CCRPC Executive Committee
October 4, 2017
Agenda Item 5b: Information Item

Metropolitan Transportation Plan (MTP) Update

Background:
Staff has started developing and running the various MTP transportation scenarios using the recently updated regional travel demand model. This packet includes results for Scenarios A and D. All scenarios are briefly described below. Please note that Scenarios A through D are narrowly focused on a specific issue/mode/strategy/future and that the MTP scenario will be a hybrid of these scenarios and will include multimodal projects/improvements and other strategies.

- **Scenario A:** Vehicle capacity scenario that focuses on roadway projects (see attached charts and maps of interchange analyses)
- **Scenario B:** Technology Intensive scenario that includes connected and autonomous vehicles by 2050.
- **Scenario C:** TDM scenario that includes a robust increase of transit and bike/pedestrian facilities and travel.
- **Scenario D:** The two land use scenarios included in this packet are: D1 – 90% of the household (HH) growth is allocated to TAZs that correspond to the center and village planning areas for all towns; and D3 – 10% increase in overall HHs in Chittenden County. Additional growth is allocated proportionally to TAZs so that roughly 95% of HH growth falls within our areas planned for growth as specified in the ECOS Plan. (see attached charts)
- **MTP Scenario:** Hybrid scenario which combines multimodal projects and other strategies from Scenarios A through D.

Please note that the 2050 HH and population forecasts for Chittenden County, approved by the CCRPC Board in the spring of 2017, are 79,151 and 183,172 respectively.

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Countywide Daily Vehicle Miles Traveled (VMT)

- 2015: 4,000,000 miles
- 2025 No Build: 5,000,000 miles
- 2025 w/TIP: 4,400,000 miles
- 2050 No Build: 4,800,000 miles
- 2050 w/TIP: 5,400,000 miles
- 2050 w/TIP & Exit 12B: 5,600,000 miles
- 2050 w/TIP & Full Exit 13: 5,400,000 miles
- 2050 w/TIP & Full Exit 15: 5,400,000 miles
- D1 (90%): 5,600,000 miles
- D3 (10% Increase in HHs): 5,400,000 miles
Countywide Daily Vehicle Miles Traveled (VMT) per Capita

Miles

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>Miles</th>
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<tbody>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2025 No Build</td>
<td>27.0</td>
</tr>
<tr>
<td>2025 w/TIP</td>
<td></td>
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<tr>
<td>2050 No Build</td>
<td>29.5</td>
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<tr>
<td>2050 w/TIP</td>
<td></td>
</tr>
<tr>
<td>2050 w/TIP &amp; Exit 12B</td>
<td>30.0</td>
</tr>
<tr>
<td>2050 w/TIP &amp; Full Exit 13</td>
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<tr>
<td>2050 w/TIP &amp; Full Exit 15</td>
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</tr>
<tr>
<td>D1 (90%)</td>
<td></td>
</tr>
<tr>
<td>D3 (10% increase in HHS)</td>
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</tbody>
</table>
Countywide Daily Transit, Walking & Biking Mode Split

<table>
<thead>
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<th>Year/Scenario</th>
<th>Percent</th>
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<tbody>
<tr>
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<td>2025 No Build</td>
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<tr>
<td>2050 No Build</td>
<td>11.5%</td>
</tr>
<tr>
<td>2050 w/TIP</td>
<td>11.0%</td>
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<tr>
<td>2050 w/TIP &amp; Exit 12B</td>
<td>10.5%</td>
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<tr>
<td>2050 w/TIP &amp; Exit 13</td>
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<tr>
<td>2050 w/TIP &amp; Full Exit 15</td>
<td>10.5%</td>
</tr>
<tr>
<td>D1 (90%)</td>
<td>13.0%</td>
</tr>
<tr>
<td>D3 (10% Increase in HHS)</td>
<td>13.5%</td>
</tr>
</tbody>
</table>
Countywide Daily Average Length of Trip (distance)
Countywide Daily Average Length of Trip (time)

Graph showing the average length of trips for different scenarios.

- 2015
- 2025 No Build
- 2025 w/TIP
- 2050 No Build
- 2050 w/TIP
- 2050 w/TIP & Exit 12B
- 2050 w/TIP & Full Exit 13
- 2050 w/TIP & Full Exit 15
- D1 (90% Increase in HHs)
- D3 (10% Increase in HHs)
Figure X-X: 2050 AM & PM Peak Hour Congestion with TIP Projects
2050 w/TIP Projects & Full Exit 15
Congestion Levels (v/c ratio)

- Light Congestion (0.70 - 0.79)
- Moderate Congestion (0.80 - 0.89)
- Severe Congestion (0.90 - 1.00)
- Over Capacity (> 1.00)

Figure X-X: 2050 AM & PM Peak Hour Congestion w/TIP Projects & Full Exit 15
Figure X-X: 2050 AM & PM Peak Hour Congestion w/TIP Projects & Exit 13 Loop

2050 w/TIP Projects & Exit 13 Loop
Congestion Levels (v/c ratio)

- Light Congestion (0.70 - 0.79)
- Moderate Congestion (0.80 - 0.89)
- Severe Congestion (0.90 - 1.00)
- Over Capacity (> 1.00)

Railroad

See Inset Above Right

Map prepared by J. Chevalier using ArcGIS
Map Plane Coordinate System NAD83

Disclaimer:
The accuracy of information presented is determined by its sources.
Errors and omissions may exist.
The Chittenden County Regional Planning Commission is not responsible for errors. Questions of on-ground location can be resolved by site inspections and/or engineering studies.

2050 v/c data exported from TransCad.
Sources:
- Major Roads and Railroad - VTrans
- Town Boundary and Water Body - VCGI
- 9/27/2017

Figure X-X: 2050 AM & PM Peak Hour Congestion w/TIP Projects & Exit 13 Loop

9/27/2017