Preparing for the impact of demographic and economic trends that will reshape the entire region.

Creating a sense of place to attract new high-quality workers, who in turn attract high-quality employers.

Adapting travel patterns for an improved quality of life.

Supporting multimodal travel and high-capacity transit networks to connect jurisdictional activity centers, and to connect to the region’s core.

Supporting transit-oriented growth.

The region and the Prince William area share the following key themes:
The Regional/Local themes and supporting information from National/industry trends provide important insight into the future facing the PWC area and PRTC.
Preparing for Demographic and Economic Trends
Significantly higher population growth rate

Forecast Increase in Population

Source: Virginia Employment Commission, Economic Information & Analytics; US Census
Lack of affordable housing in the DC Core forcing out even high wage earners

About Two-Thirds of PWC Area Alternative Mode Commuters Have Household Incomes of $100K or More

Average Annual Household Income Is $140,000

2015 Telephone Q124a and Q124b. Please stop me when I reach the category that best represents your household’s total annual income. Is it...
Competitive employment market, strong economy

Source: Virginia Employment Commission, Economic Information & Analytics
Diverse Economy
(Top Five Industries in Prince William County Area)

1. Local and Federal Government
2. Retail Trade
3. Accommodation and Food Services
4. Construction
5. Health Care and Social Assistance

Data Center Investment

- $2.4 Billion in Capital investment and 370 new jobs (2011-2016)
- 10,000 acres identified as Data Center Opportunity Zone in 2016

Source: Virginia Employment Commission, Economic Information & Analytics
Fuel price decline has leveled off and prices are likely to increase

Source: Virginia Employment Commission, Economic Information & Analytics
Commuter benefits will remain on par with parking benefits

Source: Virginia Employment Commission, Economic Information & Analytics
Creating a sense of place
Creating a Sense of Place

Common regional and local objectives and strategies to help create communities of choice:

- Attracting **high-quality workers** to attract **high-quality employers**
- Mixed-used walkable communities
- Promoting **residents working close** to home
- Attracting new companies and businesses to **targeted development areas**
- Emphasizing strategic redevelopment opportunities
Four out of five RECENT move respondents say that having stores, restaurants, and services within 15 minutes of home is very important.
Having access to stores, restaurants, and services close to my home (within about 15 minutes) is very important to me. 74% of Millennials, 76% of Gen X, and 72% of Boomers agreed. For Millennials, this is 83%, for Gen X, this is 84%, and for Boomers, this is 76%.

I would love to live within 15 minutes commute of my work and/or my school. 51% of Millennials, 76% of Gen X, and 75% of Boomers agreed. For Millennials, this is 84%, for Gen X, this is 75%, and for Boomers, this is 75%.

My ideal neighborhood would have a wide range of different people and ages who live near me. 72% of Millennials, 69% of Gen X, and 69% of Boomers agreed. For Millennials, this is 72%, for Gen X, this is 69%, and for Boomers, this is 61%.

Communities should prioritize spending on easy, safe, and reliable public transportation such as light rail. 47% of Millennials, 70% of Gen X, and 70% of Boomers agreed. For Millennials, this is 66%, for Gen X, this is 70%, and for Boomers, this is 63%.

Prominent bike / walk paths from my home to stores, restaurants, and entertainment are part of my ideal neighborhood. 45% of Millennials, 62% of Gen X, and 62% of Boomers agreed. For Millennials, this is 45%, for Gen X, this is 62%, and for Boomers, this is 62%.

I’d prefer the option to take close-by public transportation over using a personal car. 33% of Millennials, 61% of Gen X, and 58% of Boomers agreed. For Millennials, this is 45%, for Gen X, this is 61%, and for Boomers, this is 58%.

Good public school systems are an indication of a healthy, happy neighborhood, regardless of whether or not I have school-age children. 51% of Millennials, 62% of Gen X, and 62% of Boomers agreed. For Millennials, this is 57%, for Gen X, this is 62%, and for Boomers, this is 62%.

Significantly more Millennial and Gen X respondents than Boomer respondents agreed with most placemaking statements.
Areas with higher forecast densities and a relatively even population/employment split present best opportunities for efficient local transit service.

- Creates financial opportunities through public-private partnerships and/or specific tax districts.
PRTC is well positioned with existing/future services targeted in areas of high-forecast employment growth.
Adapting travel patterns for an improved quality of life

30% of Virginians between the ages of 18 and 25 who could have a driver’s license choose not to or don’t have one.
US vehicle travel grew steadily during the Twentieth Century, but peaked in 2006 and has declined since.

Source: USDOT
At the same time, transit use nationally has increased significantly

Source: APTA 2013
PWC Area’s Reduction in Driving Alone Outperformed Other Northern Virginia Rideshare Markets

Source: Virginia Travel Survey
Alternative Mode Commuters are **Significantly More Satisfied** with their Trip to Work

% satisfaction with work commute

- Drive-alone commuter: 46%
- Alternative mode commuter: 63%

Source: Virginia Travel Survey
Workplace habits are changing. Fewer people are going into the office on a daily basis

- PRTC and VRE have experienced lower ridership on Mondays and Fridays
- Many employers offer flexible “hoteling” space in place of assigned desks
- Alternative work schedules are becoming more popular to balance personal commitments
- Office vacancy rates have generally increased over the past couple of years
- About 3% of the workforce now works from home at least half of the time
Transit agencies around the country are partnering with TNCs on pilot programs to subsidize trips or provide connections for the “first and last mile”
Research and pilots of connected and autonomous vehicles are becoming more prevalent but significant impacts to mobility are still years away.

<table>
<thead>
<tr>
<th>SAE level</th>
<th>Name</th>
<th>Narrative Definition</th>
<th>Execution of Steering and Acceleration/Deceleration</th>
<th>Monitoring of Driving Environment</th>
<th>Fallback Performance of Dynamic Driving Task</th>
<th>System Capability (Driving Modes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No Automation</td>
<td>the full-time performance by the human driver of all aspects of the dynamic driving task; even when enhanced by warning or intervention systems</td>
<td>Human driver</td>
<td>Human driver</td>
<td>Human driver</td>
<td>n/a</td>
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<tr>
<td>1</td>
<td>Driver Assistance</td>
<td>the driving mode-specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the human driver perform all remaining aspects of the dynamic driving task</td>
<td>Human driver and system</td>
<td>Human driver</td>
<td>Human driver</td>
<td>Some driving modes</td>
</tr>
<tr>
<td>2</td>
<td>Partial Automation</td>
<td>the driving mode-specific execution by one or more driver assistance systems of both steering and acceleration/deceleration using information about the driving environment and with the expectation that the human driver perform all remaining aspects of the dynamic driving task</td>
<td>System</td>
<td>Human driver</td>
<td>Human driver</td>
<td>Some driving modes</td>
</tr>
<tr>
<td>3</td>
<td>Conditional Automation</td>
<td>the driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task with the expectation that the human driver will respond appropriately to a request to intervene</td>
<td>System</td>
<td>System</td>
<td>Human driver</td>
<td>Some driving modes</td>
</tr>
<tr>
<td>4</td>
<td>High Automation</td>
<td>the driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task, even if a human driver does not respond appropriately to a request to intervene</td>
<td>System</td>
<td>System</td>
<td>System</td>
<td>Some driving modes</td>
</tr>
<tr>
<td>5</td>
<td>Full Automation</td>
<td>the full-time performance by an automated driving system of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver</td>
<td>System</td>
<td>System</td>
<td>System</td>
<td>All driving modes</td>
</tr>
</tbody>
</table>

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Supporting multimodal travel and high-capacity transit networks
National/Regional Trends

- Connecting centers within jurisdictions and connecting to the regional core
- Interconnected regional network of Express Lanes
- High-capacity transit implementation

Common Local Objectives & Strategies

- Increase percentage of citizens using transit
- Provide access to alternative transportation choices
- Reduce the need for automobile usage
- Support technology for use in making travel decisions
Urban areas that are reaching the “built out” point are focusing on optimizing highway operations / maximizing throughput (e.g. express lanes, rideshare / transit).

Source: VDOT
**Supporting Multimodal Travel**

*PRTC will continue to play a major role in partnering on transportation initiatives at all government levels*

<table>
<thead>
<tr>
<th>Regional Multimodal Project</th>
<th>Description</th>
<th>PRTC Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transform 66: Inside the Beltway</td>
<td>New commuter bus service</td>
<td>Partner in Planning: ✓ Operating Service: ✓</td>
</tr>
<tr>
<td>Transform 66: Outside the Beltway</td>
<td>New and expanded commuter bus service, expanded park-and-ride lots, and new TDM strategies</td>
<td>Partner in Planning: ✓ Operating Service: ✓</td>
</tr>
<tr>
<td>I-395/I-95 Express Lanes</td>
<td>Currently operating commuter bus service; ongoing study of additional improvements</td>
<td>Partner in Planning: ✓ Operating Service: ✓</td>
</tr>
<tr>
<td>Richmond Highway (US 1) BRT</td>
<td>Proposed bus rapid transit</td>
<td>Partner in Planning: ✓ Operating Service: ...</td>
</tr>
<tr>
<td>Rail Expansions</td>
<td>Planning for VRE and Metrorail expansions</td>
<td>Partner in Planning: ✓ Operating Service: ...</td>
</tr>
</tbody>
</table>
Locally, the Prince William County area has envisioned a future network of high-capacity transit.
Supporting Multimodal Travel

- Park-and-Ride lots with PRTC bus service are well-utilized, especially ones closest to interstates.

- The Transform 66 Project includes approximately 4,000 new spaces along the I-66 Corridor with direct access to new Express Lanes.

- Park-and-Ride lots also used for carpooling, vanpooling, and slugging.
PRTC has the potential to increase its already extensive coverage of the region’s activity centers.
Supporting transit-oriented growth
National/Regional Trends

- Mixed-use activity centers
- Decrease in auto-focused development

Common Objectives & Strategies

- Standards for new development to ensure accessibility to transit
- Complete Street policies
- Targeted growth areas

More than half of all jobs in Northern Virginia are already within a quarter-mile of a transit facility
The number of jobs within PRTC service area is among the highest of Northern Virginia bus systems and is expected to grow.
Nationally, regionally, and locally, jurisdictions and private developers are favoring a transit-oriented, mixed-use development approach (decreased emphasis on cars)
Localities with high growth must continue to put in place firm policies linking transportation and land use.

Forecast Increase in Activity (Jobs + People)
2015 - 2040

- Fewer than 250
- 250 - 500
- 500 - 1,000
- 1,000 - 2,500
- 2,500 - 5,000
- 5,000 - 7,500
- More than 7,500

1.38M forecasted new jobs and people within the PRTC bus service area by 2040.

69% forecasted growth in employment for PWC, Manassas, and Manassas Park.

Source: MWCOG Round 8.4 Forecasts
Local entities around the Northern Virginia Region, including Prince William County, are adopting design guidelines to foster transit oriented growth

- Complete Streets
- Transit Service Level Requirements
- Lower Parking Minimums
- Enhanced Pedestrian and Bicycle Accommodation
- ADA Compliance
Transit-supportive areas in localities’ future land use plans represent potential areas for increased transit service.