

Master Plan Special Study

Reston, Virginia

A Complete Community along the Metro Silver Line

Report of the Vision Committee

March 12, 2011



Message: Reston Planning and Design

From the beginning, Reston's overall plan for its 6,750 acres was to create a "new town," the first in the post World War II, United States. Reston would not be known for innovations so much as for representing a collection of the best features to be found at home and abroad - from the pedestrian pathways in Radburn, New Jersey, to the plazas in European cities and towns, to the fountain in Geneva's lake, to the high-rise in the Tapiola Town Center in Finland.

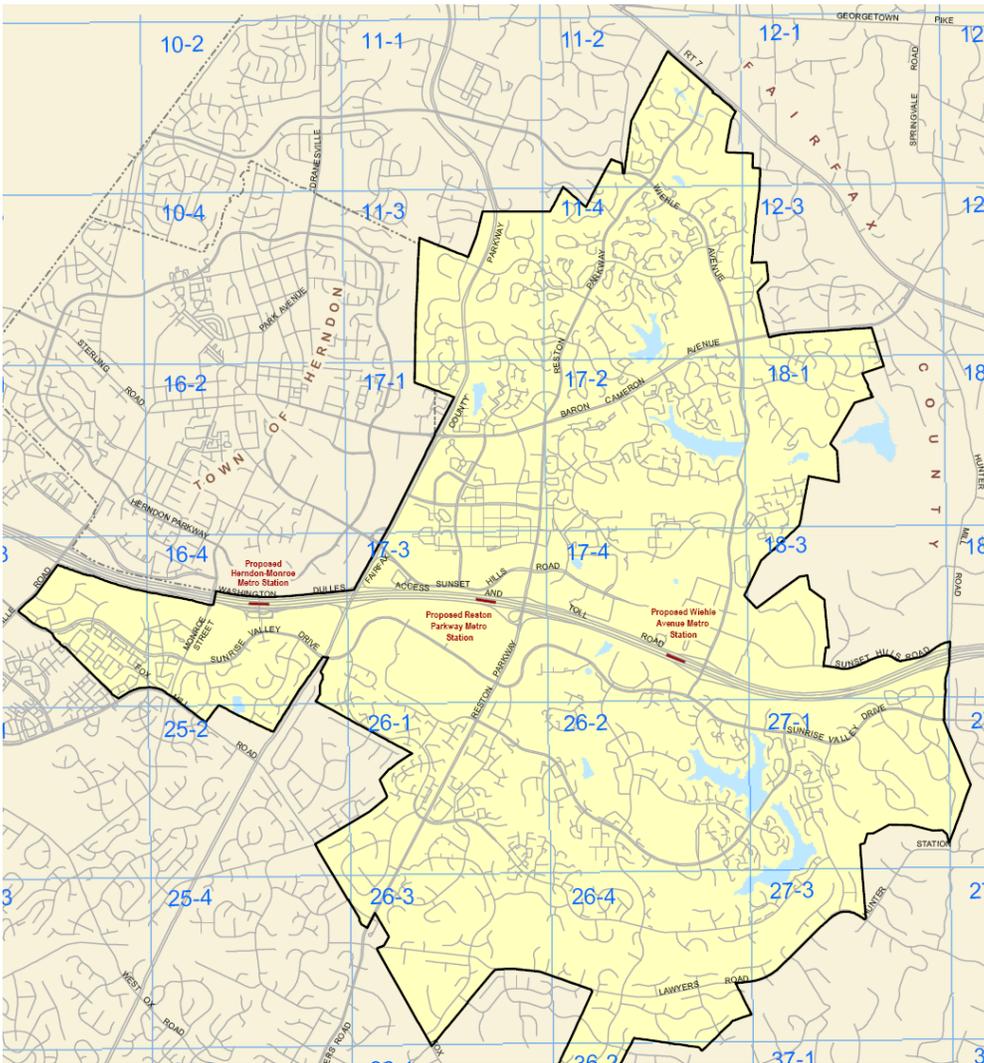
Today, Reston's 55,000 residents of all ages have a wealth of opportunities to occupy leisure hours including four lakes, 55 miles of paved pathways, ball fields, tennis courts, two golf courses, and two community centers. Fountain Square in Town Center and Lake Anne Plaza are major gathering places that together have 36 restaurants and a wide variety of individual retail establishments.

Development in certain parts of Reston has deviated from the original plan. In the original plan, the Town Center extended from Sunset Hills Road to Baron Cameron Avenue and the village centers featured plazas framed by retail and multi-story residential buildings. The future offers the opportunity to complete Reston as planned while adjusting to the influences that the arrival of Metro will bring.

Robert E. Simon, Jr.
Reston Founder

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Summary

From its beginning, Reston has been planned as one of the premier new towns in America. Today, Reston includes a population of over 55,000, five village centers, a town center, and office and industrial buildings along the Dulles Access Road. Reston has a range of housing to serve a variety of incomes, natural areas, and an outstanding pathway system. Most importantly, Reston has become a complete community.

Reston in the 21st Century

The 21st century will bring new planning and design challenges for Reston. One instrument for extending the legacy of outstanding planning and design to meet these challenges is the Reston Master Plan Special Study. As part of the Special Study, the Vision Sub-committee has prepared a vision and principles, and recommendations for the urban design, environment, transportation, and public facilities to be used in the future planning of Reston.

The most significant recommendation provides the opportunity to transform the existing office and industrial corridor into a linear, transit and pedestrian oriented neighborhood with three new Metro stations. Each transit station area will have a combination of jobs, a range of housing choices, and amenities and facilities that can be recognized for outstanding planning and design. Another significant opportunity is to transform each of the five village centers without expanding existing boundaries into dynamic focal points of civic activity for the surrounding neighborhoods instead of strip shopping centers. The character of the existing residential neighborhoods will remain.

Other recommended features important to Reston include:

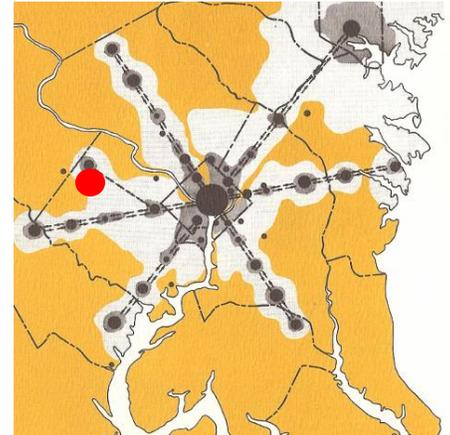
- Providing a significant public, urban green and central gathering space in the Town Center recognized as a community resource and high quality design
- Creating a continuous linear green space along Sunrise Valley Drive
- Creating a major performing arts center adjacent to the Town Center Metro Station
- Providing an indoor recreation center near the Reston East Metro Station
- Establishing a major university near the Reston East Station
- Providing for air rights over the Dulles Access Road
- Enhancing the pedestrian sidewalk and pathway system
- Expanding the bus network to link all neighborhoods
- Improving and enhancing the village centers
- Preserving the integrity of the existing neighborhoods
- Continuing and enhancing the focus on the natural environment
- Providing a focus on outstanding design of streets, open spaces, public art, and buildings
- Providing a memorial sculpture garden

These recommendations will help to continue the legacy of outstanding planning and design of the Reston community in Fairfax County, Virginia into the 21st century.

Vision

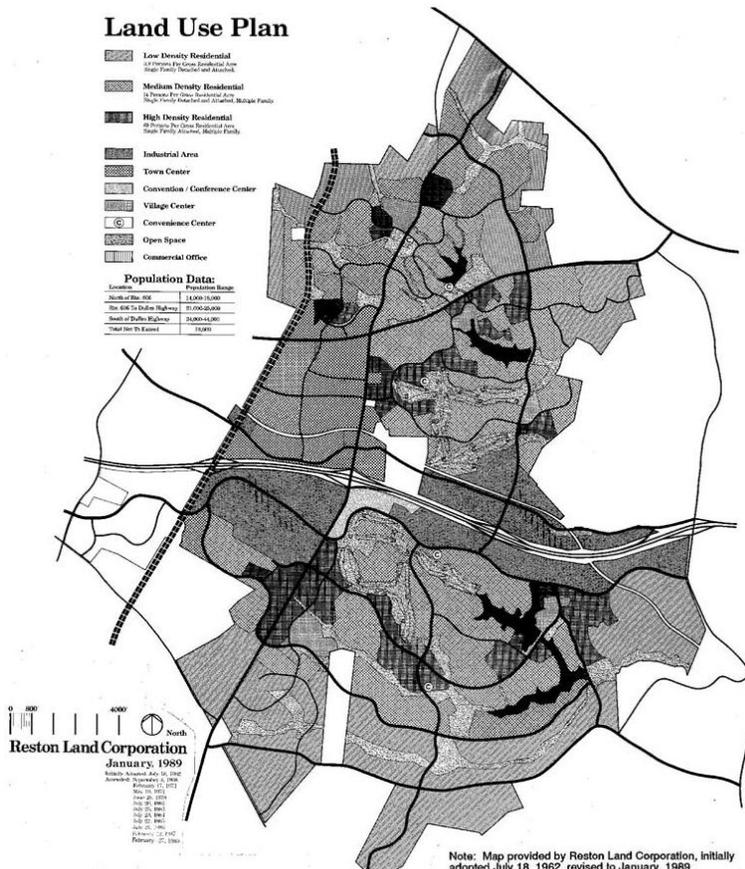
Reston will be a complete community designed for the 21st century. An increasingly diverse residential population will have broad choices in jobs, housing, and lifestyles. To achieve this vision:

- Planning will take full advantage of the Metrorail Silver Line Extension. Metrorail will connect to the Washington Metropolitan Region and Washington Dulles International Airport, and will be complemented by improved station area connectivity, a strong local and regional bus network, complete streets that serve pedestrians, bicyclists and transit users, and a network of trails.
- The community's greatest densities will be at the three Metro station areas. A broad mix of regional retail and other attractions will be part of an enhanced urban center at the Town Center and strong local retail and a variety of amenities will characterize the other Metro station areas and village centers. To address congestion, the station areas will have an appropriate balance of residential uses and employment opportunities.
- A full range of housing choices will be provided for households of all incomes and needs.
- Employment opportunities will build upon the existing mix of international and national corporations, professional associations, centers for advanced technology, research and development companies, and local services.
- A strong institutional component will include a major hospital center, a regional government center, a new 21st Century regional public library, a major fine and performing arts center, other civic and cultural uses, and public and private educational institutions of higher learning.
- Planning will emphasize protection of natural areas and the environment and development of an array of cultural, educational, and recreational opportunities.



Above: Reston in the Washington Region

Below right: Original Reston Land Use Plan



Planning Principles

Planning will consider Reston as a comprehensive unit. Development projects will be evaluated based on their ability to meet the planning principles and the particular character of each area, as well as their specific impacts on the surrounding neighborhoods. The following principles will guide development of Reston as a complete community for the 21st century.

1. Excellence in planning, urban design, and architecture will be community hallmarks.

The community will continue to strive to achieve excellence in planning and urban design, architecture, gathering places such as plazas, connection with the natural environment, compatibility of uses, livability, and the integration of high-quality public art as distinguishing features of the Reston community.

2. Planning will provide for environmental sustainability and green technology.

Natural resources and ecosystems, including natural areas, will be protected and restored. Adverse impacts on the environment (land, water, and air) will be minimized, and best practices will be used to protect environmentally sensitive areas. Green neighborhood and building practices will meet high standards. Tree canopy will continue to be an important component of the Reston visual experience.

3. Development will be phased with infrastructure.

The phasing and funding of the expansion and modification of adequate transportation infrastructure and programs, and other infrastructure components such as schools, parks, and other public facilities should occur with development.

4. Reston will continue to offer a mix of urban and suburban life styles.

The Metro Silver Line extension will add transit-oriented development to Reston’s already diverse and unique community. In terms of emphasis:



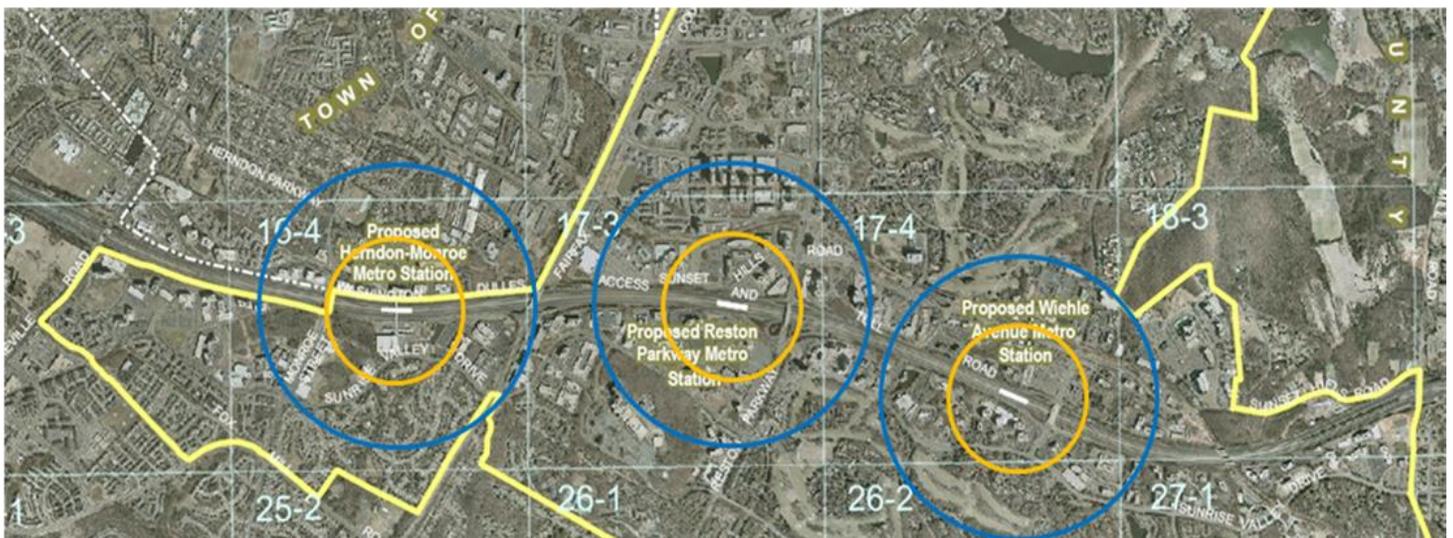
- **The Metro Station areas** will be livable urban places, with densities that step down from the Town Center to the other station areas. The station areas will also be the areas of highest commercial and residential intensity in the community.
- **The village centers** are important community gathering spaces that include a mix of locally serving retail, a residential component, and employment opportunities. Redevelopment to augment and enhance the village centers will be pedestrian-oriented and provide adequate transition to surrounding neighborhoods. Convenient public transportation options should link the village centers and the transit stations.
- **Residential neighborhoods** will continue to provide a variety of housing types serving all income levels. Appropriate transitions will be provided between new development and all residential neighborhoods.

5. The rail corridor will be transformed.

Over time it will become an area with robust, livable, walkable mixed-use communities having an appropriate balance between residential and non-residential uses. Each of the transit station areas will have a distinct character to meet multiple community needs. Town Center will be a livable regional urban center and destination with the community's highest densities and major shopping and cultural features to attract visitors. Reston East and Reston West-Herndon will be urban transit neighborhoods, with special encouragement in the former for higher educational uses and special focus in the latter on its central environmental (wetlands) feature. The highest densities will be concentrated within one-quarter mile of the rail stations tapering down somewhat within one-half mile to maximize the use of rail. Residential and non-residential populations in each transit station area will be balanced to further maximize rail use and reduce dependence on automobiles. Future air rights development around the stations should be pursued to enhance development opportunities, encourage transit use, and improve north-south connectivity across the Dulles Access Road.

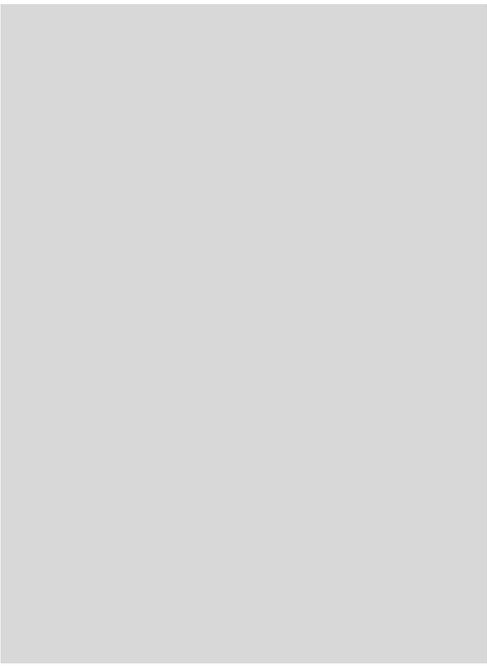
6. Reston will become a more vibrant employment center.

From its inception, Reston has provided a place for a spectrum of companies, from local to international of varying sizes. Future development and redevelopment should continue to promote a broad range of opportunities for a robust and diverse business, advanced technology, educational, and research community.



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- 7. Housing will be provided for all ages and incomes.**
Reston will accommodate people of all ages, physical abilities, and economic circumstances, and households of all sizes and stages of family life.
 - 8. Connectivity and mobility will be strengthened.**
A range of high-quality transportation facilities - including roads, bridges, tunnels, sidewalks, bikeways, trails, strengthened and expanded bus and shuttle services, and Metro will link the residential community and resident workers with activity centers, employment, open spaces, parks, schools, and civic, cultural and recreational facilities. New bridges and tunnels across the Dulles Access Road near the stations are of the highest priority to ease already excessive congestion. A robust transit system, expanded pedestrian and bicycle networks, and transportation demand management strategies will also help reduce reliance on the automobile while increasing community mobility.
 - 9. High quality public open space will be required.**
Abundant active and passive open space and a range of recreational and cultural opportunities are essential components of the high quality of life in Reston. The transit station areas and village centers should include a variety of public spaces such as a large urban central park, recreational facilities, village greens, urban plazas, pocket parks, playgrounds, and other public amenities within easy walking distance for area residents, workers, and visitors. Larger active recreation areas appropriate to Reston's residential and commercial populations should be provided outside the transit corridor.
 - 10. Public participation in planning and zoning will continue to be the community's foundation.**
Local participation should remain a hallmark of the planning and zoning processes as Reston continues to evolve as a complete community for the 21st century over several decades. The cumulative impacts of development and redevelopment should be continually assessed and evaluated.





Urban Design



Urban Design

Vision

Development and redevelopment should be of the highest caliber in terms of town planning, architectural design, compatibility, and livability. Redeveloped areas should be designed as integral parts of the larger Reston community instead of stand-alone developments. High standards for green neighborhood and building practices for all public and private development should be required. Public art should be integrated into development and redevelopment.

Goals

The goals apply to the streets, open spaces, public art and place making, and buildings in the transit corridor. The public realm in the transit corridor should be a focus of design excellence in Reston including the following:

- **Streets** - Form the first impression of the area, and the streets should be shaped by the buildings
- **Open Spaces** - Create the background for social life of the Reston community
- **Public Art and Placemaking** - Provide opportunities for creating places specific to the characteristics and needs of Reston
- **Buildings** - Provide shape to the streets and open spaces, and they should demonstrate excellence in architectural design



Design of Streets

Street Character

Streets represent one of the important spatial elements that define the public realm. Streets are shaped by the buildings. They provide the sidewalk space important to establishing a pedestrian oriented environment. The streets include sidewalks, landscaping, lighting and amenities, and most importantly they provide connections.

Street Ownership

Arterials are owned and maintained by the Commonwealth of Virginia. Main streets and the business streets or local streets will be owned and maintained by the private sector.

Streetscape

Street trees, pedestrian oriented street lights, and street furniture should be provided along business streets and local streets. Sidewalks along business streets and local streets should be at least 15 feet wide and at least 20 feet wide for areas with sidewalk cafes.

Utilities

Utilities should be accommodated underneath the sidewalk paving or street paving and within the right of way.

Intersections

Improving the pedestrian access to the future Metro stations is a primary goal. Intersection improvements should include:

- Pedestrian priority timing for traffic signals
- Clearly marked crosswalks
- Wide medians at the crossing of major streets such as Sunrise Valley Drive, Sunset Hills Road, and Reston Parkway.

Reston Parkway

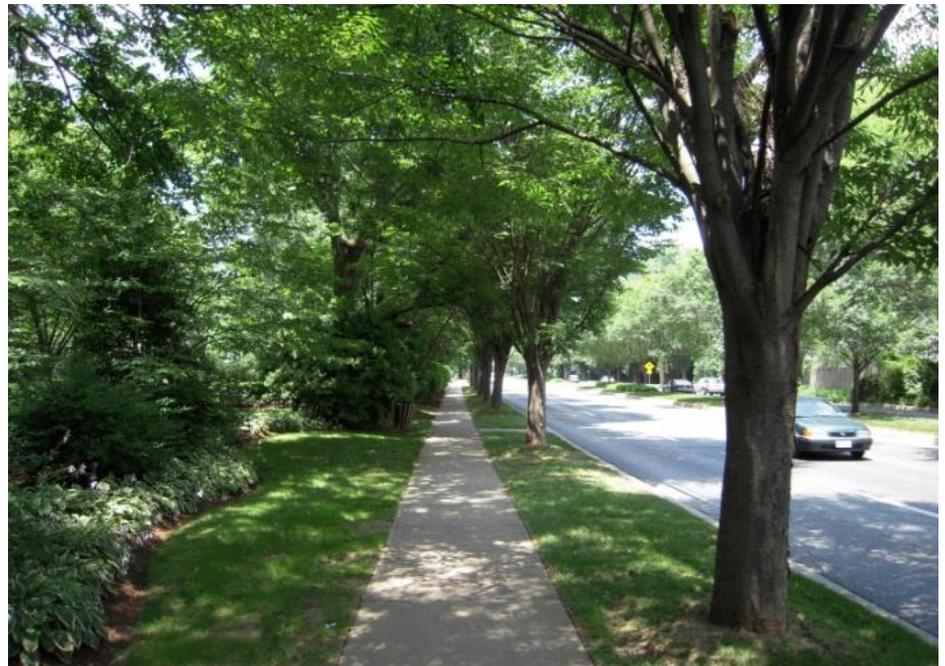


Standards

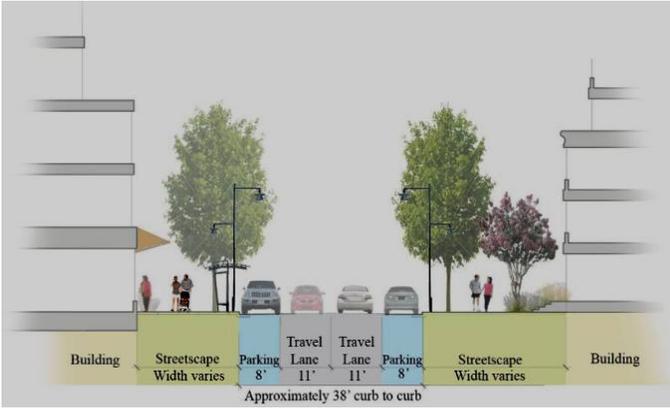
Lanes: 6 lanes divided from Baron Cameron to South Lakes Drive
4 lanes divided from South Lakes Drive to Lawyers Road

Design Guidelines

Sidewalk: 5 - 8 feet wide
Trees: 45 feet on center maximum
Building Setback: Varies
Street Wall: NA, with a variety of setbacks
Parking: NA
Median: 16 feet minimum



Business Street



Highway Functional Classification	Urban design Classification	Reston Examples
Arterial A	Parkway	Fairfax County Parkway
Arterial B	Green Urban Boulevard	Sunrise Valley Drive
Main Street	Business Street	Market Street
Local Street	Business Street	Town Center

Standards

Lanes: 2 lanes w/on-street parallel parking

Design Guidelines

Sidewalk: 15 feet wide minimum
 Trees: 30 feet on center maximum
 Building Setback: 15 feet minimum
 Street Wall: Yes, with uniform setbacks
 Parking: Both sides or at least one side
 Median: NA

Examples of Business Streets



Design of Open Space

Character of Open Space

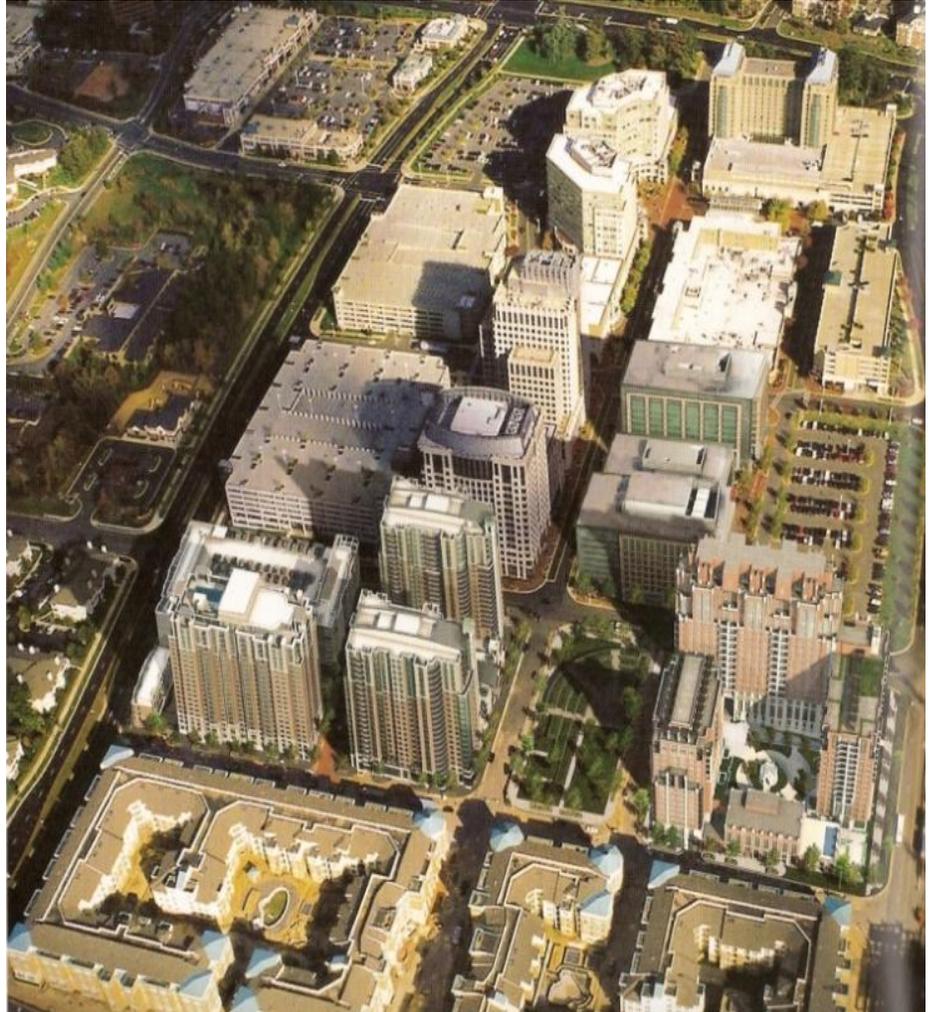
- Open spaces should function to preserve, augment and enhance the natural environment through such methods as increasing permeability and expanding tree canopy.
- Public open spaces should be carefully designed to offer high quality open spaces on small sites.
- Open space requirements on separate sites should be allowed to combine to create larger spaces off-site.

High quality open spaces provide opportunities for spontaneous interaction and programmed activities. A variety of large and small open spaces should be available throughout the Reston community.

Specific, Designated Open Space Recommendations

The designated public open spaces include the following two important areas:

- Large, central park or urban green in the Town Center North area
- Grand, green boulevard along the entire length of Sunrise Valley Drive with setbacks from the curb to create a linear greenway with a bikeway, and to protect the adjacent neighborhoods
- Memorial sculpture garden



Examples of Current Open Space in the Reston Town Center

- **Environmentally sensitive areas** - Resource Protection Area along Reston Parkway including retention of major trees and grass areas
- **Active recreation areas** - Includes the nearby W&OD Trail and the skating rink
- **Designated public open spaces** - These areas were planned at the beginning of the Town Center before the design of specific buildings was completed. They include the major urban park and Fountain Square.
- **Other public open spaces** - These open spaces evolved at the same time as the buildings were designed. They were not designated from the beginning. These urban open spaces include small urban parks, gardens, plazas, wide sidewalks, pathways, through block connections, and other small civic spaces.

Design of Open Space

Definition of Public Open Space: Space for public enjoyment either publicly or privately owned, such as:

- **Environmentally sensitive areas** - Resource Protection Areas including wetlands, streams and stream buffers, and priority forest areas
- **Active recreation areas** - large active play fields and smaller outdoor recreation areas for activities such as tennis and volleyball
- **Designated public open spaces** - areas such as gardens, plazas, walkways, pathways, trails, urban parks, through block connections, civic spaces, town squares, and a memorial sculpture garden
- **Other public open spaces** - other small urban parks and civic spaces

Public open spaces must not include streets, parking and driveways or areas for vehicles, sidewalks less than 12 feet wide, and roof top areas not readily accessible to the public. Active recreation areas, designated open spaces, and undesignated public spaces all should be encouraged to include public art. Public open space must be easily and readily accessible to the public and be identified by a sign placed in public view.

Calculation of Public Open Space:

- The minimum open space should be 20 percent of the net lot area (total lot area not including areas for public or private streets and 12 feet of the sidewalk area). Flexibility in location should be used in applying this minimum, recognizing that smaller open spaces are more appropriate and are generally used and enjoyed in higher density areas. Some portions of the 20 percent minimum may be more readily located in the immediate proximity of the transit station areas.
- The minimum public open space requirement for each parcel can also be located off-site and combined with other properties within the transit station area to create larger public spaces (e.g. large civic green in the Town Center and the proposed green, linear park along Sunrise Valley Drive).
- Required public open space can be active public space such as a public outdoor performance space, active recreation fields, public parks, and a memorial sculpture garden if easily and readily accessible to the public. Such substitutions will be based on acreage, recognizing that they are often enjoyed more intensively than other types of passive open space.



Environmentally sensitive



Active recreation



Designated public open spaces



Other public open spaces

Public Art and Placemaking



Public art is part of the Reston tradition, and the Master Plan adopted by the Initiative for Public Art - Reston (IPAR) continues this tradition by commissioning a new generation of world-class public art that will:

- Inspire a vigorous commitment to public art that builds on Reston's tradition of supporting community arts and culture
- Engage the public by stimulating new partnerships that create a new generation of world-class public art in Reston
- Build on Reston's commitment to excellence in planning and design of public spaces
- Raise the expectation that public art will be an integral component of Reston's long term ethic of building a quality environment

Both the public sector and the private sector through the proffer system will be expected to participate in integrating public art.

Priority Areas (Public Art Master Plan for Reston, prepared by IPAR, December 2008):

- Community infrastructure
- Environmental projects
- Reston Town Center
- Metro stations and station areas
- North County Government Center
- Village centers
- Private development

Placemaking - The design of public space with art will include an objective to create destinations that are inspiring to the community, and provide flexible gathering spaces in accordance with the IPAR Master Plan for art.

Way finding - Streetscapes and open spaces must include a consistent set of signage and graphics to identify key facilities and provide direction.

Design of Buildings

Mix of Building Types

The Reston transit corridor has a variety of building types including one and two story retail buildings, institutional buildings including a hospital and medical office buildings, offices for international companies, headquarters for national associations, low-rise research and advanced technology companies, self storage facilities and small spaces for services industries. A mix of low-rise and high-rise housing is also provided in the transit corridor.

Building Form

The challenge for this range of building types is to create a cohesive urban environment. Building design should enhance and support pedestrian activity. Design features should include:

- Build-to lines that require buildings to define streets
- Active retail store fronts on key streets to support and reinforce pedestrian activity
- Attention to sun access and orientation at the ground level
- Parking garages located below grade, lined with retail, or located in the center of blocks along sidewalk areas that provide connections to the Metro stations.

Design Excellence

- Innovative use of high quality construction materials
- Glass at the ground levels
- Outstanding design of public and private buildings, and infrastructure



Building Design

Key elements of high quality building design will include a variety of strategies including building height, street orientation, retail locations and design, and location of parking garages.

Building Height

The tallest buildings should be within ¼ mile of the Metro stations. Building towers should be located to maintain views, and to minimize the impact on the street's pedestrian environment and the adjacent open space. Building roof lines should be distinctive on towers.

Street Orientation

Buildings should be oriented to streets. Setbacks from streets should be 15 feet minimum and form an urban street wall. The street wall should be designed to frame the street and sidewalk areas and shape the open spaces. Buildings along streets should avoid the extensive use of blank walls without windows at the ground level.

Retail Locations and Design

Most buildings located on important sidewalks that provide access to the Metro stations should include ground level retail. Retail frontages should maximize building transparency and avoid blank walls.

Parking Structures

Parking should minimize the impact on the pedestrian environment. Parking structures should be located behind buildings or retail facades. Underground parking is encouraged. Parking entrances should be located on side streets. Surface parking should be located on the interior of blocks or the side of buildings to avoid locating parking between the building and the street.



Sustainable Building Design

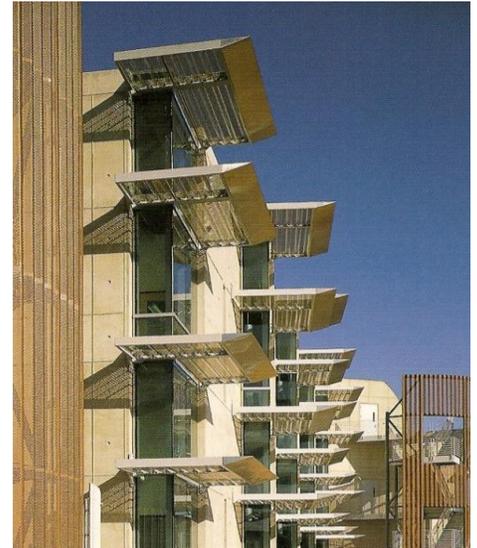
Buildings should be of the highest caliber in terms of town planning, design, compatibility, energy efficiency and livability. Key features of buildings in Reston should include:

- Use of site and building design and orientation for passive solar heating and daylighting
- Maximize the potential for renewable energy systems
- Incorporate passive cooling through proper shading and ventilation
- Reduce water consumption
- Recycle building materials and maximize the use of locally produced materials
- Incorporate renewable energy systems such as wind power, solar power, and geothermal heating and cooling systems
- Use light reflecting roof surfaces or green roof systems

Examples

The examples of sustainable building design shown below include:

- Green roof located over a parking structure
- Use of solar panels in building design
- Use of outside light shades that provide shading for glass and also direct sunlight deep into interior building spaces



Urban Design Examples

The following paragraphs provide three important examples of the type and form of development that could serve the needs of Reston in the 21st century.

Transit Oriented Development

The Reston Town Center is one of the most outstanding examples of transit oriented development in the Washington Region. The design of the streets, the variety of open spaces, and the design and orientation of buildings create a public realm that emphasizes pedestrian access.



Air Rights over the Dulles Access Road

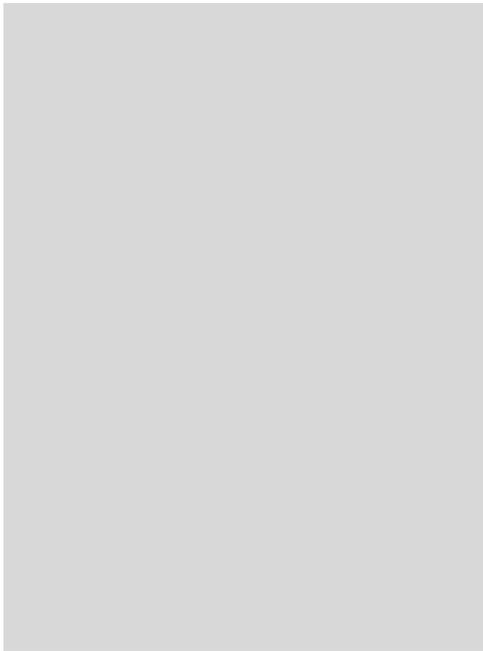
Locations should be explored to provide for the foundations of future air rights development at both the Town Center and the Reston West-Herndon stations. This should be completed by early fall 2011 to provide timely guidance to Fairfax County in formally requesting that the Metropolitan Washington Airports Authority implement the construction of foundations as part of construction of Phase 2 of the Metro Silver Line. Sufficient design work should be done to convince the community, interested developers, and concerned officials that there is a practical, safe, and economically feasible way to build future air rights development above the Dulles Access Road and the Metrorail system without interference with operations. The drawing at right is an example of air rights over the Dulles Access Road, by Davis, Carter & Scott Architects.



Housing for All

Providing a variety of housing types for all ages and incomes continues to be an important principle in the development of Reston. People of all ages, physical abilities, and economic circumstances, and households of all sizes and stages of family life should be accommodated in Reston. The photographs at right show a variety of housing types. The full range of single-family detached houses, townhouses, single-family attached houses, and low-rise and high-rise apartments should continue to be provided in Reston to serve all incomes and ages.





Environment



Environment

Vision

Reston in the 21st century will integrate access to nature with developed areas, protect the headwater areas and other environmentally sensitive areas, and establish high standards of green technology for all buildings and neighborhoods including the linear transit corridor.

Goals

The planning goal is to bring conservation of the natural environment into all areas of Reston including the transit corridor without compromise. An urban green infrastructure of interconnected spaces will be an integral part of the planning and design. The goals and recommendations identified in this section will ensure that Reston continues to develop and redevelop as a sustainable community, creating a healthy, environmentally responsible, and visually appealing place. The general goals include the following:

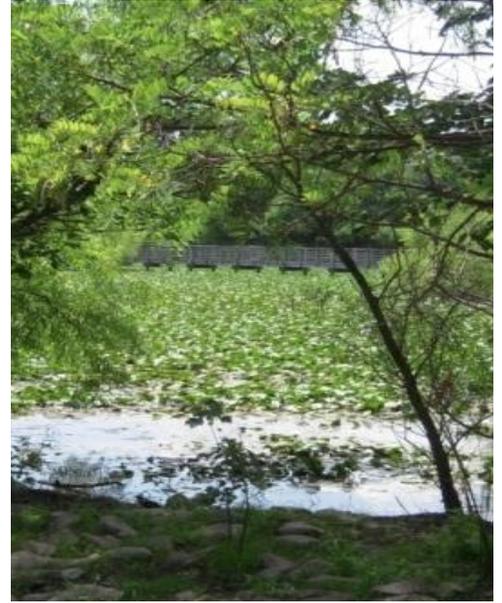
Protect:

- Wetlands
- Streams and buffer areas

Restore and Enhance:

- Intermittent streams
- Lakes and ponds
- Forests and trees
- Hydric soils
- Steep Slopes
- Stormwater management

Best management practices should be utilized during development and redevelopment to improve air quality and conserve energy. Integrated approaches should be used for stormwater management, water conservation, reuse of rain water, use of systems that mimic natural processes, and use of permeable surfaces. Protecting, restoring and enhancing the natural environment will remain a central planning principle.



Recommendations

Reston is located in the Piedmont Region at the headwaters area of the Difficult Run, Sugarland Run, and lower Horsepen Creek watersheds. Its diverse natural areas which include forests, meadows, lakes, wetlands, and streams are some of Reston's most treasured assets. While these natural areas are diverse, they are also highly fragmented by development and require active management to keep them healthy and resilient.

Multiple owners manage Reston's natural resource areas including: the Reston Association (RA), the Reston Town Center Association (RTCA), the Northern Virginia Regional Park Authority (NVRPA), Fairfax County, individual property owners, and homeowner associations. Reston's natural areas should be inclusive, public spaces that foster responsibility and stewardship.

Regeneration in natural areas should be encouraged and include planting of native species, invasive plant control, wildlife management, and stream restoration. Climate change and fragmentation of natural resources are putting many native species and plants at risk of decline and extermination. Reston's natural areas can help to conserve vulnerable native plant species that are unable to adapt to the impacts of climate change and development.

Fairfax County Environmental Agenda

Environmental stewardship has been an important principle since the original development of Reston. The following text and maps provide area-wide recommendations which are in accordance with the Environmental Agenda adopted by the Fairfax County Board of Supervisors in June 2004:

- **Protect Resource Management Areas** - Wetlands and Streams
- **Restore and Enhance** - Other Natural Areas

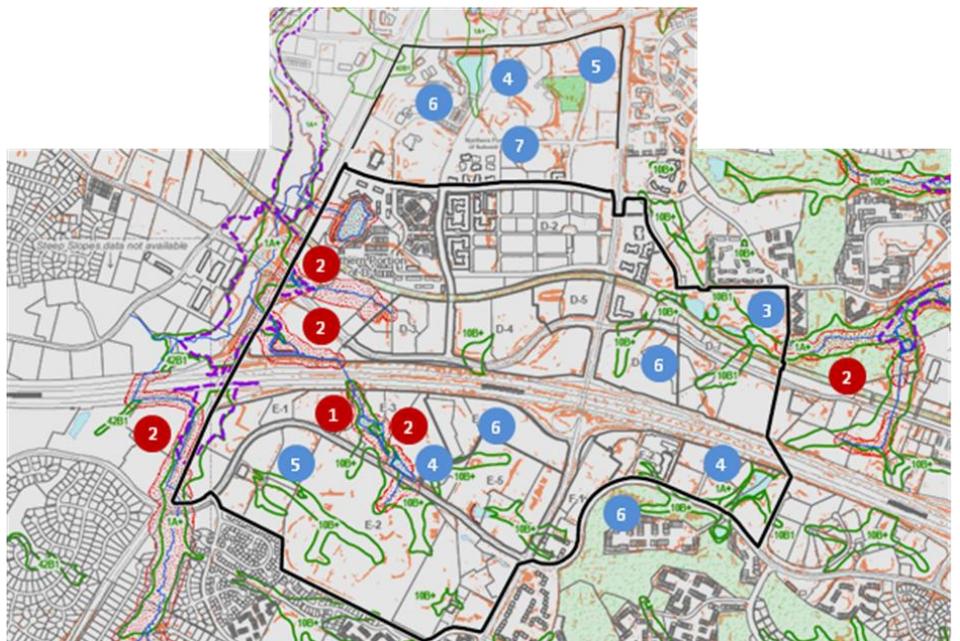
Recommendations: Town Center Area

Protect Resource Management Areas including:

1. Wetlands
2. Streams and buffer areas
(100 feet on each side)

Restore and Enhance:

3. Intermittent streams
4. Lakes and ponds
5. Forests and trees
6. Hydric soils
7. Steep slopes



Protect Resource Management Areas

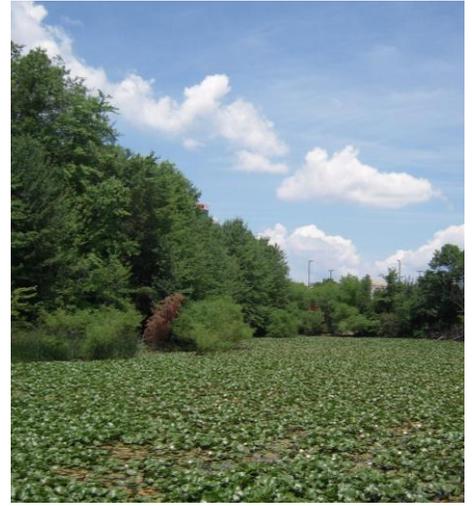
The streams and buffer areas, and wetlands represent the highest priority for natural resource protection. The following paragraphs and diagrams of each transit station area describe the Resource Management Areas to be protected.

Wetlands

Approximately 46 acres of wetlands and stormwater ponds exist in a number of locations in Reston including in the areas near the Reston West-Herndon Station, the Town Center Station, and the Reston East Station. Wetlands filter water and provide important habitat for native plants and animals. The most significant wetland lies within a quarter mile of the future Reston West-Herndon Station area. This wetland is privately owned as an off-site mitigation for parcels in the Town Center. Preservation of this wetland is a high priority. At least 50 percent of this wetland is a shallow marsh containing plant and animal species not found elsewhere in Fairfax County. Additional wetlands are located in the other transit station areas as shown on the diagrams, and they also should be preserved.

Streams and Buffer Areas

Many of Reston's stream valleys and lakes are managed by the Reston Association (RA) as part of its water resources program. RA is implementing a ten-year action plan for a Watershed Master Plan to restore The Glade, Snakeden Branch, and tributaries to Colvin Run in Reston. It is currently the largest urban stream restoration project in the United States. RA also has an active stream monitoring program that uses the guidelines in the Virginia Save Our Streams (VA SOS) that are nationally recognized as a reliable indicator of water quality. In accordance with Fairfax County regulations and guidelines, a buffer area of 100 feet is noted on each side of streams designated for protection in Reston. These buffer areas should be planted. These buffer areas provide a significant opportunity to increase the tree canopy in Reston and to create a resource area to replace the loss of trees in other development areas. Daylighting of existing streams located underground also should be considered especially in the sensitive headwater areas.



Recommendations: Reston East Station Area



Protect Resource Management Areas including:

1. Wetlands
2. Streams and buffer areas (100 feet on each side)

Restore and Enhance:

3. Intermittent streams
4. Lakes and ponds
5. Forests and trees
6. Hydric soils
7. Steep slopes

Restore and Enhance



The intermittent streams, lakes and ponds, forests and trees, and other natural features should be considered as a priority for restoration and enhancement. The following paragraphs and diagrams of each transit station area describe the priority areas to be restored and enhanced.

Intermittent Streams

These stream areas provide an important indication of poor soils and often include forested areas important to be considered for restoration and enhancement.

Lakes and Ponds

Four constructed lakes, (Lake Anne, Thoreau, Audubon and Newport), cover 125 acres, provide visual amenities, and create recreation opportunities that function as stormwater management facilities. These lakes are actively managed for sediment, algae, and shoreline stabilization. In addition, Lake Fairfax, owned by the Fairfax County Park Authority, is located adjacent to Reston and also provides stormwater management and recreation. Smaller ponds also provide stormwater management, and they have become an important feature of the Reston area. Additional tree canopy and shoreline stabilization should be considered to enhance these important features.

Forests and Trees

Forest and tree cover is often located in the steam valleys managed by the Reston Association with additional stands of trees in individual cluster association open spaces and other private lands. Trees are essential environmental and visual elements in Reston. In 2009, tree canopy in Reston covered about 38 percent of the total land area. Reston should be designed to increase the total tree canopy to above 45 percent. Street trees provide shade and create a sense of safety and protection from street traffic for pedestrians. Closely spaced street trees along all public and private streets should be encouraged. The recommendations to restore and enhance the tree canopy follow:

Recommendations: Reston West-Herndon Station Area

Protect Resource Management Areas including:

1. Wetlands
2. Streams and buffer areas
(100 feet on each side)

Restore and Enhance:

3. Intermittent streams
4. Lakes and ponds
5. Forests and trees
6. Hydric soils
7. Steep slopes



- Follow the guidelines established in the Tree Action Plan: a 20-Year Strategic Plan to Conserve and Manage Fairfax County's Urban Forest
- Avoid the overuse of one tree species along streets
- Replace existing trees preferably in the same watershed
- Expand the eradication program for invasive species
- Expand the planting program for native trees, seedlings, shrubs and wildflowers to ensure regeneration and resilience of natural areas
- Continue youth environmental education, including field trips for school groups, preschool programs, youth group programs, adult interpretive walks, and adult classes

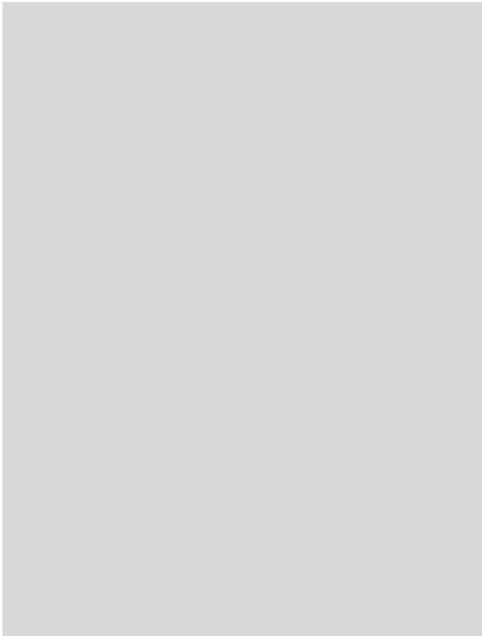
Other Natural Features and Stormwater Management

These features include hydric soils, steep slopes, and stormwater management facilities. Hydric soils provide an indication of wetlands. Steep slopes should be considered for protection and enhancement.

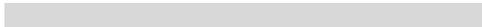
Improving stormwater management will assist in preserving healthy ecosystems, streams, and the natural environment within the watersheds. Reston is located in the headwaters area of the Difficult Run, Sugarland Run, and the lower Horse Pen Creek watersheds. The floodplains of these watersheds have been negatively impacted by unchecked stormwater runoff, loss of understory plants, and encroachment of invasive plant species. Fairfax County has completed Watershed Management Plans for these watersheds with a strategy for preserving healthy ecosystems, streams, and the natural environment within the watersheds. The plans were developed in response to rapid growth in development and the need for both updated stormwater and overall watershed management. Recommendations include:

- Day light existing streams located below grade
- Minimize impervious cover
- Establish landscape measures that reuse rainwater
- Manage urban wetlands and buffers for their ability to purify water and provide habitat including stopovers to rest and feed for migratory birds
- Establish stormwater control measures that are substantially more extensive than minimum requirements to reduce the total runoff volume and significantly delay entry into the stream system
- Emphasize Low Impact Development (LID) techniques that filter water through vegetation and soil, and return water into the ground or reuse
- Restore and stabilize degraded streams
- Continue stream restoration and stabilization in the watersheds as part of a comprehensive strategy to restore water quality and ecological health





Transportation



Vision

Transportation is a key element of the infrastructure that supports the quality of life in Reston. The new Metro Silver Line with increased feeder bus service, and enhanced pedestrian and bicycle facilities will improve access and mobility. An expanded network of streets will be needed. Complete streets, safe for all users will be necessary within the transit corridor. An expansion of travel choices will transform the transportation system so that streets become attractive outdoor spaces that encourage walking and biking to connect the entire community. A range of access options should be created including facilities that serve pedestrians, bicyclists, transit, and vehicles.

Goals

The transportation system should provide safe, attractive and efficient choices that encourage a wide variety of travel choices including non-automobile travel. The goals include:

- Expand pedestrian and bike access
- Provide and enhance transit options
- Expand the network of streets
- Improve operational performance
- Address levels of congestion and expand capacity
- Perform an improved evaluation process

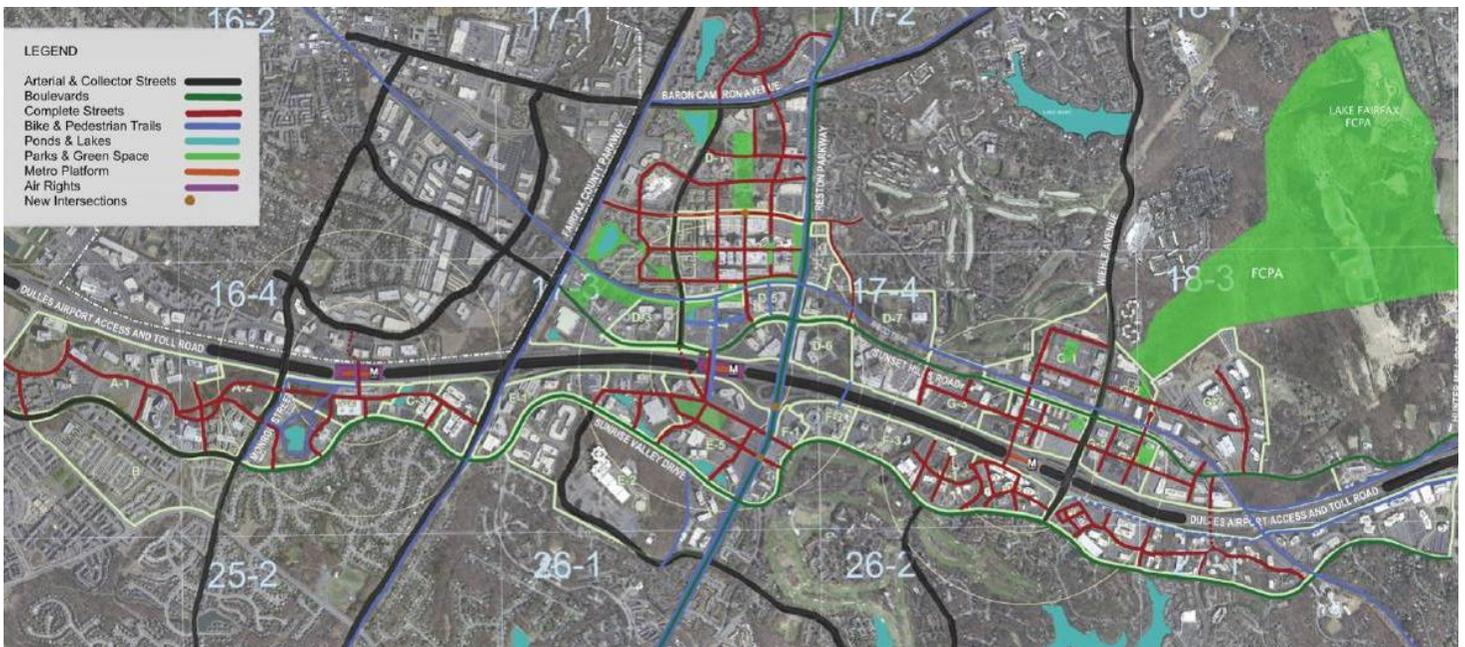
The following is a composite of the transit corridor. This map shows each transit station area, a grid of local streets, bike routes, and new crossings of the Dulles Access Road.



Reston West-Herndon Station

Reston Town Center Station

Reston East Station



Recommendations



The proposed transportation system should provide a wide range of transportation options. Reston has an outstanding trail system that provides access to the village centers and the neighborhood schools. The transportation system should include a local grid of interconnected and complete streets in the transit corridor, new crossings of the Dulles Access Road, bike and pedestrian trails and sidewalk facilities, bus transit as a priority, and improvements for vehicles. The recommendations follow:

Expand the Pedestrian and Bike Access

The pedestrian and bike system should be expanded to improve access across the Dulles Access Road and to enhance the pedestrian and bike access to the three, new Reston Metro Silver Line stations. Key recommendations include:

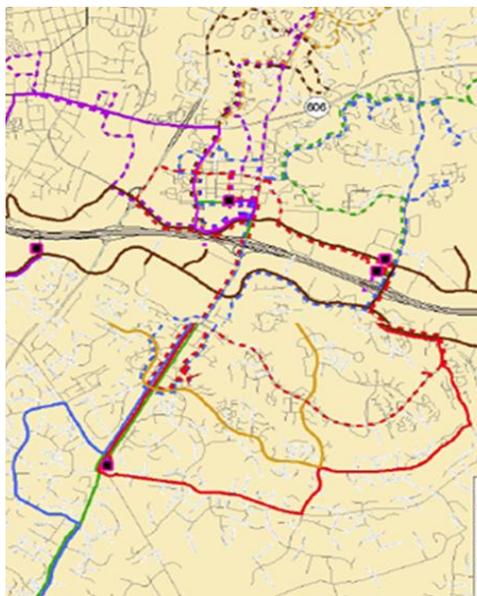
- Fund and implement the recommendations for station access improvements at the Reston East, Town Center, and Reston West-Herndon stations prior to start of rail operations at those stations
- Provide new bicycle and pedestrian trails along both sides of the Dulles Access Road connecting all adjoining properties with each of the three rail stations
- Implement crossings of the Dulles Access Road for pedestrians and bicyclists on the west side of Reston Parkway and Wiehle Avenue bridges, and from Reston Heights to Oracle and the Plaza America
- Provide a continuous shared use bike and pedestrian trail along the northern side of Sunrise Valley Drive as part of creating an urban boulevard
- Establish complete streets with closely spaced trees, pedestrian lighting, and furniture to enhance safety and support access for pedestrians throughout the transit corridor
- Improve the W&OD Trail crossing of Wiehle Avenue and pedestrian sidewalks and bikeways along Sunrise Valley Drive and Wiehle Avenue prior to the start of rail service to the Reston East Station or as soon thereafter as possible
- Complete other design work and implement high priority pedestrian and bicycle crossings of the Dulles Access Road recommended in addition to others specifically listed in the Reston 2020 Report



Provide Transit Options

The new Metrorail stations provide an opportunity to improve access to Reston, the Washington Dulles International Airport, Tysons Corner, Arlington and the entire Washington Metropolitan Region. Expanding the existing bus system to provide access to the stations and throughout Reston will be a priority. Recommendations include:

- Review and refine the recommendations in the Fairfax County Transit Development Plan adopted in December 2009
- Provide new transit circulators and shuttles for the Town Center, Reston East, and the Reston West-Herndon station areas
- Evaluate opportunities for bus lanes in the transit corridor
- Consider lane controls and bus prioritization at signals in the transit corridor
- Create a wide range of transfer opportunities between Metrorail, bus and rental cars, and provide bicycle storage facilities at each of the three Metrorail stations
- Provide bus and kiss-and-ride access from Sunrise Valley Drive to the bus transfer facility on the south side of the Reston East Station



Expand the Network of Streets

The map of the Network of Streets highlights, in conceptual form, the recommended composite of the three Metrorail station areas in the transit corridor. The map provides a sample guide for a new grid of local streets, and new crossings of the Dulles Access Road. The sample guide for the expanded network of streets includes the following;

- Expand Reston Parkway to three lanes in each direction from Baron Cameron Avenue to South Lakes Drive
- Provide a new grid of streets and walkways within the transit corridor to increase pedestrian and bicycle access and provide alternatives to use of Sunset Hills Road and Sunrise Valley Drive
- Improve the design character of streets within the transit corridor by providing adequate sidewalks, closely spaced trees, and pedestrian oriented lighting
- Provide five crossings of the Dulles Access Highway including the following:
 - Construct the Soapstone Drive extension to Sunset Hills Road as a priority for the Reston East Station
 - Provide a pedestrian crossing at the Plaza America development to Reston Heights
 - Construct a crossing at the Reston Town Center
 - Enhance the existing improvements to the crossing at the Reston West-Herndon Station
 - Examine the possible connection of South Lakes Drive to Sunset Hills Road in the long term
- Study conversion of the existing one-way bus ramp over the Dulles Access Road for westbound traffic into a multi-purpose, two-way street between Herndon and the Reston West-Herndon Station
- Develop plans for traffic calming improvements for streets within the transit corridor to slow vehicle speeds, and improve pedestrian and bicycle safety
- Encourage the use of the Dulles Access Road in both directions for the HOV Lanes
- Improve the access ramps to Reston along the Dulles Access Road
- Construct foundations for columns in the median to support future air rights and crossings of the Dulles Access Road



Network of Streets





Improve Operational Performance

The operational characteristics of the transportation system should be improved as described in the following:

- Implement aggressive transportation demand management programs to reduce vehicle trips (including staggering work hours, car and vanpooling, telework, flex-time, parking space pricing strategies, expanded transit, priorities for peak-period bus operations, and real time changes in traffic)
- Update the Countywide signal control system to reduce delays at intersections by using software designed to respond to real-time changes
- Develop a plan to transition from subsidized rail parking at the Metro stations to parking to support transit oriented development
- Include parking pricing strategies that reduce overall parking demand
- Revise the parking standards to allow for shared use of parking spaces between land uses and a reduction in required spaces for development located near the transit stations
- Optimize traffic signal timing to improve traffic flow
- Consider locating satellite parking facilities at the edges of Reston connected to the transit stations by bus

Address Levels of Congestion and Expand Capacity

Reston has at least seven existing intersections that do not meet existing Fairfax County standards. The operation of these intersections should be improved as follows:

- Create and implement a wide range of transportation choices with a high priority on transit, and pedestrian and bicycle enhancements
- Improve the operational characteristics of intersections by providing alternatives to the use of Sunrise Valley Drive and Sunset Hills Road (see the table at the bottom of the page for more specific recommendations)
- Encourage the creation of main streets at each station area parallel to Sunrise Valley Drive and Sunset Hills Road as an alternative travel choice
- Provide an appropriate balance of commercial and residential land uses to reduce the impacts on the transportation system
- Set higher non-automobile mode split goals, quality and safety for pedestrians and bicyclists, and congestion levels for the transit corridor

Improve Capacity at Selected Intersections

Intersection	Transportation Improvements
Wiehle Avenue and Sunset Hills Road	<ul style="list-style-type: none"> ▪ Complete a grid of streets in all four quadrants to provide for bypass opportunities ▪ Create a main street connecting Wiehle Avenue to Plaza America to divert local traffic from Sunset Hills Road ▪ Extend Soapstone Drive across the Dulles Access Road
Reston Parkway and Sunset Hills Road	<ul style="list-style-type: none"> ▪ Extend Edmund Halley Drive across the Dulles Access Road ▪ Extend the streets in the Town Center across the W&OD Trail to Sunset Hills Road to improve the grid of streets
Sunrise Valley Drive and Monroe Street	<ul style="list-style-type: none"> ▪ Create a main street connecting Monroe Street to the Reston West-Herndon Metro station area to direct traffic away from Sunrise Valley Drive ▪ Complete a grid of streets that will reduce the need for traffic to use Sunrise Valley Drive ▪ Create a green boulevard along Sunrise Valley Drive with a continuous bikeway
Sunrise Valley Drive and Reston Parkway	<ul style="list-style-type: none"> ▪ Create a main street connecting Reston Parkway to the Town Center Metro Station area to direct traffic away from Sunrise Valley Drive ▪ Complete a grid of streets that will reduce the need for traffic to use the intersection ▪ Create a green boulevard along Sunrise Valley Drive with a continuous bikeway

Expand Evaluation Techniques

Fairfax County currently plans to perform an evaluation of possible future development scenarios using level of service at intersections as a primary technique. This evaluation should be expanded to include an application of a variety of evaluation techniques.

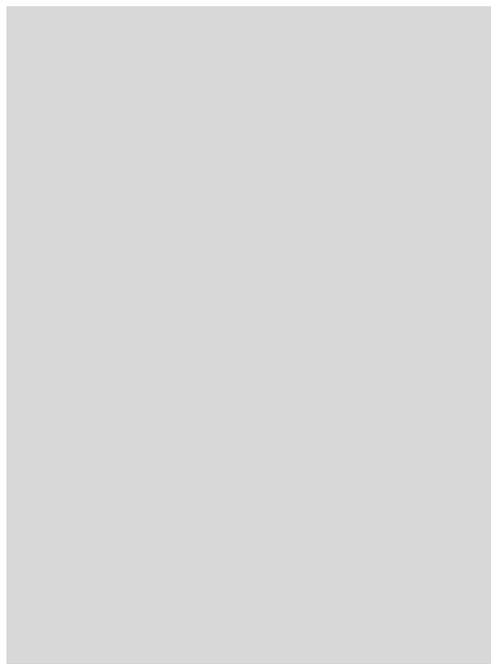
The expanded analysis of the area wide transportation system should consider the impact of the following:

- Increasing mode-share of non-automobile travel
- Reducing parking requirements specified in the Zoning Ordinance
- Expanding opportunities for pedestrian and bicycle access.

In addition, the evaluation process should include an interactive transportation and urban design evaluation of the recommendations from the Reston Master Plan Special Study Task Force for transportation. This evaluation process should involve the assessment of several land use scenarios in an effort to refine and enhance the final land use recommendations.

Table of Street Classifications

Functional Classification	Number of Lanes	Design Character
Expressways		
1. Dulles Toll Road	8	Highway
2. Fairfax County Parkway	6 and 4	Parkway
Arterials		
1. Reston Parkway	6	Parkway
2. Monroe Street	4	Urban Street with median
3. Sunset Hills Road	4	Boulevard
4. Sunrise Valley Drive	4	Boulevard
5. Wiehle Avenue	4	Urban Street
Collectors		
1. New Dominion Parkway	4	Urban Street with Median
2. Town Center Parkway	4	Urban Street with Median
3. Bowman Towne Drive	4 and 2	Urban Street without Median
4. Fountain Drive	4	Urban Street without Median
5. Temporary road	2	Urban Street without median
Main Streets and Business Streets		
6. Main Streets: <ul style="list-style-type: none"> ▪ Market Street ▪ Other East-West Main Streets: <ul style="list-style-type: none"> - Reston East Station Areas - Reston West-Herndon - Town Center South 	2 w/parking on one side 2 w/parking on both sides 2 w/parking on both sides 2 w/parking on both sides	Business Street Business Street Business Street Business Street
7. Business Streets Type A	2 w/parking on both sides	Business Street
8. Business Streets Type B	2 w/parking on one side	Business Street



Public Facilities



Vision

Reston is a place that provides and enhances quality of life by recommending public facilities to serve Western Fairfax County that will be balanced with the land use and transportation.

Goals

Reston should have critical public facilities to ensure adequate and comprehensive services that include:

- Public safety
- Parks and recreation
- Schools and universities
- Cultural facilities

The challenge to providing adequate public facilities is often the requirement for large parcels of land. The use of the "Proffer System" will be the primary method used to acquire property and construct public facilities. Fairfax County's Capital Improvement Program (CIP) is another but more limited method of providing public facilities. The public facilities on the following pages are the priorities.



Recommendations

The plan should emphasize the community requirements for enhanced and expanded public education, public safety facilities, and services to support community growth. Fairfax County Public Schools and the Fairfax County Fire Department should consider innovative new designs for facilities that may better address the needs of an urbanizing community, such as locating some of their facilities in the base of commercial buildings.

Public Safety

The anticipated growth in size and changes in character to the community demand that the need for the following be addressed:

- Urban, police sub-station to replace the existing facility
- Fire station capability to service urban environments such as the Town Center and other transit oriented development around the rail stations
- County Government Center to provide expanded human services
- Sufficient public utilities such as gas, electric, and water and sewer



Parks and Recreation

A "World Class" public park system should be provided including community parks and recreational facilities that can be addressed on both a micro and macro level. Individual parcels should be encouraged to provide solutions for the micro requirement. Macro requirements often demand integrated coordination with various stakeholders such as the Northern Virginia Regional Park Authority, Fairfax County Park Authority, Reston Association, the Reston Community Center, the private sector, and others. Examples of parks and recreation requirements include:

- Major city park
- Linear green space along Sunrise Valley Drive
- Small urban parks
- Small public recreational facilities and other active recreation uses such as volleyball, handball, and tennis
- Areas for organized, active recreation field sports on the existing gas pipeline
- Mid - block pedestrian connections
- Swimming pools including a 50 meter pool



Schools and Universities

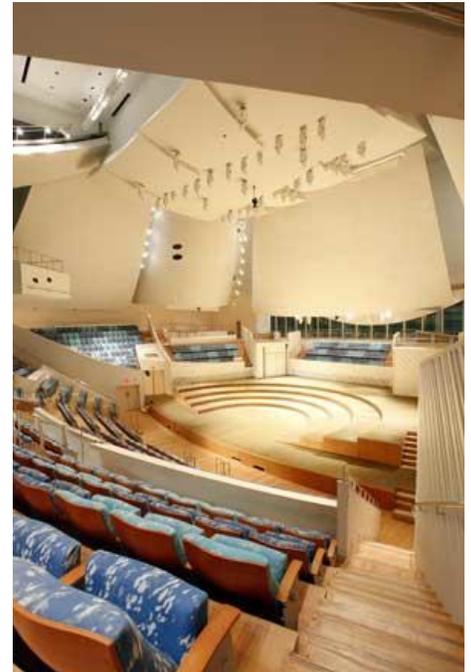
Providing locations for future schools is a priority to serve the future population. Some of these facilities can be co-located. Educational facility requirements include:

- Child care
- Elementary schools
- Potential middle school or high school
- Advanced education (Universities and Community Colleges)
- Senior centers

Cultural Facilities

Cultural facilities should have the ability to exist and thrive in the future Reston. These facilities ensure that the community retains and enhances its ability to provide a high quality of life in Reston. The planning of advanced cultural and educational facilities should be coordinated with the Commonwealth of Virginia and other entities in the Washington region. Cultural facilities attractive to Reston residents and employees as well as visitors from the Washington region include:

- Performing arts center
- Libraries including the creation of a new regional library that utilizes innovative approaches such as satellites at transit stations, electronic services, kiosks, and couriers
- Children's Science Center
- Art Galleries and museum
- Memorial sculpture garden
- Large indoor multi-use, recreation center



The following table identifies the type of public facilities, priority locations, and the potential private contributions for dedication and construction. This list should be used during the review of specific projects as part of the use of the “Proffer System.”

Type of Facility	Priority Location	Private Contributions
Cultural Facilities:		
<ul style="list-style-type: none"> ▪ Performing Arts Center ▪ Libraries • Children’s Science Center • Art Galleries and museums • Memorial sculpture garden(s) • Children’s theater 	Town Center area located north of the Metro station Town Center North with satellites throughout Reston Near the transit station areas Near the transit station areas All areas or near the transit station areas Near the transit station areas	Land and construction Land dedication Land and construction Land and construction Land and construction
Schools and Universities:		
<ul style="list-style-type: none"> • Child care • Elementary, middle, and high schools as needed • Advanced education institution • Senior centers 	Transit stations and village centers TBD Reston East Station area Transit stations and village centers	Land and construction Land dedication Land dedication Land and construction
Parks, Recreation and Day Care		
<ul style="list-style-type: none"> ▪ Major City Park ▪ Linear park ▪ Small urban parks ▪ Small public or private recreational facilities ▪ Large indoor recreation center ▪ Swimming pools, 50 meter pool, and other active recreation uses such as volleyball, handball, tennis ▪ Places for large organized, active recreation field sports 	North Town Center Along Sunrise Valley Drive Transit centers and village centers Transit centers and village centers Reston East Station area All Reston East and Reston West-Herndon Station areas, and existing gas pipeline	Land dedication Land dedication and construction Land dedication and construction Land dedication and construction Land dedication and construction Land dedication and funding Land dedication and private funding
Public Safety		
<ul style="list-style-type: none"> ▪ Future, urban police sub-station to replace the existing facility ▪ Fire station capability to service urban environments such as Town Center and TOD around the rail stations. ▪ County Government Center to provide expanded human services ▪ Sufficient public utilities including gas, electric, and water and sewer 	North Town Center or Reston East station areas Reston West-Herndon Station North Town Center All	TBD Land dedication and funding TBD TBD

Note: The floor area for public amenities should not be counted in any limitation on floor area or FAR to provide an incentive for the private sector to include these facilities.

Acknowledgements

The following members of the Vision Sub-committee participated in the development of the recommendations. This list was augmented by numerous attendees at the Vision Sub-committee meetings.

- John Bowman
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