The Plan also makes significant recommendations to encourage transit use, including major expansions to the public transportation system. Recommendations are made regarding increased Metro rail frequency, a new MARC railroad station, demand management programs, high occupancy vehicle lanes and reservation for a future transitway.

A recommendation is made to resolve the long-standing issue of the Rockville Facility reservation in North Bethesda. The recommendation has a three-fold purpose: to provide additional east-west traffic capacity, to provide an alternative to a dangerous at-grade crossing at Randolph Road and the MARC railroad, and to provide a greenway to connect the regional parks flanking the Planning Area.

This Plan proposes the following primary recommendations.

#### A. LAND USE AND URBAN DESIGN

This Plan recommends:

- that future development be focused at Metrorail (Metro) stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing;
- new residential and mixed-use development at Twinbrook;
- the introduction of a residential component into exclusively commercial parcels at Twinbrook and White Flint;
- the preservation of an area for light industrial purposes extending from Twinbrook to White Flint;
- an expansion of transit related residential and mixed use zoning at White Flint;
- a publicly-owned conference center with integral, privately-owned hotel be located on the WMATA parking lot;
- confirmation of residential zoning at Grosvenor;
- a residential planned neighborhood on the portion of the Georgetown
   Preparatory School property within the Grosvenor Sector Plan boundary;
- mixed-use development at Montrose Crossing;
- an expansion of retail opportunities at Loehmann's Plaza and Rock Spring Park;
- a mixed-use planned development on the 54-acre vacant parcel in Rock Spring Park;
- transfer of development rights on to various residential parcels;
- preservation of the unique park-like setting of Garrett Park by the application of an 'overlay' zone;

- a reduction in block sizes in the vicinity of Metro areas;
- improvements to the pedestrian friendliness of streets, particularly near transit nodes;
- the provision of a landmark quality and sense of place for nodal areas and districts; and
- reinforcement of the concept of Rockville Pike as the "Main Street" of North Bethesda-Garrett Park.

#### B. TRANSPORTATION PLAN

This Plan recommends:

- increasing the frequency of Metrorail and MARC service, and increasing bus services throughout the area;
- the creation of transportation management districts to increase transit ridership and car pooling, with emphasis on parking price and availability;
- the construction of Montrose Parkway from Montrose Road to Veirs Mill Road, with grade separated intersections at Rockville Pike and the MARC railroad, and no through access at Veirs Mill Road;
- retaining the former Rockville Facility right-of-way from I-270 to Veirs Mill Road for a possible future transitway;
- that Executive Boulevard be extended across Rockville Pike to meet Huff Court and that Nebel Street be extended to Chapman Avenue, providing a local circulation alternative parallel to Rockville Pike;
- a new MARC station to serve Twinbrook and Montrose Crossing;
- the addition of two lanes in the medians of the I-270 spurs;
- a direct access ramp from I-270 (east spur) to Rock Spring Park;
- a direct access HOV ramp from the I-270 west spur to Rock Spring Park;
- a high capacity transit connection between Grosvenor Metrorail station and Montgomery Mall, via Rock Spring Park;
- intersection capacity improvements at selected locations; and
- changes to the regulatory standards for the area.

## C. COMMUNITY FACILITIES PLAN

This Plan recommends:

that the existing Wall Park be extended to include the parcel to the north;

## 2.6 PLAN OBJECTIVES

#### A. LAND USE

- Protect and reinforce the integrity of existing residential neighborhoods.
- Direct future development to land nearest to Metro stops and new transit stations, and to areas best served by transportation infrastructure.
- Preserve and increase the variety of housing stock, including affordable housing.
- Encourage a mixture of land uses in redeveloping areas to promote variety and vitality.
- Encourage a land use pattern that provides opportunities for housing and employment.
- Maintain and enhance the area's regional employment centers.
- Preserve and enhance a spectrum of retail facilities ranging from regional to neighborhood shopping.
- Preserve and expand green areas and greenways, including institutional open space, for environmental protection, wildlife sanctuary, recreation and visual relief.

## B. TRANSPORTATION

- Provide a safe, attractive and efficient transportation system to serve the recommended land use pattern for the Planning Area.
- Reduce dependence on the automobile by expanding the availability of transit services throughout the Planning Area. Increase transit service to major employment and retail centers and for non-work trips, including recreation, and to meet the mobility needs of the elderly and handicapped.
- Provide a comprehensive, safe, and more pleasant bicycle and pedestrian network as part of the transportation system.

#### C. URBAN DESIGN

- Improve the appearance and the pedestrian environment of Rockville Pike.
- Enhance the vitality and variety of the visual environment and provide an improved pedestrian experience at Rock Spring Park.

#### D. HISTORIC RESOURCES

 Protect and enhance North Bethesda's historic and architectural heritage for the benefit of present and future County residents.



BACKGROUND

NORTH BETHESDA

## E. COMMUNITY FACILITIES

Provide public facilities to meet the recreational, social and human service needs
of the community, particularly the elderly and handicapped.

## F. ENVIRONMENT

- Preserve existing woodland and encourage reforestation throughout the Planning Area.
- Adopt land use and transportation policies that will help improve air quality and minimize exposure to air pollution.
- Adopt land use and transportation policies and implement noise attenuation measures to reduce the impact of noise on residential neighborhoods.
- Adopt stormwater management and erosion control policies to minimize flooding, reduce erosion and improve water quality in the streams flowing through the Planning Area.

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have too few ways to get conveniently and pleasantly to the Metro stops, so transit is under-used. The two largest **paths**, Rockville Pike and the MARC/CSX railroad line, act as barriers to pedestrian movement.

In addition to paths for commuters, there is also a need for recreational paths. Elements of a bikeway system exist, but there is potential to expand it and to link many of the amenity features of the planning area together so that more people can enjoy them, without using their cars.

## D. URBAN DESIGN FRAMEWORK FOR NORTH BETHESDA-GARRETT PARK

The proposed urban design framework for North Bethesda is illustrated by Figure 32 (Planning Area Concept Diagram). The recommended structure for the planning area will use the existing north-south transit line (Metro) and the proposed east-west transit line (the Grosvenor transitway) to organize the area's structure. The Plan provides for new development within districts focused around transit nodes. The objective of the nodal pattern is to establish a balance between auto and transit access by designing for non-auto movement within walking distance of transit stops. In order to encourage transit use, it is advisable to have people living and working nearby and to make it convenient and pleasant for them to use the transit stop without driving.

The main yardstick for establishing the size of transit-accessible districts is maximum walking distance. Design objectives focus on streetscape and public space improvements. Objectives addressed in more detail in other chapters of the Plan are also critical; for example, land use and zoning recommendations for mixed-use or high density residential use at the transit stops, and transportation recommendations for shuttle buses, bike routes and sidewalks to feed the transit system.

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#### E. URBAN DESIGN OBJECTIVES

- Combine activity nodes and transit nodes by locating new development and a variety of activities at or near transit stops.
- Provide legibility and a unique identity to districts by defining their edges, providing them with landmarks, and developing nodes as a focus for civic, recreational, residential and commercial activity.
  - Use historic and natural features as landmarks to give a sense of place and unique identity to each district.
  - Add local streets to create a more interconnected local street network and reduce the size of blocks in high intensity areas.
  - Greatly improve the pedestrian friendliness of new and existing streets, particularly within walking distance of transit nodes, and increase the number of pedestrian and bicycle routes to transit.
  - Overcome the barrier characteristics of existing edges to facilitate pedestrian movement.





# ENVIRONMENTAL RESOURCES PLAN

## 8.1 OVERVIEW AND RECOMMENDATIONS

A major goal of this plan is to protect the natural resources and environmental qualities which are important to the residents of North Bethesda-Garrett Park. Environmental concerns within the planning area include loss of mature woodlands, degradation of stream systems, air pollution and roadway noise.

The environmental resources of North Bethesda-Garrett Park are recognized in the land use recommendations of this Plan on a site-by-site basis. The review of specific development projects in the planning area should include consideration of this Plan's recommendations, and of the guidelines in the Planning Board's "Environmental Management of Development in Montgomery County, Maryland."

The Environmental Resources chapter discusses issues and makes recommendations concerning tree preservation, greenways, "green corridors," air quality, noise, stormwater management, billboards, and water and sewer service. A tree inventory is included as an appendix to this Plan.

#### A. ENVIRONMENTAL RESOURCE OBJECTIVES

Protect and enhance the environmental resources of North Bethesda-Garrett Park.

#### B. PLAN RECOMMENDATIONS

#### **Tree Preservation**

- Protect woodlands, green space, steep slopes and wetlands through land use recommendations and development regulations.
- Support the adoption of a County-wide comprehensive tree program as required by State law that addresses tree preservation, maintenance, and reforestation.
- Retain mature trees as buffers in new residential development to create visual separation from major roads.
- Retain the maximum number of specimen trees on sites where they occur.
- Provide additional trees along existing streets, in median strips, and in parking lots whenever feasible.

- Require that every new road recommended by this Plan have a streetscape plan
  with an emphasis on tree planting.
- Require commercial and residential developers to plant more trees, particularly native shade trees, consistent with County tree legislation.
- Support retention of much of the existing open space resources of North Bethesda-Garrett Park, both public and private.

## Greenways

 Preserve a significant portion of the Montrose Parkway right-of-way as a greenway.

### **Green Corridors**

 Extend the County's "Green Corridors Policy" along major roadways in the planning area.

#### Billboards

 Support necessary action to have existing billboards removed or phased out expeditiously in accordance with the 1986 billboard law.

## **Air Quality**

- Endorse the concept of transit shuttle systems, which will reduce short trips and diminish traffic congestion and vehicle emissions.
- Improve air quality by encouraging higher density development near transit stations and thereby placing less emphasis on the need to use the private automobile.

#### Noise

- Provide noise attenuation walls when the I-270 spurs are widened at locations where existing residences will be subjected to high noise levels.
- Include noise attenuation measures in the design of the proposed transitway between Rock Spring Park and Grosvenor and in the design of the Montrose Parkway.

## Stormwater Management

- Endorse corrective measures to reduce flooding and to improve stream quality by retrofitting developed sites.
- Implement existing stormwater management regulations through the County Department of Environmental Protection to assure that existing problems are addressed for new development and redevelopment.
- Implement a stream water quality monitoring program through local government and citizen participation.

 Support maintenance and enhancement of existing stormwater management facilities.

## Water and Sewer

 Design and build any new sewer or water lines to protect the area's natural features.

## 8.2 TREE PRESERVATION

Since 1963, the acreage or woodlands in North Bethesda has declined by approximately 30 percent. Much of the remaining mature forest in the planning area is found in stream valleys and the Montrose Parkway right-of-way. These assets are complemented by the wooded areas of large properties such as Parklawn Cemetery, the Georgetown Preparatory School and the Society of American Foresters. Mature subdivisions also make a substantial contribution to the tree resources of North Bethesda. The Town of Garrett Park leads by example and illustrates how community interest, an arboretum philosophy that encourages diversity, and good management practices can maintain a tree canopy cover that approaches 70 percent. Street trees are also a significant asset. Boulevard trees, such as the pin oaks and Bradford pears on Executive Boulevard and Democracy Boulevard, provide inspiration for what can be achieved. Tree preservation is important in retaining the character of the planning area, as well as providing a wide variety of environmental benefits, including reduced erosion, reduced flooding, shade to moderate temperature extremes, cover for wildlife and visual relief from the urban landscape.

On July 1, 1992, new legislation mandated by the State of Maryland and passed by the County requiring tree preservation and reforestation will take effect. The law will require developers to compensate for trees removed during construction by placing new trees on site or, if there is insufficient space on site, at designated off-site locations. Appropriate off-site locations for reforestation may include publicly owned land, such as stream valleys, land owned by homeowners' associations, and other open space. Adopt-a-park areas may also be appropriate locations for implementation of this program.

Many of the remaining vacant and redevelopable parcels in the planning area contain mature trees worthy of preservation. (See Appendix G, "Tree Inventory," in the Plan Appendices.) Under the provisions of the County law, these trees must be considered as tree-save candidates. Lots, roadways and utility easements should be sited to minimize unnecessary loss of healthy trees. In instances where replanting on the same site will not compensate for tree removal, and where an off-site location is unavailable, the County law requires payment of fees to the County Tree Fund. These funds will be dispensed by the County to implement tree planting when appropriate sites are located.

The Maryland Department of Natural Resources (DNR) also sponsors a "TREE-MENDOUS Tree Planting Program." This program sells small trees to be planted by citizens on public open space. The Forest, Park and Wildlife Service of DNR distributes trees to interested citizens and community groups.



## 8.3 GREENWAYS

Greenways are corridors of open space that link people, parks, and natural areas. The opportunity exists in North Bethesda-Garrett Park to delineate a network of such corridors. The proposed system includes bikeways and sidewalks and links natural areas, residential areas, commercial and employment centers, and public facilities. The system builds upon the stream valley park system, the recommendations of the 1978 Master Plan of Bikeways, existing streets, and existing rights-of-way to provide an interconnected system of greenways and trails within the planning area and connecting to a regional system.

The Rock Creek hiker-biker trail winds through the Rock Creek Regional Park on the eastern side of the planning area, and portions of the trail are within the planning area boundaries. The Waverly-Schulykill connector was recently completed, providing a trail access from the Town of Garrett Park and the Rock Creek hiker-biker trail. The Waverly-Schulykill connector also provides access to the MARC train station in Garrett Park.

The Montrose Parkway right-of-way is a linear greenway that connects a number of County parks, namely the Cabin John, Old Farm and Rock Creek stream valleys parks, as well as Matthew Henson State Park. This linear greenway would be a substantial addition to the County's open space. This Plan recommends that a significant portion of the right-of-way be preserved as a greenway.

The greenways system proposed by this Plan, which includes both bikeway and sidewalk recommendations, can be found in the Transportation chapter.

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## 8.4 GREEN CORRIDORS

To ensure the identity and integrity of residential areas along major roadways, and to strengthen community identity by creating attractive transportation corridors, the Plan proposes a Green Corridors policy that addresses the visual effects of roadways and abutting properties. The Green Corridors policy is recommended to protect and enhance the residential character of the Planning Area. The policy applies to the following roadways, which differ widely from one another in character:

Old Georgetown Road Twinbrook Parkway

Rockville Pike Parklawn Road

Randolph Road Executive Boulevard

Montrose Road Strathmore Avenue

Democracy Boulevard Edson Lane

Tuckerman Lane Grosvenor Lane

The following is the Green Corridors policy for the North Bethesda-Garrett Park Planning Area.

 Maintain and enhance planting of vegetation along roadsides and in medians of major highway corridors.

Design guidelines include: placing a landscaped buffer between the curb and relocated sidewalks, placing trees in medians and along curbs, screening of front yard parking, and relocating utility poles to allow for optimum tree planting and sidewalks. Visibility for highway safety must also be considered. Protection and enhancement projects will require coordination between the Maryland State Highway Administration and the Montgomery County Department of Transportation, as well as local property owners and civic associations.

- The Board of Appeals should require full adherence to the following guidelines for special exceptions in Green Corridors.
  - Require screening for parking, even when less than six parking spaces are involved.
  - Retain green space, particularly when it provides trees that screen buildings.
  - Screen existing buildings with plant material.
  - Additions to existing buildings should be compatible with the existing residential
    architecture and adjoining neighborhoods. Visibility of buildings to residents of
    nearby communities should be taken into account. Additions should be as
    unobtrusive as possible, and should be landscaped to provide screening.

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# 8.5 BILLBOARDS

In 1986 the District Council enacted legislation that prohibits off-site commercial advertising within the County. Zoning Ordinance Text Amendment 86007 was enacted by the District Council on July 29, 1986.

Existing billboards in the planning area—for example, on Randolph Road—as well as in the rest of the County, are all illegal under the present Zoning Ordinance. These billboards pose significant urban design and enforcement problems. They violate Master Plan and Sector Plan objectives for attractive design and appropriate signage to identify businesses or to provide necessary directions for motorists. Billboards are a form of visual pollution; they are incompatible with the existing or planned character of development in Montgomery County, especially within highly developed down-County areas such as North Bethesda-Garrett Park. This Plan recommends enforcement of the 1986 billboard law to have existing billboards removed or phased out expeditiously.



## 8.6 AIR QUALITY

The primary air pollution problems in this planning area are ozone and carbon monoxide. High ozone levels occur as a region-wide problem in the metropolitan Washington, D.C., area. Measures to control the production of this pollutant will, of necessity, have to be implemented on a regional or national scale.

Carbon monoxide may be found in high concentrations at major roadway intersections where there is significant traffic congestion. One such intersection is at Rockville Pike and Randolph Road. However, an air quality monitoring station set up by the State of Maryland Air Management Administration at this intersection has shown only one violation of the federal air quality standards for carbon monoxide since the start of the monitoring in January 1983. The violation occurred in 1983. The conclusion can be drawn that tighter regional emission standards appear to be compensating for increased traffic volumes.

This Plan's land use and zoning recommendations aim to encourage higher density development near transit stations and place less emphasis on the need to use the private automobile, with the objective of improving air quality.

# 8.7 NOISE

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Roadway traffic, railroad traffic, and Metrorail—above or at ground level—are the major sources of noise in the planning area. Noise levels in residential areas adjacent to major roadways such as I-495, I-270, Montrose Road, and Old Georgetown Road may be very intrusive at certain times. Unfortunately, in developed areas there are few noise mitigation options available. Most of these options require the acoustical treatment of existing buildings for interior reduction of noise levels, or the use of physical barriers.

Capital Beltway (I-495) and I-270 noise is particularly intrusive because of large traffic volumes, greater night-time traffic activity, and higher percentages of heavy truck traffic. As part of the State Highway Administration project to widen I-270, noise barriers have been constructed between Tuckerman Lane and Old Stage Road to protect existing houses affected by traffic noise.

This Plan endorses the ongoing effort by the State Highway Administration and residents adjacent to other sections of freeway to work out a cooperative funding mechanism to provide additional noise barriers.

Development of any undeveloped or redevelopable land adjacent to major highways should use noise-compatible land use and site design and other mitigation measures recommended in the "Staff Guidelines for the Consideration of Transportation Noise Impacts in Land Use Planning and Development."

Substantial noise mitigation measures have been implemented at the Grosvenor Mews townhouse subdivision, which is bounded by I-270, Rockville Pike and Grosvenor Lane. These measures include berms and noise attenuation walls.

The CSX/MARC Railroad line is a noise source for residences adjacent to the railroad right-of-way. Noise attenuation measures, such as low walls, may be needed to minimize noise for adjacent residences. The Department of Housing and Urban Development recommends a minimum 100-foot setback for residences from rail lines for vibration and noise purposes.

The Metro line near the Grosvenor station has created noise problems for people living nearby for several years. The high noise levels have been generated from various sources associated with the operation of the Metro line, including "flat" spots on train wheels, vibration of the rails on the aerial structure south of the Grosvenor station, train horns, and high train speeds.

WMATA has implemented measures to correct some of these noise problems, including improved wheel maintenance, the installation of noise attenuation walls, and nighttime speed restrictions. Flexible rail fasteners have been installed on the tracks of the aerial structure in order to muffle resonance. Montgomery County Department of Environmental Protection (MCDEP) Environmental Planning and Monitoring, Noise Control Division closely monitors WMATAs noise levels.

Noise attenuation walls should be provided at locations where existing residences will be subjected to high noise levels when the I-270 spurs are widened. Noise attenuation measures should also be included in the design of the proposed transitway between Rock Spring Park and Grosvenor and in the design of the Montrose Parkway.

# **8.8 STORMWATER MANAGEMENT**

The North Bethesda-Garrett Park planning area lies within the Rock Creek and Cabin John drainage basins. The location of existing regional stormwater management facilities in the planning area is shown in Figure 73.

Most of the planning area is developed, and much of this development occurred before flooding hazards were documented or controlled. Land surface that was paved for roads, parking lots and driveways is now impervious and therefore not available for water percolation. Instead, precipitation travels rapidly as surface flow, increasing the frequency and magnitude of stream flooding. The clearing of woodlands has further aggravated this situation.

Within the planning area, the main stems of Cabin John Creek and Rock Creek and some of the Old Farm Branch are within parkland. The preservation of natural stream valleys in parkland reduces the negative effects of urbanization. However, park designation does not completely preclude stream channel erosion, water quality degradation and the habitat destruction associated with storm drain outfalls, concrete or piped channels, sanitary sewer crossings, unsightly litter, and stream flow alteration.

Severe stream erosion problems occur in a tributary to the Old Farm Creek and in another tributary to Rock Creek between Strathmore and Weymouth. Streambank erosion and/or construction related sedimentation has also contributed to siltation of the ponds at Grosvenor. The Montgomery County Department of Environmental Protection (MCDEP) will be conducting a stream inventory in the Cabin John and Rock Creek watersheds in order to rectify such stream

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The property has approximately 700 feet of frontage along Democracy Boulevard and 204 feet of frontage along Old Georgetown Road. The site is partially wooded with some very large specimen oak trees.

Uses considered for this site included a park, residential townhouse, commercial townhouse, and retail. The location of the property adjacent to a major intersection, the proximity to a single-family subdivision, special exception and retail uses, the shallow depth of the site, and the possibility of additional right-of-way on Democracy Boulevard were all considered. The property was considered unsuitable for single-family detached homes, while the provision of park facilities and additional retail facilities was considered more appropriate within Rock Spring Park. Accordingly, this Plan confirms the existing R-60 zoning on this property. The property is suitable for development under the R-60 (Cluster) option, with access from Bells Mill Road.

#### 19. RENEWABLE NATURAL RESOURCES FOUNDATION

This property extends to 35.4 acres and is located south of Grosvenor Lane and in between I-495 and I-270. The existing zoning is R-90.

The property owned by the Renewable Natural Resources Foundation and the Society of American Foresters is part of the original 100-acre family estate of the late Dr. Gilbert H. Grosvenor, former president of the National Geographic Society. The estate remained intact until purchase of 40 acres by the State Highway Administration for the I-495/I-270 interchange; the balance went to the Pooks Hill Marriott, Grosvenor Mews townhouses, and the Renewable Natural Resources Foundation, which conveyed a portion to M-NCPPC for Fleming Park.

In 1973, the Board of Appeals granted the petition of the Foundation to operate a scientific society headquarters as a special exception use in the R-90 Zone. The ultimate size of the project was anticipated to be 300,000 square feet, to be developed in three phases. The first two phases, totaling 283,000 square feet of offices, were approved in the 1973 opinion, which included a requirement for review of Phase 1 by the Board before work was begun on Phase 2. A second review of Phases 1 and 2 took place in 1980.

To date, the original Grosvenor mansion has been renovated for use as the Gifford Pinchot Forestry Building, and two office buildings have been constructed (1981 and 1987). The FAR of the existing 44,000 square feet is .02, and the FAR of the final plan will be 0.19, in 2- to 3-story buildings. Ultimate development under the Foundation's approved comprehensive site plan for the entire property will provide 300,000 square feet of office space, including a 16,500 square foot conference and common-services facility, housed in seven buildings. The office structures plus surface parking will occupy 10 acres of the 35.

This Plan supports the planned expansion of the Renewable Natural Resources Foundation and the Society of American Foresters as a special exception approved by the Board of Appeals in the existing R-90 Zone.