Overview of Visualize 2045

The New Transportation Plan for the Metropolitan Washington Region

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Baltimore Regional Transportation Board
January 25, 2019
Our Region

- 5.7 million people
- 3.3 million jobs
- 3,500 square miles
- 141 Activity Centers
Transportation Planning Board

- The designated metropolitan planning organization (MPO) for the Washington region
- 24 local jurisdictions
- 45 members, 39 of which are voting members
Framework for Visualize 2045

The plan aims to help decision makers and the public “visualize” the region’s future by illustrating:

- What the region **must do** to meet federal requirements
- What the region **can do** with current levels of funding
- What the region **aspires to do** if more resources were available
Regional Policy

A regional policy framework guides the plan

- TPB Vision
- COG Region Forward
- TPB’s Regional Transportation Priorities Plan
- Seven aspirational initiatives
Financially Constrained Element

- Includes more than 100 major projects that expand or change the region’s highway or transit system capacity (see map, right)
- More than 600 projects in total
- See Appendix B: Summary of Projects in the Financially Constrained Element for more details
# Projects in the Constrained Element

<table>
<thead>
<tr>
<th></th>
<th>Roadway</th>
<th>Managed Lanes (subset of roadway)</th>
<th>High-Capacity Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing</strong></td>
<td>17,048 lane miles</td>
<td>436 lane miles</td>
<td>292 miles</td>
</tr>
<tr>
<td><strong>Added by Visualize 2045</strong></td>
<td>1,388 lane miles</td>
<td>461 lane miles</td>
<td>124 miles</td>
</tr>
<tr>
<td><strong>Total 2045</strong></td>
<td>18,436 lane miles</td>
<td>897 lane miles</td>
<td>416 miles</td>
</tr>
</tbody>
</table>
MARC Growth & Investment Plan

Includes: Line extensions, rail infrastructure, new stations and station improvements, parking expansions on Brunswick, Camden and Penn lines, plus operations and state of good repair.

- Total cost: $8.75 billion (Washington Region only)
- Complete: 2045
MD 3 Corridor Improvements

Upgrade and widen MD 3 from 4 to 6 lanes to address safety and capacity concerns. Bicycle and pedestrian access will be provided where appropriate.

Project Limits: MD 3 Corridor from I-595/US 50/US 301 to I-97/MD 32 (8.9 miles).

- Total cost: $1.797
- Complete: 2035
Regional Revenues

Visualize 2045 Revenues
$ Billions Year of Expenditure

- State $127.2 B (44%)
- Federal $38.6 B (13%)
- Local $68.8 B (24%)
- Fares / Tolls $45.7 B (16%)
- Private / Other $10.7 B (4%)

Total: $291.1 Billion

Revenues by State (2019 – 2045)
(Does not include WMATA federal or fare revenues)

- District of Columbia: $39 M, $0.4 M
- Suburban Maryland: $70 M, $18 M
- Northern Virginia: $50 M, $5 M, $2 M

Fares / Tolls
Private / Other
Federal
Local
State/DC
Regional Expenditures

Highways

- Expansion: $40 B (41%)
- Operations: $22 B (21%)
- State of Good Repair: $38 B (38%)

$99.5 Billion (34% of total expenditures)

Transit

- Expansion: $24 B (13%)
- State of Good Repair: $61 B (32%)
- Operations: $106 B (55%)

$191.6 Billion (66% of total expenditures)
Air Quality Conformity

Mobile Source Emissions and Mobile Budgets
Ozone Season VOC

2014 Maintenance Budget: 61.3 tons/day
2025 Tier 2 Budget: 39.8 tons/day
2025 Tier 1 Budget: 33.2 tons/day
2030 Tier 2 Budget: 28.9 tons/day
2030 Tier 1 Budget: 24.1 tons/day

NOTE: The Mobile Budgets shown were developed as part of the 2008 Ozone Standard Maintenance Plan. EPA found the budgets adequate for use in conformity with an effective date of August 21, 2018.
Air Quality Conformity

Mobile Source Emissions and Mobile Budgets
Ozone Season NOx

2014 Maintenance Budget: 136.8 tons/day

2019: 72.9 tons/day
2021: 58.6 tons/day
2025 Tier 2 Budget: 48.8 tons/day
2025 Tier 1 Budget: 40.7 tons/day
2030 Tier 2 Budget: 32.9 tons/day
2030 Tier 1 Budget: 27.4 tons/day
2040: 19.3 tons/day
2045: 15.5 tons/day

NOTE: The Mobile Budgets shown were developed as part of the 2008 Ozone Standard Maintenance Plan. EPA found the budgets adequate for use in conformity with an effective date of August 21, 2018.
Carbon Dioxide Equivalent (CO$_2$e)
Mobile Source Emissions
Performance Overview
% Change 2019 – 2045 Build

<table>
<thead>
<tr>
<th>Category</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>23%</td>
</tr>
<tr>
<td>Employment</td>
<td>29%</td>
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</table>
Beyond the Constrained Element

What we expect we can do

What we would like to do

visualize2045
A LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
Our aspirations

What we expect we can do

What we would like to do
Aspirational element

Why now?

• The previous long-range transportation plan was not anticipated to provide satisfactory future performance nor move us close enough to our regional goals

Why these aspirational initiatives?

• TPB Consensus - Top performing, Regional, Multimodal, and Multidiscipline
• Two year systematic examination of local jurisdictions' plans
• Selected from 100+ ideas and an analysis of 10 “bundled” initiatives
• Includes mutually supportive projects, programs and policy strategies
• Informed by findings from many past scenarios studies
• Addresses identified challenges to achieving transportation goals
## Analysis of initiatives

<table>
<thead>
<tr>
<th>QUANTITATIVE MOES</th>
<th>BASE</th>
<th>I1</th>
<th>I2</th>
<th>I3</th>
<th>I4</th>
<th>I5</th>
<th>I6</th>
<th>I7</th>
<th>I8</th>
<th>I9</th>
<th>I10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2040 CLRP</strong></td>
<td>50.7</td>
<td>-2%</td>
<td>-4%</td>
<td>0%</td>
<td>-1%</td>
<td>-1%</td>
<td>-2%</td>
<td>-1%</td>
<td>-5%</td>
<td>0%</td>
<td>-4%</td>
</tr>
<tr>
<td><strong>Travel Time (SOV)</strong></td>
<td>58.9</td>
<td>-5%</td>
<td>-4%</td>
<td>-1%</td>
<td>-1%</td>
<td>-1%</td>
<td>-1%</td>
<td>-1%</td>
<td>-6%</td>
<td>&lt;1%</td>
<td>-6%</td>
</tr>
<tr>
<td><strong>Travel Time (HOV)</strong></td>
<td>53.9</td>
<td>-1%</td>
<td>-2%</td>
<td>-1%</td>
<td>-1%</td>
<td>-1%</td>
<td>-6%</td>
<td>&lt;1%</td>
<td>-5%</td>
<td>1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td><strong>Daily Vehicle Hours of Delay</strong></td>
<td>1.85 million</td>
<td>-11%</td>
<td>-8%</td>
<td>-3%</td>
<td>-2%</td>
<td>-2%</td>
<td>-9%</td>
<td>-3%</td>
<td>-19%</td>
<td>-3%</td>
<td>-24%</td>
</tr>
<tr>
<td><strong>Jobs Accessible by Transit</strong></td>
<td>523,000</td>
<td>2%</td>
<td>2%</td>
<td>-1%</td>
<td>4%</td>
<td>1%</td>
<td>19%</td>
<td>10%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Jobs Accessible by Auto</strong></td>
<td>876,000</td>
<td>5%</td>
<td>8%</td>
<td>1%</td>
<td>1%</td>
<td>&lt;1%</td>
<td>2%</td>
<td>1%</td>
<td>10%</td>
<td>&lt;1%</td>
<td>10%</td>
</tr>
</tbody>
</table>
| **Mode Share: SOV** | 58.1% | <1%| 3% | <1%| -1%| -1%| -4%| -1%| -2%| <1%| -8%*
| **Mode Share: HOV** | 11.6% | -1%| -7%| 0% | -1%| -1%| -5%| -3%| -4%| <1%| -2% | 24%*
| **Mode Share: Transit** | 24.6% | 1% | -4%| -1%| 4%| 2% | 11%| 5% | <1%| 2% | 6%*
| **Mode Share: Non-Motorized** | 5.6% | 0% | 0% | 0%| <1%| <1%| <1%| <1%| 29%| 0% | 16%* |
| **Travel on Reliable Modes** | 11.5% | 42%| -5%| -2%| 6%| 2% | 9% | 6% | 0% | 3% | -3% |
| **VMT daily** | 141.91 million | <1%| 2% | 1%| -1%| <1%| -1%| -1%| -3%| -1%| -6% |
| **VMT daily per capita** | 21.17 | <1%| 2% | 1%| -1%| <1%| -1%| -1%| -6%| -1%| -6% |
| **Share of Households in Zones with High-Capacity Transit** | 39.9% | 0% | 0%| -1%| 25%| <1%| <1%| 17%| 9% | 0% | 0% |
| **Share of Jobs in Zones with High-Capacity Transit** | 57.7% | 0% | 0%| -1%| 15%| <1%| 0% | 13%| 2% | 0% | 0% |
| **VOC Emissions** | 18.9 | 0% | -3%| 1%| -1%| 0% | -2%| -1%| -4%| -1%| -8% |
| **NOx Emissions** | 18.8 | 0% | 0%| 1%| 0% | 0% | -2%| -1%| -4%| -1%| -7% |
| **CO₂ Emissions** | 47,082.3 | 0% | -1%| 1%| -1%| 0% | -2%| -1%| -4%| -1%| -7% |

*Mode shares reflect trips taken. Due to telework, actual number of transit trips declines; bicycle/pedestrian stays flat; HOV increases slightly.*
Approval of initiatives

TPB’s December 2017 endorsement:

The TPB “endorses the attached list of five initiatives, found to have the most potential to significantly improve the performance of the region’s transportation system compared to current plans and programs, for future concerted TPB action, and directs staff to include these initiatives in the aspirational element of the TPB’s long-range transportation plan, Visualize 2045.”

*Jan 2018 TPB passed two others
Seven endorsed initiatives

- Bring jobs and housing closer together
- Expand bus rapid transit (BRT) regionwide
- Move more people on Metrorail
- Provide more telecommuting and other options for commuting
- Expand the express highway network
- Improve walk and bike access to transit
- Complete the National Capital Trail
Bring jobs & housing closer together

- Job/housing balance in each Activity Center
- Housing options for different populations:
  - Affordable
  - Attractive
- Support development on the eastern side of the region
- Tailored to each place’s unique identity – *not* one-size-fits-all!
Expand BRT & other cost-effective transit

Bus Rapid Transit:
• Advantages: Extensive, quick, less money
• Possible on arterial roads or on limited-access highways

Street-level transit, like light-rail:
• Opportunities for economic development and fast, efficient service
Move more people on Metrorail

- Core capacity on the existing system
  - 8-car trains
  - Core station improvements
  - 2nd Rosslyn station
- New inner loop – Connecting Rosslyn to Georgetown, via a tunnel, and on to Union Station
Telecommuting & other commuting options

- Expand programs to support telework, carpooling, transit use, & biking/walking
- Reduce parking benefits
Expand express toll lanes

Twin purpose:
• Manage Congestion
• Raise Revenue

Pricing should be considered:
• Particularly for new capacity
• On existing capacity when feasible

Essential:
• Provide high-quality transit, particularly BRT
Improve walk & bike access to transit

Increase access to transit stations through improved first- and last-mile connections on foot or by bike
Complete the National Capital Trail

“The NCT is compelling because it is simple, understandable, and refrains from trying to be overly ambitious or inclusive of all trails in the National Capital Region or broader region.”

-NPS Paved Trails Plan, 2016
Performance Planning

Performance Based Planning and Programming, the Congestion Management Process, and Safety

• TPB champions improvements in the ways the transportation system is managed and operated

• Federal laws require target setting and progress reports through PBPP

• Visualize 2045 includes these elements of performance planning as drivers of decision making
Public Participation

- Public Input Survey
  - Two groups of survey respondents
  - Outreach included 15 survey events, social media, and other promotion
- Public Forums across the region
  - Focus on the aspirational initiatives where input is most needed
- Open Houses
  - 3 Open Houses so people in the region can learn more about the plan
Aspirational Element

Photo slide

What the region aspires to do if more resources were available

COVER SLIDE

**visualize2045**

A long-range transportation plan for the national capital region

visualize2045.org

**Participate in Visualize 2045 Today!**

What issues most affect your daily travel? What would make your experience better? Your answers will help inform discussions among elected leaders and regional planners about the planning and funding decisions we should be making to improve the region's transportation future. **Surveys must be completed by July 31, 2017.**

Take the Visualize 2045 Public Input Survey at visualize2045.org

You Could Win a $50 Gift Card!

Everyone who fills out a survey will be entered into a drawing for a $50 Visa gift card. Ten winners will be drawn.
Our Region

3,500 Sq. Miles, 5 million people and 3 million jobs

• urban, suburban, exurban, rural
• 141 Activity Centers
• 23 local jurisdictions
• State agencies and dozens of transit operators
Aspirational Element

What the region aspires to do if more resources were available
Aspirational Element

Photo slide

What the region aspires to do if more resources were available

COMPLETE THE NATIONAL CAPITAL TRAIL
What people said:

• Frustrations with system reliability
• General familiarity with the aspirational initiatives
• Desire to move more quickly in implementing changes
• Concerns about equity and regional balance
• Calls for thinking “outside the box”
Moving forward

- October 16, 2018 – TPB approved Visualize 2045
- September-November - Subject-matter subcommittees developed 14 recommendations for implementation of the aspirational initiatives.
- December 19 - TPB resolution R10-2019 directed staff to take action to advance the initiatives
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