



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

# Reston Transportation Strategy

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## **Background:**

On February 11, 2014, the Board of Supervisors adopted the Reston Phase I Comprehensive Plan Amendment for the “core areas” of Reston between Sunset Hills Road and Sunrise Valley Drive and the area around the Reston Town Center north to Baron Cameron Avenue. These areas are generally known as the Transit Station Areas (TSAs). This plan amendment increased densities around the three new Metrorail stations in Reston and permitted a significant increase in residential development between Sunset Hills Road and Sunrise Valley Drive where it was previously prohibited. It is envisioned that this new density will be implemented over more than 40 years.

The plan included a list of transportation improvements, including three new crossings of the Dulles Toll Road and a grid of streets to support the new development, in addition to the three new Metrorail stations. Modeling done by the Fairfax County Department of Transportation (FCDOT) prior to the adoption of the plan, using industry standard techniques, indicated that the transportation improvements identified were sufficient to support the additional development. This modeling work was submitted to the Virginia Department of Transportation (VDOT) for review, and VDOT concurred with the analysis.

In adopting the plan, the Board of Supervisors also approved three follow-on motions. Two of these motions were related to transportation. They were:

- “Conduct a detailed evaluation and operational analysis of the enhanced street network shown on the Reston Master Plan, prioritize these improvements, and develop an implementation strategy.”
- “Develop an inclusive process to prepare a funding plan for the recommended transportation improvements that includes both public and private revenues.”

### Reston Network Analysis Advisory Group

In response to these follow-on motions, Supervisor Cathy Hudgins established the Reston Network Analysis Advisory Group. The Group was made up of 11 members of the Reston community representing citizens, the business community, the Reston Association, and the Reston Town Center Association. FCDOT staff worked with the Advisory Group for over two years to analyze the proposed transportation improvements and develop a plan to fund these improvements. The result was a refined transportation network for both 2030 and 2050 conditions that included general priorities for the transportation projects, cross sections for the streets within the grid and intersection improvements for locations that failed in the initial unmitigated analysis. To meet future transportation and access needs, 30 new signals are proposed in the Reston TSAs, as well as, additional turn lanes at multiple intersections. The large transportation projects, including three crossings of the Dulles Toll Road, were also prioritized as part of this effort. In addition, the FCDOT team worked with the Advisory Group to develop a funding plan to generate \$2.1 billion over 40 years to provide the resources to implement the transportation plan. This plan has multiple components, including:

- public revenues from federal, state, regional and local sources,
- developer construction,
- developer cash contributions, and
- a \$0.021 per \$100 valuation service district on all property within the Transit Station Areas.

## **Transportation Priorities:**

### New Metrorail Stations

The transportation plan created to support the additional development reflected in the Reston Phase I Comprehensive Plan Amendment included three new Metrorail stations in Reston. These Silver Line stations will connect Reston directly to Dulles Airport, Tysons, the Rosslyn-Ballston Corridor in Arlington and downtown Washington, DC. Via transfers, the Silver Line also allows transit riders to access the Pentagon, Crystal City, Alexandria, Rockville, Silver Spring and other regional employment centers. The Silver Line project signifies a \$6 Billion investment in transportation. The project also includes additional infrastructure improvements that support rail in Tysons and Reston. Phase I has opened, and Phase II is funded and under construction.

### New Park and Ride Spaces

To date, 2,300 park-and-ride spaces have been constructed and an additional 4,000 spaces are under construction in the Reston area for Phase 2 of the Silver Line.

### Silver Line Intersection Improvements

The following intersection and road improvements will be completed with Phase 2 of the Silver Line:

- Sunrise Valley Drive and Reston Parkway,
- Sunrise Valley Drive and Edmund Halley Drive,
- Sunset Hills Road and the future Reston Town Center Station,
- Sunrise Valley Drive and Fairfax County Parkway, and
- Sunrise Valley Drive and the Herndon-Monroe Park-and-Ride Lot/Herndon Metrorail Station

These projects are intended to mitigate traffic impacts near the Metrorail stations, but have also shown a positive impact to future traffic congestion for the area as a whole.

## Bus Service Enhancements

In addition, as part of the opening of Phase I of the Silver Line, bus service in the corridor was reconfigured and enhanced. Funding for bus service in the corridor was increased by \$4 million per year. This included more frequent peak period service, as well as increased late night and weekend bus service. The bus service in Reston will be reconfigured again to support the new stations that will be opening as part of Phase 2 of the Silver Line.

## New Bicycle Facilities

Each of the new parking garages will include a bicycle room to provide secure, sheltered storage for bikes used to access the stations.

This Silver Line extension and its three Reston stations, their parking garage and bike rooms and the supportive transit are integral to the Reston Transportation Plan. All other planned transportation improvements assume that these three rail stations exist and are connected to the regional Metrorail network.

## Upcoming Multi-Modal Transportation Improvements

The Reston Phase I Comprehensive Plan Amendment transportation plan also includes ten significant transportation improvements, including three new crossings of the Dulles Toll Road, a new interchange on the Fairfax County Parkway, five significant roadway widenings and a new roadway connection. The transportation plan also includes eight intersection improvements on major roadways in Reston. These major improvements are supported by a new grid of streets to provide new internal connections for local traffic, so local trips can be made without adding congestion to the major roadways in Reston.

The Reston Network Analysis prioritized these improvements in three general timeframes. This was necessary, because the County does not control the pace or location of development. County staff has always envisioned that the Reston Transportation Plan and development will need to be monitored annually and that the transportation plan will not be static. It is dynamic, so that it can respond as the areas of growth change within Reston.

Based on FCDOT's current assessment of future development patterns in Reston, the projects in the transportation plan were divided into the following three categories:

### Tier 1

- Soapstone Overpass
- Town Center Underpass
- Reston Parkway Widening (Dulles Toll Road to South Lakes Drive)
- Fairfax County Parkway Widening/HOV (Entire Length from Route 7 to I-66 and beyond)

### Tier 2

- Sunrise Valley Drive/Fairfax County Parkway Interchange

- South Lakes Overpass
- Fox Mill Widening (Reston Parkway to Monroe Street)

### Tier 3

- West Ox Road Widening (Lawyers Road to Centreville Road)
- Monroe Street Widening (West Ox Road to the Town of Herndon)
- Pinecrest Extension

Besides these ten projects, VDOT is advancing a \$300 million projects to widen Route 7 (Leesburg Pike) from Reston Avenue to the Dulles Toll Road. The Commonwealth Transportation Board will be asked to approve the design-build contract for this project on July 17, 2018. This project is scheduled to be completed in 2024. Except for the I-66 Express Lanes project, there is no other place in Fairfax County where a \$300 million project is advancing this year.

### Reston Metrorail Access Group Recommendations

In addition to the improvements included in the Reston Transportation Plan, Supervisor Hudgins established a citizen task force in Spring 2006 to study the areas around the three new Metrorail stations and identify transportation improvements that were need to facilitate access to the rail stations. This task force was called the Reston Metrorail Access Group (RMAG). It was made up of 26 Reston citizens. The RMAG completed their recommendations in April 2008. Subsequently, the Board of Supervisors endorsed a list of recommended projects on July 10, 2012. Funding for the improvements around the Wiehle-Reston East Station (Phase I) was secured through an initial investment of \$16 million in Federal transportation grants, and work began on these projects in Fall 2012. Subsequently additional funding has been added from other sources. The total estimated cost of the RMAG Phase I improvements is approximately \$20 million. Funding for improvements around the Reston Town Center and Herndon Metrorail Stations (Phase II) was secured when Fairfax County voters approved a transportation bond referendum in November 2014. This included \$25 million for the RMAG Phase II projects and \$ 21.4 million for the Herndon Metrorail Station Access Projects. Work on these projects began in 2016.

The RMAG recommendations include improvements to intersections around the three Metrorail stations (such as turn lanes); completion of missing sidewalks; enhancements to bicycle facilities and implementation of several major projects, such as grade separating the Washington and Old Dominion Trail at Wiehle Avenue. This project provides a safer crossing for bikes and pedestrians, but also reduces congestion on Wiehle Avenue and Sunset Hills Road.

These recommended improvements are also integral to the future success of the transportation network around the rail stations. Of the 25 Phase I recommendations, 19 are complete, one is in utility relocation and construction, one is in design, one will be completed with RMAG Phase II, and three are under discussion with private property owners. Of the 22 Phase II recommendations, one is in utility relocation and construction, five are in land acquisition, nine

are in design, and seven are in project initiation or on hold, due to adjacent land development activity.

### Bikeshare

In addition to the RMAG recommendations, Fairfax County has secured \$1.0 million in funding to implement bike sharing in the Reston area. This service was implemented in October 2016 with 15 stations in on the north side of the Dulles Toll Road between Reston Town Center and the Wiehle Reston East Metrorail Station. Subsequently, FCDOT has identified funding and locations for 11 additional bike share stations on the south side of the Dulles Toll Road. These stations are expected to be implemented in 2019.

### **Reducing Transportation Demand:**

#### Mixed Use Development in Activity Centers

In addition to all the transportation facilities and services that are being implemented to support the development included in the Reston Phase I Comprehensive Plan Amendment, there are several important features of the plan that are critical to reducing future transportation demand in Reston. The strategy of locating significant additional residential units in the Transit Station Areas where few exist today is designed to reduce the number of trips that will require single occupant vehicle trips in the future. The National Capital Region Transportation Planning Board estimates, based on years of data collection, that residents of the region take an average of ten trips each weekday. Only two of these trips are to and from work. By locating housing near mixed use centers at the three new Reston Metrorail stations, the number of trips that require cars is significantly reduced. Trips to and from work can be accomplished by walking, biking or taking transit. Additional trips to shopping and dining, etc. can also be accomplished through these non-single occupant modes. In fact, the plan includes reductions of at least 35 percent over standard trip generation rates for the areas within ¼ mile of the Metrorail stations and at least 30 percent for the areas between ¼ and ½ mile of the Metrorail stations. In addition to walking, biking and transit, employers in the Transit Station Areas will use strategies such as telework, alternative work schedules, video conferencing and others to meet their trip reduction goals.

#### The Impact of Technology

Nationally and internationally, a significant amount of attention is being placed on the development of autonomous vehicles, connected cars, drone deliveries, robot deliveries, active traffic management and other technologies that will change our transportation systems. In fact, Northern Virginia is a test area for autonomous vehicles and connected cars. When widely implemented, these technologies will help squeeze additional capacity out of the region's transportation system. It is not clear exactly when these technologies will be in place; however, it is clear that these technologies are advancing and will be implemented in some form before the Reston Phase I Comprehensive Plan horizon year of 2056. As a result, FCDOT assumed a 7.5% reduction in trips in the modeling work conducted for the Reston Network Analysis. VDOT has concurred with the use of this reduction.

## Additional Factor

With the opening of Phase II of the Silver Line in 2020, traffic (including buses) around the Wiehle-Reston East Metrorail Station should drop significantly, since this station will no longer be an “end of the line” station. There will be six new stations to the west to disperse traffic that is now focused on the area around the Wiehle-Reston East Station.

## **Transportation Priorities and Timelines:**

Based on all the factors above, FCDOT has prepared the follow anticipated priorities and timeframes for Reston:

### Complete

- Wiehle-Reston East Metrorail Station, including 2,300 parking spaces, 10 bus bays and a bike room. Silver Line connections to Tysons, Arlington and the District of Columbia. Total cost: \$3 Billion
- 19 RMAG Phase I intersection, pedestrian, and bicycle improvements around the station
- \$4 million is additional transit service supporting the rail station
- 15 bike share stations
- 2 other pedestrian/bicycle projects in the Reston area (funding by local sources).
- Town Center Parkway underpinning beneath the Metrorail tracks completed by the Silver Line project

### 2020

- Reston Town Center, Herndon and Innovation Center Metrorail Stations, including 4,000 parking spaces, bus bays and bike rooms. Silver Line connections to Dulles Airport and Loudoun County, as well as enhanced access to Tysons, Arlington and the District. Intersection improvements at Reston Parkway/Sunrise Valley Drive and Fairfax County Parkway/Sunrise Valley Drive. Total cost: \$3 Billion
- 1 additional RMAG Phase I intersection, pedestrian, bicycle improvement around the Wiehle-Reston East Metrorail Station
- 6 RMAG Phase II intersection, pedestrian, bicycle improvements around the Reston Town Center and Herndon Metrorail Stations
- 4 other pedestrian/bicycle project in the Reston area (funded by local sources)
- Silver Line road improvements at Sunrise Valley Drive and Reston Parkway, Sunrise Valley Drive and Edmund Halley Drive, Sunset Hills Road and the future Reston Town Center Station, Sunrise Valley Drive and Fairfax County Parkway, and Sunrise Valley Drive and the Herndon-Monroe Park-and-Ride Lot/Herndon Metrorail Station.
- Silver Line upgrade of Edmund Halley Road to public street standards that includes the construction of bike lanes, sidewalk and trail, and a roundabout to facilitate the future grid of streets.

- Silver Line knockout panels and a pier at the Reston Town Center Station to facilitate future pedestrian bridge crossings to the new Metrorail stations.

### Beyond 2020

The following provides an update on each of the ten Reston-wide projects that were identified in the Phase I Comprehensive Plan Amendment.

#### Tier 1

- Soapstone Overpass
  - Environmental work nearly complete; County and VDOT have executed an agreement for project design. Estimate completion: 2026
- Town Center Underpass
  - Silver Line project incorporates the underpinnings necessary to support the Metrorail tracks to allow construction of the underpass). County and VDOT are negotiating a contract to advance the feasibility of this project.
- Reston Parkway Widening
- Fairfax County Parkway Widening/HOV

#### Tier 2

- Sunrise Valley Drive/Fairfax County Parkway Interchange
  - On May 15, 2018, the Board approved the use of \$500,000 in service district funds to begin the design of interim improvements at this intersection. The interim improvements include restriping the northbound right-turn lane, removing westbound right-turn lane channelization, adding a westbound left turn lane and enhancing bicycle and pedestrian facilities. FCDOT is preparing the score of work for the project, and expects to advance the design in Fall 2018.
- South Lakes Overpass
- Fox Mill Widening

#### Tier 3

- West Ox Road Widening
- Monroe Street Widening
- Pinecrest Extension

### Grid of Streets

In general, the development community is responsible for building the grid of streets through redevelopment. However, there are some portions of the grid that will likely be built by the County to connect development.

- A portion of Reston Station Boulevard, west of Wiehle Avenue has been constructed. The continuation of Reston Station Boulevard east of Wiehle Avenue is included in rezonings that have been approved or will be considered by the Board of Supervisors later this year.
- Additional grid links have been approved or will be considered later this year in the area around the Reston Town Center Metrorail Station on both sides of the Toll Road.



- A new east-west collector street is being built by the Woodland Park East development. This is the beginning of a parallel roadway located between the Dulles Toll Road and Sunrise Valley Drive starting at Monroe Street and extending west to ultimately connect to Centreville Road. The first segment will be constructed with the first phase of development.
- The Reston Crescent application will advance the construction of several grid links to bring more infrastructure online before they are needed to support their development in the Reston Town Center station area.
- The Reston Gateway development will extend Library Street south from Bluemont Way, across the Washington and Old Dominion Trail to Sunset Hills Road. This new facility will relieve traffic on Reston Parkway and Town Center Parkway.
- Other developers are implementing additional off-site pedestrian and bicycle facilities to help provide connectivity to the Metrorail stations or they are implementing larger pedestrian facilities than the County projects had planned/designed (i.e. a shared use path vs a five-foot sidewalk). The County is continuing to secure proffers providing that such facilities open during the early stages of the property development.

### **Conclusion:**

Fairfax County has planned, and identified a funding approach to implement, a robust, multi-modal transportation network for Reston to support the additional development envisioned in the Reston Phase I Comprehensive Plan Amendment. The Silver Line (Phases 1 and 2) are critical parts of this future transportation network. However, there are many other transportation improvements, including intersection improvements, pedestrian and bicycles improvements and transit service improvements that have been completed or will be completed by the opening of Phase 2 of the Silver Line. Significant roadway improvements and additional intersection, bike, pedestrian and transit improvements are advancing.

Development will ebb and flow with the economy. However, since major transportation projects have long lead times, projects in development will likely continue, even if/when growth slows.

The Board of Supervisors has established a robust plan that provides funding for the transportation improvements needed to support new development in Reston. This plan includes multiple funding sources to ensure that funds will be available when necessary to advance projects.

The future success of Reston and the ability of the transportation system to support the future development will depend on regular, on-going and robust monitoring. The Reston Transportation Service District Advisory Board has been established to work with County staff on these monitoring efforts. There will likely be numerous changes to the plan over the next 40 years.