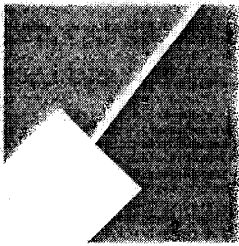


M-NCPPC



**MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING**

THE MARYLAND-NATIONAL CAPITAL  
PARK AND PLANNING COMMISSION

8787 Georgia Avenue  
Silver Spring, Maryland 20910-3760  
301-495-4500, www.mncppc.org

MCPB  
ITEM NO. 13  
06-17-2004

June 10, 2004

**MEMORANDUM**

TO: Montgomery County Planning Board

VIA: Jeffrey Zyontz, Chief  
County-wide Planning Division

John Carter, Chief *JC*  
Community-Based Planning Division

FROM: Daniel K. Hardy, Supervisor (301) 495-4530 *DKH*  
Transportation Planning  
County-wide Planning Division

SUBJECT: Montrose Parkway East Phase I Transportation Facility Planning Study  
Project Prospectus Recommendations

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**RECOMMENDATION: Transmit the following comments to the Montgomery County Department of Public Works and Transportation (DPWT):**

- 1) The Montrose Parkway East Transportation Facility Planning Study should proceed to Phase II of the Facility Planning process to develop detailed engineering plans for Alternative 2, a four-lane divided closed section, with a single-point urban interchange at Parklawn Drive (Option 2), an at-grade intersection with Veirs Mill Road (Option 1), and a hiker-biker trail on both sides.
- 2) The Phase II Facility Planning study for Montrose Parkway East should consider the following design details that will be reviewed by the Planning Board at the time of mandatory referral:
  - a) Refine the crossing of Rock Creek to incorporate the following comments:

- i) Develop a bridge design for Rock Creek that provides a natural surface shelf at least 8 feet high and 25 feet wide on both sides of the creek suitable for deer passage and spans the small wetland area along the stream.
  - ii) Consider relocating the Rock Creek Trail to the east via the utility access road to pass under the Rock Creek Bridge.
  - iii) Evaluate the need for flood relief culverts within the 100-year floodplain.
- b) Review the design of the Montrose Parkway East crossing over the Rock Creek Park Trail to ensure that any necessary relocation meets American Association of State Highway and Transportation Officials (AASHTO) design standards and that Crime Prevention Through Environmental Design (CPTED) features are incorporated.
- c) Review and revise the design of the Montrose Parkway East intersections with Veirs Mill Road and Parklawn Drive to best utilize the necessary property acquisitions for improved pedestrian connections and/or noise attenuation.
- d) Develop a comprehensive plan for right-of-way management, considering and incorporating the following features where feasible, listed in descending order of priority:
  - i) Noise abatement walls or berms where eligible under the County's Noise Abatement Policy
  - ii) Fencing or other techniques to minimize the likelihood of deer entering the roadway
  - iii) Direct pedestrian connection from the Bethesda Park and Randolph Square communities to the shared-use paths on either side of the Montrose Parkway
- 3) During the development of cost estimates during Phase II, incorporate the need to reimburse Maryland-National Capital Park and Planning Commission (M-NCPPC) for the cost of right-of-way and easements within Rock Creek Park according to the 2000 MOU between M-NCPPC and DPWT.
- 4) Continue coordination with the related State Highway Administration (SHA) project planning and DPWT facility planning studies, particularly:
  - a) Process and schedule coordination with SHA to provide a seamless connection to the new crossing of the CSX tracks at the Montrose Parkway East western terminus
  - b) The widening of Veirs Mill Road to six lanes with bus-rapid transit elements in the vicinity of the Montrose Parkway East eastern terminus
  - c) The evaluation of a grade-separated interchange at Randolph Road and Veirs Mill Road

## ORGANIZATION OF THIS REPORT

This report contains five sections:

- **Purpose of this briefing**
- **Study context** including related study area projects
- **Project Description**
- **Summary of Project Prospectus Findings**, including a review of the project benefits and impacts
- **Public Outreach**

## PURPOSE OF THIS BRIEFING

The purpose of this briefing is to review the findings and recommendations of the Phase I Facility Planning study completed by the Montgomery County Department of Public Works and Transportation for the Montrose Parkway East project. The Montrose Parkway is a recommended element of the 1994 North Bethesda/Garrett Park Master Plan, as shown in Exhibit 1 and the 1994 Aspen Hill Master Plan. This briefing focuses on the facility planning for the portion between Parklawn Drive and Veirs Mill Road (MD 586).

The Montrose Parkway East study was initiated in late 2001. DPWT prepared a Final Project Prospectus in June 2004 based on technical studies conducted by an interagency, multi-disciplinary team, and incorporating comments received at several public meetings and discussions. The Project Prospectus recommends a build alternative shown in Attachments 1 through 3 (color copies provided to Planning Board members only) and described in the following sections of this memorandum.

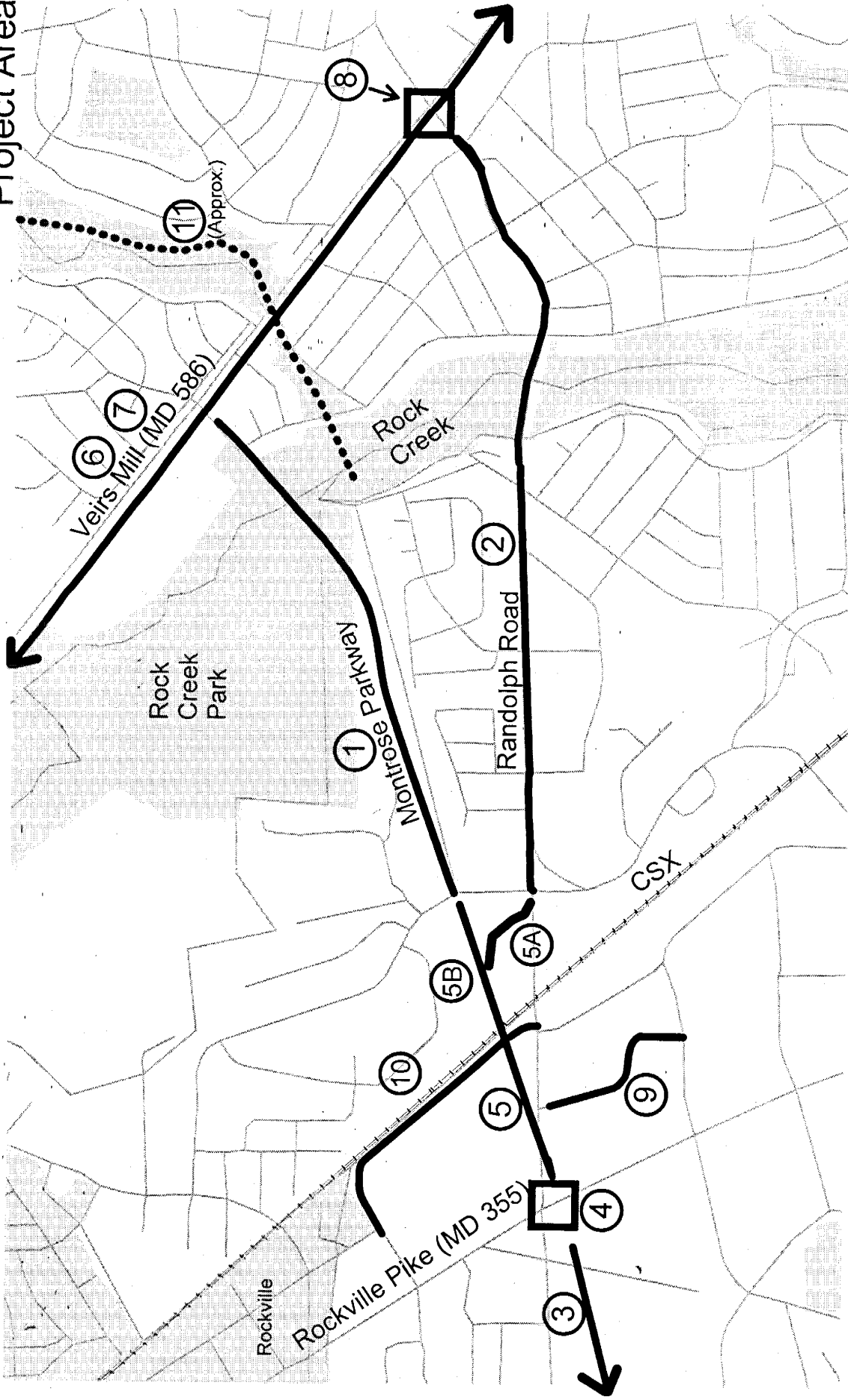
The primary purpose of the Phase I Facility Planning Study is to define whether the master plan recommendation remains valid and develop a single recommended alternative. The Project Prospectus confirms the purpose and need for the Montrose Parkway East as described in the County's master plans and presents a recommended alternative. **Staff concurs that the Montrose Parkway East is a needed project and the recommended alternative should proceed into Phase II of the facility planning process.** The County Council's Transportation and Environment (T&E) Committee will be briefed on the study results at a session likely to be scheduled during July. Should the T&E Committee endorse the continuation of the project on its current schedule the study will proceed into Phase II of Facility Planning. The Planning Board would next review the project as a mandatory referral sometime during late 2005 or early 2006.

## STUDY CONTEXT

The Montrose Parkway is a master-planned four-lane arterial roadway providing east-west connectivity within the North Bethesda/Garrett Park Master Plan and providing access to communities to the east in the Aspen Hill and Kensington/Wheaton Master Plan areas. The Montrose Parkway is needed to support planned development, particularly in North Bethesda where development is focused in the White Flint and Twinbrook Metrorail Station Policy Areas.



Project Area



See Exhibit 3 for explanation of referenced projects

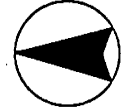


Exhibit 2  
Related Transportation Projects

The project is closely linked with several other projects in various stages of facility or project planning as summarized in Exhibit 2 and Exhibit 3:

### Exhibit 3 – Related Transportation Projects

Map Key	Project	Limits	Lead Implementing Agency	Status
1.	Montrose Parkway East	Parklawn Drive to Veirs Mill Road	DPWT	Phase I Facility Planning study completed spring 2004
2.	Randolph Road	Parklawn Drive to Veirs Mill Road	DPWT	Phase I Facility Planning commensurate with Montrose Parkway East
3.	Montrose Parkway West	I-270 to "old" Old Georgetown Road	DPWT	Construction expected to begin in early 2005
4.	MD 355 / Montrose / Randolph Road interchange	"old" Old Georgetown Road to Maple/Chapman Avenues	SHA	Funded for final design
5. (Including either segment 5a or segment 5b)	Relocated Randolph Road bridge over CSX tracks	Maple/Chapman Avenues to	SHA	Awaiting funding for final design
6.	Veirs Mill Road Bus Rapid Transit	Rockville to Wheaton	DPWT	Phase I Facility Planning scheduled to be completed spring 2005
7.	Veirs Mill Road widening	Rockville to Randolph Road	SHA	Not scheduled but recommended by the County Council and the Executive as a priority for new project planning starts
8.	Randolph Road and Veirs Mill Road intersection improvement		M-NCPPC, SHA, and DPWT	Master Plan amendment for grade-separated interchange approved and adopted 2004, candidate DPWT Facility Planning study
9.	Chapman Avenue Extended	Randolph Road to Old Georgetown Road	DPWT	Phase I Facility Planning scheduled to be completed spring 2005
10.	Nebel Street Extended	Randolph Road to Bou Avenue	DPWT	Construction expected to begin in late 2005
11.	Matthew Henson Trail	Rock Creek Park to Northwest Branch Park	M-NCPPC	Facility planning completed April 2003

The relationship between the Montrose Parkway East and the most pertinent related projects are summarized below:

### **Randolph Road between Parklawn Drive and Veirs Mill Road**

DPWT has conducted a concurrent facility planning study for Randolph Road between Parklawn Drive and Veirs Mill Road which is described in a separate staff memorandum with the same date. The recommended Randolph Road improvements consist of an immediate series of small spot safety improvements and a longer-term recommendation to improve motorist and bicyclist safety comprehensively by providing wider travel lanes and implementing the master plan recommendation for on-road (Class II) bicycle lanes throughout the project length.

The recommendation for Randolph Road is based on the presumption that the recommended alternative for Montrose Parkway East will be implemented. If the Montrose Parkway East is not completed, the recommendations for Randolph Road would need to be revisited, from the perspectives of both the affected master plans and the DPWT facility planning process. The comprehensive recommendation for wider travel lanes and bicycle lanes on Randolph Road throughout the project length should therefore not be pursued unless and until the County has committed to building Montrose Parkway East.

### **Relocated Randolph Road Crossing of the CSX Tracks**

The Montrose Parkway East is closely integrated with the SHA project to construct a relocated Randolph Road bridge over the CSX tracks within the Montrose Parkway right-of-way. SHA identifies the two projects indicated as map key numbers 4 and 5 (including either segment 5a or segment 5b) as a common project, the MD 355 – Montrose Road/Randolph Road Intersection Improvement Study. The Planning Board reviewed the SHA Environmental Assessment in March 2002 and commented on the recommended alternative for this project (which, at that time, included segment 5b). Subsequent to receiving a Record of Decision from the Federal Highway Administration in February 2003, SHA divided the projects into two phases as shown in Exhibits 2 and 3.

The SHA decision to proceed with the interchange of Rockville Pike and Montrose/Randolph Roads while deferring action on the CSX crossing reflects both funding constraints, as well as continued coordination with Montrose Parkway East. To demonstrate independent utility from the County's Montrose Parkway East project, SHA had to connect the CSX crossing to a tie-in with existing Randolph Road, as indicated by the project identified as 5a in Exhibit 3. This tie-in requires acquisition of twenty-two businesses in six structures on the northwest quadrant of Randolph Road and Parklawn Drive. If the County commits to constructing Montrose Parkway East per the master plan, SHA can adjust their designs to meet the County project directly as indicated by the segment identified as project 5b in Exhibit 3. In that case, the segment identified as project 5a will not need to be constructed. Shifting the alignment of the SHA project from segment 5a to segment 5b would reduce the number of commercial business displacements in this quadrant from twenty-two to two.

The tabular impacts described in Project Prospectus reflect a western project terminus for the DPWT project at the CSX railroad tracks. The project limits shown on Attachment 1 indicate the current understanding of DPWT and SHA staff. Further close coordination will be required during subsequent phases of both SHA and County projects to determine the exact transition point between the two projects, funding responsibilities, and the timing of the design efforts.

### **Veirs Mill Road Improvements**

Three of the projects listed in Exhibit 2 and shown on Exhibit 3 address traffic and transit needs along Veirs Mill Road (MD 586):

- Grade separation at Randolph Road
- Widening from four lanes to six lanes between Twinbrook Parkway and Randolph Road
- Implementing bus-rapid transit (BRT) improvements between the Rockville Town Center and Wheaton.

All three of these projects are needed regardless of the Montrose Parkway East. The descriptions of traffic and transit service under the section summarizing the Project Prospectus findings indicate that with or without the Montrose Parkway East, traffic congestion (as indicated by volume-to-capacity ratios well in excess of 1.0) is projected along Veirs Mill Road at Twinbrook Parkway, Aspen Hill Road, and Randolph Road. The Montrose Parkway East alleviates, but does not resolve, the highest levels of congestion at the former two locations and causes an additional study intersection at Gridley Road to become congested without the Veirs Mill Road widening project.

### **PROJECT DESCRIPTION**

The recommended alternative is described in the Project Prospectus as Alternative 2 with Parklawn Option 2 and Veirs Mill Option 1. In the remaining portions of this memorandum refers to this combination of options simply as “the recommended alternative”. The recommended alternative consists of four 11-foot wide lanes with curb and gutter and pedestrian accommodations on both sides of the roadway. The facility has two typical sections as indicated in Exhibit 4 and described below.

From Parklawn Drive to just west of Rock Creek Park, the Montrose Parkway follows the 300-foot wide right-of-way established in the 1955 Master Plan of Highways for the Outer Circumferential Freeway. This right-of-way is currently owned by SHA. Within this right-of-way, the Montrose Parkway East design features a 30-foot wide landscaped median and a 10-foot wide shared use path (also commonly described as Class I bike paths or hiker-biker trails) on both sides of the roadway.

Between the western boundary of Rock Creek Park and Veirs Mill Road, the typical section is reduced to minimize parkland and community impacts. In this typical section the median is narrowed to a four-foot wide raised median, the shared use path on the south side of



**PRELIMINARY ENGINEERING STUDIES**

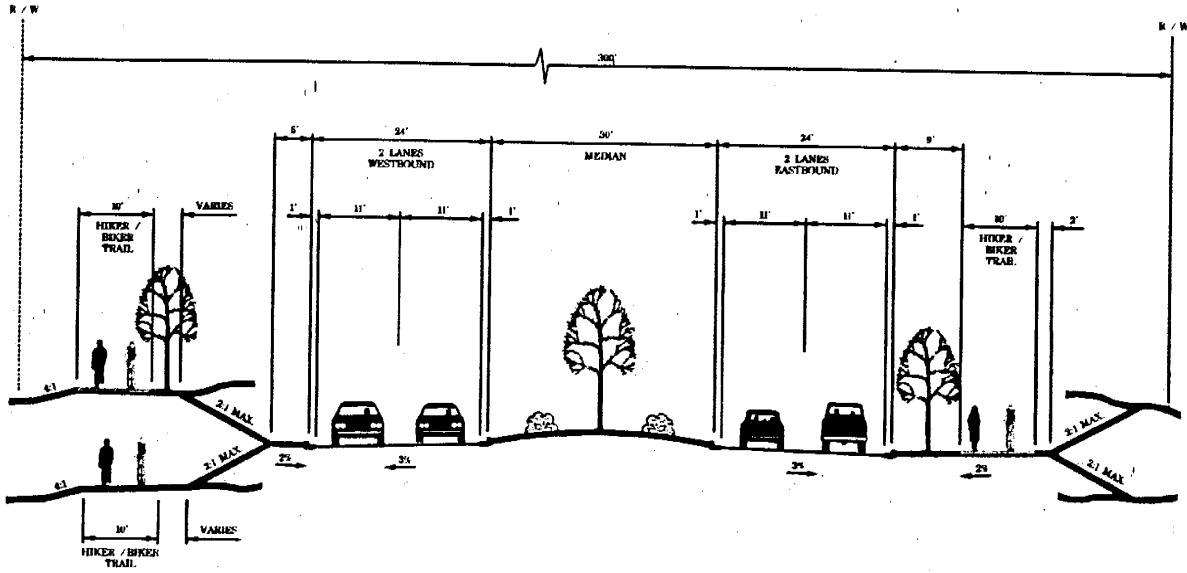


Figure II-F: Typical Section from Parklawn Drive to just West of Rock Creek Park

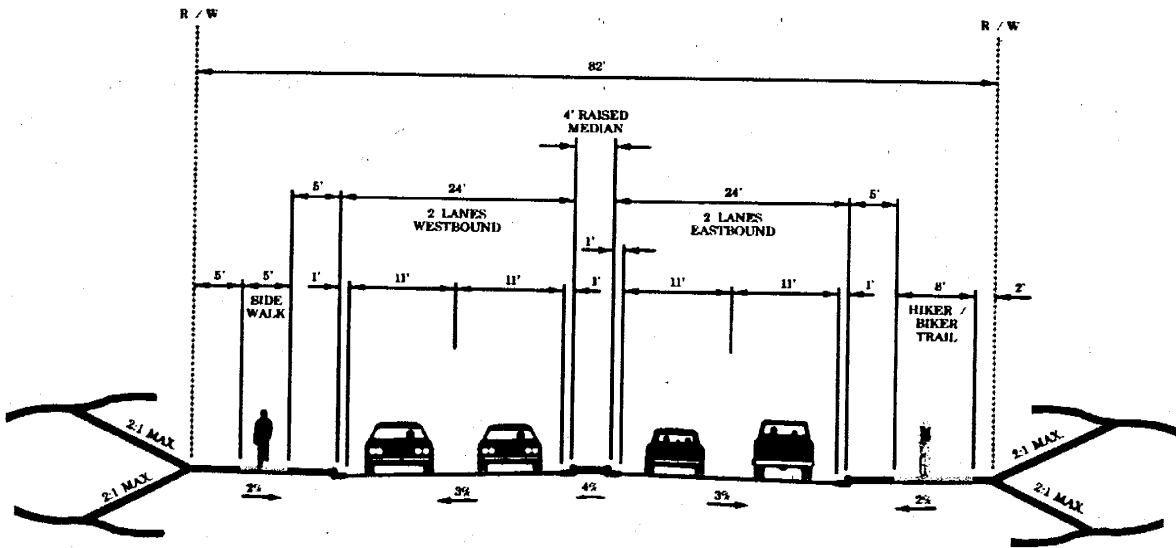


Figure II-G: Typical Section from just West of Rock Creek Park to Veirs Mill Road

the roadway is reduced to eight feet in width, and the pedestrian accommodation on the north side of the roadway is reduced to a five-foot wide sidewalk.

The recommended alternative also incorporates the following design features:

- A single-point urban diamond interchange at Parklawn Drive, with Montrose Parkway elevated above Parklawn Drive.
- An at-grade "T" intersection with Dewey Road that accommodates three of the four potential turning movements (left turns from Dewey Road onto Montrose Parkway would be prohibited).
- An at-grade intersection with Parkland Drive that would be designed and regulated to prohibit traffic from traveling directly across Veirs Mill Road between Montrose Parkway (an arterial roadway) and Parkland Drive (a primary residential roadway) to reduce cut-through traffic on Parkland Drive, a design component recommended in the Master Plan.
- Bicycle and pedestrian connections to the Rock Creek Park Trail.

## **SUMMARY OF PROJECT PROSPECTUS FINDINGS**

The Project Prospectus documents the effects of a series of alternatives, including:

- Alternative 1 is the No-Build Alternative
- Alternative 2 is a four-lane closed-section (curb and gutter) alternative
- Alternative 3 is a four-lane open section alternative
- Alternative 4 is a three-lane reversible roadway alternative

Two options were considered at the Montrose Parkway junctions with both Parklawn Drive and Veirs Mill Road:

- Option 1 is an at-grade intersection
- Option 2 is a grade-separated interchange

The recommended alternative in the Project Prospectus is expected to have the following benefits and impacts:

### **Benefits**

- Improves network connectivity per North Bethesda/Garrett Park Master Plan, reducing travel times for pedestrians, bicyclists, and vehicles; including emergency vehicles
- Reduces travel volumes and traffic congestion at several intersections along Randolph Road and Twinbrook Parkway
- Improves safety by shifting traffic from existing parallel arterial roads with frequent intersections and driveways onto controlled-access roadway
- Provides an east-west greenway linking Rock Creek Park to North Bethesda

## Impacts

- Estimated 7 residential property displacements on Gaynor Road and Dewey Road
- Estimated 3 business property displacements on Parklawn Drive
- Approximately 37 affected properties (right-of-way acquisition and displacements)
- Approximately 22.5 acres of forest stand, including 11 specimen trees
- Approximately 2.2 acres of floodplain impacts
- Approximately 450 linear feet of streams affected
- Approximately 3.1 acres of right-of-way required in parkland

The benefits and impacts are described in greater details in the following paragraphs.

## Effects on Traffic Congestion

The Montrose Parkway is an integral part of the master-planned transportation network needed to accommodate planned development in the study area. Montrose Parkway provides a key connection between North Bethesda and the communities to the east of Rock Creek, including Aspen Hill and Kensington/Wheaton.

Rock Creek serves as both a key natural resource and a key transportation constraint for access between North Bethesda and points to the east. Exhibit 5 provides a comparison of the effects of implementing the Montrose Parkway East on traffic crossing into or out of North Bethesda on the study area's planned east-west arterial roadway network.

### Exhibit 5 – Average Daily Traffic (ADT) Volume on Study Area East-West Arterial Roadways

Roadway	2001 ADT	2020 ADT Without Montrose Parkway	2020 ADT With Montrose Parkway
Twinbrook Parkway, west of Veirs Mill Road	33,900	42,200	32,300
Montrose Parkway at Rock Creek	N/A	N/A	42,800
Randolph Road at Rock Creek	51,200	62,900	37,500

As indicated in Exhibit 5, planned development through the year 2020 is expected to increase typical daily traffic volumes on Twinbrook Parkway by approximately 8,300 vehicles (or 24%) and on Randolph Road by approximately 11,700 vehicles (or 23%). Implementation of the Montrose Parkway would shift the traffic demand among these three primary routes (with a lesser redistribution of traffic on other routes as well) so that forecast year 2020 traffic volumes on both Twinbrook Parkway and Randolph Road would be lower than current volumes.

Implementation of the Montrose Parkway would result in an increase in traffic volumes on the portions of Veirs Mill Road between Aspen Hill Road and Randolph Road. The greatest effect would occur on the section of Veirs Mill Road to the southeast of the Montrose Parkway terminus, where the current ADT of 42,500 is forecast to increase to 51,600 in 2020 without the Montrose Parkway and to 74,000 in 2020 with the Montrose Parkway. This forecast volume would likely require the master planned widening of Veirs Mill Road from four lanes to six lanes.

The effect of shifting traffic volumes from Twinbrook Parkway and Randolph Road to Montrose Parkway East and Veirs Mill Road is better described by investigating the impact on peak hour congestion at study area intersections. DPWT examined the volume-to-capacity (V/C) ratio at fourteen-study area intersections described in Exhibit 6.

**Exhibit 6 – Peak Hour Intersection Volume-to-Capacity Ratios**

Intersection	2001	2020 Without Montrose Parkway	2020 With Montrose Parkway
	AM (PM)	AM (PM)	AM (PM)
Randolph Road at Parklawn Drive	0.97 (0.78)	0.95 (0.98)	0.59 (0.57)
Randolph Road at Parklawn Drive Spur	0.59 (0.94)	0.76 (1.04)	0.49 (0.67)
Randolph Road at Lauderdale Drive	0.87 (1.04)	1.14 (1.18)	0.58 (0.81)
Randolph Road at Gaynor Road	0.85 (0.93)	1.11 (1.06)	0.68 (0.80)
Randolph Road at Dewey Road	0.86 (0.80)	1.04 (0.98)	0.65 (0.73)
Randolph Road at Selfridge Road	0.79 (0.65)	0.98 (0.78)	0.54 (0.61)
Randolph Road at Veirs Mill Road	1.20 (0.97)	1.39 (1.22)	1.40 (1.12)
Veirs Mill Road at Gridley Road	0.71 (0.82)	0.79 (0.99)	1.30 (1.27)
Veirs Mill Road at Parkland Drive/Montrose Parkway East	0.75 (0.65)	0.97 (0.84)	1.01 (0.87)
Veirs Mill Road at Aspen Hill Road	1.23 (1.15)	1.46 (1.26)	1.21 (1.25)
Veirs Mill Road at Twinbrook Parkway	1.18 (1.13)	1.68 (1.34)	1.32 (1.29)
Parklawn Drive at Braxfield Court	0.48 (0.43)	0.72 (0.72)	0.74 (0.71)
Parklawn Drive at Twinbrook Parkway	0.69 (0.82)	0.87 (1.11)	0.91 (1.07)
Montrose Parkway East at Parklawn Drive (Single-Point Urban Diamond interchange)	N/A	N/A	0.78 (0.74)

For the purposes of this study, DPWT used the Critical Lane Volume (CLV) technique (as applied in Local Area Transportation Review analyses) and assumed an intersection capacity equivalent to a Critical Lane Volume of 1600 CLV. As indicated in the observed data for 2001, several intersections already exceed their presumed capacity.

Staff notes that while DPWT has used the CLV technique to assess intersection performance, the definition of V/C ratio differs from the LATR process. The study area actually

spans four separate policy areas (Aspen Hill, Kensington/Wheaton, North Bethesda, and Twinbrook), each with different LATR CLV standards (1550, 1600, 1650, and 1800) and the three lowest of those standards are being reduced by 50 CLV as of July 1, 2004. For the purposes of this review, staff concurs that the review of V/C ratios using a common capacity defined as a 1600 CLV is the most pragmatic approach for comparing the relative effects of the Montrose Parkway over the long term.

Exhibit 6 demonstrates the following:

- The recommended design for the Montrose Parkway East intersections at Parklawn Drive (the single-point urban diamond interchange) results in acceptable levels of congestion.
- The recommended design for the Montrose Parkway East intersection with Veirs Mill Road/Parkland Drive results in a V/C ratio of 1.01 in the morning and 0.87 in the evening, lower than the V/C ratio at adjacent intersections along Veirs Mill Road. Additional review of this intersection design will be conducted as part of the Veirs Mill Road Bus Rapid Transit facility planning study during the next year.
- At the intersection of Randolph Road and Veirs Mill Road, the Montrose Parkway has a negligible effect on intersection congestion during the AM peak period and a slightly beneficial effect on intersection congestion during the PM peak period. The restriping of one lane on westbound Randolph Road from a shared through-right turn lane to an exclusive right-turn lane is presumed in the Build condition at this location. In both year 2020 alternatives, intersection congestion is forecast to worsen above current levels, a finding consistent with prior studies that influenced the recent Master Plan amendment for a grade separated interchange.
- At the intersection of Veirs Mill Road at Gridley Road (approximately 500 feet north of Randolph Road), the Montrose Parkway has a detrimental effect on intersection congestion. Gridley Road currently serves as part of a jughandle maneuver to accommodate left turns that are prohibited at the intersection of Randolph Road and Veirs Mill Road. The intersection of Veirs Mill Road and Gridley Road would be incorporated into the master planned improvements to widen Veirs Mill Road and construct the grade-separated interchange at Randolph Road.
- At the remaining intersections along Randolph Road the Montrose Parkway has a substantially beneficial effect on intersection congestion, resulting in V/C ratios less than 1.0.
- At the remaining intersections along Veirs Mill Road (at Aspen Hill Road and Twinbrook Parkway) the Montrose Parkway has a substantial beneficial effect on intersection congestion during the AM peak hour, although the V/C ratios in both year 2020 scenarios remain above 1.0.

## **Effects on Traffic Safety**

Randolph Road and Twinbrook Parkway are the existing arterial roadways connecting North Bethesda to Aspen Hill and Kensington/Wheaton. These roadways have numerous intersections and driveways (the 1.36 mile portion of Randolph Road has 102 side streets or driveways), creating points of conflict for turning vehicles with through vehicles, bicyclists, and pedestrians. In contrast, the parallel section of Montrose Parkway would be access controlled, with only two unsignalized access points (Dewey Road and the Fire Station 21 access) between Parklawn Drive and Randolph Road.

Statewide accident data compiled by SHA suggests that a typical urban divided roadway with partial access control (like the Montrose Parkway) might be expected to have an accident rate of about 152 accidents per 100 million vehicle miles. This rate is about two-thirds the rate (247 accidents per 100 million vehicle miles) of an urban divided roadway without access control like Randolph Road between Rock Creek and Veirs Mill Road and less than half the rate of an undivided five-lane roadway without access control (338 accidents per 100 million vehicle miles) like Randolph Road between Parklawn Drive and Rock Creek.

## **Effects on Pedestrian and Bicycle Connectivity**

The Montrose Parkway East project would provide a key pedestrian and bicycle link from North Bethesda to and across Rock Creek. The Montrose Parkway East shared use path is part of the master plan bikeway network described in area master plans, is identified as a non-park connector between recreational trails in the Countywide Park Trails Plan, and is incorporated as route SP-50 into the May 2004 Planning Board Draft of the Countywide Bikeways Functional Master Plan. This path is the only planned east-west shared-use path in the study area; both Randolph Road and Twinbrook Parkway have proposed bike lanes, but no shared-use (off-road) paths. In conjunction with the Montrose Parkway West project and the Matthew Henson and ICC Trails, the Montrose Parkway East bike path is part of a continuous east-west shared use path network from west of I-270 to Prince George's County.

The Montrose Parkway East shared-use path crosses Parklawn Drive at-grade on the northern leg of the single-point urban diamond interchange. The signalized interchange will be interconnected with the existing adjacent traffic signal on Parklawn Drive at Braxfield Court. The shared-use path crosswalk will require either a separate phase in the traffic signal or run concurrent with a Braxfield Court phase with an interim stop bar on southbound Parklawn Drive. Phase I analyses indicated sufficient intersection capacity to provide operational flexibility. Additional review of the signal phasing and operations will be conducted during Phase II.

Two characteristics of shared-use path design require further review during Phase II of the Facility Planning Process; treatment of the Montrose Parkway East crossing over the Rock Creek Trail and potential path connections to the Bethesda Park and Randolph Square communities.

The recommended alternative shown in Attachment 2 indicates that the existing Rock Creek Trail would be placed in an underpass roughly 100 feet in length beneath Montrose Parkway. The design of this structure will need to consider the construction and maintenance tradeoffs between a short span bridge and lighted culvert treatments. Alternatively, the Rock Creek Trail could be shifted to the east to pass under the roadway bridge spanning Rock Creek. An existing utility access road could be used for part of this realignment. In any case, **the design of the Rock Creek Trail crossing requires additional review considering Crime Prevention Through Environmental Design (CPTED) principles.** The existing trail will also need to be relocated to some degree to accommodate the Montrose Parkway roadway structures and intersect the new-shared use paths. **The design of the trail relocation and junctions should be designed to meet American Association of State Highway and Transportation Officials (AASHTO) standards.**

To the west of Rock Creek, the recommended alternative has shared-use paths on both sides of the road to facilitate access to the Rock Creek Trail from communities on both sides of the Montrose Parkway. On the north side of the Parkway, the Bethesda Park community contains approximately 570 residences and borders the Montrose Parkway right-of-way for approximately 2,000 feet, most of which is fronted by parking lots. On the south side of the Parkway, the Randolph Square community contains approximately 120 residences and borders the Montrose Parkway right-of-way for approximately 500 feet, with the frontage consisting solely of parking lots. **Coordination with these communities will be required during Phase II to examine potential shared-use path connections.**

### **Natural Environmental Impacts**

Montrose Parkway East will have adverse effects on forest stands (including interior forest), wildlife corridors, and wetlands and streams. The Project Prospectus indicates means by which some of these impacts can be minimized or mitigated, as described below. During Phase II DPWT will complete a Forest Stand Delineation/Natural Resource Inventory and the impacts and mitigation techniques will be developed and refined. The impacts to forest stands and parklands in particular may increase as stormwater management treatment techniques are evaluated.

Most of the project right-of-way is wooded and consists of five distinct forest stands. The recommended alternative will impact an estimated 22.5 acres of forest and eleven specimen trees. The area impacted is one of the widest portions of Rock Creek Stream Valley Park that provides habitat for forest interior dwelling birds. The road will impact a 26-acre stand of interior forest. DPWT will prepare a Forest Conservation Plan to address mitigation measures such as reforestation or afforestation during Phase II.

The project will affect wildlife corridors within Rock Creek Park. The recommended alternative as shown in Attachment 2 suggests that Rock Creek will be bridged by a structure approximately 50 feet in width as it traverse approximately 650 feet across the 100-year floodplain. The Project Prospectus states that details regarding bridge lengths will be evaluated during Phase II of the facility planning process. The roadway alignment generally follows the historic Gaynor Road alignment across Rock Creek so that much of the area in the floodplain has

already been disturbed. Staff recommends that DPWT establish a **usable natural surface shelf at least 8 feet high and 25 feet wide on both sides of the bridge crossing Rock Creek for passage by deer and other wildlife.**

Throughout the project length, staff finds that three objectives need to be balanced, but are listed below in order of recommended priority:

- Mitigating noise impacts
- Preventing deer-vehicle collisions, and
- Facilitating park access for pedestrians and bicyclists in neighboring communities

Building fences or walls might address two of these objectives; such barriers would hinder the third objective. **Staff recommends that DPWT develop a comprehensive plan for right-of-way management that reflects the priorities described above.**

The project will have an adverse effect on a small amount (less than 0.1 acre) of palustrine wetlands that are located along both banks of Rock Creek directly north of the proposed stream crossing. Based on available information, **staff believes that a bridge long enough to provide deer passage on both sides of the creek will materially avoid the affected wetlands.**

### **Community Impacts**

The project will require acquisition of seven residential properties located on the southern side of Gaynor Road between Rock Creek Park and Veirs Mill Road. Gaynor Road currently has an 80-foot wide right-of-way. The Montrose Parkway East eastern terminus design requires the displacement of either Fire Station 21 or the residential properties. As described below in the section on alternative design treatments, the study team found that relocation of the fire station would cause greater community disruption than the seven residential displacements.

The project is also expected to require displacement of three residential businesses in the vicinity of the Parklawn Drive interchange. The U-Haul/Self Storage property was previously identified as a likely displacement in the Environmental Assessment for the SHA project to relocate Randolph Road over the CSX tracks.

The recommended alternative has been narrowed to the extent feasible along both Gaynor Road and Parklawn Drive for the purposes of determining whether or not the property displacements could be avoided. Staff recommends that **at locations where property displacements require acquisition of entire parcels of land that the roadway design be revised to increase landscape panel widths, consider wider sidewalk widths, and consider the feasibility of constructing berms for both landscaping and noise attenuation along Gaynor Road, the only location where preliminary noise studies indicate that noise walls would be required.**



## Capital Costs

The Project Prospectus does not contain an estimated capital or right-of-way cost. DPWT will develop costs estimates during Phase II of Facility Planning. The project cost for Montrose Parkway East will depend substantially on the ultimate transition point between the SHA project to bridge the CSX tracks and the County's Montrose Parkway East project. During the development of the Planning Board's Transportation Policy Report staff estimated the construction cost of Montrose Parkway East at approximately \$60 million.

Of the estimated 24.0 acres of property required for the project, 19.3 acres are owned by SHA, 3.1 acres are parkland owned by M-NCPPC, and nearly 1.7 acres are required from 37 private properties. The affected parkland parcels in Rock Creek Park were paid for by (as opposed to dedicated to) M-NCPPC, so **DPWT will need to reimburse M-NCPPC for the required right-of-way per the agencies' 2000 Memorandum of Understanding.**

The Project Prospectus notes that several design elements described in this memorandum will be reviewed during Phase II of facility planning. DPWT staff is urged to ensure that the recommendations in this memorandum are adequately reflected in preliminary cost estimates developed for the project.

## Alternative Design Treatments Considered

The Facility Planning Study considered but rejected several alternative design treatments as described below.

**An open-section roadway (Alternative 3)** was dropped from further consideration because of its lack of consistency with the Montrose Parkway West project and anticipated impacts that would be greater than with a closed section.

**A three-lane reversible roadway (Alternative 4)** was considered to the east of Parklawn Drive to minimize the project footprint. This design option is described in the North Bethesda/Garrett Park Master Plan. The option was not selected, however, due to a variety of concerns. First, the forecasted 2020 volumes in the "off-peak" direction exceed 1,500 vehicles per hour, higher than desirable in a single lane. Second, the distance required to taper to a reversible lane would require approximately 2,000 feet of the 5,000 foot long project. Finally, requirements for incident management in the reversible lane section would require shoulders, generally negating the advantages of a three-lane cross-section.

**Displacement of Fire Station 21**, in the northwest corner of Veirs Mill Road and Gaynor Road, was considered an alternative to the acquisition of the seven residential properties on the south side of Gaynor Road. The study team proposed acquisition of the residential properties in lieu of the fire station after consideration of the comparative capital cost of both options, as well as the relative utility of the two uses (fire station versus residential homes) at the junction of two arterial roadways.

**An at-grade intersection at Parklawn Drive** (Parklawn Option 1) was considered in comparison to the proposed single-point urban diamond interchange. An at-grade intersection would require a much wider intersection, with a total of nine travel lanes on the Montrose Parkway, and would still perform at a poorer level of service than the proposed interchange. A grade-separated interchange also fits the adjacent topography better than an at-grade intersection as Parklawn Drive crosses the Montrose Parkway in a low spot between two knolls. Furthermore, the grades required to clear the CSX tracks 1,000 feet west of Parklawn Drive are more suited to interchange ramps than to an arterial mainline.

The 1994 North Bethesda/Garrett Park Master Plan does not explicitly include a grade separated interchange at Parklawn Drive, but staff finds the description of Montrose Parkway access points allows some flexibility in interpretation. The Master Plan concept for the Montrose Parkway was based on a 1989 study prepared for M-NCPPC by the firm of Clarke and Rapuano; that study did include a grade-separated interchange at Parklawn Drive. Staff proposes to clarify the recommendation for a grade-separated interchange at Parklawn Drive as part of the Twinbrook Sector Plan.

**A grade-separated interchange at Veirs Mill Road** (Veirs Mill Option 2) was considered but not recommended due to the topographic constraints and need for further coordination with the Veirs Mill Road BRT study.

## **Summary**

The recommended alternative for the Montrose Parkway East project is needed to provide transportation capacity between North Bethesda and communities to the east. The project also provides a greenway connection into Rock Creek Park and a key link in the recommended network of off-road pedestrian and bicycle facilities.

The project provides substantial transportation benefits and has substantial impacts that will need to be addressed in greater detail in subsequent study phases. Without the Montrose Parkway project, the master plan recommendations for Randolph Road would need to be revisited.

## **PUBLIC OUTREACH**

The DPWT study team held two public meetings during the Phase I Facility Planning process. The first meeting, on March 22, 2002, presented the study purpose and need for both the Montrose Parkway East and the parallel Randolph Road project. The study team held the second public meeting on February 4, 2004, to update the community on the project progress and to obtain community input and preferences for the project.

Approximately 40 citizens, mostly residents within the study area, attended the second public meeting. In general, the comments received during and after the second public meeting were not supportive of Montrose Parkway East, expressing concerns about high traffic volumes, noise, and environmental impacts.

DKH:gw  
Attachments

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mmo to MCPB re Montrose East - Phase I