TRANSPORTATION PLAN
ADVISORY COMMITTEE

MEETING 6
September 30, 2013
Agenda

- Introduction and Overview
- Approach Performance Overview & Discussion
- TPAC Blended Approach Discussion
- Upcoming Public Workshops
- Public Comments
Upcoming Events

- Research survey
- MetroQuest survey available October 1st
- October public workshops
  - Monday, October 21\(^{\text{th}}\) 8:00 a.m. to 5:00 p.m. at Union Station
  - Tuesday, October 22\(^{\text{nd}}\) 6:30 to 8:30 p.m. at Benning Library
  - Saturday, October 26\(^{\text{th}}\) 1:00 to 4:00 p.m. at DCUSA Retail Center
  - Wednesday, October 30\(^{\text{th}}\) 6:30 to 8:30 p.m. at Petworth Library
  - Webinar date/time to be determined
MODELING & ANALYSIS APPROACH
Goals

- **Sustainability and Health**: achieve 75% of all District trips by non-auto modes
- **Citywide Accessibility and Mobility**: maximize system reliability and capacity for moving people and goods
- **Neighborhood Accessibility and Connectivity**: support neighborhood vitality and economic development
- **Safety and Security**: achieve zero fatalities and serious injuries on District transportation network
- **Public Space**: reinforce Washington DC's historic landscapes and quality of neighborhood
- **Preservation**: achieve a state of good repair for all District infrastructure
- **Funding and Financing**: invest in transportation to achieve outcomes within plan horizon
Tools

- District-wide Travel Demand Model (DWTDM)
- GIS-based spatial analysis
TRAVEL MODEL RESULTS
2010 High-Volume Travel Patterns

- Strong demand to and from downtown
- Demand correlates to infrastructure

Legend

Daily Trip Flow (Two-Way Trips)
- 12,500 to 15,000
- 15,001 to 18,500
- 18,501 to 21,500
- 21,501 to 26,000
- 26,001 to 60,000
- 60,001 to 98,000

Flows shown are for all daily trips (work and non-work)
2040 High-Volume Travel Patterns

- Strong demand to and from downtown
- Emergent inter-circumferential demand
- Increase in demand between St. Elizabeth’s and downtown/SE waterfront

Legend

Daily Trip Flow (Two-Way Trips)

- 12,500 to 15,000
- 15,001 to 18,500
- 18,501 to 21,500
- 21,501 to 26,000
- 26,001 to 60,000
- 60,001 to 98,000

Flows shown are for all daily trips (work and non-work)
2010 Medium-Volume Travel Patterns

- Neighborhood to neighborhood demand
- More dispersed travel

Legend

Daily Trip Flow (Two-Way Trips):
- Yellow: 5,000 to 5,500
- Orange: 5,501 to 6,300
- Red: 6,301 to 8,000
- Maroon: 8,001 to 9,500
- Purple: 9,501 to 10,500
- Blue: 10,501 to 12,500

Flows shown are for all daily trips (work and non-work)
2040 Medium-Volume Travel Patterns

- Increasing neighborhood to neighborhood demand
- Increasing dispersion of travel

Legend

Daily Trip Flow (Two-Way Trips)
- 5,000 to 5,500
- 5,501 to 6,300
- 6,301 to 8,000
- 8,001 to 9,500
- 9,501 to 10,500
- 10,501 to 12,500

Flows shown are for all daily trips (work and non-work)
Change in Travel (2010 to 2040)

- Increasing demand between inner neighborhoods and downtown
- Increased demand to SW waterfront and St. Elizabeth’s

Legend

<table>
<thead>
<tr>
<th>Flows</th>
<th>Change in Daily Trip Flow (Two-Way Trips)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,000 to 3,300</td>
<td>2010 to 2040</td>
</tr>
<tr>
<td>3,301 to 4,200</td>
<td>2010 to 2040</td>
</tr>
<tr>
<td>4,201 to 5,600</td>
<td>2010 to 2040</td>
</tr>
<tr>
<td>5,601 to 7,900</td>
<td>2010 to 2040</td>
</tr>
<tr>
<td>7,900 to 11,700</td>
<td>2010 to 2040</td>
</tr>
<tr>
<td>11,701 to 22,300</td>
<td>2010 to 2040</td>
</tr>
</tbody>
</table>

Flows shown are for all daily trips (work and non-work)
2010 High-Volume Travel Patterns

Legend

Daily Trip Flow (Two-Way Trips):
- 35,000 to 48,000
- 48,001 to 67,000
- 67,001 to 108,000
- 108,001 to 203,000
- 203,001 to 314,000
- 314,001 to 488,000

Flows shown are for all daily trips (work and non-work)
2040 High-Volume Travel Patterns

Legend

Daily Trip Flow (Two-Way Trips):
- Yellow: 35,000 to 48,000
- Orange: 48,001 to 67,000
- Red: 67,001 to 108,000
- Maroon: 108,001 to 203,000
- Purple: 203,001 to 314,000
- Blue: 314,001 to 488,000

Flows shown are for all daily trips (work and non-work)
Heavy Increase in Travel (2010 to 2040)

Legend
Change in Daily Trip Flow (Two-Way Trips)
2010 to 2040
- 6,000 to 7,200
- 72,201 to 8,900
- 8,901 to 11,700
- 11,701 to 22,200
- 22,201 to 48,300
- 48,301 to 101,100

Flows shown are for all daily trips (work and non-work)
## Mode Share by Approach

<table>
<thead>
<tr>
<th>Travel Mode</th>
<th>Work Trips</th>
<th>All Trips (future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorized (Drive)</td>
<td>49%</td>
<td>41%</td>
</tr>
<tr>
<td>Metrorail</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>Transit – Bus &amp; High Capacity</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>Walk and Bike</td>
<td>13%</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Approach 1 (Business as Usual)</th>
<th>Approach 2 (Get to the Center)</th>
<th>Approach 3 (Connect the Neighborhoods)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorized (Drive)</td>
<td>38%</td>
<td>36%</td>
<td>35%</td>
</tr>
<tr>
<td>Metrorail</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Transit – Bus &amp; High Capacity</td>
<td>14%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Walk and Bike</td>
<td>37%</td>
<td>39%</td>
<td>41%</td>
</tr>
</tbody>
</table>

**Notes**
1. Mode share shown in the above table is for trips that start and end in the District.
2. Columns may not total 100% due to rounding and nominal use of modes not listed in this table such as Commuter Rail and Water Transit.
3. Mode share listed is of primary mode – i.e. a walk to transit trip is categorized as transit.
SPATIAL ANALYSIS
## System Mileage between Approaches

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Mileage</th>
<th>Mileage</th>
<th>Mileage</th>
<th>Mileage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
<td>Approach 1</td>
<td>Approach 2</td>
<td>Approach 3</td>
</tr>
<tr>
<td>Roadway (Lane Miles)</td>
<td>1515</td>
<td>1465</td>
<td>1418</td>
<td>1462</td>
</tr>
<tr>
<td>Metrorail</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>59</td>
</tr>
<tr>
<td>High-Capacity Transit (Shared or Dedicated Lanes)</td>
<td>0</td>
<td>112</td>
<td>85</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(86 unique miles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Taxi</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Trail (Multi-use Trail or Sidepath)</td>
<td>74</td>
<td>143</td>
<td>119</td>
<td>112</td>
</tr>
<tr>
<td>Cycle Track</td>
<td>4</td>
<td>7</td>
<td>59</td>
<td>78</td>
</tr>
<tr>
<td>Bike Lane</td>
<td>52</td>
<td>120</td>
<td>109</td>
<td>118</td>
</tr>
</tbody>
</table>
### Capacity Change between Approaches

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Approach 1</th>
<th>Approach 2</th>
<th>Approach 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway</td>
<td>-3%</td>
<td>-6%</td>
<td>-4%</td>
</tr>
<tr>
<td>High Capacity Transit (Metrorail, Surface, Water Taxi)</td>
<td>67%</td>
<td>87%</td>
<td>112%</td>
</tr>
<tr>
<td>Bicycle Facilities (Trail, Cycle Track, Sidepath, Bike Lane)</td>
<td>143%</td>
<td>139%</td>
<td>147%</td>
</tr>
<tr>
<td><strong>Total (all facilities)</strong></td>
<td><strong>18%</strong></td>
<td><strong>19%</strong></td>
<td><strong>26%</strong></td>
</tr>
</tbody>
</table>
## Modal Coverage between Approaches

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Percent of 2040 Population with Access</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approach 1</td>
</tr>
<tr>
<td>Metrorail Station Entrance within 7.5-minute walk</td>
<td>18%</td>
</tr>
<tr>
<td>High-Capacity Transit Stop within 7.5-minute walk</td>
<td>54%</td>
</tr>
<tr>
<td>Trail (multi-use or side path) within a 2-minute ride</td>
<td>42%</td>
</tr>
<tr>
<td>Cycle Track within a 2-minute ride</td>
<td>10%</td>
</tr>
<tr>
<td>Bike Lane within a 2-minute ride</td>
<td>77%</td>
</tr>
<tr>
<td>Sidewalk Present</td>
<td>100%</td>
</tr>
</tbody>
</table>
A BLENDED APPROACH
What Comes Next

- Develop a “Blended” Approach
  - Part of the draft moveDC plan
  - Physical modal networks

- Develop other elements of the moveDC plan
  - Policies
  - Management strategies
  - Funding and financing
Draft Process for Blending

- Map each modal network’s performance
- Review travel patterns
  - High demand: more elaborate elements
  - Medium demand: simpler elements
- Find modal routes
- Evaluate modal routes locally:
  - Impact on parking
  - Modal conflicts
- Check connectivity and coverage
UPCOMING EVENTS
Upcoming Events

- Research survey
- MetroQuest survey available October 1st
- October public workshops
  - Monday, October 21st 8:00 a.m. to 5:00 p.m. at Union Station
  - Tuesday, October 22nd 6:30 to 8:30 p.m. at Benning Library
  - Saturday, October 26th 1:00 to 4:00 p.m. at DCUSA Retail Center
  - Wednesday, October 30th 6:30 to 8:30 p.m. at Petworth Library
  - Webinar date/time to be determined