>
<td>6+2T Lane</td>
<td>Full Length</td>
<td>15.99</td>
<td>-1.49</td>
<td>0</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>West of Martin</td>
<td>15.76</td>
<td>-1.57</td>
<td>0</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>East of Martin</td>
<td>16.13</td>
<td>-1.45</td>
<td>0</td>
<td>+++</td>
</tr>
</tbody>
</table>
# 2a. Separation of Bikes and Arterial Traffic

<table>
<thead>
<tr>
<th>Street Concept Alternative</th>
<th>Study Area Segment</th>
<th>Pct. of bike facility (minus curb cuts) that is cycletrack</th>
<th>Length of bike facility (minus curb cuts)</th>
<th>Bike facility width</th>
<th>Summary Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Lane (Minimize Direct Building Impacts)</td>
<td>Full Length</td>
<td>71%</td>
<td>12779.00</td>
<td>7 feet</td>
<td>+1/2</td>
</tr>
<tr>
<td></td>
<td>West of Martin</td>
<td>75%</td>
<td>4786.00</td>
<td>7 feet</td>
<td>+1/2</td>
</tr>
<tr>
<td></td>
<td>East of Martin</td>
<td>69%</td>
<td>7993.00</td>
<td>7 feet</td>
<td>+1/2</td>
</tr>
<tr>
<td>4-Lane (Minimize Property Impacts)</td>
<td>Full Length</td>
<td>76%</td>
<td>13907.00</td>
<td>7 feet</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>West of Martin</td>
<td>79%</td>
<td>5352.00</td>
<td>7 feet</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>East of Martin</td>
<td>73%</td>
<td>8555.00</td>
<td>7 feet</td>
<td>++</td>
</tr>
<tr>
<td>6+2T Lane</td>
<td>Full Length</td>
<td>75%</td>
<td>13597.00</td>
<td>8 feet</td>
<td>++1/2</td>
</tr>
<tr>
<td></td>
<td>West of Martin</td>
<td>78%</td>
<td>5165.00</td>
<td>8 feet</td>
<td>++1/2</td>
</tr>
<tr>
<td></td>
<td>East of Martin</td>
<td>73%</td>
<td>8432.00</td>
<td>8 feet</td>
<td>++1/2</td>
</tr>
</tbody>
</table>
### 6a. Historic Resources

<table>
<thead>
<tr>
<th></th>
<th>Building Impacts</th>
<th>High Risk for Acquisition</th>
<th>Moderate Risk for Acquisition</th>
<th>Total Historic Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-LANE MINIMIZING BUILDING IMPACTS</td>
<td>2</td>
<td>78</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>4-LANE MINIMIZING PROPERTY IMPACTS</td>
<td>15</td>
<td>35</td>
<td>6</td>
<td>56</td>
</tr>
<tr>
<td>6 + 2</td>
<td>39</td>
<td>28</td>
<td>3</td>
<td>70</td>
</tr>
</tbody>
</table>

**4-Lane Minimize Building Impacts**

**4-Lane Minimize Property Impacts**
VISSIM Modeling

• Assess/compare cross section alternatives
• Assess effect of dedicated transit lane
• Evaluate two future volume scenarios
  – PAG 2040 (33% growth)
  – Reduced PAG 2040 (22% growth)
• Assess mode shift scenario
Existing Conditions

Bar chart showing existing conditions for EB Auto - Euclid to Country Club, WB Auto - Country Club to Euclid, EB Bus - Euclid to Country Club, and WB Bus - Country Club to Euclid.
Transit Travel Time and Variation

**EB - Local Transit Service**

- 4 minutes: Bar
- 4+2 minutes: Bar
- 6 minutes: Bar
- 6+2 minutes: Bar

**EB - Priority Transit Service**

- 4 minutes: Bar
- 4+2 minutes: Bar
- 6 minutes: Bar
- 6+2 minutes: Bar

**WB - Local Transit Service**

- 4 minutes: Bar
- 4+2 minutes: Bar
- 6 minutes: Bar
- 6+2 minutes: Bar

**WB - Priority Transit Service**

- 4 minutes: Bar
- 4+2 minutes: Bar
- 6 minutes: Bar
- 6+2 minutes: Bar
Eastern and Western Section Travel Time

Eastbound Travel Time

Westbound Travel Time
What if Scenario...Mode Shift

![Bar chart showing travel times for different modes and shifts.](chart.png)
Multi-Modal Travel

Cyclist Travel Time

Average Time to Travel Corridor - Euclid to Country Club

- Auto (6)
- Auto (4T)
- Auto (4)
- Auto (existing)
- Transit (6)
- Transit (4T)
- Transit (4)
- Transit (existing)
- Cyclist
- Pedestrian

0 10 20 30 40 50 60

minutes

EB - Euclid to Country Club  WB - Country Club to Euclid

Cyclist

Pedestrian

0 10 20 30 40 50 60

minutes
Vehicle Emissions

**CO₂ Emissions**

- mg/m/s
- Vehicles

**Nitrous Oxide Emissions**

- mg/m/s
- Vehicles

**Hydrocarbon Emissions**

- mg/m/s
- Vehicles

**Fuel Consumption**

- litres
- Vehicles
5a. Person Trips for Multiple Measures

![Bar chart showing person trips for different lane configurations.](chart.png)